```
 13:44 SEP 08,'75 ID=00E6
JOB !POST,BRU333323132,7  . TERMINAL JOB
LIMIT (CORE,16),(TIME,10)
ASSIGN MICI,(FILE,INITRCVR,!DOOCI)
METASYM CI,L0,CN
    .SS R0,R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15
    .SS SR1,SR2,SR3,SR4,D1,D2,D3,D4,$
    .END
```

ABORT
23/DEF 608*EQU
BA
134/GEN 156/GEN 160/GEN 476/EQU 476/EQU 504/GEN
BLOCK1
169*GEN 190/LRP
BOOTSBAND
25/DEF 145*RES
CITIC
173/REF 328/LW
CITINC
173/REF 329/SW
CIT1
96/REF 510/LB
CNDD
28/DEF 143*DATA
COMINTFL
274/SREF 276/MTH
COCFLAG
113/SREF 169/GEN
COMMPACK
160*GEN 564/STS 581/LI
CORED
179/REF 240/CW 244/CW
CSED$PATH
90/REF 197/STS
CSEI$PATH$RECOV
91*EQU 196/LI
DA
342/LI 435/LI 450/LI 497/LI 581/LI
DCTSIZ
95/REF 408/LI
DCT1
93/REF 326/LH 414/LH 431/LH 518/LH
DCT1P
96/REF 519/CH
DCT2

96/REF 509/LB

DCT24
94/REF 411/LB

DCT3
95/REF 409/LC

DCT4
96/REF 521/LB

DCT5
272/REF 515/LC 545/LC 549/LB 551/STB

DCT6
273/REF 552/LB

DISCBPR8C
130=SET

DUMP
262/BE 301=EQU

DUMPC8M
156=GEN 435/LI

DUMPFILE
30/DEF 299/MTW 304/MTW 347/MTW 350/STB 421/MTW 464=DAT

DUMPRTN
303/BEZ 305/BNEZ 307/BG 383=MTW

F8RCEI8
96/REF 367/BAL 369/BAL 374/BAL

GETN
211=MTB 216/BDR

GTN
212/BNEZ 214/BEZ 216=BDR

IA
458/IPSD 459/IPSD 460/IPSD 461/IPSD 462/IPSD

INH
458/IPSD 459/IPSD 460/IPSD 462/IPSD

INITRCVR
21/DEF 89=EQU

INTSIM
96/REF 548/BAL

I8
344/BAL 438/BAL 452/BAL 479=EQU

```
I0Q2
          96/REF          536/LB
I0Q3
          97/REF          512/LC          553/LB          555/STB
I0Q4
          97/REF          556/LB
I0Q5
          97/REF          557/STB
I0Q7
          97/REF          514/LB
I01
         482*LI           485/BCS
I02
         481*ISI0         496/BDR
I03
         490/BCS          494*AI
I04
         499*ITI0         500/BCS
JIJIT
         177/REF          239/AI          629/STM
JITELFLGS
         182/REF          293/CW          295/STS
JXICMAP
         176/REF          239/AI
KRD1
         438*BAL          582/B
KRD10
         429/BE           431*LH
KRD2
         338/B            420/BEZ         422/BNEZ        425*EQU
KRD3
         355/BE           358*EQU
KRD4
         318/BE           320/BE          323*EQU
KRD5
         281/BE           284*CW
KRD6
```

	382/BAZ	387=EQU				
KRD61						
	389/BEZ	395=EQU				
KRD7						
	409=LC	416/BDR				
KRD8						
	410/BCS	413/BANZ	416=BDR			
KRD9						
	424/B	430=LDCTX				
LLNDD						
	32/DEF	142=DATA				
LOW						
	94/REF	268/CW	306/CW			
MISWAPD						
	100/REF	325/!HI8*	343/LW	451/LW		
MAP						
	458/!PSD	461/!PSD				
MAPED						
	291=LPSD	458/!PSD				
MAPMAP						
	291/LPSD	458=!PSD				
MBISDI						
	272/REF	309/LB	311/CB	351/LB	366/LB	427/LB
MING						
	182/REF	297/CI				
MP!HPN						
	108/REF	203/BAL				
MPBRANCH						
	170=B	200/LW				
MPBRANCH2						
	171=B	390/LW				
MPPSEEK						
	34/DEF	340/LW	455=DATA			
M5						
	97/REF	550/AND				
M7						
	97/REF	554/AND				

M9
181/REF 246/AND
NOMP
199/BEZ 218/BEZ 220=EQU
NOPUT
624/BLE 626/BGE 630=EQU
NSCPU
104/SREF 198/LI 210/LI 388/LI
OCNDD
37/DEF 141=DATA
PDFOFF
408=LI 462/IPSD
PDFPSD
407/LPSD 462=IPSD
PFSRSW
101/REF 195/STCF
PPSTART
88/DEF 644=RES
RCVCODE
39/DEF 147=DATA 255/STW 260/STS 270/LH 380/LW 397/LH
RCVDISC
41/DEF 134/GEN 138=DATA 341/XW 346/STW
RCVPSD
222/AND 227/LH 283/LD 383/MTW 386/LPSD
RCVRAD
46/DEF 140=DATA
RCVRCNT
98/REF 348/MTW 349/LW
RCVRDSZ
49/DEF 139=DATA
RCVSIZE
52/DEF 137=GEN 265/AND
RCVSTART
54/DEF 146=DATA 454/B*
RCV1
259/BEZ 263/BG 269/BG 277/BNEZ 285/BANZ 287/BAZ 294/BANZ
298/BLE 300/BNEZ 400=EQU

RCV41
236/BG 250/BNEZ 255*STW 474/B
RCV42
241/BGE 473*AI
RCV43
245/BGE 472*AI
RCV60
229/BAZ 231/BL 248*LI
RECOVERO
56/DEF 189*EQU
REDDWD
134*GEN 342/LI 450/LI
RESTRT
209*LI 219/BDR
RESTRTIO
58/DEF 352/BAL 357/BAL 363/BAL 544*EQU
RTIRCVR
99/REF 405/BAL
RTNPSD
399/LPSD 461*IPSD
SIADR
109/REF 204/CW
SICUN
175/REF 234/LW 296/LW 335/LW
SISTOUT
111/SREF 208/LW
SAVEDCTX
313/STB 319/CB 322/STB 360/LB 362/STB 364/LB 371/LB
373/STB 375/LB 377/STW 466*DATA
SAVEREGS
61/DEF 164*RES 193/STM 226/AI 251/LW 385/LM 589/LI
619/STM 632/LM
SAVEREGS1
63/DEF 165*RES 191/STM
SBIRCVA
106/SREF 211/MTB 394/STW
SBIRCVR

105/SREF 207/STW 393/STW
SBISTATE
102/SREF 213/MTB
SCBDES
280/CB 475*DATA 476/EQU
SCR61
65/DEF 587*EQU
SCR61E
588/STS 603*SUA
SCR7EE
614/STS 643*SUA
SEEK
153*DATA 156/GEN 432/STW
SEEK1
154*DATA 160/GEN 434/STS 560/MTH
SEEK4000
67/DEF 152*DATA 423/LW 426/LW
SLVWAIT
110/SREF 205/BNE
SMAKFLG
69/DEF 469*DATA
SMUIS
180/REF 235/CI
STBPIB
310/BAL 315/BAL 508*EQU
STBPIB1
524/BGE 533*IHIB
STBPIB2
513/BCR 516/BCR 517/BCR 520/BNE 536*LB
STBPIB3
512*LC 537/BNEZ
STBPIB4
526*LI 531/BDR
SUABTFLE
71/DEF 302/MTW 314/LDCTX 316/LDCTX 353/LDCTX 368/LDCTX 419/MTW
430/LDCTX 467*DATA
SUACNT

SUACUN
73/DEF 166*DATA 332/AND 333/MTW
SUARTN
75/DEF 168*DATA 336/STB
SUATIME
77/DEF 339*EQU
SYSTRT
79/DEF 167*DATA 334/STW
SYSVERS
103/SREF 170/B 201/STW 391/STW
TIABORTM
81/DEF 144*RES
TIGJOBSTRT
174/REF 461/IPSD
TISIDLER
271/REF 379/BAL
TBIFLGS
107/SREF 171/B
TDV$STATUS
97/REF 522/LB
TEMP
150*DATA 488/STW
TIO$STATUS
112/REF 615/STW 622/AND
TRAPPSD
149*DATA 444/STS 445/LH 486/STD 491/LH 563/AND 568/AND
TRAPSAVE
84/DEF 133*DATA 278/LD
TSTACK
86/DEF 132*DATA
TXCRVGST
92/REF 592/LW 616/LW
TYCOMM
378/LD 457*TEXTC
TYMESS
497/LI 504*GEN
504/GEN 506*TEXT

UNEND
449/BANZ 560*MTH
UNMAPPSD
324/LPSD 460*IPSD
UNMAP1
324*LPSD 460/IPSD
UNMPSD
459*IPSD 620/LPSD
UNMPSD1
459/IPSD 620*LPSD
UXIJIT
178/REF 237/LOAD
WK
461/IPSD
Y004
174/REF 192/LRP 286/CW 292/CW
Y07
272/REF 284/CW
24BM15
112/REF 618/LM* 628/LM*
#CODES
279/LI 476*EQU

```
                *M* INITRCVR RECEIVER FOR RCVPSD. READ RECOVER INTO CORE.
                *P* NAME: INITRCVR
                *P* DESCRIPTION:
                *P* SCREECH:  HALT ALL I/O.
                *P*           DUMP CORE X'4000'-X'7FFF' TO SWAPPER.
                *P*           READ RECOVER AT X'4000'.
                *P*           BRANCH TO RECOVERY ENTRY POINT.
                *P* SUA:  CHECK ALL SUA CONDITIONS, IF NOT SATISFIED GO TO SCREECH.
                *P*       HALT I/O ON SWAPPER CHANNEL AND DUMPFILE DEVICE CHANNEL
                *P*         IN SUCH A WAY THAT I/O CAN BE RESTARTED.
                *P*       DUMP CORE AT X'4000'-X'7FFF'.
                *P*       READ RECOVER INTO CORE AT X'4000'.
                *P*       BRANCH TO SUA ENTRY POINT IN RECOVER.
                *P*       READ MONITOR BACK INTO CORE AT X'4000'.
                *P*       RESTART I/O ON SWAPPER CHANNEL AND DUMPFILE DEVICE CHANNEL.
                *P*       START GHOST JOB RVGHOST.
                *P*       GO TO TIABORTM MAPPED.
                *P* DUMP:  CHECK FOR DUMPFILE BUSY, IF BUSY RETURN TO CALLER AT XPSD+2.
                *P*       EXECUTE SUA TO TAKE CORE DUMP.
                *P*       RETURN TO CALLER AT XPSD+2.
                      DEF       INITRCVR
                *,*             PATCHING DEF FOR XDELTA
                      DEF       ABORT
                *,*             ENTRY POINT TO REPORT SUA 7E.
                      DEF       BOOTSBAND
                *,*             SYSTEM DISK ADDRESS ON PRIMARY SWAPPER TO
                *,*             USER #4.
                      DEF       CNDD
                *,*             DEVICE ADDRESS FROM WHERE PATCH CARDS ARE READ.
                      DEF       DUMPFILE
                *,*             INFORMATION WORD FOR THE SUA DUMPFILE.
                      DEF       LLNDD
                *,*             DEVICE ADDRESS TO PRINT PATCH DECK AT BOOT TIME.
                      DEF       MPPSEEK
                *,*             DEVICE SEEK ADDRESS OF MONITOR LOCATION
                *,*             X'4000' ON PRIMARY SWAPPER.
                      DEF       OCNDD
```

```
38                      *,*             DEVICE ADDRESS OF TY DEVICE FOR XDELTA.
39                              DEF     RCVCODE
40                      *,*             CODE, SUBCODE OF LAST RECOVERY.
41                              DEF     RCVDISC
42                      *,*             DEVICE SEEK ADDRESS OF RECOVERY ON PRIMARY SWAPPER.
43                      *
44                      *
45                      *,*             ENTRY PSD FOR SCREECH, SUA AND DUMP.
46                              DEF     RCVRAD
47                      *,*             SYSTEM DISK ADDRESS OF THE RECOVERY BUFFER ON
48                      *,*             PRIMARY SWAPPER.
49                              DEF     RCVRDSZ
50                      *,*             GRANULE SIZE OF THE RECOVERY BUFFER PLUS
51                      *,*             SHARED PROCESSOR ON PRIMARY SWAPPER.
52                              DEF     RCVSIZE
53                      *,*             BYTE SIZE OF RECOVERY ON PRIMARY SWAPPER.
54                              DEF     RCVSTART
55                      *,*             START ADDRESS OF RECOVERY.
56                              DEF     RECOVER0
57                      *,*             PATCHING DEF FOR XDELTA.
58                              DEF     RESTRTIO
59                      *,*             ROUTINE TO CLEANUP I/O TABLES FOR SUA, DUMP AND
60                      *,*             POWER FAIL-SAFE.
61                              DEF     SAVEREGS
62                      *,*             SAVE AREA FOR REGISTER BLOCK ZERO.
63                              DEF     SAVEREGS1
64                      *,*             SAVE AREA FOR REGISTER BLOCK ONE.
65                              DEF     SCR61
66                      *,*             ENTRY POINT TO REPORT SUA61
67                              DEF     SEEK4000
68                      *,*             DEVICE SEEK ADDRESS TO DUMP CORE X'4000'-X'7FFF'.
69                              DEF     SMAKFLG
70                      *,*             INFORMATION WORD TO INDICATE A SYSMAK IS NEEDED.
71                              DEF     SUABTFLE
72                      *,*             SYSTEM DISK ADDRESS OF SUA DUMPFILE.
73                              DEF     SUACNT
74                      *,*             COUNT OF SUA'S SINCE LAST CRASH.
```

```
                                   DEF      SUACUN
                              *,*           USER NUMBER OF LAST FOUR SUA'S
                                   DEF      SUARTN
                              *,*           RETURN POINT FOR SUA DUMP ROUTINE IN CYCUSR.
                                   DEF      SUATIME
                              *,*           TIME OF LAST FOUR SUA'S.
                                   DEF      SYSVERS
                              *,*           CELL TO RESTORE THE CONTENTS OF X'2B' AFTER A BOOT
                              *,*           AT CRASH.
                                   DEF      TRAPPSD
                              *,*           CELLS TO SAVE THE TRAP PSD.
                                   DEF      TRAPSAVE
                              *,*           CELLS TO SAVE X'40' AND X'46' FOR ANLZ.
                                   DEF      PPSTART             END OF MONITOR DATA AREA
           01 00000           INITRCVR EQU  $
                                   REF      CSED$PATH           TRACK BITS FOR FAULT HANDLERS
           00000002           CSEI$PATH$RECOV EQU  X'02'
                                   REF      TSTACK              TEMP STACK
                                   REF      DCT1
                                   REF      LOW,DCT24
                                   REF      DCTSIZ,DCT3
                                   REF      CIT1,DCT1P,DCT2,DCT4,FORCEIO,INTSIM,IOQ2
                                   REF      IOQ3,IOQ4,IOQ5,IOQ7,M5,TB:FLGS,M7
                                   REF      RCVRCNT
                                   REF      RT:RCVR
                                   REF      M:SWAPD
                                   REF      PFSRSW
                                   SREF     SB:STATE            MP SLAVE STATE
                                   SREF     SYSTRT              SLAVE SYS START
                                   SREF     NSCPU               #SLAVES
                                   SREF     SB:RCVR             MASTER RCVR FLAG
                                   SREF     SB:RCVA             SLAVE ACK RCVR FLAG
                                   SREF     T:SIDLER            SLAVE RTN FOR SUA
                                   REF      MP:HPN              GET HARDWARE CPU ADDRESS
                                   REF      S:ADR               CPU HARDWARE ADDRESS TABLE
                                   SREF     SLVWAIT             SLAVE BAIL OUT IF GET HERE
                                   SREF     S:STOUT             SLAVE TIMEOUT VALUE
```

```
                                          REF       24BM15,TEMP
                                          SREF      C0CFLAG
              00000000          R0        EQU       0
              00000001          R1        EQU       1
              00000002          R2        EQU       2
              00000003          R3        EQU       3
              00000004          R4        EQU       4
              00000005          R5        EQU       5
              00000006          R6        EQU       6
              00000007          R7        EQU       7
              00000008          SR1,R8    EQU       8
              00000009          SR2,R9    EQU       9
              0000000A          SR3,R10   EQU       10
              0000000B          SR4,R11   EQU       11
              0000000C          D1,R12    EQU       12
              0000000D          D2,R13    EQU       13
              0000000E          D3,R14    EQU       14
              0000000F          D4,R15    EQU       15
              00000001          DISCBPR0C SET       1
                                          SYSTEM    UTS
     01 00000  00000000 A       TRAPSAVE  DATA      ,                      SAVE .40 & .46 IN REC0VERY
     01 00001  00000000 A
     01 00002  00000000 A       TRAPPSD   DATA      ,                      PSD 0F TRAP
     01 00003  00000000 A
     01 00004  03000020         REDDWD    GEN,8,24  3,BA(RCVDISC)
     01 00005  2A000004 A                 GEN,8,24  X:2A:,4
     01 00006  02010000 A                 GEN,8,24  2,X'4000'*4
     01 00007  08000000 A       RCVSIZE   GEN,8,24  8,0                    BYTE SIZE 0F REC0VERY
     01 00008  00000000 A       RCVDISC   DATA      0
     01 00009  00000000 A       RCVRDSZ   DATA      0
     01 0000A  00000000 A       RCVRADEDATAE0
     01 0000B  00000001 A       0CNDDEDATAE1
     01 0000C  00000002 A       LLNDDEDATAE2
     01 0000D  00000003 A       CNDDEDATAE3
     01 0000E                   SYSVERSERESE1
     01 0000F                   B00TSBAND RES       1
     01 00010  00000000 A       RCVSTART  DATA      0                      START ADDRESS 0F REC0VERY
```

```
147  01 00011  00000000 A  RCVCODE  DATA    0                  CRASH CODE & SUBCODE
148                        BOUND   8
149  01 00012  00000000 A  TIO$STATUS DATA  0,0
     01 00013  00000000 A
150  01 00014  00000000 A  TDV$STATUS DATA  0
151  01 00015  00000000 A            DATA    0                  SEEK OF X'4000' FOR SUA FILE
152  01 00016  00000000 A  SEEK4000 DATA    0                  SEEK OF X'4000' FOR RECOVER
153  01 00017  00000000 A  SEEK     DATA    0                  SEEK TO PUT X'4000'+X'7FFF'
154  01 00018  00000000 A  SEEK1    DATA    0                  SEEK TO CROSS CYCL.
155                        BOUND   8
156  01 0001A  03000050    DUMPCOM  GEN,8,24 3,BA(SEEK)
157  01 0001B  2A000004 A          GEN,8,24 X'2A',4
158  01 0001C  01010000 A          GEN,8,24 1,4*X'4000'
159  01 0001D  08000000 A          GEN,8,24 8,0
160  01 0001E  03000060    COMMPACK GEN,8,24   X'03',BA(SEEK1) SEEK TO NEXT CYLINDER
161  01 0001F  2A000004 A          GEN,8,24   X'2A',4
162  01 00020  08000000 A          GEN,8,24   X'08',0          TIC BACK INTO COMMRAD
163  01 00021  00000000 A          GEN,8,24   0,0
164  01 00022                   SAVEREGS RES     16            REGS AT TIME OF ENTRY TO RECOVERY
165  01 00032                   SAVEREGS1 RES    16            REGISTER BLOCK ONE AT TIME OF CRASH
166  01 00042  00000000 A  SUACNT   DATA    0                  COUNT OF SUA'S SINCE LAST CRASH
167  01 00043  00000000 A  SUATIME  DATA    0,0,0,0            TIME OF SUA'S
     01 00044  00000000 A
     01 00045  00000000 A
     01 00046  00000000 A
168  01 00047  00000000 A  SUACUN   DATA    0                  USER NUMBER OF SUA'S
169  01 00048  00000000 N  BLOCK1   GEN,28,4 COCFLAG,0         BLK 1 COC SYS; BLK 0 NON COC SYS
170  01 0004A  68000000 X  MPBRANCH B        SYSTRT            SLAVE SYS START LOOP
171  01 0004A  68000000 X  MPBRANCH2 B       TISIDLER          SLAVE RTN FOR SUA
```

```
172                                     PAGE
173                                     REF     CITIC,CITINC
174                                     REF     Y004,TIABORTM
175                                     REF     S:CUN
176                                     REF     JX:CMAP
177                                     REF     J:JIT
178                                     REF     UX:JIT
179                                     REF     CORED
180                                     REF     SMUIS
181                                     REF     M9
182                                     REF     MING,J:TELFLGS
183                             *
184                             *
185                             *  ENTER FROM RCVPSD WITH INHIBITS ON, MAP OFF, AND CC = 0
186                             *F*     NAME:       RECOVERO
187                             *F*     PURPOSE:    RECEIVER FROM RCVPSD TO START A SCREECH,
188                             *F*                 SUA, OR DUMP.
189           01 0004B           RECOVERO EQU     $
190     01 0004B    2F000048              LRP     BLOCK1              GO TO REGISTER BLOCK ONE
191     01 0004C    2B000032              STM,R0  SAVEREGS1           SAVE REGISTER BLOCK ONE
192     01 0004D    2F000000 X            LRP     Y004                GO TO REGISTER BLOCK ZERO
193     01 0004E    2B000022              STM,R0  SAVEREGS            SAVE REGISTER BLOCK ZERO
194     01 0004F    6C000000 A            RD,0    0                   GET SENSE SWITCH SETTINGS AT TIME OF
195     01 00050    74000000 X            STCF    PFSRSW              SAVE FOR DUMP OUTPUT
196     01 00051    22D00002 A            LI,13   CSEI$PATH$RECOV     SET FLAG FOR FAULT HANDLERS
197     01 00052    47D00000 X            STS,13  CSED$PATH
198     01 00053    22100000 N            LI,1    NSCPU               MP SYSTEM
199     01 00054    68300069              BEZ     NOMP                NO,SKIP THIS
200     01 00055    32E00049              LW,14   MPBRANCH            STORE SLAVE BRANCH
201     01 00056    35E00000 X            STW,14  SYSTRT              IN SYSTRT
202     01 00057    22800000 A            LI,R8   0
203     01 00058    6AB00000 X            BAL,R11 MP:HPN              GET HARDWARE ADDRESS
204     01 00059    31800000 X            CW,R8   SIADR               AM I MASTER
205     01 0005A    69300000 X            BNE     SLVWAIT             NO,GET OUT QUICK
206     01 0005B    22EFFFFF A            LI,R14  -1
207     01 0005C    35E00000 X            STW,R14 SB:RCVR
208     01 0005D    32E00000 X            LW,14   SISTOUT             MAX # OF TRIES
```

```
209   01 00005E   22D00000 A  RESTRT  LI,13    0              FLAG FOR ANY FAILURES
210   01 00005F   22100000 N          LI,R1    NSCPU          #OF SLAVES
211   01 000060   73020000 X  GETN    MTB,0    SBIRCVA,R1     SLAVE ACKED
212   01 000061   69300065           BNEZ     GTN            YES
213   01 000062   73020000 X         MTB,0    SBISTATE,R1    WAS IT STOPPED
214   01 000063   68300065           BEZ      GTN            YES
215   01 000064   20D00001 A         AI,13    1              NO,SET CHECK FAILURE
216   01 000065   64100060    GTN    BDR,R1   GETN           ALL DONE
217   01 000066   20D00000 A         AI,13    0              ANY CHECK FAILURES
218   01 000067   68300069           BEZ      NOMP           NO!
219   01 000068   64E0005E           BDR,14   RESTRT         YES,GO TRY AGAIN
220      01 000069           NOMP   EQU      $              YEP
221   01 000069   22E1FFFF A         LI,14    X'1FFFF'       L/WORD ADDRESS MASK
222   01 00006A   4BE00000 X         AND,14   RCVPSD         & XPSD ADR + 1
223   01 00006B   22D30001 A         LI,13    X'30001'       L/SCREECH CODE FOR BAD SCREECHES
224   01 00006C   21E0000F A         CI,14    15             C/XPSD ADR + 1 W/15
225   01 00006D   6920006F           BG       $+2            BG, SCREECH CODE NOT IN REGS
226   01 00006E   20E00022           AI,14    SAVEREGS       +ADDR OF SAVEREGS, CODE IN REGS
227   01 00006F   52100000 X         LH,1     RCVPSD         L/LH OF WD 0 OF STORED PSD
228   01 000070   21100040 A         CI,1     X'40'          CHECK MAP BIT
229   01 000071   68400084           BAZ      RCV60          B/RESET, NO MAPPING PROBLEMS
230   01 000072   21E08000 A         CI,14    X'8000'        C/XPSD ADR + 1 W/-8000
231   01 000073   69100084           BL       RCV60          BL, XPSD IN ROOT
232   01 000074   3250000E A         LW,5     14             L/XPSD ADR + 1
233   01 000075   25500077 A         SLS,5    -9             SHIFT, G/VIRTUAL PAGE #
234   01 000076   32200000 X         LW,2     SICUN          L/CURRENT USER #
235   01 000077   21200000 N         CI,2     SMUIS          C/CUR USER # W/MAX
236   01 000078   6920008B           BG       RCV41          BG, ILLEGAL USER #, SCREECH 03-01
237   01 000079   72240000 N         LOAD,2   UXIJIT,2       L/PHYSICAL PAGE # OF USER'S JIT
238   01 00007A   25200009 A         SLS,2    9              SHIFT, GET WORD ADR OF JIT
239   01 00007B   20200000 N         AI,2     JXICMAP-JIJIT  +WORD DISP FROM JIT TO CMAP
240   01 00007C   31200000 X         CW,2     CORED          C/ADR W/# OF WORDS OF PHYS CORE
241   01 00007D   68100159           BGE      RCV42          BGE, UXIJIT PROBABLY BAD, SCR 03-02
242   01 00007E   F22A0002 N         LOAD,2   *2,5           L/PHYSICAL PAGE # OF XPSD ADR + 1
243   01 00007F   25200009 A         SLS,2    9              SHIFT, GET WD ADDR OF PHYSICAL PAGE
244   01 000080   31200000 X         CW,2     CORED          C/ADR W/# OF WDS OF PHYS CORE
245   01 000081   68100158           BGE      RCV43          BGE, JXICMAP PROBABLY BAD, SCR 03-03
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```
01 00082   4BE00000 X           AND,14   M9                    &(XPSD ADR + 1) W/•1FF
01 00083   30E00002 A           AW,14    2                     G/PHYS WD ADR OF XPSD + 1
01 00084   22DF00FF A  RCV60    LI,D2    X'F00FF'
01 00085   CBD0000E A           AND,D2   *D3                   GET SCREECHCODE,SUBCODE
01 00086   6930008B             BNEZ     RCV41                 BNEZ
01 00087   32D00031             LW,13    SAVEREGS+15           L/SCREECH CODES FROM SAVEREGS+15
01 00088   21DF0000 A           CI,13    -1**16                SEE IF LH OF R15 IS NON-ZERO
01 00089   6940008B             BANZ     $+2                   BANZ, R15 HAS CODE & SUBCODE
01 0008A   25D00010 A           SLS,13   16                    SHIFT, R15 HAD ONLY SCREECH CODE
01 0008B   35D00011    RCV41    STW,13   RCVCODE               S/SCREECH CODE AND SUBCODE
01 0008C   22C00300 A           LI,D1    X'300'
01 0008D   22D00300 A           LI,D2    X'300'
01 0008E   CBC0000E A           AND,D1   *D3                   SCREECH,SUA,DUMP
01 0008F   68300113             BEZ      RCV1                  SCREECH
01 00090   47C00011             STS,D1   RCVCODE               SAVE SCREECH,SUA,DUMP FOR ANLZ
01 00091   21C00200 A           CI,D1    X'200'
01 00092   683000B2             BE       DUMP                  DUMP
01 00093   69200113             BG       RCV1                  ERROR-NO SUCH TYPE CRASH
01 00094   2247FFFF A           LI,R4    X'7FFFF'
01 00095   4B400007             AND,R4   RCVSIZE               BYTE SIZE OF RECOVERY
01 00096   204107FF A           AI,R4    X'4000'**2+X'7FF'     RECOVERY BIAS
01 00097   25400075 A           SLS,R4   -11                   PAGE AFTER RECOVERY
01 00098   31400000 X           CW,R4    LOW                   OVERLAP USER AREA
01 00099   69200113             BG       RCV1                  YES-CANT SUA
01 0009A   52F00011             LH,D4    RCVCODE               SUA-SCREECHCODE
                                REF      TIGJOBSTRT
                                REF      Y07,MBISDI,DCT5
                                REF      DCT6
                                SREF     C8:INTFL
01 0009B   22000000 A           LI,R0    0                     TEST R0 IN NON COC SYSTEM
01 0009C   53000000 X           MTH,0    C8:INTFL              COC INTERRUPTS DISABLED
01 0009D   69300113             BNEZ     RCV1                  YES-CRASH
01 0009E   12200002             LD,R2    TRAPPSD               TRAP PSD
01 0009F   22100003 A           LI,R1    #CODES                NUMBER OF SUA CODES
01 000A0   71F2015B             CB,D4    SCODES,R1             SUA CODE
01 000A1   683000A4             BE       KRD5                  YES
01 000A2   641000A0             BDR,R1   $-2
```

```
283  01 000A3  12200000 X          LD,R2   RCVpSD          RECOVER pSD
284  01 000A4  31300000 X  KRD5    CW,R3   Y07             INHIBITED
285  01 000A5  69400113            BANZ    RCV1            YES=CRASH
286  01 000A6  31200000 X          CW,R2   Y004            MAPPED
287  01 000A7  68400113            BAZ     RCV1            NO=CRASH
288                               *
289                               *   S I N G L E   U S E R   A B O R T
290                               *
291  01 000A8  0E000148    MAPED   LPSD,0  MAPMAP          GO MAPED
292  01 000A9  32100000 X          LW,R1   Y004
293  01 000AA  31100000 X          CW,R1   JITELFLGS       THIS USER SUA;ED BEFORE
294  01 000AB  69400113            BANZ    RCV1            YES=CRASH
295  01 000AC  47100000 X          STS,R1  JITELFLGS       NO=SET SUA'ED
296  01 000AD  32C00000 X          LW,12   SICUN
297  01 000AE  21C00000 N          CI,D1   MING
298  01 000AF  68200113            BLE     RCV1            CRASH IF SYSTEM GHOST
299  01 000B0  33000152            MTW,0   DUMPFILE        DUMP FILE BUSY
300  01 000B1  69300113            BNEZ    RCV1            YES=CRASH
301     01 000B2              DUMP    EQU     $
302  01 000B2  33000155            MTW,0   SUABTFLE        RADOM FILE ABTAINED
303  01 000B3  68300104            BEZ     DUMPRTN         NO=RETURN TO CALLER
304  01 000B4  33000152            MTW,0   DUMPFILE        DUMP FILE BUSY
305  01 000B5  69300104            BNEZ    DUMPRTN         YES=CANT DUMP RETURN TO CALLER
306  01 000B6  31400000 X          CW,R4   LOW             RECOVERY OVERLAP USER AREA
307  01 000B7  69200104            BG      DUMpRTN         YES=CANT DUMP
308  01 000B8  22700001 A          LI,R7   1               INDEX TO SAVE DCTX
309  01 000B9  72100000 X          LB,R1   MBISDI          DCTX OF SWAPPER
310  01 000BA  6AB00178            BAL,SR4 STOPIO          STOP IO ON THIS DEVICE
311  01 000BB  71100000 X          CB,R1   MBISDI          DID ANOTHER DEVICE ON THE CHANNEL GE
312  01 000BC  683000BE            BE      *+2             NO
313  01 000BD  751E0154            STB,R1  SAVEDCTX,R7     YES SAVE ITS DCTX
314  01 000BE  52100155            LDCTX,R1 SUABTFLE       DCTX OF DUMP DEVICE
     01 000BF  4B100000 X
315  01 000C0  6AB00178            BAL,SR4 STOPIO          STOP IO ON THIS DEVICE
316  01 000C1  52200155            LDCTX,R2 SUABTFLE
     01 000C2  4B200000 X
317  01 000C3  31100002 A          CW,R1   R2              ANOTHER DEVICE ON THIS CHANNEL STOPE
```

```
318   01 000C4   683000C9
319   01 000C5   711E0154
320   01 000C6   683000C9
321   01 000C7   22700002 A
322   01 000C8   751E0154
323        01 000C9
324   01 000C9   0E00014C
325   01 000CA   CF000000 X
326   01 000CB   52040000 X
327   01 000CC   CF000000 A
328   01 000CD   32600000 X
329   01 000CE   38600000 X
330   01 000CF   2060001E A
331   01 000D0   22100003 A
332   01 000D1   4B100042
333   01 000D2   33100042
334   01 000D3   35620043
335   01 000D4   32600000 X
336   01 000D5   75620047
337   01 000D6   226FFFFF A
338   01 000D7   68000127
339        01 000D8
340   01 000D8   32700145
341   01 000D9   46700008
342   01 000DA   22000002
343   01 000DB   32100000 X
344   01 000DC   6AB0015C
345   01 000DD   680000DA
346   01 000DE   35700008
347   01 000DF   33100152
348   01 000E0   33100000 X
349   01 000E1   32100000 X
350   01 000E2   75100152
351   01 000E3   72100000 X
352   01 000E4   6AB00196
353   01 000E5   52200155
      01 000E6   4B200000 X

          BE        KRD4      NO
          CB,R1     SAVEDCTX,R7  DEVICE ALL REDEADY REMEMBERED
          BE        KRD4      YES
          LI,R7     2         INDEX TO SAVE DCTX
          STB,R1    SAVEDCTX,R7  SAVE DCTX
KRD4      EQU       $
UNMAP1    LPSD,0    UNMAPPSD  GO UNMAPED
          !HIO,0    *MISWAPD  HALT I/O ON SYSTEMM DEVICE
          LW,R0     DCT1,R2   ADDRESS OF DUMPFILE DEVICE
          !HIO,0    *0        HALT I/O ON DUMP DEVICE
          LW,R6     C!TIC     TIME SINCE LAST CRASH
          SW,R6     C!TINC
          AI,R6     30        ADD TIME OF THIS QUANTUM
          LI,R1     3
          AND,R1    SUACNT    CIRCULAR BUFFER
          MTW,1     SUACNT    COUNT THIS SUA
          STW,R6    SUATIME,R1   SAVE TIME OF THIS SUA
          LW,R6     $!CUN
          STB,R6    SUACUN,R1    SAVE USER NUMBER OF THIS SUA
          LI,R6     =1        RECOVERY'S START ADDRESS-1 (S U A)
          B         KRD2
SUARTN    EQU       $         RETURN FROM RECOVERY
          LW,R7     MPPSEEK   SEEK OF MONITOR UNDER RECOVERY
          XW,R7     RCVDISC   TO REED BACK AFTER SUA
          LI,0      DA(REDDWD)
          LW,R1     MISWAPD   ADDRESS OF PRIMARY SWAPPER
          BAL,R11   IO        READ MONITOR UNDER RECOVERY
          B         $-3       ERROR RETURN-TRY AGAIN
          STW,R7    RCVDISC   RESTORE RECOVERY SEEK ADDRESS
          MTW,1     DUMPFILE  SET TO INDICATE SUA TO RVGHOST
          MTW,1     RCVRCNT   INC RECOVER COUNT FOR SUA PATH
          LW,R1     RCVRCNT
          STB,R1    DUMPFILE  PUT MONDMP NO. IN DUMPFILE
          LB,R1     MB!SDI    DCTX OF SYSTEM SWAPPER
          BAL,SR4   RESTRTIO  YES-RESTART THE IO
          LDCTX,R2  SUABTFLE
```

```
354  01 000E7   31100002 A             CW,R1     R2            SWAP AND DUMP DEVICE THE SAME
355  01 000E8   683000EB               BE        KRD3          YES-THIS ALL THE IO NEEDED TO RESTAR
356  01 000E9   32100002 A             LW,R1     R2            DCTX OF DUMP DEVICE
357  01 000EA   6AB00196               BAL,SR4   RESTRTIO      YES-RESTART THE IO
358         01 000EB        KRD3       EQU       $
359  01 000EB   22700002 A             LI,R7     2
360  01 000EC   721E0154               LB,R1     SAVEDCTX,R7   DCTX SAVED
361  01 000ED   683000F1               BEZ       $+4           NO
362  01 000EE   75700154               STB,R7    SAVEDCTX      SAVE R7
363  01 000EF   6AB00196               BAL,SR4   RESTRTIO      START IO
364  01 000F0   72700154               LB,R7     SAVEDCTX      RESTORE R7
365  01 000F1   647000EC               BDR,R7    $-5
366  01 000F2   72100000 X             LB,R1     MB!SDI        DCTX OF SWAPPER
367  01 000F3   6A200000 X             BAL,R2    FORCEIO       GO-START IO
368  01 000F4   52100155               LDCTX,R1  SUABTFLE      DCTX OF DUMP DEVICE
     01 000F5   4B100000 X
369  01 000F6   6A200000 X             BAL,R2    FORCEIO       GO-START IO
370  01 000F7   22700002 A             LI,R7     2
371  01 000F8   721E0154               LB,R1     SAVEDCTX,R7   DCTX SAVED
372  01 000F9   683000FD               BEZ       $+4           NO
373  01 000FA   75700154               STB,R7    SAVEDCTX      SAVE R7
374  01 000FB   6A200000 X             BAL,R2    FORCEIO       GO START IO
375  01 000FC   72700154               LB,R7     SAVEDCTX      RESTORE R7
376  01 000FD   647000F8               BDR,R7    $-5
377  01 000FE   35700154               STW,R7    SAVEDCTX      ZERO SAVEDCTX
378  01 000FF   12000146               LD,R0     TXCRVGST
379  01 00100   6AA00000 X             BAL,SR3   TIOJOBSTRT    GO-START RECOVER GHOST
380  01 00101   32700011               LW,R7     RCVCODE       SCREECH CODE INFO
381  01 00102   21700200 A             CI,R7     X'200'        DUMP
382  01 00103   68400108               BAZ       KRD6          NO-SUA
383  01 00104   33100000 X  DUMPRTN    MTW,1     RCVPSD        RETURN TO XPSD+2
384  01 00105   02200000 A             LCI       0
385  01 00106   2A000022               LM,R0     SAVEREGS      RESTORE REG BLOCKO
386  01 00107   0E800000 X             LPSD,8    RCVPSD        RETURN TO XPSD+2
387         01 00108        KRD6       EQU       $
388  01 00108   22F00000 N             LI,15     NSCPU         MP SYSTEM
389  01 00109   6830010F               BEZ       KRD61         NO
```

```
390   01 0010A   32F0004A        LW,15   MPBRANCH2       SET UP SIDLER BRANCH
391   01 0010B   35F00000 X      STW,15  SYSTRT          IN SLAVE SYSTRT
392   01 0010C   22F00000 A      LI,15   0
393   01 0010D   35F00000 X      STW,15  SB!RCVR         ZERO RCVR MASTER FLAG
394   01 0010E   35F00000 X      STW,15  SB!RCVA         ZERO RCVR SLAVE FLAG
395        01 0010F              KRD61   EQU     $
396   01 0010F   22E0007F A      LI,D3   X'7F'          SUA CODE
397   01 00110   52F00011        LH,D4   RCVCODE         CRASH CODE AS SUB-CODE
398   01 00111   75F0000E A      STB,D4  D3
399   01 00112   0E00014E        LPSD,0  RTNPSD          GO-TO TIABORTM
400        01 00113              RCV1    EQU     $
401                              *
402                              *       ALLOW REAL-TIME SYSTEMS TO SUPPLY THEIR OWN
403                              *       RECOVERY ROUTINE
404                              *
405   01 00113   6AB00000 X      BAL,11  RT!RCVR
406   01 00114   22600000 A      LI,R6   0               CRASH RECOVERY ENTRY
407   01 00115   0E100150        LPSD,1  PDFPSD          CLEAR PDF FLAG
408   01 00116   22100000 N      PDFOFF  LI,R1   DCTSIZ  HALT ALL SYSGEN DEVICES
409   01 00117   70220000 X      KRD7    LC      DCT3,R1 DEVICE PARTITIONED OUT
410   01 00118   6920011E        BCS,2   KRD8            YES-DO NOT HALT
411   01 00119   72220000 X      LB,R2   DCT24,R1        RECONFIG BIT
412   01 0011A   21200002 A      CI,R2   2               DEVICE RECONFIG OUT
413   01 0011B   6940011E        BANZ    KRD8            YES-DONT HALT
414   01 0011C   52220000 X      LH,R2   DCT1,R1         DEVICE ADDRESS
415   01 0011D   CF000002 A      IHIO,0  *R2             HALT THE DEVICE
416   01 0011E   64100117        KRD8    BDR,R1  KRD7    LOOK AT ALL SYSGENED DEVICES
417   01 0011F   6E000000 A      AIO,0   0
418   01 00120   688C011F        BCR,8   $-1             ACKNOWLEDGE EVERY INTERRUPT
419   01 00121   33000155        MTW,0   SUABTFLE        DUMPFILE PRESENT
420   01 00122   68300127        BEZ     KRD2            NO-DUMP TO SWAPPER
421   01 00123   33000152        MTW,0   DUMPFILE        DUMPFILE BUSY
422   01 00124   69300127        BNEZ    KRD2            YES-DUMP TO SWAPPER
423   01 00125   32200015        LW,R2   SEEK4000-1      SEEK FOR 4000 IN DUMPFILE
424   01 00126   6800012B        B       KRD9
425        01 00127              KRD2    EQU     $
426   01 00127   322C0016        LW,R2   SEEK4000,R6
```

```
01 00128  72100000 X            LB,R1     MB!SDI          DCT OF SYSTEM SWAP
01 00129  21600000 A            CI,R6     0               SUA
01 0012A  6830012D              BE        KRD10           NO
01 0012B  52100155   KRD9       LDCTX,R1  SUABTFLE        YES-GET DCT OF SUA FILE
01 0012C  4B100000 X
01 0012D  52120000 X KRD10      LH,R1     DCT1,R1         DEVICE ADDRESS
01 0012E  35200017              STW,R2    SEEK            SEEK TO PUT CORE AT X'4000'
01 0012F  223F0000 A            LI,R3     X'F0000'
01 00130  47200018              STS,R2    SEEK1           CYLINDER NUMBER
01 00131  2200000D              LI,R0     DA(DUMPCOM)     DUMP COMM LIST
01 00132  2227A120 A            LI,R2     500000
01 00133  64200133              BDR,R2    $               DELAY FOR PACK ARM
01 00134  6AB0015C   KRD1       BAL,R11   IO              DUMP X'4000'-X'7FFF'
01 00135  02000000 A            NOP                       ERROR RETURN
01 00136  20500 3FF A           AI,R5     1023
01 00137  4B5001D9              AND,R5    =X'FFFFFC00'    ROUND UP TO SECTOR
01 00138  2240FFFF A            LI,R4     X'FFFF'
01 00139  46400005 A            XW,R4     R5
01 0013A  47400013              STS,R4    TIO$STATUS+1
01 0013B  52500013              LH,R5     TIO$STATUS+1    STATUS BITS
01 0013C  70200003 A            LC        R3              SECTOR UNAVAILABLE
01 0013D  68200140              BCR,2     $+3             NO-
01 0013E  21500800 A            CI,R5     X'800'
01 0013F  694001A4              BANZ      UNEND           UNUSUAL END-CYL CROSSING
01 00140  22000002              LI,0      DA(REDDWD)
01 00141  32100000 X            LW,R1     M:SWAPD         ADDRESS OF PRIMARY SWAPPER
01 00142  6AB0015C              BAL,R11   IO              READ RECOVERY
01 00143  68000140              B         $-3             ERROR RETURN-TRY AGAIN
01 00144  F80C0010              B         *RCVSTART,R6    ENTER RECOVERY.
01 00145  00000000 A MPPSEEK    DATA      0
                                BOUND     8
01 00146  07D9E5C7 A TXCRVGST   TEXTC     'RVGHOST'
01 00147  C8D6E2E3 A
01 00148  004000A9 N MAPMAP     !PSD      MAP,(IA,MAPED+1),INH
          07000000
01 0014A  000001CC N UNMPSD     !PSD      (IA,UNMPSD1+1),INH
          07000000
```

```
01 0014C     000000CA N    UNMAPPSD !PSD      (IA,UNMAP1+1),INH
             07000000
01 0014E     00400000 N    RTNPSD   !PSD      MAP,(IA,T:ABORTM),(WK,1)
             10000000
01 00150     00000116 N    PDFPSD   !PSD      (IA,PDFOFF),INH
             07000000
                                    BOUND     4
01 00152     00000000 A    DUMPFILE DATA      0                  Z DUMP FILE FREE,NZ DUMP FILE BUSY
01 00153     0000     A             DATA,2    0,0                NUMBER OF CORE PAGES,NUMBER OF JITS
01 00153 2   0000     A
01 00154     00000000 A    SAVEDCTX DATA      0                  SAVE DCTX OF DEVICES STOPED FOR SUA
01 00155     00000000 A    SUABTFLE DATA      0                  FIRST DISC ADDRESS OF DUMP FILE
01 00156     00000000 A             DATA      0                  GRANULE SIZE OF DUMP FILE
01 00157     00000000 A    SMAKFLG  DATA      0                  Z SYSMAK NEEDED
                           *                                     NZ SYSMAK PERFORMED
                           *                                     NEG UP AFTER CRASH
01 00158     20D00001 A    RCV43    AI,13     1                  +1 TO RECOVERY SUBCODE (03.03)
01 00159     20D00001 A    RCV42    AI,13     1                  +1 TO RECOVERY SUBCODE (03.02)
01 0015A     6800008B                B         RCV41              B
01 0015B     00       A    SCODES   DATA,1    0,X'61',X'79',X'7E'
01 0015B 1   61       A
01 0015B 2   79       A
01 0015B 3   7E       A
       00000003            #CODES   EQU       BA($)-BA(SCODES)-1
                                    BOUND     4
```

```
                                            PAGE
         01 0015C              IO           EQU       $              I/O WITH ERROR CHECKING
01 0015C    2280000A A                      LI,R8     10             RETRY COUNT
01 0015D    CC000001 A         IO2          SIO,0     *R1            START I/O DEVICE IN R1
01 0015E    22200029 A         IO1          LI,R2     41
01 0015F    6420015F                        BDR,R2    $              DELAY
01 00160    CD400001 A                      TIO,R4    *R1            TIO STATUS
01 00161    69C0015E                        BCS,12    IO1            WAIT FOR TRANSFER TO COMPLETE
01 00162    15400012                        STD,R4    TIO$STATUS     SAVE TIO STATUS
01 00163    CE300001 A                      TDV,R3    *R1            TDV STATUS
01 00164    35300014                        STW,R3    TDV$STATUS     SAVE TDV STATUS
01 00165    70200003 A                      LC        R3
01 00166    6960016A                        BCS,6     IO3            SECTOR UNAVAILABLE
01 00167    52200013                        LH,R2     TIO$STATUS+1   TIO STATUS BITS
01 00168    2120007E A                      CI,R2     X'7E'          ANY ERROR BITS SET
01 00169    6940016C                        BANZ      $+3            ERROR BIT SET TRY AGAIN
01 0016A    20B00001 A         IO3          AI,R11    1              SET TO NORMAL RETURN
01 0016B    E800000B A                      B         *R11           RETURN
01 0016C    6480015D                        BDR,R8    IO2            YES-TRY AGAIN
01 0016D    220000BA                        LI,R0     DA(TYCOMM)
01 0016E    4C000001 A                      SIO,0     1              TYPE ON OC 'RCIO ERR'
01 0016F    4D000001 A         IO4          TIO,0     1
01 00170    69C0016F                        BCS,12    IO4
01 00171    68000171                        B         $              STOP FOR OPERATOR
01 00172    E800000B A                      B         *R11           TAKE ERROR RETURN
                                            BOUND     8
01 00174    050005D8           TYCOMM       GEN,8/24  5,BA(TYMESS)
01 00175    00000008 A                      GEN,8/24  0,8
01 00176    D9C3C9D6 A         TYMESS       TEXT      'RCIO ERR'
01 00177    40C5D9D9 A
```

```
                                  PAGE
         01 00178       STOPIO    EQU       $               DCTX IN R1
01 00178   72320000 X             LB,R3     DCT2,R1         CITX
01 00179   72460000 X             LB,R4     CIT1,R3         IOQX
01 0017A   F830000B A             BEZ       *SR4            NO QUEUE CHAIN,RETURN
01 0017B   70280000 X   STOPIO3   LC        IOQ3,R4         REQUEST BUSY
01 0017C   68800193               BCR,8     STOPIO2         NO
01 0017D   72280000 X             LB,R2     IOQ7,R4         DCTX OF BUSY DEVICE
01 0017E   70240000 X             LC        DCT5,R2         DEVICE BUSY
01 0017F   68800193               BCR,8     STOPIO2         NO
01 00180   68100193               BCR,1     STOPIO2         NO DATA TRANSFERING
01 00181   52640000 X             LW,R6     DCT1,R2         DEVICE ADDRESS
01 00182   51640000 X             CH,R6     DCT1P,R2        DATA TRANSFERING ON PRIMARY CHANNEL
01 00183   69300193               BNE       STOPIO2         NO,DO NOT STOP IO
01 00184   72540000 X             LB,R5     DCT4,R2         TYPE INDEX
01 00185   725A0000 X             LB,R5     TBIFLGS,R5
01 00186   215000C0 A             CI,R5     X'C0'           ROTATING DEVICE
01 00187   68100190               BGE       STOPIO1         YES,HALT THE IO
01 00188   22202000 A             LI,R2     X'2000'         LOOP COUNTER
01 00189   225003E8 A   STOPIO4   LI,R5     1000
01 0018A   6450018A               BDR,R5    $               DELAY
01 0018B   CD500006 A             TIO,R5    *R6             TIO TO GET STATUS
01 0018C   70200005 A             LC        R5              INTERRUPT PENDING FOR TAPE
01 0018D   F980000B A             BCS,8     *SR4            YES-RETURN CHANNEL QUIET
01 0018E   64200189               BDR,R2    STOPIO4         LOOP
01 0018F   F800000B A             B         *SR4            GIVE UP ON DELAY FOR TAPE
01 00190   CF000006 A   STOPIO1   HIO,0     *R6             HALT I/O ON ROTATING DEVICE
01 00191   32100002 A             LW,R1     R2              DCTX OF HALTED DEVICE
01 00192   F800000B A             B         *SR4            RETURN
01 00193   72480000 X   STOPIO2   LB,R4     IOQ2,R4         CHAIN DOWN THE QUEUE
01 00194   6930017B               BNEZ      STOPIO3
01 00195   F800000B A             B         *SR4            RETURN END OF CHAIN
```

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                                              PAGE
                                  *F*         NAME:         RESTRTIO
                                  *F*         PURPOSE:      RESTART I/O ON ROTATING DEVICE THAT WERE
                                  *F*                       STOPPED DUE TO A SUA, DUMP OR POWER FAIL-
                                  *F*                       SAFE.
            01 00196              RESTRTIO    EQU       $
01 00196    70220000 X                        LC        DCT5,R1          DEVICE BUSY
01 00197    F8E0000B A                        BCR,X'E'  *SR4             NO-NOTHING TO RESTART
01 00198    6880019A                          BCR,8     $+2
01 00199    6A500000 X                        BAL,R5    INTSIM           GO-SET DEVICE IN CLEANUP-PENDING ST
01 0019A    72220000 X                        LB,R2     DCT5,R1
01 0019B    4B200000 X                        AND,R2    M5
01 0019C    75220000 X                        STB,R2    DCT5,R1          CLEAN UP DCT5 FOR RESTART
01 0019D    72220000 X                        LB,R2     DCT6,R1          IOQX
01 0019E    72340000 X                        LB,R3     IOQ3,R2
01 0019F    4B300000 X                        AND,R3    M7
01 001A0    75340000 X                        STB,R3    IOQ3,R2          CLEAR THE BUSY BIT FROM IOQ3
01 001A1    72340000 X                        LB,R3     IOQ4,R2
01 001A2    75340000 X                        STB,R3    IOQ5,R2          SET FUNCTION CODE
01 001A3    F800000B A                        B         *SR4             RETURN
```

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                                      PAGE
01 001A4  53100018    UNEND   MTH,1     SEEK1            INC CURRENT CYLINDER NUMBER
01 001A5  2230FFFF A          LI,R3     X'FFFF'
01 001A6  2220FFFF A          LI,R2     X'FFFF'
01 001A7  4B200012            AND,R2    TI0$STATUS
01 001A8  47200020            STS,R2    COMMPACK+2       DA(COMMRAD) ADDRESS
01 001A9  25200001 A          SLS,R2    1                ADDRESS OF COMMRAD ENTRY
01 001AA  2250FFFF A          LI,R5     X'FFFF'
01 001AB  2240FFFF A          LI,R4     X'FFFF'
01 001AC  4B400013            AND,R4    TI0$STATUS+1     REMAINGING BYTE COUNT
01 001AD  693001AF            BNEZ      $+2
01 001AE  22410000 A          LI,R4     X'10000'         REMAING BYTE COUNT
01 001AF  21400400 A          CI,R4     X'400'           ODD NUMBER OF SECTORS/CYLINDER
01 001B0  684001B2            BAZ       $+2              NO
01 001B1  20400400 A          AI,R4     X'400'           YES-RE-WRITE THE LAST SECTOR
01 001B2  6B340001 A          INT,R3    1,R2             STARTING BYTE COUNT FROM COMMRAD
01 001B3  21300000 A          CI,R3     0
01 001B4  693001B6            BNE       $+2
01 001B5  22310000 A          LI,R3     X'10000'         STARTING BYTE COUNT
01 001B6  47440001 A          STS,R4    1,R2             NEW BYTE COUNT
01 001B7  38300004 A          SW,R3     R4
01 001B8  66340000 A          AWM,R3    0,R2             INC MEMORY ADDRESS BY AMOUNT WRITTEN
01 001B9  2200000F            LI,R0     DA(COMMPACK)
01 001BA  68000134            B         KRD1
```

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                                         PAGE
                                *F*      NAME:         SCR61
                                *F*      PURPOSE;      REPORT A SUA CODE 61 WHERE THE SUBCODE IS
                                *F*                    THE TRAP CELL ADDRESS.
           01 001BB             SCR61    EQU      $
01 001BB     476001C3                    STS,R6   SCR61E+1             TRAP CELL AS SUB CODE
01 001BC     22100031                    LI,1     SAVEREGS+15          L/ADR OF LAST REG IN SAVEREGS
01 001BD     716001DA                    CB,6     =X'42'**24           C/TRAP TYPE W/X'42'
01 001BE     683001C0                    BE       $+2                  BE; GET REGS FROM SAVEREGS
01 001BF     32100000 X                  LW,1     TSTACK               L/TOP OF STACK ADR; REGS FROM TSTAC
01 001C0     02200000 A                  LCI      0                    L/CC'S OF 0 FOR LM
01 001C1     2A03FFF1 A                  LM,0     .15,1                L/REGS (AT TIME OF TRAP)
                                *S*      SCREECH CODE: 61-(TRAP CELL)
                                *S*      REPORTED BY: INITRCVR
                                *S*      MESSAGE:      TEL OR CCI HAS TRAPED.
                                *S*      TYPE:         SUA
                                *S*      REGISTERS:    REGISTERS AT TIME OF TRAP.
                                *S*      REMARKS;      TRAP OCCURRED WHILE OPERATING MAPPED,
                                *S*                    SLAVE, AND WITH TEL.IN.CONTROL SET.
                                *S*                    SUBCODE IS TRAP LOCATION.
01 001C2     0F000000 X         SCR61E   SUA      X'61'                SUA X'61'
01 001C3     00610100 A
```

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                                        PAGE
                           *F*          NAME:          ABORT
                           *F*          PURPOSE:       REPORT A SUA CODE 7E WHERE THE SUBCODE IS
                           *F*                         THE TRAP CELL ADDRESS.
          01 001C4         ABORT        EQU       $
                           *                                     THIS CODE PRESERVES THE LAST
                           *                                     16 INSTRUCTIONS EXECUTED IN THE
                           *                                     LAST  16 WORDS OF THE MONITOR JIT
                           *
01 001C4  6D000037 A                    DISABLE
01 001C5  476001D8                      STS,R6    SCR7EE+1       TRAP CELL AS SUB CODE
01 001C6  35000000 X                    STW,0     TEMP           SAVE R0
01 001C7  32100000 X                    LW,1      TSTACK         L/TOP OF STACK ADDRESS
01 001C8  02200000 A                    LCI       0              L/CC'S OF 0 FOR LM
01 001C9  AA020000 X                    LM,R0     *24BM15,R1     L/REGS (AT TIME OF TRAP)
01 001CA  2B000022                      STM,0     SAVEREGS       S/REGS IN SAVEREGS
01 001CB  0E00014A         UNMPSD1      LPSD,0    UNMPSD         GO UNMAPED
01 001CC  2211FFFF A                    LI,1      X'1FFFF'
01 001CD  4B100000 X                    AND,1     TEMP           G/TRAP ADR
01 001CE  2110000F A                    CI,1      15             C/ADR W/15: SEE IF IN REGS
01 001CF  682001D5                      BLE       NOPUT
01 001D0  21108000 A                    CI,1      X'8000'
01 001D1  681001D5                      BGE       NOPUT          OCCURED IN MAPPED AREA
01 001D2  02200000 A                    LCI       0
01 001D3  AA020000 X                    LM,R0     *24BM15,R1     PRECEEDING LOCS
01 001D4  2B0001F0 N                    STM,0     J:JIT+X'1FF'-15
          01 001D5         NOPUT        EQU       $
01 001D5  02200000 A                    LCI       0              L/CC'S OF 0 FOR LM
01 001D6  2A000022                      LM,0      SAVEREGS       L/REGS FROM SAVEREGS
                           *S*          SCREECHCODE: 7E-(TRAP CELL)
                           *S*          REPORTED BY: INITRCVR
                           *S*          MESSAGE:       MONITOR HAS TRAPPED
                           *S*          TYPE:          SUA
                           *S*          REGISTERS:     REGISTERS AT TIME OF TRAP.
                           *S*          REMARKS;       SUBCODE IS TRAP LOCATION. FOR TRAPS THAT
                           *S*                         OCCUR AT LOCATIONS LESS THAN X'8000'
                           *S*                         (JOVVPA), THE 15 CELLS PRECEDING THE TRAP
```

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    641                                    *S*                        LOCATION AND THE TRAP LOCATION ARE STORED
    642                                    *S*                        IN THE MONITOR JIT AT X'8DF0'-X'8DFF'.
    643    01 001D7     0F000000 X    SCR7EE    SUA       X'7E'                 SUA X'7E'
           01 001D8     007E0100 A
    644    01 001D9                   PPSTART   RES
    645                                         END
           01 001D9     FFFFFC00 A
           01 001DA     42000000 A

  CONTROL SECTION SUMMARY: 01 001DB   PT 0
```

* SYMBOL VALUES

ANSPROC/00000000
BITS/00000000
BLOCK1/01 00048
COMMPACK/01 0001E
CSEI$PATH$RECOV/00000002
DCBPROC/00000000
DCT$FLD/LIST
DCT$SHIFT$AMT/00000010
DISCBPROC/00000001
DUMP/01 000B2
DUMPCOM/01 0001A
DUMPRTN/01 00104
D1/0000000C
D2/0000000D
D3/0000000E
D4/0000000F
GETN/01 00060
GTN/01 00065
I0/01 0015C
I01/01 0015E
I02/01 0015D
I03/01 0016A
I04/01 0016F
KRD1/01 00134
KRD10/01 0012D
KRD2/01 00127
KRD3/01 000EB
KRD4/01 000C9
KRD5/01 000A4
KRD6/01 00108
KRD61/01 0010F
KRD7/01 00117
KRD8/01 0011E
KRD9/01 00128
MAPED/01 000A8
MAPMAP/01 00148
MONPROC/00000000
MPBITS/00000000
MPBRANCH/01 00049
MPBRANCH2/01 0004A
NOMP/01 00069
NOPUT/01 001D5
PDF0FF/01 00116
PDFPSD/01 00150
R$LDCTX/00000000
R$LSECTA/00000000
R$STDCTX/00000000
R$STSECTA/00000000
RCV1/01 00113
RCV41/01 0008B
RCV42/01 00159
RCV43/01 00158
RCV60/01 00084
REDDWD/01 00004
RESTRT/01 0005F
RTNPSD/01 0014E
R0/00000000
R1/00000001
R10/0000000A
R11/0000000B
R12/0000000C
R13/0000000D
R14/0000000E
R15/0000000F
R2/00000002
R3/00000003
R4/00000004
R5/00000005
R6/00000006
R7/00000007
R8/00000008
R9/00000009
SAVEDCTX/01 00154
SCODES/01 0015B
SCR61E/01 001C2
SCR7EE/01 001D7
SECT$FLD/LIST
SEEK/01 00017
SEEK1/01 00018
SR1/00000008
SR2/00000009
SR3/0000000A
SR4/0000000B
STOPI0/01 00178
STOPI01/01 00190
STOPI02/01 00193
STOPI03/01 0017B
STOPI04/01 00189
S69PROC/00000001
TDV$STATUS/01 00014
TIO$STATUS/01 00012
TXCRVGST/01 00146
TYCOMM/01 00174
TYMESS/01 00176
UFLAGS/00000000
UNEND/01 001A4
UNMAPPSD/01 0014C
UNMAP1/01 000C9
UNMPSD/01 0014A
UNMPSD1/01 001CB
UTSPROC/00000001
!A/01 00190
#CODES/00000003

* EXTERNAL DEFINITIONS

ABORT/01 001C4
BOOTSBAND/01 0000F
CNDD/01 0000D
DUMPFILE/01 00152
INITRCVR/01 00000
LLNDD/01 0000C
MPPSEEK/01 00145
OCNDD/01 00008
PPSTART/01 001D9
RCVCODE/01 00011
RCVDISC/01 00008
RCVRAD/01 0000A
RCVRDSZ/01 00009
RCVSIZE/01 00007
RCVSTART/01 00010
RECOVER0/01 0004B
RESTRTIO/01 00196
SAVEREGS/01 00022
SAVEREGS1/01 00032
SCR61/01 001BB
SEEK4000/01 00016
SMAKFLG/01 00157
SUABTFLE/01 00155
SUACNT/01 00042
SUACUN/01 00047
SUARTN/01 000D8
SUATIME/01 00043
SYSVERS/01 0000E
TRAPPSD/01 00002
TRAPSAVE/01 00000

* PRIMARY REFERENCES

C:TIC	C:TINC	CIT1	C0RED	C8ED0PATH	DCT0MASK	DCTSIZ
DCT1	DCT1P	DCT2	DCT24	DCT3	DCT4	DCT5
DCT6	F0RCEI0	INTSIM	I0Q2	I0Q3	I0Q4	I0Q5
I0Q7	J:JIT	J:TELFLGS	JX:CMAP	L0W	M:SWAPD	MB:SDI
MING	MP:HPN	M5	M7	M9	PFSRSW	RCVPSD
RCVRCNT	RT:RCVR	S:ADR	S:CUN	SMUIS	T:AB0RTM	T:GJ0BST
T0:FLGS	TEMP	TSTACK	UX:JIT	Y004	Y007	24BM15
:B:G	:B560	:B9				

* SEC0NDARY REFERENCES

C0:INTFL	C0CFLAG	NSCPU	S:ST0UT	SB:RCVA	SB:RCVR	SB:STATE
SLVWAIT	SYSTRT	T:SIDLER				

* N0 UNDEFINED SYMB0LS
* ERR0R SEVERITY LEVEL: 0
* N0 ERR0R LINES