FP11

LDF LDD STF STD

MD-11-DCFPC-B

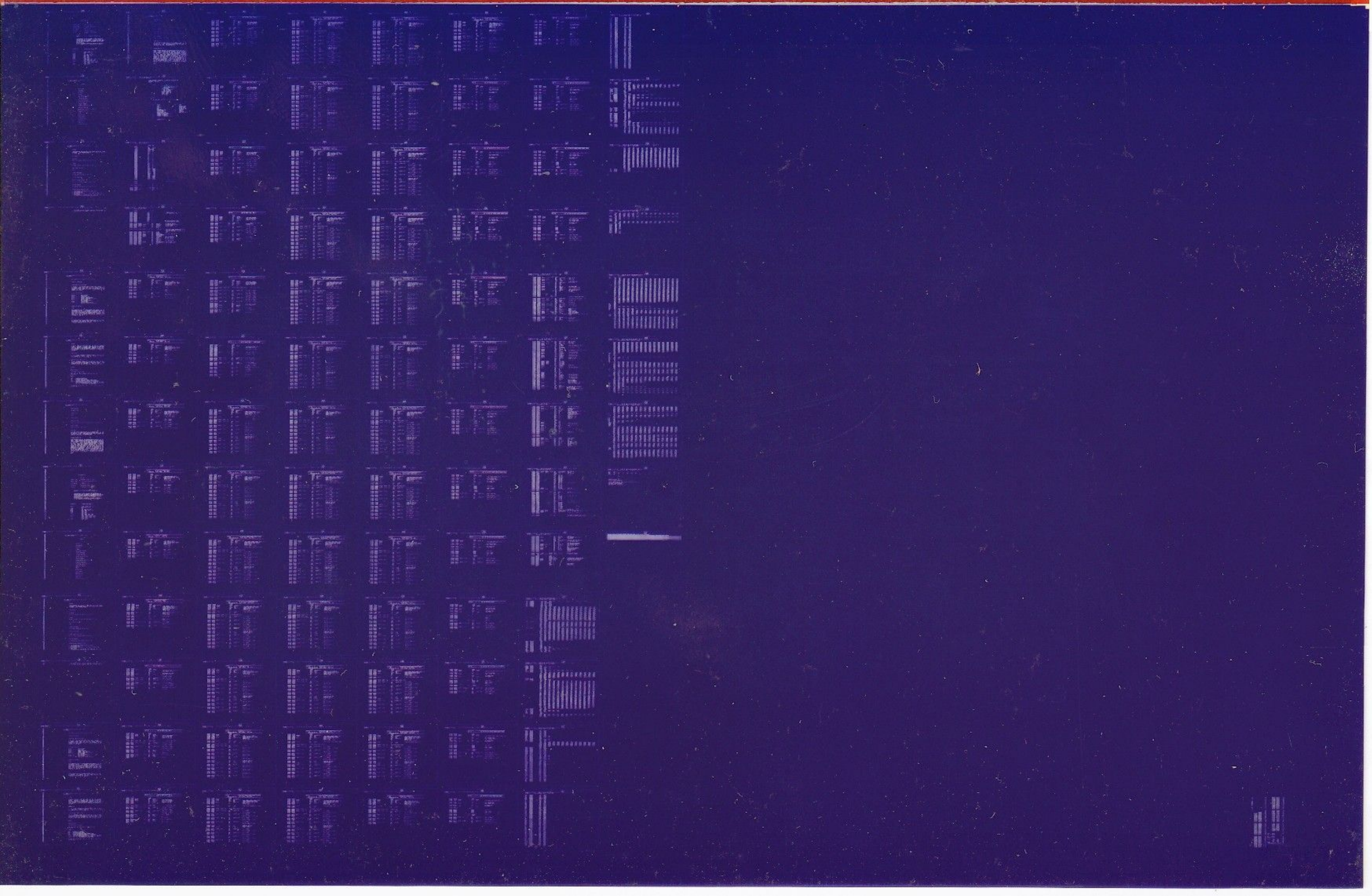
EP-DCFPC-B-DL-A

OCT 1976

FICHE 1 OF 1

digital

Made in U.S.A.



.REPT 0

IDENTIFICATION

PRODUCT CODE:	MAINDEC-11-DCFPC
PRODUCT NAME:	FP11 BASIC INSTRUCTION TESTS
DATE CREATED:	MARCH 12, 1973
MAINTAINER:	DIAGNOSTIC GROUP
AUTHORS:	BOB BRAIN & KEN CHAPMAN

MAINDEC NO.	INSTRUCTIONS TESTED
DCFPA	LDFPS, STFPS, SETI, SETL SETF, SETD, CFCC
DCFPB	STST
DCFPC	LDF, LDD, STF, STD
DCFPD	ADDF, ADDD, SUBF, SUBD
DCFDE	CMDF, CMPD
DCFPF	MULF, MULD
DCFPG	DIVF, DIVD
DCFPH	CLRF, CLRD, TSTF, TSTD ABSF, ABSD, NEGF, NEGD
DCFPI	LDCFD, LCCDF, STCFD, STCDF
DCFPJ	LDCIF, LDCLF, LDCID, LDCLD STCFI, STCFL, STCDI, STCDL
DCFPK	LDEXP, STEXP
DCFPL	MODF, MODD

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FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL PAGE 3
DESCRIPTION

1. ABSTRACT

THESE PROGRAMS TEST THE FP11 IN ALL MODES WITH FIXED NUMBER PATTERNS. THE PROGRAMS SHOULD BE RUN IN ORDER FOR AT LEAST 2 PASSES WITH ALL SWITCHES DOWN.

2. REQUIREMENTS

2.1 EQUIPMENT

PDP11/45 STANDARD COMPUTER WITH FP11 OPTION

2.2 STORAGE

PROGRAM STORAGE - THE ROUTINES USE MEMORY 0 - 17776

2.3 PRELIMINARY PROGRAMS

NONE

3. LOADING PROCEDURE

USE STANDARD PROCEDURE FOR ABS TAPES.

4. STARTING PROCEDURE

4.1 CONTROL SWITCH SETTINGS

SEE 5.1.1 (ALL DOWN FOR WORST CASE TESTING)

4.2 STARTING ADDRESS

THE PROGRAM SHOULD ALWAYS BE STARTED AT 200.

4.3 PROGRAM AND/OR OPERATOR ACTION

1) LOAD PROGRAM INTO MEMORY USING ABS LOADER.
2) LOAD ADDRESS 200.
3) SET SWITCHES (SEE SEC 5.1.1) ALL DOWN FOR WORST CASE
4) PRESS START.
5) THE PROGRAM WILL LOOP AND BELL WILL RING ONCE EVERY PASS
6) A MINIMUM OF TWO PASSES SHOULD ALWAYS BE RUN.

```
                                7) THE DISPLAY ON THE 11/45 WILL SHOW THE ITERATION COUNT IN
                                THE LEFT BYTE AND TEST NUMBER IN THE RIGHT.  TO USE, SET THE
```

DESCRIPTION

DATA DISPLAY SWITCH TO THE DISPLAY POSITION.

5. OPERATING PROCEDURE

5.1 OPERATIONAL SWITCH SETTINGS

AT SA 200 .. ALL SWITCHES DOWN IS WORST CASE TESTING. IF AN ERROR OCCURS, THAT TEST WILL BE LOOPED UPON UNTIL COMPLETION OF 256 CONSECUTIVE PASSES WITH NO ERRORS OF THE SUBTEST IF SW<9> SET TO A 1. THE BELL WILL RING UPON COMPLETION OF A PASS.

5.1.1 SWITCH SETTINGS ARE:

```
SW<15> = 1 ..... HALT ON ERROR
SW<14> = 1 ..... SCOPE LOOP
SW<13> = 1 ..... INHIBIT PRINTOUT
SW<12> = 1 ..... INHIBIT TRACE TRAPPING
SW<11> = 1 ..... INHIBIT ITERATIONS OF SUBTEST
SW<10> = 1 ..... BELL ON ERROR
         0 ..... BELL ON PASS COMPLETE
SW<09> = 1 ..... LOOP ON ERROR
SW<08> = 1 ..... LOOP ON TEST IN SW<7:0>
         0 ..... LOAD SW<7:0> INTO UB REGISTER
```

5.2 SUBROUTINE ABSTRACTS

5.2.1 SCOPE

THIS SUBROUTINE CALL IS PLACED BETWEEN EACH SUBTEST IN THE INSTRUCTION SECTION. IT RECORDS THE STARTING ADDRESS OF EACH SUBTEST AS IT IS BEING ENTERED IN LOCATION "LAD". IF A SCOPE LOOP IS REQUESTED, THE CURRENT SUBTEST WILL BE LOOPED UPON. SW<11> ON A 1 INHIBITS ITERATION OF SUBTESTS. THE CONTENTS OF LAD MAY BE USED TO DETERMINE THE LAST SUBTEST SUCCESSFULLY COMPLETED.

5.2.2 HLT

THIS ROUTINE PRINTS OUT AN ERROR MESSAGE (SEE 6.1.) IF A HLT IS EXECUTED, THE SUBTEST WILL BE LOOPED UPON UNTIL 256 CONSECUTIVE GOOD PASSES ARE COMPLETED IF SW<9> IS ON A 1. TO INHIBIT TYPEOUTS, PUT SW<13> ON A 1.

5.2.3 TRTRAP

IF SW<12> IS ON A 0, THE T BIT WILL BE SET ON ALTERNATE PASSES. WHEN SET, IT CAUSES A TRAP AFTER EACH INSTRUCTION. THE FIRST INSTRUCTION EXECUTED UPON TRAPPING IS AN "RTT" WHICH RETURNS TO THE INTERRUPTED SEQUENCE OF INSTRUCTIONS. THIS SEQUENCE IS CONTINUED UNTIL THE END OF THE PROGRAM IS REACHED.

5.2.4 TRAPCATCHER

A ".+2" - "HALT" SEQUENCE IS REPEATED FROM 0 - 776 TO CATCH ANY UNEXPECTED TRAPS. THUS ANY UNEXPECTED TRAPS OR INTERUPTS WILL HALT AT THE VECTOR + 2.

5.2.5 FLOATING POINT TRAP (TO 244)

THE FP11 INTERRUPT DISABLE BIT IS ALWAYS SET IN ALL OF THESE TESTS (EXCEPT DCFPA) SO NO TRAPS TO 244 SHOULD OCCUR. IF AN INTERRUPT OCCURS, THE PROGRAM WILL HALT AT 766 IN THE ROUTINE CALLED FLTERR AND DISPLAY THE FPS REGISTER IN R0.

6. ERRORS

6.1 ERROR PRINTOUT

THE FORMAT IS AS FOLLOWS:

```
ADR  FPS  ANS1 ANS2 ANS3 ANS4 ANS5 ANS6 ANS7 ANS8
  FEC FEA
```

WHERE:

```
ADR     = ADDRESS OF ERROR HLT
FPS     = FLOATING POINT STATUS
FEC     = FLOATING EXCEPTION CODES (ERROR CODES)
FEA     = FLOATING EXCEPTION ADDRESS (ERROR ADDRESS)
ANS1-8 = ERROR DATA READ FROM THE FP11.  FROM 0-8  OF  THESE
         MAY  BE TYPED DEPENDING ON THE NUMBER FOLLOWING THE
         HLT; I.E., HLT+3 WOULD TYPE ANS1-ANS3.
```

TO FIND THE FAILING TEST, LOOK AT THE LISTING ABOVE THE ADDRESS TYPED.

FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL PAGE 6
DESCRIPTION

6.2 ERROR RECOVERY

RESTART AT 200

7. RESTRICTIONS

NONE

8. MISCELLANEOUS

8.1 EXECUTION TIME

A BELL WILL RING WITHIN 15 SECONDS WITH ALL SWITCHES DOWN.

8.2 STACK POINTER

STACK IS INITALLY SET TO 600

8.3 POWER FAIL

EACH TEST CAN BE POWER FAILED WITH NO ERRORS EXCEPT ON THE FEC AND FEA. TO USE, START THE TEST AS USUAL AND POWER DOWN THEN UP AT ANY TIME. THE PROGRAM SHOULD TYPE "POWER" AND CONTINUE TO RUN WITH NO OTHER TYPEOUTS.

9. PROGRAM DESCRIPTION

THESE PROGRAMS TEST ALL THE INSTRUCTIONS ON THE FP11 IN ALL MODES. EACH PROGRAM HAS MANY SUBTESTS (THE CODE BETWEEN 2 SCOPE STATEMENTS) WHICH ARE RUN 256 TIMES BEFORE CONTINUING TO THE NEXT. SW<11> ON A 1 CAUSES EACH SUBTEST TO BE RUN ONLY ONCE. SW<9> ON A 1 ENABLES LOOP ON ERROR. THE ADDRESS ICNT (LOC 1000) AND DISPLAY REGISTER ON THE 11/45 EACH CONTAIN THE ITERATION COUNT IN THE LEFT BYTE AND THE TEST NUMBER IN THE RIGHT BYTE. ALL THE SUBTESTS SHOULD BE RUN SEQUENTIALLY BY STARTING AT 200 NOT BY STARTING AT THE BEGINNING OF THE SUBTEST. TO LOOP ON A PARTICULAR SUBTEST, PUT THE TEST NUMBER (SEE LISTING) IN THE RIGHT BYTE OF THE SWITCH REGISTER AND SW<8> ON A 1. THIS TEST WILL BE LOOPED UPON UNTIL SW<8> IS PUT ON A 0 OR THE RIGHT BYTE IS CHANGED. IF THE TEST IS NON-EXISTANT, THE PROGRAM WILL BE RUN AS USUAL.
.ENDR

.REPT 0

IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DCFPA TO DCFPL
PRODUCT NAME: FP11 BASIC INSTRUCTION TESTS
DATE CREATED: MARCH 12, 1973
MAINTAINER: DIAGNOSTIC GROUP
AUTHORS: BOB BRAIN & KEN CHAPMAN

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DCFPA	LDFPS, STFPS, SETI, SETL SETF, SETD, CFCC
DCFPB	STST
DCFPC	LDF, LDD, STF, STD
DCFPD	ADDF, ADDD, SUBF, SUBD
DCFDE	CMDF, CMPD
DCFPF	MULF, MULD
DCFPG	DIVF, DIVD
DCFPH	CLRF, CLRD, TSTF, TSTD ABSF, ABSD, NEGF, NEGD
DCFPI	LDCFD, LDCDF, STCFD, STCDF
DCFPJ	LDCIF, LDCLF, LDCID, LDCLD STCFI, STCFL, STCDI, STCDL
DCFPK	LDEXP, STEXP
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FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL PAGE 4
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DATA DISPLAY SWITCH TO THE DISPLAY POSITION.

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.END

```
                        .TITLE  MAINDEC-11-DCFPC-B      TEST OF LDF,LDD,STF,STD
                        ;COPYRIGHT 1972, DIGITAL EQUIPMENT CORP., MAYNARD, MASS
                        ;PROGRAM BY BOB BRAIN
                        .REM*

                                SWITCH              USE
                                ------              ---------------------
                                  8                 0 - LOAD UB REGISTER WITH SW<7:0>
                                                    1 - LOOP ON TEST IN SW<7:0>
                                  9                 LOOP ON ERROR
                                 10                 0 - BELL ON PASS COMPLETE
                                                    1 - BELL ON ERROR
                                 11                 INHIBIT ITERATIONS
                                 12                 INHIBIT TRACE TRAP
                                 13                 INHIBIT ERROR TYPEOUTS
                                 14                 LOOP ON TEST
                                 15                 HALT ON ERROR


                        OUTPUT FORM:

                                ADR  FPS  ANS1 ANS2 ANS3 ANS4 ANS5 ANS6 ANS7 ANS8
                                   FEC  FEA


                                     FPS                                    FEC
                                BIT     REASON                          CODE    ERROR
                                ---     ------                          ----    -----
                                  0     CARRY                             0     ADDRESS ERROR
                                  1     OVERFLOW                          2     OPCODE ERROR
                                  2     ZERO                              4     DIVIDE BY ZERO
                                  3     NEGATIVE                          6     CONVERSION ERROR
                                  4     MAINTAINANCE MODE                10     OVERFLOW
                                  5     TRUNCATE MODE                    12     UNDERFLOW
                                  6     LONG INTEGER MODE                14     UNDEFINED VARIABLE (-D)
                                  7     DOUBLE PRECISION MODE            16     UBREAK TRAP
                                  8     INTERUPT ON CONVERSION ERROR
                                  9     INTERUPT ON OVERFLOW
                                 10     INTERUPT ON UNDERFLOW
                                 11     INTERUPT ON UNDEFINED VARIABLE
                                 12
                                 13
                                 14     INTERUPT DISABLE
                                 15     ERROR FLAG*
```

```
                                .ENABL  ABS
000001                          N=      1
177776                          PS=     177776
177570                          SWR=    177570
177570                          DISPLAY=SWR
104400                          SCOPE=  TRAP
104000                          HLT=    EMT
000004                          TYPE=   IOT
000007                          BELL=   7
000000                          FPS=    %0
000000                          R0=     %0
000001                          R1=     %1
000002                          R2=     %2
000003                          R3=     %3
000004                          R4=     %4
000005                          R5=     %5
000005                          TTY=    %5
000006                          SP=     %6
000007                          PC=     %7
000000                          AC0=    %0
000001                          AC1=    %1
000002                          AC2=    %2
000003                          AC3=    %3
000004                          AC4=    %4
000005                          AC5=    %5
100000                          SW15=   100000
040000                          SW14=    40000
020000                          SW13=    20000
010000                          SW12=    10000
004000                          SW11=     4000
002000                          SW10=     2000
001000                          SW09=     1000
000400                          SW08=      400
170003                          LDUB=   170003
170005                          STA0=   170005
170007                          STQ0=   170007
170006                          MRS=    170006
170004                          LDSC=   170004

                        000000          .=      0                       ;TRAP CATCHER FROM 0 - 776

                        000200          .=      200

000200  000167  000622                  JMP     BEG

                        000760          .=      760
000760  170200                  FLTERR: STFPS   FPS
000762  170367  000034                  STST    FEC
000766  000000                          HALT
000770  000002                          RTI
```

```
                001000                  .=      1000

        001000  000000          ICNT:  0                       ;ITERATION COUNT - LH   TEST NO. - RH
        001002  000000          ANS1:  0                       ;FIRST ANSWER (SEE CODE)
        001004  000000          ANS2:  0
        001006  000000          ANS3:  0
        001010  000000          ANS4:  0
        001012  000000          ANS5:  0
        001014  000000          ANS6:  0
        001016  000000          ANS7:  0
        001020  000000          ANS8:  0
        001022  000000          FEC:   0                       ;FLOATING EXCEPTION CODES
        001024  000000          FEA:   0                       ;FLOATING EXECPTION ADDRESS

        001026  012706  000600  BEG:   MOV     #600,SP         ;** STACK AT 600 **
        001032  012737  001054  000004 MOV     #M1120,@#4      ;FIND OUT WHICH MACHINE THIS IS
        001040  005737  177772         TST     @#177772        ;IS PIRQ THERE?
        001044  012767  000006  013704 MOV     #6,YESRT        ;FUDGE IN RTT IF 11/45
        001052  000403                 BR      BEGIN

        001054  016737  015040  000010 M1120: MOV     FPTADR,@#10     ;LOAD THE ILLEGAL INSTRUCTION VECTOR
                                                                ; WITH THE ADDRESS OF THE FPU.
                                                                ; THE FPU WILL HANDLE THE BAD OPCODES
        001062  012737  000006  000004 BEGIN: MOV     #6,@#4          ;RESET 4
        001070  012706  000600         MOV     #600,SP
        001074  012737  014756  000014 MOV     #YESRT,@#14     ;SET TRACE TRAP VECTOR
        001102  012777  015616  015016 MOV     #POWDWN,@DWNVEC
        001110  012777  000340  015012 MOV     #340,@DWNVEC+2
        001116  012737  016016  000020 MOV     #.IOT,@#20      ;SET UP VECTOR 20
        001124  012700  000030         MOV     #30,R0          ;SET R0 TO VECTOR 30
        001130  012720  015120         MOV     #.TRP,(0)+      ;SET EMT VECTOR
        001134  012720  000340         MOV     #340,(0)+
        001140  012720  014760         MOV     #.EMT,(0)+      ;SET TRAP VECTOR
        001144  012710  000340         MOV     #340,(0)
        001150  012777  000760  014744 MOV     #FLTERR,@FPVECT ;LOAD INTERUPT VECTOR
        001156  012777  000340  014740 MOV     #340,@FPVECT+2  ;LOCK UP PROCESSOR
        001164  005067  177610         CLR     ICNT
        001170  005067  014746         CLR     LAD
```

```
                        ;*****************************************************************************
                        ;TEST 1          LDF AND STF OF -1,-1
                        ;    USING AC0    FPS = 47410    FEC = N/A
                        ;*****************************************************************************

001174  104400                  SCOPE
001176  170127  047400          LDFPS   #47410$57760
001202  172467  000020          LDF     N1,0            ;LOAD -1,-1 INTO 0
001206  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
001210  022700  047410          CMP     #47410,FPS      ;CHECK FLOATING POINT STATUS
001214  001401                  BEQ     .+4             ;BRANCH IF OK
001216  104000                  HLT                     ;FPS NOT EQUAL TO 47410

001220  174067  177556          STF     0,ANS1          ;STORE -1,-1
001224  000402                  BR      01

001226  177777          N1:     -1                      ;ANS1 = -1
001230  177777                  -1                      ;ANS2 = -1

001232  022767  177777  177542  01:     CMP     #-1,ANS1        ;IS IT -1?
001240  001401                  BEQ     .+4
001242  104002                  HLT+2                   ;ANS1 NOT EQUAL TO -1

001244  022767  177777  177532          CMP     #-1,ANS2        ;IS IT -1?
001252  001401                  BEQ     .+4
001254  104002                  HLT+2                   ;ANS2 NOT EQUAL TO -1
```

```
                                ;*****************************************************************
                                ;TEST 2          LDF AND STF OF 0.0
                                ;    USING AC1    FPS = 47404    FEC = N/A
                                ;*****************************************************************

001256  104400                          SCOPE
001260  170127  047400                  LDFPS   #47404&57760
001264  172567  000020                  LDF     N2,1                    ;LOAD 0.0 INTO 1
001270  170200                          STFPS   FPS                     ;STORE FLOATING POINT STATUS
001272  022700  047404                  CMP     #47404,FPS              ;CHECK FLOATING POINT STATUS
001276  001401                          BEQ     .+4                     ;BRANCH IF OK
001300  104000                          HLT                             ;FPS NOT EQUAL TO 47404

001302  174167  177474                  STF     1,ANS1                  ;STORE 0.0
001306  000402                          BR      02

001310  000000                  N2:     0                               ;ANS1 = 0
001312  000000                          0                               ;ANS2 = 0

001314  022767  000000  177460  02:     CMP     #0,ANS1                 ;IS IT 0?
001322  001401                          BEQ     .+4
001324  104002                          HLT+2                           ;ANS1 NOT EQUAL TO 0

001326  022767  000000  177450          CMP     #0,ANS2                 ;IS IT 0?
001334  001401                          BEQ     .+4
001336  104002                          HLT+2                           ;ANS2 NOT EQUAL TO 0
```

```
                        ;*****************************************************************
                        ;TEST 3         LDF AND STF OF 125252,125252
                        ;    USING AC2    FPS = 47410    FEC = N/A
                        ;*****************************************************************

001340  104400                  SCOPE
001342  170127  047400          LDFPS   #47410&57760
001346  172667  000020          LDF     N3,2            ;LOAD 125252,125252 INTO 2
001352  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
001354  022700  047410          CMP     #47410,FPS      ;CHECK FLOATING POINT STATUS
001360  001401                  BEQ     .+4             ;BRANCH IF OK
001362  104000                  HLT                     ;FPS NOT EQUAL TO 47410

001364  174267  177412          STF     2,ANS1          ;STORE 125252,125252
001370  000402                  BR      03

001372  125252          N3:     125252                  ;ANS1 = 125252
001374  125252                  125252                  ;ANS2 = 125252

001376  022767  125252  177376  03:     CMP     #125252,ANS1    ;IS IT 125252?
001404  001401                  BEQ     .+4
001406  104002                  HLT+2                   ;ANS1 NOT EQUAL TO 125252

001410  022767  125252  177366          CMP     #125252,ANS2    ;IS IT 125252?
001416  001401                  BEQ     .+4
001420  104002                  HLT+2                   ;ANS2 NOT EQUAL TO 125252
```

```
                        ;*****************************************************************
                        ;TEST 4         LDF AND STF OF 52525,52525
                        ;    USING AC3    FPS = 47400    FEC = N/A
                        ;*****************************************************************

001422  104400                  SCOPE
001424  170127  047400          LDFPS   #47400&57760
001430  172767  000020          LDF     N4,3            ;LOAD 52525,52525 INTO 3
001434  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
001436  022700  047400          CMP     #47400,FPS      ;CHECK FLOATING POINT STATUS
001442  001401                  BEQ     .+4             ;BRANCH IF OK
001444  104000                  HLT                     ;FPS NOT EQUAL TO 47400

001446  174367  177330          STF     3,ANS1          ;STORE 52525,52525
001452  000402                  BR      04

001454  052525          N4:     52525                   ;ANS1 = 52525
001456  052525                  52525                   ;ANS2 = 52525

001460  022767  052525  177314  04:     CMP     #52525,ANS1     ;IS IT 52525?
001466  001401                  BEQ     .+4
001470  104002                  HLT+2                   ;ANS1 NOT EQUAL TO 52525

001472  022767  052525  177304          CMP     #52525,ANS2     ;IS IT 52525?
001500  001401                  BEQ     .+4
001502  104002                  HLT+2                   ;ANS2 NOT EQUAL TO 52525
```

```
                        ;*****************************************************************
                        ;TEST 5         LDF AND STF OF 100000,0
                        ;    USING AC0    FPS = 14    FEC = N/A
                        ;*****************************************************************

001504  104400                  SCOPE
001506  170127  000000          LDFPS   #14&57760
001512  172467  000020          LDF     N5,0            ;LOAD 100000,0 INTO 0
001516  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
001520  022700  000014          CMP     #14,FPS         ;CHECK FLOATING POINT STATUS
001524  001401                  BEQ     .+4             ;BRANCH IF OK
001526  104000                  HLT                     ;FPS NOT EQUAL TO 14

001530  174067  177246          STF     0,ANS1          ;STORE 100000,0
001534  000402                  BR      05

001536  100000          N5:     100000                  ;ANS1 = 100000
001540  000000                  0                       ;ANS2 = 0

001542  022767  100000  177232  05:     CMP     #100000,ANS1    ;IS IT 100000?
001550  001401                  BEQ     .+4
001552  104002                  HLT+2                   ;ANS1 NOT EQUAL TO 100000

001554  022767  000000  177222          CMP     #0,ANS2         ;IS IT 0?
001562  001401                  BEQ     .+4
001564  104002                  HLT+2                   ;ANS2 NOT EQUAL TO 0
```

```
                        ;*************************************************************************
                        ;TEST 6          LDF AND STF OF 100000,0
                        ;    USING AC0    FPS = 147414    FEC = 14
                        ;*************************************************************************

001566  104400                        SCOPE
001570  170127  047400                LDFPS   #147414&57760
001574  172467  000036                LDF     N6,0            ;LOAD 100000,0 INTO 0
001600  170200                        STFPS   FPS             ;STORE FLOATING POINT STATUS
001602  170367  177214                STST    FEC             ;STORE EXCEPTION CODES
001606  022700  147414                CMP     #147414,FPS     ;CHECK FLOATING POINT STATUS
001612  001401                        BEQ     .+4             ;BRANCH IF OK
001614  104000                        HLT                     ;FPS NOT EQUAL TO 147414

001616  022767  000014  177176        CMP     #14,    FEC     ;CHECK FLOATING EXCEPTION CODE
001624  001401                        BEQ     .+4             ;BRANCH IF OK
001626  104000                        HLT                     ;FEC NOT EQUAL TO 14

001630  174067  177146                STF     0,ANS1          ;STORE 100000,0
001634  000402                        BR      06

001636  100000                N6:     100000                  ;ANS1 = 100000
001640  000000                        0                       ;ANS2 = 0

001642  022767  100000  177132  06:   CMP     #100000,ANS1    ;IS IT 100000?
001650  001401                        BEQ     .+4
001652  104002                        HLT+2                   ;ANS1 NOT EQUAL TO 100000

001654  022767  000000  177122        CMP     #0,ANS2         ;IS IT 0?
001662  001401                        BEQ     .+4
001664  104002                        HLT+2                   ;ANS2 NOT EQUAL TO 0
```

```
                        ;*****************************************************************
                        ;TEST 7          TEST OF MODE 2 REG 7
                        ;*****************************************************************

001666  104400                  SCOPE
001670  170127  047400          LDFPS   #47400
001674  172427          ANX7:   LDF     (7)+,0          ;LOAD AC0 WITH NEXT LOCATION
001676  125252                  125252                  ;LOAD 125252 INTO AC0
001700  000401                  BR      .+4
001702  000000                  HALT                    ;FPU PICKED UP 2 WORDS
001704  174027  000000  ANY7:   STF     0,#0            ;STORE AC0 IN ANY7+2
001710  000401                  BR      .+4
001712  000000                  HALT                    ;FPU WROTE 2 WORDS

001714  022767  125252  177764        CMP     #125252,ANY7+2  ;CHECK FOR 125252
001722  001404                  BEQ     NER7
001724  016767  177756  177050        MOV     ANY7+2,ANS1     ;SET UP ANSWER AREA
001732  104001                  HLT+1

001734  174067  177042  NER7:   STF     0,ANS1          ;GET RESULT AGAIN
001740  022767  125252  177034        CMP     #125252,ANS1            ;IS IT 125252?
001746  001401                  BEQ     .+4
001750  104002                  HLT+2                   ;NOT EQUAL TO 125252

001752  005767  177026          TST     ANS2            ;SECOND WORD SHOULD BE ZERO
001756  001401                  BEQ     .+4
001760  104002                  HLT+2                   ;NOT ZERO
```

```
                        ;*****************************************************************
                        ;TEST 10                TEST OF MODE 1 REG 1 AND 2
                        ;*****************************************************************

001762  104400                          SCOPE
001764  170127  047400                  LDFPS   #47400
001770  012701  002006                  MOV     #NU10,%1        ;LOAD R1 WITH ADDRESS OF DATA
001774  012702  001002                  MOV     #ANS1,%2        ;SET UP ANSWER AREA
002000  172411                          LDF     (1),0           ;LOAD NU10 INTO R0
002002  174012                          STF     0,(2)           ;STORE IT INTO ANS1
002004  000402                          BR      .+10

002006  125252  125252          NU10:   .125252,125252                  ;DATA TO BE LOADED

002012  022767  125252  176762  .10:    CMP     #125252,ANS1    ;LEFT HALF = 125252?
002020  001401                          BEQ     .+4
002022  104002                          HLT+2                   ;LEFT HALF # 125252

002024  022767  125252  176752          CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002032  001401                          BEQ     .+4
002034  104002                          HLT+2                   ;RIGHT HALF # 125252

002036  022701  002006                  CMP     #NU10,%1        ;DID IT CHANGE R1?
002042  001403                          BEQ     MER10
002044  010167  176732                  MOV     %1,ANS1
002050  104001                          HLT+1                   ;;SURE DID

002052  022702  001002          MER10:  CMP     #ANS1,%2        ;DID IT CHANGE R2?
002056  001403                          BEQ     NER10
002060  010267  176716                  MOV     %2,ANS1
002064  104001                          HLT+1                   ;SURE DID
002066                          NER10:
```

```
                        ;*****************************************************************
                        ;TEST 11                TEST OF MODE 2 REG 1 AND 2
                        ;*****************************************************************

002066  104400                          SCOPE
002070  170127  047400                  LDFPS   #47400
002074  012701  002112                  MOV     #NU11,%1        ;LOAD FIRST ADDRESS
002100  012702  001002                  MOV     #ANS1,%2        ;SET UP STORE ADDRESS
002104  172421                          LDF     (1)+,0          ;LOAD NU11 INTO R0
002106  174022                          STF     0,(2)+          ;STORE IT INTO ANS1
002110  000402                          BR      011

002112  125252  125252          NU11:   125252,125252                   ;DATA TO BE LOADED

002116  022767  125252  176656  011:    CMP     #125252,ANS1    ;LEFT HALF = 125252?
002124  001401                          BEQ     .+4
002126  104002                          HLT+2                   ;LEFT HALF # 125252

002130  022767  125252  176646          CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002136  001401                          BEQ     .+4
002140  104002                          HLT+2                   ;RIGHT HALF # 125252

002142  022701  002116                  CMP     #NU11+4,%1      ;DID IT CHANGE R1?
002146  001403                          BEQ     MER11
002150  010167  176626                  MOV     %1,ANS1
002154  104001                          HLT+1                   ;R1 IS WRONG

002156  022702  001006          MER11:  CMP     #ANS3,%2        ;DID IT CHANGE R2?
002162  001403                          BEQ     NER11
002164  010267  176612                  MOV     %2,ANS1
002170  104001                          HLT+1                   ;R2 IS WRONG
002172                          NER11:
```

```
                        ;*****************************************************************
                        ;TEST 12                TEST OF MODE 3 REG 1 AND 2
                        ;*****************************************************************

002172  104400                          SCOPE
002174  170127  047400                  LDFPS   #47400
002200  012701  002222                  MOV     #MU12,%1        ;LOAD FIRST ADDRESS
002204  012702  002224                  MOV     #MO12,%2        ;SET UP STORE ADDRESS
002210  172431                          LDF     @(1)+,0         ;LOAD NU12 INTO R0
002212  174032                          STF     0,@(2)+         ;STORE IT INTO ANS1
002214  000404                          BR      012

002216  125252  125252        NU12:   125252,125252                   ;DATA TO BE LOADED
002222  002216                MU12:   NU12                    ;POINTER IN R1
002224  001002                MO12:   ANS1                    ;POINTER IN R2

002226  022767  125252  176546  012:  CMP     #125252,ANS1    ;LEFT HALF = 125252?
002234  001401                        BEQ     .+4
002236  104002                        HLT+2                   ;LEFT HALF # 125252

002240  022767  125252  176536        CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002246  001401                        BEQ     .+4
002250  104002                        HLT+2                   ;RIGHT HALF # 125252

002252  022701  002224                CMP     #MU12+2,%1      ;DID IT CHANGE R1?
002256  001403                        BEQ     MER12
002260  010167  176516                MOV     %1,ANS1
002264  104001                        HLT+1                   ;R1 IS WRONG

002266  022702  002226        MER12:  CMP     #MO12+2,%2      ;DID IT CHANGE R2?
002272  001403                        BEQ     NER12
002274  010267  176502                MOV     %2,ANS1
002300  104001                        HLT+1                   ;R2 IS WRONG
002302                          NER12:
```

```
                        ;*****************************************************************************
                        ;TEST 13                    TEST OF MODE 4 REG 1 AND 2
                        ;*****************************************************************************

002302  104400                      SCOPE
002304  170127  047400              LDFPS   #47400
002310  012701  002332              MOV     #NU13+4,%1      ;LOAD FIRST ADDRESS
002314  012702  001006              MOV     #ANS3,%2        ;SET UP STORE ADDRESS
002320  172441                      LDF     -(1),0          ;LOAD NU13 INTO R0
002322  174042                      STF     0,-(2)          ;STORE IT INTO ANS1
002324  000402                      BR      013

002326  125252  125252      NU13:   125252,125252                   ;DATA TO BE LOADED

002332  022767  125252  176442  013:   CMP     #125252,ANS1    ;LEFT HALF = 125252?
002340  001401                      BEQ     .+4
002342  104002                      HLT+2                   ;LEFT HALF # 125252

002344  022767  125252  176432        CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002352  001401                      BEQ     .+4
002354  104002                      HLT+2                   ;RIGHT HALF # 125252

002356  022701  002326              CMP     #NU13,%1        ;DID IT CHANGE R1?
002362  001403                      BEQ     MER13
002364  010167  176412              MOV     %1,ANS1
002370  104001                      HLT+1                   ;R1 IS WRONG

002372  022702  001002  MER13:      CMP     #ANS1,%2        ;DID IT CHANGE R2?
002376  001403                      BEQ     NER13
002400  010267  176376              MOV     %2,ANS1
002404  104001                      HLT+1                   ;R2 IS WRONG
002406                  NER13:
```

```
                        ;*****************************************************************
                        ;TEST 14                TEST OF MODE 6 REG 1
                        ;*****************************************************************

002406  104400                  SCOPE
002410  170127  047400          LDFPS   #47400
002414  012701  002442          MOV     #NU14+4,%1      ;LOAD R1 WITH ADDRESS OF DATA
002420  012702  001006          MOV     #ANS3,%2        ;SET UP ANSWER AREA
002424  172461  177774          LDF     -4(1),0         ;LOAD NU14 INTO R0
002430  174062  000004          STF     0,4(2)          ;STORE IT INTO ANS1
002434  000402                  BR      014

002436  125252  125252  NU14:   125252,125252                    ;DATA TO BE LOADED

002442  022767  125252  176332  014:    CMP     #125252,ANS1    ;LEFT HALF = 125252?
002450  001401                  BEQ     .+4
002452  104002                  HLT+2                           ;LEFT HALF # 125252

002454  022767  125252  176322          CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002462  001401                  BEQ     .+4
002464  104002                  HLT+2                           ;RIGHT HALF # 125252

002466  022701  002442          CMP     #NU14+4,%1      ;DID IT CHANGE R1?
002472  001403                  BEQ     MER14
002474  010167  176302          MOV     %1,ANS1
002500  104001                  HLT+1                           ::SURE DID

002502  022702  001006  MER14:  CMP     #ANS3,%2        ;DID IT CHANGE R2?
002506  001403                  BEQ     NER14
002510  010267  176266          MOV     %2,ANS1
002514  104001                  HLT+1                           ;SURE DID
002516                  NER14:
```

```
                                ;*****************************************************************
                                ;TEST 15                    TEST OF MODE 7 REG 1 AND 2
                                ;*****************************************************************

002516  104400                          SCOPE
002520  170127  047400                  LDFPS   #47400
002524  012701  002556                  MOV     #MU15+4,%1      ;LOAD FIRST ADDRESS
002530  012702  002550                  MOV     #MO15-4,%2      ;SET UP STORE ADDRESS
002534  172471  177774                  LDF     @-4(1),0        ;LOAD NU15 INTO R0
002540  174072  000004                  STF     0,@4(2)         ;STORE IT INTO ANS1
002544  000404                          BR      015

002546  125252  125252          NU15:   125252,125252                   ;DATA TO BE LOADED
002552  002546                  MU15:   NU15                    ;POINTER IN R1
002554  001002                  MO15:   ANS1                    ;POINTER IN R2

002556  022767  125252  176216  015:    CMP     #125252,ANS1    ;LEFT HALF = 125252?
002564  001401                          BEQ     .+4
002566  104002                          HLT+2                   ;LEFT HALF # 125252

002570  022767  125252  176206          CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002576  001401                          BEQ     .+4
002600  104002                          HLT+2                   ;RIGHT HALF # 125252

002602  022701  002556                  CMP     #MU15+4,%1      ;DID IT CHANGE R1?
002606  001403                          BEQ     MER15
002610  010167  176166                  MOV     %1,ANS1
002614  104001                          HLT+1                   ;R1 IS WRONG

002616  022702  002550          MER15:  CMP     #MO15-4,%2      ;DID IT CHANGE R2?
002622  001403                          BEQ     NER15
002624  010267  176152                  MOV     %2,ANS1
002630  104001                          HLT+1                   ;R2 IS WRONG
002632                          NER15:
```

```
                        ;*************************************************************************
                        ;TEST 16                    TEST OF MODE 2 REG 1 AND 2
                        ;*************************************************************************

002632  104400                      SCOPE
002634  170127  047600              LDFPS   #47600
002640  012701  002656              MOV     #NU16,%1        ;LOAD FIRST ADDRESS
002644  012702  001002              MOV     #ANS1,%2        ;SET UP STORE ADDRESS
002650  172421                      LDD     (1)+,0          ;LOAD NU16 INTO R0
002652  174022                      STD     0,(2)+          ;STORE IT INTO ANS1
002654  000404                      BR      016

002656  125252  125252  125252  NU16:   125252,125252,125252,125252     ;DATA TO BE LOADED
002664  125252

002666  022767  125252  176106  016:    CMP     #125252,ANS1    ;LEFT HALF = 125252?
002674  001401                      BEQ     .+4
002676  104002                      HLT+2                   ;LEFT HALF # 125252

002700  022767  125252  176076          CMP     #125252,ANS2    ;RIGHT HALF = 125252?
002706  001401                      BEQ     .+4
002710  104002                      HLT+2                   ;RIGHT HALF # 125252

002712  022767  125252  176066          CMP     #125252,ANS3    ;LEFT HALF = 125252?
002720  001401                      BEQ     .+4
002722  104004                      HLT+4                   ;LEFT HALF # 125252

002724  022767  125252  176056          CMP     #125252,ANS4    ;RIGHT HALF = 125252?

002732  001401                      BEQ     .+4
002734  104004                      HLT+4                   ;RIGHT HALF # 125252
002736  022701  002666              CMP     #NU16+8.,%1     ;DID IT CHANGE R1?
002742  001403                      BEQ     MER16
002744  010167  176032              MOV     %1,ANS1
002750  104001                      HLT+1                   ;R1 IS WRONG

002752  022702  001012      MER16:  CMP     #ANS5,%2        ;DID IT CHANGE R2?
002756  001403                      BEQ     NER16
002760  010267  176016              MOV     %2,ANS1
002764  104001                      HLT+1                   ;R2 IS WRONG
002766                      NER16:
```

```
                                        ;*****************************************************************
                                        ;TEST 17                    TEST OF MODE 2 REG 7    DOUBLE MODE
                                        ;*****************************************************************

002766  104400                                  SCOPE
002770  170127  047600                          LDFPS   #47600
002774  172427                  ANX17:          LDF     (7)+,0                  ;LOAD AC0 WITH NEXT LOCATION
002776  125252                                  125252                          ;LOAD 125252 INTO AC0
003000  000403                                  BR      .+10
003002  000000                                  HALT                            ;FPU PICKED UP 2 WORDS
003004  000000                                  HALT
003006  000000                                  HALT
003010  174027  000000          ANY17:          STF     0,#0                    ;STORE AC0 IN ANY17+2
003014  000403                                  BR      .+10
003016  000000                                  HALT                            ;FPU WROTE 2 WORDS
003020  000000                                  HALT
003022  000000                                  HALT

003024  022767  125252  177760                  CMP     #125252,ANY17+2 ;CHECK FOR 125252
003032  001404                                  BEQ     NER17
003034  016767  177752  175740                  MOV     ANY17+2,ANS1            ;SET UP ANSWER AREA
003042  104001                                  HLT+1

003044  174067  175732          NER17:          STF     0,ANS1                  ;GET RESULT AGAIN
003050  022767  125252  175724                  CMP     #125252,ANS1                    ;IS IT 125252?
003056  001401                                  BEQ     .+4
003060  104004                                  HLT+4                           ;NOT EQUAL TO 125252

003062  005767  175716                          TST     ANS2                    ;SECOND WORD SHOULD BE ZERO
003066  001401                                  BEQ     .+4
003070  104004                                  HLT+4                           ;NOT ZERO

003072  005767  175710                          TST     ANS3                    ;THIRD WORD OK?
003076  001401                                  BEQ     .+4
003100  104004                                  HLT+4                           ;NOT 0

003102  005767  175702                          TST     ANS4                    ;4TH WORD OK?
003106  001401                                  BEQ     .+4
003110  104004                                  HLT+4                           ;NOT 0
```

```
                                   ;*********************************************************************
                                   ;TEST 20                          LDD AND STD 0,0,0,0
                                   :    USING AC0 AND AC4     FPS = 47604     FEC = N/A
                                   ;*********************************************************************
003112  104400                              SCOPE
003114  170127  047600                      LDFPS   #47604&57760
003120  172467  000020                      LDD     N20,0                   ;LOAD 0,0,0,0 INTO 0
003124  170200                              STFPS   FPS                     ;STORE FLOATING POINT STATUS
003126  022700  047604                      CMP     #47604,FPS              ;CHECK FLOATING POINT STATUS
003132  001401                              BEQ     .+4                     ;BRANCH IF OK
003134  104000                              HLT                             ;FPS NOT EQUAL TO 47604

003136  174067  175640                      STD     0,ANS1                  ;STORE 0,0,0,0
003142  000404                              BR      020

003144  000000  000000  000000  N20:        0,0,0,0
003152  000000
003154  022767  000000  175620  020:        CMP     #0,ANS1                 ;IS IT 0?
003162  001401                              BEQ     .+4
003164  104004                              HLT+4                           ;ANS1 NOT EQUAL TO 0

003166  022767  000000  175610              CMP     #0,ANS2                 ;IS IT 0?
003174  001401                              BEQ     .+4
003176  104004                              HLT+4                           ;ANS2 NOT EQUAL TO 0

003200  022767  000000  175600              CMP     #0,ANS3                 ;IS IT 0?
003206  001401                              BEQ     .+4
003210  104004                              HLT+4                           ;ANS3 NOT EQUAL TO 0

003212  022767  000000  175570              CMP     #0,ANS4                 ;IS IT 0?
003220  001401                              BEQ     .+4
003222  104004                              HLT+4                           ;ANS4 NOT EQUAL TO 0

003224  174004                              STD     0,%4                    ;STORE AC0 INTO AC4
003226  172404                              LDD     %4,0                    ;LOAD AC4 INTO AC0
003230  174067  175546                      STD     0,ANS1                  ;STORE IT AGAIN

003234  022767  000000  175540              CMP     #0,ANS1                 ;IS IT 0?
003242  001401                              BEQ     .+4
003244  104004                              HLT+4                           ;ANS1 NOT EQUAL TO 0

003246  022767  000000  175530              CMP     #0,ANS2                 ;IS IT 0?
003254  001401                              BEQ     .+4
003256  104004                              HLT+4                           ;ANS2 NOT EQUAL TO 0

003260  022767  000000  175520              CMP     #0,ANS3                 ;IS IT 0?
003266  001401                              BEQ     .+4
003270  104004                              HLT+4                           ;ANS3 NOT EQUAL TO 0

003272  022767  000000  175510              CMP     #0,ANS4                 ;IS IT 0?
003300  001401                              BEQ     .+4
003302  104004                              HLT+4                           ;ANS4 NOT EQUAL TO 0
```

```
                                ;*****************************************************************
                                ;TEST 21                LDD AND STD -1,-1,-1,-1
                                ;    USING AC0 AND AC4    FPS = 47610    FEC = N/A
                                ;*****************************************************************

003304  104400                          SCOPE
003306  170127  047600                  LDFPS   #47610&57760
003312  172467  000020                  LDD     N21,0           ;LOAD -1,-1,-1,-1 INTO 0
003316  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
003320  022700  047610                  CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
003324  001401                          BEQ     .+4             ;BRANCH IF OK
003326  104000                          HLT                     ;FPS NOT EQUAL TO 47610

003330  174067  175446                  STD     0,ANS1          ;STORE -1,-1,-1,-1
003334  000404                          BR      021

003336  177777  177777  177777  N21:    -1,-1,-1,-1
003344  177777
003346  022767  177777  175426  021:    CMP     #-1,ANS1        ;IS IT -1?
003354  001401                          BEQ     .+4
003356  104004                          HLT+4                   ;ANS1 NOT EQUAL TO -1

003360  022767  177777  175416          CMP     #-1,ANS2        ;IS IT -1?
003366  001401                          BEQ     .+4
003370  104004                          HLT+4                   ;ANS2 NOT EQUAL TO -1

003372  022767  177777  175406          CMP     #-1,ANS3        ;IS IT -1?
003400  001401                          BEQ     .+4
003402  104004                          HLT+4                   ;ANS3 NOT EQUAL TO -1

003404  022767  177777  175376          CMP     #-1,ANS4        ;IS IT -1?
003412  001401                          BEQ     .+4
003414  104004                          HLT+4                   ;ANS4 NOT EQUAL TO -1

003416  174004                          STD     0,%4            ;STORE AC0 INTO AC4
003420  172404                          LDD     %4,0            ;LOAD AC4 INTO AC0
003422  174067  175354                  STD     0,ANS1          ;STORE IT AGAIN

003426  022767  177777  175346          CMP     #-1,ANS1        ;IS IT -1?
003434  001401                          BEQ     .+4
003436  104004                          HLT+4                   ;ANS1 NOT EQUAL TO -1

003440  022767  177777  175336          CMP     #-1,ANS2        ;IS IT -1?
003446  001401                          BEQ     .+4
003450  104004                          HLT+4                   ;ANS2 NOT EQUAL TO -1

003452  022767  177777  175326          CMP     #-1,ANS3        ;IS IT -1?
003460  001401                          BEQ     .+4
003462  104004                          HLT+4                   ;ANS3 NOT EQUAL TO -1

003464  022767  177777  175316          CMP     #-1,ANS4        ;IS IT -1?
003472  001401                          BEQ     .+4
003474  104004                          HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                        ;*************************************************************************
                                        ;TEST 22                    LDD AND STD 125252,125252,125252,125252
                                        ;    USING AC0 AND AC4    FPS = 47610    FEC = N/A
                                        ;*************************************************************************
003476  104400                                  SCOPE
003500  170127  047600                          LDFPS   #47610&57760
003504  172467  000020                          LDD     N22,0           ;LOAD 125252,125252,125252,125252 INTO 0
003510  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
003512  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
003516  001401                                  BEQ     .+4             ;BRANCH IF OK
003520  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

003522  174067  175254                          STD     0,ANS1          ;STORE 125252,125252,125252,125252
003526  000404                                  BR      022

003530  125252  125252  125252  N22:    125252,125252,125252,125252
003536  125252
003540  022767  125252  175234  022:    CMP     #125252,ANS1    ;IS IT 125252?
003546  001401                          BEQ     .+4
003550  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

003552  022767  125252  175224          CMP     #125252,ANS2    ;IS IT 125252?
003560  001401                          BEQ     .+4
003562  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

003564  022767  125252  175214          CMP     #125252,ANS3    ;IS IT 125252?
003572  001401                          BEQ     .+4
003574  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

003576  022767  125252  175204          CMP     #125252,ANS4    ;IS IT 125252?
003604  001401                          BEQ     .+4
003606  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

003610  174004                          STD     0,%4            ;STORE AC0 INTO AC4
003612  172404                          LDD     %4,0            ;LOAD AC4 INTO AC0
003614  174067  175162                  STD     0,ANS1          ;STORE IT AGAIN

003620  022767  125252  175154          CMP     #125252,ANS1    ;IS IT 125252?
003626  001401                          BEQ     .+4
003630  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

003632  022767  125252  175144          CMP     #125252,ANS2    ;IS IT 125252?
003640  001401                          BEQ     .+4
003642  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

003644  022767  125252  175134          CMP     #125252,ANS3    ;IS IT 125252?
003652  001401                          BEQ     .+4
003654  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

003656  022767  125252  175124          CMP     #125252,ANS4    ;IS IT 125252?
003664  001401                          BEQ     .+4
003666  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                ;*****************************************************************
                                ;TEST 23                LDD AND STD 52525,52525,52525,52525
                                ;    USING AC0 AND AC4    FPS = 47600    FEC = N/A
                                ;*****************************************************************
003670  104400                          SCOPE
003672  170127  047600                  LDFPS   #47600&57760
003676  172467  000020                  LDD     N23,0           ;LOAD 52525,52525,52525,52525 INTO 0
003702  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
003704  022700  047600                  CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
003710  001401                          BEQ     .+4             ;BRANCH IF OK
003712  104000                          HLT                     ;FPS NOT EQUAL TO 47600

003714  174067  175062                  STD     0,ANS1          ;STORE 52525,52525,52525,52525
003720  000404                          BR      023

003722  052525  052525  052525  N23:    52525,52525,52525,52525
003730  052525
003732  022767  052525  175042  023:    CMP     #52525,ANS1     ;IS IT 52525?
003740  001401                          BEQ     .+4
003742  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

003744  022767  052525  175032          CMP     #52525,ANS2     ;IS IT 52525?
003752  001401                          BEQ     .+4
003754  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

003756  022767  052525  175022          CMP     #52525,ANS3     ;IS IT 52525?
003764  001401                          BEQ     .+4
003766  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

003770  022767  052525  175012          CMP     #52525,ANS4     ;IS IT 52525?
003776  001401                          BEQ     .+4
004000  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525

004002  174004                          STD     0,%4            ;STORE AC0 INTO AC4
004004  172404                          LDD     %4,0            ;LOAD AC4 INTO AC0
004006  174067  174770                  STD     0,ANS1          ;STORE IT AGAIN

004012  022767  052525  174762          CMP     #52525,ANS1     ;IS IT 52525?
004020  001401                          BEQ     .+4
004022  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

004024  022767  052525  174752          CMP     #52525,ANS2     ;IS IT 52525?
004032  001401                          BEQ     .+4
004034  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

004036  022767  052525  174742          CMP     #52525,ANS3     ;IS IT 52525?
004044  001401                          BEQ     .+4
004046  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

004050  022767  052525  174732          CMP     #52525,ANS4     ;IS IT 52525?
004056  001401                          BEQ     .+4
004060  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*********************************************************************
                                        ;TEST 24                    LDD AND STD 0,0,0,0
                                        ;      USING AC1 AND AC4    FPS = 47604     FEC = N/A
                                        ;*********************************************************************
004062  104400                                  SCOPE
004064  170127  047600                          LDFPS   #47604&57760
004070  172567  000020                          LDD     N24,1                   ;LOAD 0,0,0,0 INTO 1
004074  170200                                  STFPS   FPS                     ;STORE FLOATING POINT STATUS
004076  022700  047604                          CMP     #47604,FPS              ;CHECK FLOATING POINT STATUS
004102  001401                                  BEQ     .+4                     ;BRANCH IF OK
004104  104000                                  HLT                             ;FPS NOT EQUAL TO 47604

004106  174167  174670                          STD     1,ANS1                  ;STORE 0,0,0,0
004112  000404                                  BR      024

004114  000000  000000  000000  N24:            0,0,0,0
004122  000000
004124  022767  000000  174650  024:            CMP     #0,ANS1                 ;IS IT 0?
004132  001401                                  BEQ     .+4
004134  104004                                  HLT+4                           ;ANS1 NOT EQUAL TO 0

004136  022767  000000  174640                  CMP     #0,ANS2                 ;IS IT 0?
004144  001401                                  BEQ     .+4
004146  104004                                  HLT+4                           ;ANS2 NOT EQUAL TO 0

004150  022767  000000  174630                  CMP     #0,ANS3                 ;IS IT 0?
004156  001401                                  BEQ     .+4
004160  104004                                  HLT+4                           ;ANS3 NOT EQUAL TO 0

004162  022767  000000  174620                  CMP     #0,ANS4                 ;IS IT 0?
004170  001401                                  BEQ     .+4
004172  104004                                  HLT+4                           ;ANS4 NOT EQUAL TO 0

004174  174104                                  STD     1,%4                    ;STORE AC1 INTO AC4
004176  172504                                  LDD     %4,1                    ;LOAD AC4 INTO AC1
004200  174167  174576                          STD     1,ANS1                  ;STORE IT AGAIN

004204  022767  000000  174570                  CMP     #0,ANS1                 ;IS IT 0?
004212  001401                                  BEQ     .+4
004214  104004                                  HLT+4                           ;ANS1 NOT EQUAL TO 0

004216  022767  000000  174560                  CMP     #0,ANS2                 ;IS IT 0?
004224  001401                                  BEQ     .+4
004226  104004                                  HLT+4                           ;ANS2 NOT EQUAL TO 0

004230  022767  000000  174550                  CMP     #0,ANS3                 ;IS IT 0?
004236  001401                                  BEQ     .+4
004240  104004                                  HLT+4                           ;ANS3 NOT EQUAL TO 0

004242  022767  000000  174540                  CMP     #0,ANS4                 ;IS IT 0?
004250  001401                                  BEQ     .+4
004252  104004                                  HLT+4                           ;ANS4 NOT EQUAL TO 0
```

```
                        ;*************************************************************************
                        ;TEST 25                LDD AND STD -1,-1,-1,-1
                        ;    USING AC1 AND AC4    FPS = 47610    FEC = N/A
                        ;*************************************************************************
004254  104400                  SCOPE
004256  170127  047600          LDFPS   #47610&57760
004262  172567  000020          LDD     N25,1           ;LOAD -1,-1,-1,-1 INTO 1
004266  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
004270  022700  047610          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
004274  001401                  BEQ     .+4             ;BRANCH IF OK
004276  104000                  HLT                     ;FPS NOT EQUAL TO 47610

004300  174167  174476          STD     1,ANS1          ;STORE -1,-1,-1,-1
004304  000404                  BR      025

004306  177777  177777  177777  N25:    -1,-1,-1,-1
004314  177777
004316  022767  177777  174456  025:    CMP     #-1,ANS1        ;IS IT -1?
004324  001401                  BEQ     .+4
004326  104004                  HLT+4                   ;ANS1 NOT EQUAL TO -1

004330  022767  177777  174446          CMP     #-1,ANS2        ;IS IT -1?
004336  001401                  BEQ     .+4
004340  104004                  HLT+4                   ;ANS2 NOT EQUAL TO -1

004342  022767  177777  174436          CMP     #-1,ANS3        ;IS IT -1?
004350  001401                  BEQ     .+4
004352  104004                  HLT+4                   ;ANS3 NOT EQUAL TO -1

004354  022767  177777  174426          CMP     #-1,ANS4        ;IS IT -1?
004362  001401                  BEQ     .+4
004364  104004                  HLT+4                   ;ANS4 NOT EQUAL TO -1

004366  174104                  STD     1,%4            ;STORE AC1 INTO AC4
004370  172504                  LDD     %4,1            ;LOAD AC4 INTO AC1
004372  174167  174404          STD     1,ANS1          ;STORE IT AGAIN

004376  022767  177777  174376          CMP     #-1,ANS1        ;IS IT -1?
004404  001401                  BEQ     .+4
004406  104004                  HLT+4                   ;ANS1 NOT EQUAL TO -1

004410  022767  177777  174366          CMP     #-1,ANS2        ;IS IT -1?
004416  001401                  BEQ     .+4
004420  104004                  HLT+4                   ;ANS2 NOT EQUAL TO -1

004422  022767  177777  174356          CMP     #-1,ANS3        ;IS IT -1?
004430  001401                  BEQ     .+4
004432  104004                  HLT+4                   ;ANS3 NOT EQUAL TO -1

004434  022767  177777  174346          CMP     #-1,ANS4        ;IS IT -1?
004442  001401                  BEQ     .+4
004444  104004                  HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                ;*************************************************************************
                                ;TEST 26                LDD AND STD 125252,125252,125252,125252
                                ;    USING AC1 AND AC4    FPS = 47610    FEC = N/A
                                ;*************************************************************************
004446  104400                          SCOPE
004450  170127  047600                  LDFPS   #47610&57760
004454  172567  000020                  LDD     N26,1           ;LOAD 125252,125252,125252,125252 INTO 1
004460  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
004462  022700  047610                  CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
004466  001401                          BEQ     .+4             ;BRANCH IF OK
004470  104000                          HLT                     ;FPS NOT EQUAL TO 47610

004472  174167  174304                  STD     1,ANS1          ;STORE 125252,125252,125252,125252
004476  000 ^04                        BR      026

004500  125252  125252  125252  N26:    125252,125252,125252,125252
004506  125252
004510  022767  125252  174264  026:    CMP     #125252,ANS1    ;IS IT 125252?
004516  001401                          BEQ     .+4
004520  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

004522  022767  125252  174254          CMP     #125252,ANS2    ;IS IT 125252?
004530  001401                          BEQ     .+4
004532  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

004534  022767  125252  174244          CMP     #125252,ANS3    ;IS IT 125252?
004542  001401                          BEQ     .+4
004544  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

004546  022767  125252  174234          CMP     #125252,ANS4    ;IS IT 125252?
004554  001401                          BEQ     .+4
004556  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

004560  174104                          STD     1,%4            ;STORE AC1 INTO AC4
004562  172504                          LDD     %4,1            ;LOAD AC4 INTO AC1
004564  174167  174212                  STD     1,ANS1          ;STORE IT AGAIN

004570  022767  125252  174204          CMP     #125252,ANS1    ;IS IT 125252?
004576  001401                          BEQ     .+4
004600  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

004602  022767  125252  174174          CMP     #125252,ANS2    ;IS IT 125252?
004610  001401                          BEQ     .+4
004612  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

004614  022767  125252  174164          CMP     #125252,ANS3    ;IS IT 125252?
004622  001401                          BEQ     .+4
004624  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

004626  022767  125252  174154          CMP     #125252,ANS4    ;IS IT 125252?
004634  001401                          BEQ     .+4
004636  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                        ;*****************************************************************************
                        ;TEST 27                        LDD AND STD 52525,52525,52525,52525
                        ;    USING AC1 AND AC4    FPS = 47600    FEC = N/A
                        ;*****************************************************************************
004640  104400                  SCOPE
004642  170127  047600          LDFPS   #47600&57760
004646  172567  000020          LDD     N27,1           ;LOAD 52525,52525,52525,52525 INTO 1
004652  170200                  STFPS   FPS             ;STORE FLOATING POINT STATUS
004654  022700  047600          CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
004660  001401                  BEQ     .+4             ;BRANCH IF OK
004662  104000                  HLT                     ;FPS NOT EQUAL TO 47600

004664  174167  174112          STD     1,ANS1          ;STORE 52525,52525,52525,52525
004670  000404                  BR      027

004672  052525  052525  052525  N27:    52525,52525,52525,52525
004700  052525
004702  022767  052525  174072  027:    CMP     #52525,ANS1     ;IS IT 52525?
004710  001401                  BEQ     .+4
004712  104004                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

004714  022767  052525  174062          CMP     #52525,ANS2     ;IS IT 52525?
004722  001401                  BEQ     .+4
004724  104004                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

004726  022767  052525  174052          CMP     #52525,ANS3     ;IS IT 52525?
004734  001401                  BEQ     .+4
004736  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

004740  022767  052525  174042          CMP     #52525,ANS4     ;IS IT 52525?
004746  001401                  BEQ     .+4
004750  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 52525

004752  174104                  STD     1,%4            ;STORE AC1 INTO AC4
004754  172504                  LDD     %4,1            ;LOAD AC4 INTO AC1
004756  174167  174020          STD     1,ANS1          ;STORE IT AGAIN

004762  022767  052525  174012          CMP     #52525,ANS1     ;IS IT 52525?
004770  001401                  BEQ     .+4
004772  104004                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

004774  022767  052525  174002          CMP     #52525,ANS2     ;IS IT 52525?
005002  001401                  BEQ     .+4
005004  104004                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

005006  022767  052525  173772          CMP     #52525,ANS3     ;IS IT 52525?
005014  001401                  BEQ     .+4
005016  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

005020  022767  052525  173762          CMP     #52525,ANS4     ;IS IT 52525?
005026  001401                  BEQ     .+4
005030  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*****************************************************************
                                        ;TEST 30                LDD AND STD 0.0.0.0
                                        ;    USING AC2 AND AC4    FPS = 47604    FEC = N/A
                                        ;*****************************************************************
005032  104400                                SCOPE
005034  170127  047600                        LDFPS   #47604&57760
005040  172667  000020                        LDD     N30,2           ;LOAD 0.0.0.0 INTO 2
005044  170200                                STFPS   FPS             ;STORE FLOATING POINT STATUS
005046  022700  047604                        CMP     #47604,FPS      ;CHECK FLOATING POINT STATUS
005052  001401                                BEQ     .+4             ;BRANCH IF OK
005054  104000                                HLT                     ;FPS NOT EQUAL TO 47604

005056  174267  173720                        STD     2,ANS1          ;STORE 0.0.0.0
005062  000404                                BR      030

005064  000000  000000  000000  N30:    0.0.0.0
005072  000000
005074  022767  000000  173700  030:    CMP     #0,ANS1         ;IS IT 0?
005102  001401                          BEQ     .+4
005104  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 0

005106  022767  000000  173670          CMP     #0,ANS2         ;IS IT 0?
005114  001401                          BEQ     .+4
005116  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 0

005120  022767  000000  173660          CMP     #0,ANS3         ;IS IT 0?
005126  001401                          BEQ     .+4
005130  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 0

005132  022767  000000  173650          CMP     #0,ANS4         ;IS IT 0?
005140  001401                          BEQ     .+4
005142  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 0

005144  174204                          STD     2,%4            ;STORE AC2 INTO AC4
005146  172604                          LDD     %4,2            ;LOAD AC4 INTO AC2
005150  174267  173626                  STD     2,ANS1          ;STORE IT AGAIN

005154  022767  000000  173620          CMP     #0,ANS1         ;IS IT 0?
005162  001401                          BEQ     .+4
005164  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 0

005166  022767  000000  173610          CMP     #0,ANS2         ;IS IT 0?
005174  001401                          BEQ     .+4
005176  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 0

005200  022767  000000  173600          CMP     #0,ANS3         ;IS IT 0?
005206  001401                          BEQ     .+4
005210  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 0

005212  022767  000000  173570          CMP     #0,ANS4         ;IS IT 0?
005220  001401                          BEQ     .+4
005222  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*************************************************************************
                                        ;TEST 31                    LDD AND STD -1,-1,-1,-1
                                        ;    USING AC2 AND AC4    FPS = 47610    FEC = N/A
                                        ;*************************************************************************
005224  104400                                  SCOPE
005226  170127  047600                          LDFPS   #47610&57760
005232  172667  000020                          LDD     N31,2           ;LOAD -1,-1,-1,-1 INTO 2
005236  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
005240  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
005244  001401                                  BEQ     .+4             ;BRANCH IF OK
005246  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

005250  174267  173526                          STD     2,ANS1          ;STORE -1,-1,-1,-1
005254  000404                                  BR      O31

005256  177777  177777  177777  N31:            -1,-1,-1,-1
005264  177777
005266  022767  177777  173506  O31:            CMP     #-1,ANS1        ;IS IT -1?
005274  001401                                  BEQ     .+4
005276  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

005300  022767  177777  173476                  CMP     #-1,ANS2        ;IS IT -1?
005306  001401                                  BEQ     .+4
005310  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

005312  022767  177777  173466                  CMP     #-1,ANS3        ;IS IT -1?
005320  001401                                  BEQ     .+4
005322  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

005324  022767  177777  173456                  CMP     #-1,ANS4        ;IS IT -1?
005332  001401                                  BEQ     .+4
005334  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1

005336  174204                                  STD     2,%4            ;STORE AC2 INTO AC4
005340  172604                                  LDD     %4,2            ;LOAD AC4 INTO AC2
005342  174267  173434                          STD     2,ANS1          ;STORE IT AGAIN

005346  022767  177777  173426                  CMP     #-1,ANS1        ;IS IT -1?
005354  001401                                  BEQ     .+4
005356  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

005360  022767  177777  173416                  CMP     #-1,ANS2        ;IS IT -1?
005366  001401                                  BEQ     .+4
005370  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

005372  022767  177777  173406                  CMP     #-1,ANS3        ;IS IT -1?
005400  001401                                  BEQ     .+4
005402  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

005404  022767  177777  173376                  CMP     #-1,ANS4        ;IS IT -1?
005412  001401                                  BEQ     .+4
005414  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                          ;*****************************************************************
                                          ;TEST 32                LDD AND STD 125252,125252,125252,125252
                                          ;     USING AC2 AND AC4    FPS = 47610     FEC = N/A
                                          ;*****************************************************************
005416  104400                                    SCOPE
005420  170127  047600                            LDFPS   #47610&57760
005424  172667  000020                            LDD     N32,2           ;LOAD 125252,125252,125252,125252 INTO 2
005430  170200                                    STFPS   FPS             ;STORE FLOATING POINT STATUS
005432  022700  047610                            CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
005436  001401                                    BEQ     .+4             ;BRANCH IF OK
005440  104000                                    HLT                     ;FPS NOT EQUAL TO 47610

005442  174267  173334                            STD     2,ANS1          ;STORE 125252,125252,125252,125252
005446  000404                                    BR      032

005450  125252  125252  125252  N32:      125252,125252,125252,125252
005456  125252
005460  022767  125252  173314  032:      CMP     #125252,ANS1    ;IS IT 125252?
005466  001401                            BEQ     .+4
005470  104004                            HLT+4                   ;ANS1 NOT EQUAL TO 125252

005472  022767  125252  173304            CMP     #125252,ANS2    ;IS IT 125252?
005500  001401                            BEQ     .+4
005502  104004                            HLT+4                   ;ANS2 NOT EQUAL TO 125252

005504  022767  125252  173274            CMP     #125252,ANS3    ;IS IT 125252?
005512  001401                            BEQ     .+4
005514  104004                            HLT+4                   ;ANS3 NOT EQUAL TO 125252

005516  022767  125252  173264            CMP     #125252,ANS4    ;IS IT 125252?
005524  001401                            BEQ     .+4
005526  104004                            HLT+4                   ;ANS4 NOT EQUAL TO 125252

005530  174204                            STD     2,%4            ;STORE AC2 INTO AC4
005532  172604                            LDD     %4,2            ;LOAD AC4 INTO AC2
005534  174267  173242                    STD     2,ANS1          ;STORE IT AGAIN

005540  022767  125252  173234            CMP     #125252,ANS1    ;IS IT 125252?
005546  001401                            BEQ     .+4
005550  104004                            HLT+4                   ;ANS1 NOT EQUAL TO 125252

005552  022767  125252  173224            CMP     #125252,ANS2    ;IS IT 125252?
005560  001401                            BEQ     .+4
005562  104004                            HLT+4                   ;ANS2 NOT EQUAL TO 125252

005564  022767  125252  173214            CMP     #125252,ANS3    ;IS IT 125252?
005572  001401                            BEQ     .+4
005574  104004                            HLT+4                   ;ANS3 NOT EQUAL TO 125252

005576  022767  125252  173204            CMP     #125252,ANS4    ;IS IT 125252?
005604  001401                            BEQ     .+4
005606  104004                            HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                ;*************************************************************************
                                ;TEST 33                LDD AND STD 52525,52525,52525,52525
                                ;    USING AC2 AND AC4    FPS = 47600    FEC = N/A
                                ;*************************************************************************
005610  104400                        SCOPE
005612  170127  047600                LDFPS   #47600&57760
005616  172667  000020                LDD     N33,2           ;LOAD 52525,52525,52525,52525 INTO 2
005622  170200                        STFPS   FPS             ;STORE FLOATING POINT STATUS
005624  022700  047600                CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
005630  001401                        BEQ     .+4             ;BRANCH IF OK
005632  104000                        HLT                     ;FPS NOT EQUAL TO 47600

005634  174267  173142                STD     2,ANS1          ;STORE 52525,52525,52525,52525
005640  000404                        BR      033

005642  052525  052525  052525  N33:  52525,52525,52525,52525
005650  052525
005652  022767  052525  173122  033:  CMP     #52525,ANS1     ;IS IT 52525?
005660  001401                        BEQ     .+4
005662  104004                        HLT+4                   ;ANS1 NOT EQUAL TO 52525

005664  022767  052525  173112        CMP     #52525,ANS2     ;IS IT 52525?
005672  001401                        BEQ     .+4
005674  104004                        HLT+4                   ;ANS2 NOT EQUAL TO 52525

005676  022767  052525  173102        CMP     #52525,ANS3     ;IS IT 52525?
005704  001401                        BEQ     .+4
005706  104004                        HLT+4                   ;ANS3 NOT EQUAL TO 52525

005710  022767  052525  173072        CMP     #52525,ANS4     ;IS IT 52525?
005716  001401                        BEQ     .+4
005720  104004                        HLT+4                   ;ANS4 NOT EQUAL TO 52525

005722  174204                        STD     2,%4            ;STORE AC2 INTO AC4
005724  172604                        LDD     %4,2            ;LOAD AC4 INTO AC2
005726  174267  173050                STD     2,ANS1          ;STORE IT AGAIN

005732  022767  052525  173042        CMP     #52525,ANS1     ;IS IT 52525?
005740  001401                        BEQ     .+4
005742  104004                        HLT+4                   ;ANS1 NOT EQUAL TO 52525

005744  022767  052525  173032        CMP     #52525,ANS2     ;IS IT 52525?
005752  001401                        BEQ     .+4
005754  104004                        HLT+4                   ;ANS2 NOT EQUAL TO 52525

005756  022767  052525  173022        CMP     #52525,ANS3     ;IS IT 52525?
005764  001401                        BEQ     .+4
005766  104004                        HLT+4                   ;ANS3 NOT EQUAL TO 52525

005770  022767  052525  173012        CMP     #52525,ANS4     ;IS IT 52525?
005776  001401                        BEQ     .+4
006000  104004                        HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                    ;*************************************************************************
                                    ;TEST 34                  LDD AND STD 0,0,0,0
                                    ;    USING AC3 AND AC4    FPS = 47604     FEC = N/A
                                    ;*************************************************************************
006002  104400                             SCOPE
006004  170127  047600                     LDFPS   #47604&57760
006010  172767  000020                     LDD     N34,3             ;LOAD 0,0,0,0 INTO 3
006014  170200                             STFPS   FPS               ;STORE FLOATING POINT STATUS
006016  022700  047604                     CMP     #47604,FPS        ;CHECK FLOATING POINT STATUS
006022  001401                             BEQ     .+4               ;BRANCH IF OK
006024  104000                             HLT                       ;FPS NOT EQUAL TO 47604

006026  174367  172750                     STD     3,ANS1            ;STORE 0,0,0,0
006032  000404                             BR      O34

006034  000000  000000  000000  N34:       0,0,0,0
006042  000000
006044  022767  000000  172730  O34:       CMP     #0,ANS1           ;IS IT 0?
006052  001401                             BEQ     .+4
006054  104004                             HLT+4                     ;ANS1 NOT EQUAL TO 0

006056  022767  000000  172720             CMP     #0,ANS2           ;IS IT 0?
006064  001401                             BEQ     .+4
006066  104004                             HLT+4                     ;ANS2 NOT EQUAL TO 0

006070  022767  000000  172710             CMP     #0,ANS3           ;IS IT 0?
006076  001401                             BEQ     .+4
006100  104004                             HLT+4                     ;ANS3 NOT EQUAL TO 0

006102  022767  000000  172700             CMP     #0,ANS4           ;IS IT 0?
006110  001401                             BEQ     .+4
006112  104004                             HLT+4                     ;ANS4 NOT EQUAL TO 0

006114  174304                             STD     3,%4              ;STORE AC3 INTO AC4
006116  172704                             LDD     %4,3              ;LOAD AC4 INTO AC3
006120  174367  172656                     STD     3,ANS1            ;STORE IT AGAIN

006124  022767  000000  172650             CMP     #0,ANS1           ;IS IT 0?
006132  001401                             BEQ     .+4
006134  104004                             HLT+4                     ;ANS1 NOT EQUAL TO 0

006136  022767  000000  172640             CMP     #0,ANS2           ;IS IT 0?
006144  001401                             BEQ     .+4
006146  104004                             HLT+4                     ;ANS2 NOT EQUAL TO 0

006150  022767  000000  172630             CMP     #0,ANS3           ;IS IT 0?
006156  001401                             BEQ     .+4
006160  104004                             HLT+4                     ;ANS3 NOT EQUAL TO 0

006162  022767  000000  172620             CMP     #0,ANS4           ;IS IT 0?
006170  001401                             BEQ     .+4
006172  104004                             HLT+4                     ;ANS4 NOT EQUAL TO 0
```

H04


```
                                        ;*******************************************************************
                                        ;TEST 35                        LDD AND STD -1,-1,-1,-1
                                        ;    USING AC3 AND AC4    FPS = 47610    FEC = N/A
                                        ;*******************************************************************
006174  104400                                  SCOPE
006176  170127  047600                          LDFPS   #47610&57760
006202  172767  000020                          LDD     N35,3           ;LOAD -1,-1,-1,-1 INTO 3
006206  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
006210  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
006214  001401                                  BEQ     .+4             ;BRANCH IF OK
006216  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

006220  174367  172556                          STD     3,ANS1          ;STORE -1,-1,-1,-1
006224  000404                                  BR      035

006226  177777  177777  177777  N35:            -1,-1,-1,-1
006234  177777
006236  022767  177777  172536  035:            CMP     #-1,ANS1        ;IS IT -1?
006244  001401                                  BEQ     .+4
006246  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

006250  022767  177777  172526                  CMP     #-1,ANS2        ;IS IT -1?
006256  001401                                  BEQ     .+4
006260  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

006262  022767  177777  172516                  CMP     #-1,ANS3        ;IS IT -1?
006270  001401                                  BEQ     .+4
006272  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

006274  022767  177777  172506                  CMP     #-1,ANS4        ;IS IT -1?
006302  001401                                  BEQ     .+4
006304  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1

006306  174304                                  STD     3,%4            ;STORE AC3 INTO AC4
006310  172704                                  LDD     %4,3            ;LOAD AC4 INTO AC3
006312  174367  172464                          STD     3,ANS1          ;STORE IT AGAIN

006316  022767  177777  172456                  CMP     #-1,ANS1        ;IS IT -1?
006324  001401                                  BEQ     .+4
006326  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

006330  022767  177777  172446                  CMP     #-1,ANS2        ;IS IT -1?
006336  001401                                  BEQ     .+4
006340  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

006342  022767  177777  172436                  CMP     #-1,ANS3        ;IS IT -1?
006350  001401                                  BEQ     .+4
006352  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

006354  022767  177777  172426                  CMP     #-1,ANS4        ;IS IT -1?
006362  001401                                  BEQ     .+4
006364  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                ;*************************************************************************
                                ;TEST 36                    LDD AND STD 125252,125252,125252,125252
                                ;    USING AC3 AND AC4    FPS = 47610    FEC = N/A
                                ;*************************************************************************
006366  104400                          SCOPE
006370  170127  047600                  LDFPS   #47610&57760
006374  172767  000020                  LDD     N36,3           ;LOAD 125252,125252,125252,125252 INTO 3
006400  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
006402  022700  047610                  CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
006406  001401                          BEQ     .+4             ;BRANCH IF OK
006410  104000                          HLT                     ;FPS NOT EQUAL TO 47610

006412  174367  172364                  STD     3,ANS1          ;STORE 125252,125252,125252,125252
006416  000404                          BR      036

006420  125252  125252  125252  N36:    125252,125252,125252,125252
006426  125252
006430  022767  125252  172344  036:    CMP     #125252,ANS1    ;IS IT 125252?
006436  001401                          BEQ     .+4
006440  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

006442  022767  125252  172334          CMP     #125252,ANS2    ;IS IT 125252?
006450  001401                          BEQ     .+4
006452  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

006454  022767  125252  172324          CMP     #125252,ANS3    ;IS IT 125252?
006462  001401                          BEQ     .+4
006464  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

006466  022767  125252  172314          CMP     #125252,ANS4    ;IS IT 125252?
006474  001401                          BEQ     .+4
006476  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

006500  174304                          STD     3,%4            ;STORE AC3 INTO AC4
006502  172704                          LDD     %4,3            ;LOAD AC4 INTO AC3
006504  174367  172272                  STD     3,ANS1          ;STORE IT AGAIN

006510  022767  125252  172264          CMP     #125252,ANS1    ;IS IT 125252?
006516  001401                          BEQ     .+4
006520  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

006522  022767  125252  172254          CMP     #125252,ANS2    ;IS IT 125252?
006530  001401                          BEQ     .+4
006532  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

006534  022767  125252  172244          CMP     #125252,ANS3    ;IS IT 125252?
006542  001401                          BEQ     .+4
006544  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

006546  022767  125252  172234          CMP     #125252,ANS4    ;IS IT 125252?
006554  001401                          BEQ     .+4
006556  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                                ;*****************************************************************
                                                ;TEST 37                    LDD AND STD 52525,52525,52525,52525
                                                ;     USING AC3 AND AC4     FPS = 47600     FEC = N/A
                                                ;*****************************************************************
006560  104400                                          SCOPE
006562  170127  047600                                  LDFPS   #47600&57760
006566  172767  000020                                  LDD     N37,3           ;LOAD 52525,52525,52525,52525 INTO 3
006572  170200                                          STFPS   FPS             ;STORE FLOATING POINT STATUS
006574  022700  047600                                  CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
006600  001401                                          BEQ     .+4             ;BRANCH IF OK
006602  104000                                          HLT                     ;FPS NOT EQUAL TO 47600

006604  174367  172172                                  STD     3,ANS1          ;STORE 52525,52525,52525,52525
006610  000404                                          BR      037

006612  052525  052525  052525  N37:                    52525,52525,52525,52525
006620  052525
006622  022767  052525  172152  037:                    CMP     #52525,ANS1     ;IS IT 52525?
006630  001401                                          BEQ     .+4
006632  104004                                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

006634  022767  052525  172142                          CMP     #52525,ANS2     ;IS IT 52525?
006642  001401                                          BEQ     .+4
006644  104004                                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

006646  022767  052525  172132                          CMP     #52525,ANS3     ;IS IT 52525?
006654  001401                                          BEQ     .+4
006656  104004                                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

006660  022767  052525  172122                          CMP     #52525,ANS4     ;IS IT 52525?
006666  001401                                          BEQ     .+4
006670  104004                                          HLT+4                   ;ANS4 NOT EQUAL TO 52525

006672  174304                                          STD     3,%4            ;STORE AC3 INTO AC4
006674  172704                                          LDD     %4,3            ;LOAD AC4 INTO AC3
006676  174367  172100                                  STD     3,ANS1          ;STORE IT AGAIN

006702  022767  052525  172072                          CMP     #52525,ANS1     ;IS IT 52525?
006710  001401                                          BEQ     .+4
006712  104004                                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

006714  022767  052525  172062                          CMP     #52525,ANS2     ;IS IT 52525?
006722  001401                                          BEQ     .+4
006724  104004                                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

006726  022767  052525  172052                          CMP     #52525,ANS3     ;IS IT 52525?
006734  001401                                          BEQ     .+4
006736  104004                                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

006740  022767  052525  172042                          CMP     #52525,ANS4     ;IS IT 52525?
006746  001401                                          BEQ     .+4
006750  104004                                          HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                         ;*************************************************************************
                                         ;TEST 40                         LDD AND STD 0,0,0,0
                                         ;     USING AC0 AND AC5     FPS = 47604     FEC = N/A
                                         ;*************************************************************************
006752  104400                                   SCOPE
006754  170127  047600                           LDFPS   #47604&57760
006760  172467  000020                           LDD     N40,0                   ;LOAD 0,0,0,0 INTO 0
006764  170200                                   STFPS   FPS                     ;STORE FLOATING POINT STATUS
006766  022700  047604                           CMP     #47604,FPS              ;CHECK FLOATING POINT STATUS
006772  001401                                   BEQ     .+4                     ;BRANCH IF OK
006774  104000                                   HLT                             ;FPS NOT EQUAL TO 47604

006776  174067  172000                           STD     0,ANS1                  ;STORE 0,0,0,0
007002  000404                                   BR      O40

007004  000000  000000  000000  N40:             0,0,0,0
007012  000000
007014  022767  000000  171760  O40:             CMP     #0,ANS1                 ;IS IT 0?
007022  001401                                   BEQ     .+4
007024  104004                                   HLT+4                           ;ANS1 NOT EQUAL TO 0

007026  022767  000000  171750                   CMP     #0,ANS2                 ;IS IT 0?
007034  001401                                   BEQ     .+4
007036  104004                                   HLT+4                           ;ANS2 NOT EQUAL TO 0

007040  022767  000000  171740                   CMP     #0,ANS3                 ;IS IT 0?
007046  001401                                   BEQ     .+4
007050  104004                                   HLT+4                           ;ANS3 NOT EQUAL TO 0

007052  022767  000000  171730                   CMP     #0,ANS4                 ;IS IT 0?
007060  001401                                   BEQ     .+4
007062  104004                                   HLT+4                           ;ANS4 NOT EQUAL TO 0

007064  174005                                   STD     0,%5                    ;STORE AC0 INTO AC5
007066  172405                                   LDD     %5,0                    ;LOAD AC5 INTO AC0
007070  174067  171706                           STD     0,ANS1                  ;STORE IT AGAIN

007074  022767  000000  171700                   CMP     #0,ANS1                 ;IS IT 0?
007102  001401                                   BEQ     .+4
007104  104004                                   HLT+4                           ;ANS1 NOT EQUAL TO 0

007106  022767  000000  171670                   CMP     #0,ANS2                 ;IS IT 0?
007114  001401                                   BEQ     .+4
007116  104004                                   HLT+4                           ;ANS2 NOT EQUAL TO 0

007120  022767  000000  171660                   CMP     #0,ANS3                 ;IS IT 0?
007126  001401                                   BEQ     .+4
007130  104004                                   HLT+4                           ;ANS3 NOT EQUAL TO 0

007132  022767  000000  171650                   CMP     #0,ANS4                 ;IS IT 0?
007140  001401                                   BEQ     .+4
007142  104004                                   HLT+4                           ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*************************************************************************
                                        ;TEST 41                    LDD AND STD -1,-1,-1,-1
                                        ;     USING AC0 AND AC5    FPS = 47610     FEC = N/A
                                        ;*************************************************************************
007144  104400                                  SCOPE
007146  170127  047600                          LDFPS   #47610&57760
007152  172467  000020                          LDD     N41,0           ;LOAD -1,-1,-1,-1 INTO 0
007156  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
007160  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
007164  001401                                  BEQ     .+4             ;BRANCH IF OK
007166  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

007170  174067  171606                          STD     0,ANS1          ;STORE -1,-1,-1,-1
007174  000404                                  BR      041

007176  177777  177777  177777  N41:    -1,-1,-1,-1
007204  177777
007206  022767  177777  171566  041:    CMP     #-1,ANS1        ;IS IT -1?
007214  001401                                  BEQ     .+4
007216  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

007220  022767  177777  171556          CMP     #-1,ANS2        ;IS IT -1?
007226  001401                                  BEQ     .+4
007230  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

007232  022767  177777  171546          CMP     #-1,ANS3        ;IS IT -1?
007240  001401                                  BEQ     .+4
007242  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

007244  022767  177777  171536          CMP     #-1,ANS4        ;IS IT -1?
007252  001401                                  BEQ     .+4
007254  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1

007256  174005                                  STD     0,%5            ;STORE AC0 INTO AC5
007260  172405                                  LDD     %5,0            ;LOAD AC5 INTO AC0
007262  174067  171514                          STD     0,ANS1          ;STORE IT AGAIN

007266  022767  177777  171506          CMP     #-1,ANS1        ;IS IT -1?
007274  001401                                  BEQ     .+4
007276  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

007300  022767  177777  171476          CMP     #-1,ANS2        ;IS IT -1?
007306  001401                                  BEQ     .+4
007310  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

007312  022767  177777  171466          CMP     #-1,ANS3        ;IS IT -1?
007320  001401                                  BEQ     .+4
007322  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

007324  022767  177777  171456          CMP     #-1,ANS4        ;IS IT -1?
007332  001401                                  BEQ     .+4
007334  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                        ;*************************************************************************
                        ;TEST 42                LDD AND STD 125252,125252,125252,125252
                        ;    USING AC0 AND AC5    FPS = 47610    FEC = N/A
                        ;*************************************************************************
007336  104400                    SCOPE
007340  170127  047600            LDFPS   #47610&57760
007344  172467  000020            LDD     N42,0           ;LOAD 125252,125252,125252,125252 INTO 0
007350  170200                    STFPS   FPS             ;STORE FLOATING POINT STATUS
007352  022700  047610            CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
007356  001401                    BEQ     .+4             ;BRANCH IF OK
007360  104000                    HLT                     ;FPS NOT EQUAL TO 47610

007362  174067  171414            STD     0,ANS1          ;STORE 125252,125252,125252,125252
007366  000404                    BR      042

007370  125252  125252  125252  N42:    125252,125252,125252,125252
007376  125252
007400  022767  125252  171374  042:    CMP     #125252,ANS1    ;IS IT 125252?
007406  001401                    BEQ     .+4
007410  104004                    HLT+4                   ;ANS1 NOT EQUAL TO 125252

007412  022767  125252  171364        CMP     #125252,ANS2    ;IS IT 125252?
007420  001401                        BEQ     .+4
007422  104004                        HLT+4                   ;ANS2 NOT EQUAL TO 125252

007424  022767  125252  171354        CMP     #125252,ANS3    ;IS IT 125252?
007432  001401                        BEQ     .+4
007434  104004                        HLT+4                   ;ANS3 NOT EQUAL TO 125252

007436  022767  125252  171344        CMP     #125252,ANS4    ;IS IT 125252?
007444  001401                        BEQ     .+4
007446  104004                        HLT+4                   ;ANS4 NOT EQUAL TO 125252

007450  174005                        STD     0,%5            ;STORE AC0 INTO AC5
007452  172405                        LDD     %5,0            ;LOAD AC5 INTO AC0
007454  174067  171322                STD     0,ANS1          ;STORE IT AGAIN

007460  022767  125252  171314        CMP     #125252,ANS1    ;IS IT 125252?
007466  001401                        BEQ     .+4
007470  104004                        HLT+4                   ;ANS1 NOT EQUAL TO 125252

007472  022767  125252  171304        CMP     #125252,ANS2    ;IS IT 125252?
007500  001401                        BEQ     .+4
007502  104004                        HLT+4                   ;ANS2 NOT EQUAL TO 125252

007504  022767  125252  171274        CMP     #125252,ANS3    ;IS IT 125252?
007512  001401                        BEQ     .+4
007514  104004                        HLT+4                   ;ANS3 NOT EQUAL TO 125252

007516  022767  125252  171264        CMP     #125252,ANS4    ;IS IT 125252?
007524  001401                        BEQ     .+4
007526  104004                        HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                        ;*************************************************************************
                                        ;TEST 43                LDD AND STD 52525,52525,52525,52525
                                        ;    USING AC0 AND AC5    FPS = 47600    FEC = N/A
                                        ;*************************************************************************
007530  104400                                  SCOPE
007532  170127  047600                          LDFPS   #47600&57760
007536  172467  000020                          LDD     N43,0           ;LOAD 52525,52525,52525,52525 INTO 0
007542  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
007544  022700  047600                          CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
007550  001401                                  BEQ     .+4             ;BRANCH IF OK
007552  104000                                  HLT                     ;FPS NOT EQUAL TO 47600

007554  174067  171222                          STD     0,ANS1          ;STORE 52525,52525,52525,52525
007560  000404                                  BR      043

007562  052525  052525  052525  N43:    52525,52525,52525,52525
007570  052525
007572  022767  052525  171202  043:    CMP     #52525,ANS1     ;IS IT 52525?
007600  001401                          BEQ     .+4
007602  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

007604  022767  052525  171172          CMP     #52525,ANS2     ;IS IT 52525?
007612  001401                          BEQ     .+4
007614  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

007616  022767  052525  171162          CMP     #52525,ANS3     ;IS IT 52525?
007624  001401                          BEQ     .+4
007626  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

007630  022767  052525  171152          CMP     #52525,ANS4     ;IS IT 52525?
007636  001401                          BEQ     .+4
007640  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525

007642  174005                          STD     0,%5            ;STORE AC0 INTO AC5
007644  172405                          LDD     %5,0            ;LOAD AC5 INTO AC0
007646  174067  171130                  STD     0,ANS1          ;STORE IT AGAIN

007652  022767  052525  171122          CMP     #52525,ANS1     ;IS IT 52525?
007660  001401                          BEQ     .+4
007662  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 52525

007664  022767  052525  171112          CMP     #52525,ANS2     ;IS IT 52525?
007672  001401                          BEQ     .+4
007674  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 52525

007676  022767  052525  171102          CMP     #52525,ANS3     ;IS IT 52525?
007704  001401                          BEQ     .+4
007706  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

007710  022767  052525  171072          CMP     #52525,ANS4     ;IS IT 52525?
007716  001401                          BEQ     .+4
007720  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*******************************************************************
                                        ;TEST 44                       LDD AND STD 0,0,0,0
                                        ;     USING AC1 AND AC5     FPS = 47604     FEC = N/A
                                        ;*******************************************************************
007722  104400                                  SCOPE
007724  170127  047600                          LDFPS   #47604&57760
007730  172567  000020                          LDD     N44,1                   ;LOAD 0,0,0,0 INTO 1
007734  170200                                  STFPS   FPS                     ;STORE FLOATING POINT STATUS
007736  022700  047604                          CMP     #47604,FPS              ;CHECK FLOATING POINT STATUS
007742  001401                                  BEQ     .+4                     ;BRANCH IF OK
007744  104000                                  HLT                             ;FPS NOT EQUAL TO 47604

007746  174167  171030                          STD     1,ANS1                  ;STORE 0,0,0,0
007752  000404                                  BR      044

007754  000000  000000  000000  N44:            0,0,0,0
007762  000000
007764  022767  000000  171010  044:            CMP     #0,ANS1                 ;IS IT 0?
007772  001401                                  BEQ     .+4
007774  104004                                  HLT+4                           ;ANS1 NOT EQUAL TO 0

007776  022767  000000  171000                  CMP     #0,ANS2                 ;IS IT 0?
010004  001401                                  BEQ     .+4
010006  104004                                  HLT+4                           ;ANS2 NOT EQUAL TO 0

010010  022767  000000  170770                  CMP     #0,ANS3                 ;IS IT 0?
010016  001401                                  BEQ     .+4
010020  104004                                  HLT+4                           ;ANS3 NOT EQUAL TO 0

010022  022767  000000  170760                  CMP     #0,ANS4                 ;IS IT 0?
010030  001401                                  BEQ     .+4
010032  104004                                  HLT+4                           ;ANS4 NOT EQUAL TO 0

010034  174105                                  STD     1,%5                    ;STORE AC1 INTO AC5
010036  172505                                  LDD     %5,1                    ;LOAD AC5 INTO AC1
010040  174167  170736                          STD     1,ANS1                  ;STORE IT AGAIN

010044  022767  000000  170730                  CMP     #0,ANS1                 ;IS IT 0?
010052  001401                                  BEQ     .+4
010054  104004                                  HLT+4                           ;ANS1 NOT EQUAL TO 0

010056  022767  000000  170720                  CMP     #0,ANS2                 ;IS IT 0?
010064  001401                                  BEQ     .+4
010066  104004                                  HLT+4                           ;ANS2 NOT EQUAL TO 0

010070  022767  000000  170710                  CMP     #0,ANS3                 ;IS IT 0?
010076  001401                                  BEQ     .+4
010100  104004                                  HLT+4                           ;ANS3 NOT EQUAL TO 0

010102  022767  000000  170700                  CMP     #0,ANS4                 ;IS IT 0?
010110  001401                                  BEQ     .+4
010112  104004                                  HLT+4                           ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*****************************************************************
                                        ;TEST 45                        LDD AND STD -1,-1,-1,-1
                                        ;     USING AC1 AND AC5     FPS = 47610     FEC = N/A
                                        ;*****************************************************************
010114  104400                                  SCOPE
010116  170127  047600                          LDFPS   #47610&57760
010122  172567  000020                          LDD     N45,1           ;LOAD -1,-1,-1,-1 INTO 1
010126  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
010130  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
010134  001401                                  BEQ     .+4             ;BRANCH IF OK
010136  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

010140  174167  170636                          STD     1,ANS1          ;STORE -1,-1,-1,-1
010144  000404                                  BR      045

010146  177777  177777  177777  N45:            -1,-1,-1,-1
010154  177777
010156  022767  177777  170616  045:            CMP     #-1,ANS1        ;IS IT -1?
010164  001401                                  BEQ     .+4
010166  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

010170  022767  177777  170606                  CMP     #-1,ANS2        ;IS IT -1?
010176  001401                                  BEQ     .+4
010200  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

010202  022767  177777  170576                  CMP     #-1,ANS3        ;IS IT -1?
010210  001401                                  BEQ     .+4
010212  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

010214  022767  177777  170566                  CMP     #-1,ANS4        ;IS IT -1?
010222  001401                                  BEQ     .+4
010224  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1

010226  174105                                  STD     1,%5            ;STORE AC1 INTO AC5
010230  172505                                  LDD     %5,1            ;LOAD AC5 INTO AC1
010232  174167  170544                          STD     1,ANS1          ;STORE IT AGAIN

010236  022767  177777  170536                  CMP     #-1,ANS1        ;IS IT -1?
010244  001401                                  BEQ     .+4
010246  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO -1

010250  022767  177777  170526                  CMP     #-1,ANS2        ;IS IT -1?
010256  001401                                  BEQ     .+4
010260  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO -1

010262  022767  177777  170516                  CMP     #-1,ANS3        ;IS IT -1?
010270  001401                                  BEQ     .+4
010272  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO -1

010274  022767  177777  170506                  CMP     #-1,ANS4        ;IS IT -1?
010302  001401                                  BEQ     .+4
010304  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                        ;*****************************************************************
                                        ;TEST 46                LDD AND STD 125252,125252,125252,125252
                                        ;    USING AC1 AND AC5    FPS = 47610    FEC = N/A
                                        ;*****************************************************************
010306  104400                                  SCOPE
010310  170127  047600                          LDFPS   #47610&57760
010314  172567  000020                          LDD     N46,1           ;LOAD 125252,125252,125252,125252 INTO 1
010320  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
010322  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
010326  001401                                  BEQ     .+4             ;BRANCH IF OK
010330  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

010332  174167  170444                          STD     1,ANS1          ;STORE 125252,125252,125252,125252
010336  000404                                  BR      046

010340  125252  125252  125252  N46:    125252,125252,125252,125252
010346  125252
010350  022767  125252  170424  046:    CMP     #125252,ANS1    ;IS IT 125252?
010356  001401                          BEQ     .+4
010360  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

010362  022767  125252  170414          CMP     #125252,ANS2    ;IS IT 125252?
010370  001401                          BEQ     .+4
010372  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

010374  022767  125252  170404          CMP     #125252,ANS3    ;IS IT 125252?
010402  001401                          BEQ     .+4
010404  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

010406  022767  125252  170374          CMP     #125252,ANS4    ;IS IT 125252?
010414  001401                          BEQ     .+4
010416  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

010420  174105                          STD     1,%5            ;STORE AC1 INTO AC5
010422  172505                          LDD     %5,1            ;LOAD AC5 INTO AC1
010424  174167  170352                  STD     1,ANS1          ;STORE IT AGAIN

010430  022767  125252  170344          CMP     #125252,ANS1    ;IS IT 125252?
010436  001401                          BEQ     .+4
010440  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

010442  022767  125252  170334          CMP     #125252,ANS2    ;IS IT 125252?
010450  001401                          BEQ     .+4
010452  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

010454  022767  125252  170324          CMP     #125252,ANS3    ;IS IT 125252?
010462  001401                          BEQ     .+4
010464  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

010466  022767  125252  170314          CMP     #125252,ANS4    ;IS IT 125252?
010474  001401                          BEQ     .+4
010476  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                        ;*************************************************************************
                                        ;TEST 47                        LDD AND STD 52525,52525,52525,52525
                                        ;    USING AC1 AND AC5     FPS = 47600     FEC = N/A
                                        ;*************************************************************************
010500  104400                                  SCOPE
010502  170127  047600                          LDFPS   #47600$57760
010506  172567  000020                          LDD     N47,1           ;LOAD 52525,52525,52525,52525 INTO 1
010512  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
010514  022700  047600                          CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
010520  001401                                  BEQ     .+4             ;BRANCH IF OK
010522  104000                                  HLT                     ;FPS NOT EQUAL TO 47600

010524  174167  170252                          STD     1,ANS1          ;STORE 52525,52525,52525,52525
010530  000404                                  BR      047

010532  052525  052525  052525  N47:    52525,52525,52525,52525
010540  052525
010542  022767  052525  170232  047:    CMP     #52525,ANS1     ;IS IT 52525?
010550  001401                                  BEQ     .+4
010552  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

010554  022767  052525  170222          CMP     #52525,ANS2     ;IS IT 52525?
010562  001401                                  BEQ     .+4
010564  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

010566  022767  052525  170212          CMP     #52525,ANS3     ;IS IT 52525?
010574  001401                                  BEQ     .+4
010576  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

010600  022767  052525  170202          CMP     #52525,ANS4     ;IS IT 52525?
010606  001401                                  BEQ     .+4
010610  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 52525

010612  174105                                  STD     1,%5            ;STORE AC1 INTO AC5
010614  172505                                  LDD     %5,1            ;LOAD AC5 INTO AC1
010616  174167  170160                          STD     1,ANS1          ;STORE IT AGAIN

010622  022767  052525  170152          CMP     #52525,ANS1     ;IS IT 52525?
010630  001401                                  BEQ     .+4
010632  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

010634  022767  052525  170142          CMP     #52525,ANS2     ;IS IT 52525?
010642  001401                                  BEQ     .+4
010644  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

010646  022767  052525  170132          CMP     #52525,ANS3     ;IS IT 52525?
010654  001401                                  BEQ     .+4
010656  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

010660  022767  052525  170122          CMP     #52525,ANS4     ;IS IT 52525?
010666  001401                                  BEQ     .+4
010670  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*****************************************************************
                                        ;TEST 50                    LDD AND STD 0.0.0.0
                                        ;    USING AC2 AND AC5    FPS = 47604    FEC = N/A
                                        ;*****************************************************************
010672  104400                                SCOPE
010674  170127  047600                        LDFPS   #47604&57760
010700  172667  000020                        LDD     N50,2           ;LOAD 0.0.0.0 INTO 2
010704  170200                                STFPS   FPS             ;STORE FLOATING POINT STATUS
010706  022700  047604                        CMP     #47604,FPS      ;CHECK FLOATING POINT STATUS
010712  001401                                BEQ     .+4             ;BRANCH IF OK
010714  104000                                HLT                     ;FPS NOT EQUAL TO 47604

010716  174267  170060                        STD     2,ANS1          ;STORE 0.0.0.0
010722  000404                                BR      050

010724  000000  000000  000000  N50:    0.0.0.0
010732  000000
010734  022767  000000  170040  050:    CMP     #0,ANS1         ;IS IT 0?
010742  001401                          BEQ     .+4
010744  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 0

010746  022767  000000  170030          CMP     #0,ANS2         ;IS IT 0?
010754  001401                          BEQ     .+4
010756  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 0

010760  022767  000000  170020          CMP     #0,ANS3         ;IS IT 0?
010766  001401                          BEQ     .+4
010770  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 0

010772  022767  000000  170010          CMP     #0,ANS4         ;IS IT 0?
011000  001401                          BEQ     .+4
011002  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 0

011004  174205                          STD     2,%5            ;STORE AC2 INTO AC5
011006  172605                          LDD     %5,2            ;LOAD AC5 INTO AC2
011010  174267  167766                  STD     2,ANS1          ;STORE IT AGAIN

011014  022767  000000  167760          CMP     #0,ANS1         ;IS IT 0?
011022  001401                          BEQ     .+4
011024  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 0

011026  022767  000000  167750          CMP     #0,ANS2         ;IS IT 0?
011034  001401                          BEQ     .+4
011036  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 0

011040  022767  000000  167740          CMP     #0,ANS3         ;IS IT 0?
011046  001401                          BEQ     .+4
011050  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 0

011052  022767  000000  167730          CMP     #0,ANS4         ;IS IT 0?
011060  001401                          BEQ     .+4
011062  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*************************************************************
                                        ;TEST 51                    LDD AND STD -1,-1,-1,-1
                                        ;    USING AC2 AND AC5      FPS = 47610    FEC = N/A
                                        ;*************************************************************
011064  104400                                   SCOPE
011066  170127  047600                           LDFPS   #47610&57760
011072  172667  000020                           LDD     N51,2              ;LOAD -1,-1,-1,-1 INTO 2
011076  170200                                   STFPS   FPS                ;STORE FLOATING POINT STATUS
011100  022700  047610                           CMP     #47610,FPS         ;CHECK FLOATING POINT STATUS
011104  001401                                   BEQ     .+4                ;BRANCH IF OK
011106  104000                                   HLT                        ;FPS NOT EQUAL TO 47610

011110  174267  167666                           STD     2,ANS1             ;STORE -1,-1,-1,-1
011114  000404                                   BR      O51

011116  177777  177777  177777  N51:     -1,-1,-1,-1
011124  177777
011126  022767  177777  167646  O51:     CMP     #-1,ANS1           ;IS IT -1?
011134  001401                                   BEQ     .+4
011136  104004                                   HLT+4                      ;ANS1 NOT EQUAL TO -1

011140  022767  177777  167636           CMP     #-1,ANS2           ;IS IT -1?
011146  001401                                   BEQ     .+4
011150  104004                                   HLT+4                      ;ANS2 NOT EQUAL TO -1

011152  022767  177777  167626           CMP     #-1,ANS3           ;IS IT -1?
011160  001401                                   BEQ     .+4
011162  104004                                   HLT+4                      ;ANS3 NOT EQUAL TO -1

011164  022767  177777  167616           CMP     #-1,ANS4           ;IS IT -1?
011172  001401                                   BEQ     .+4
011174  104004                                   HLT+4                      ;ANS4 NOT EQUAL TO -1

011176  174205                                   STD     2,%5               ;STORE AC2 INTO AC5
011200  172605                                   LDD     %5,2               ;LOAD AC5 INTO AC2
011202  174267  167574                           STD     2,ANS1             ;STORE IT AGAIN

011206  022767  177777  167566           CMP     #-1,ANS1           ;IS IT -1?
011214  001401                                   BEQ     .+4
011216  104004                                   HLT+4                      ;ANS1 NOT EQUAL TO -1

011220  022767  177777  167556           CMP     #-1,ANS2           ;IS IT -1?
011226  001401                                   BEQ     .+4
011230  104004                                   HLT+4                      ;ANS2 NOT EQUAL TO -1

011232  022767  177777  167546           CMP     #-1,ANS3           ;IS IT -1?
011240  001401                                   BEQ     .+4
011242  104004                                   HLT+4                      ;ANS3 NOT EQUAL TO -1

011244  022767  177777  167536           CMP     #-1,ANS4           ;IS IT -1?
011252  001401                                   BEQ     .+4
011254  104004                                   HLT+4                      ;ANS4 NOT EQUAL TO -1
```

```
                                        ;*************************************************************************
                                        ;TEST 52                LDD AND STD 125252,125252,125252,125252
                                        ;    USING AC2 AND AC5    FPS = 47610    FEC = N/A
                                        ;*************************************************************************
011256  104400                                  SCOPE
011260  170127  047600                          LDFPS   #47610&57760
011264  172667  000020                          LDD     N52,2           ;LOAD 125252,125252,125252,125252 INTO 2
011270  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
011272  022700  047610                          CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
011276  001401                                  BEQ     .+4             ;BRANCH IF OK
011300  104000                                  HLT                     ;FPS NOT EQUAL TO 47610

011302  174267  167474                          STD     2,ANS1          ;STORE 125252,125252,125252,125252
011306  000404                                  BR      052

011310  125252  125252  125252  N52:    125252,125252,125252,125252
011316  125252
011320  022767  125252  167454  052:    CMP     #125252,ANS1    ;IS IT 125252?
011326  001401                          BEQ     .+4
011330  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

011332  022767  125252  167444          CMP     #125252,ANS2    ;IS IT 125252?
011340  001401                          BEQ     .+4
011342  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

011344  022767  125252  167434          CMP     #125252,ANS3    ;IS IT 125252?
011352  001401                          BEQ     .+4
011354  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

011356  022767  125252  167424          CMP     #125252,ANS4    ;IS IT 125252?
011364  001401                          BEQ     .+4
011366  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

011370  174205                          STD     2,%5            ;STORE AC2 INTO AC5
011372  172605                          LDD     %5,2            ;LOAD AC5 INTO AC2
011374  174267  167402                  STD     2,ANS1          ;STORE IT AGAIN

011400  022767  125252  167374          CMP     #125252,ANS1    ;IS IT 125252?
011406  001401                          BEQ     .+4
011410  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

011412  022767  125252  167364          CMP     #125252,ANS2    ;IS IT 125252?
011420  001401                          BEQ     .+4
011422  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

011424  022767  125252  167354          CMP     #125252,ANS3    ;IS IT 125252?
011432  001401                          BEQ     .+4
011434  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

011436  022767  125252  167344          CMP     #125252,ANS4    ;IS IT 125252?
011444  001401                          BEQ     .+4
011446  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                        ;*************************************************************************
                                        ;TEST 53                  LDD AND STD 52525,52525,52525,52525
                                        ;    USING AC2 AND AC5    FPS = 47600    FEC = N/A
                                        ;*************************************************************************
011450  104400                                  SCOPE
011452  170127  047600                          LDFPS   #47600&57760
011456  172667  000020                          LDD     N53,2           ;LOAD 52525,52525,52525,52525 INTO 2
011462  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
011464  022700  047600                          CMP     #47600,FPS      ;CHECK FLOATING POINT STATUS
011470  001401                                  BEQ     .+4             ;BRANCH IF OK
011472  104000                                  HLT                     ;FPS NOT EQUAL TO 47600

011474  174267  167302                          STD     2,ANS1          ;STORE 52525,52525,52525,52525
011500  000404                                  BR      O53

011502  052525  052525  052525  N53:            52525,52525,52525,52525
011510  052525
011512  022767  052525  167262  O53:            CMP     #52525,ANS1     ;IS IT 52525?
011520  001401                                  BEQ     .+4
011522  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

011524  022767  052525  167252                  CMP     #52525,ANS2     ;IS IT 52525?
011532  001401                                  BEQ     .+4
011534  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

011536  022767  052525  167242                  CMP     #52525,ANS3     ;IS IT 52525?
011544  001401                                  BEQ     .+4
011546  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

011550  022767  052525  167232                  CMP     #52525,ANS4     ;IS IT 52525?
011556  001401                                  BEQ     .+4
011560  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 52525

011562  174205                                  STD     2,%5            ;STORE AC2 INTO AC5
011564  172605                                  LDD     %5,2            ;LOAD AC5 INTO AC2
011566  174267  167210                          STD     2,ANS1          ;STORE IT AGAIN

011572  022767  052525  167202                  CMP     #52525,ANS1     ;IS IT 52525?
011600  001401                                  BEQ     .+4
011602  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 52525

011604  022767  052525  167172                  CMP     #52525,ANS2     ;IS IT 52525?
011612  001401                                  BEQ     .+4
011614  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 52525

011616  022767  052525  167162                  CMP     #52525,ANS3     ;IS IT 52525?
011624  001401                                  BEQ     .+4
011626  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

011630  022767  052525  167152                  CMP     #52525,ANS4     ;IS IT 52525?
011636  001401                                  BEQ     .+4
011640  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*******************************************************************
                                        ;TEST 54                   LDD AND STD 0,0,0,0
                                        ;     USING AC3 AND AC5    FPS = 47604    FEC = N/A
                                        ;*******************************************************************
011642  104400                                  SCOPE
011644  170127  047600                          LDFPS   #47604&57760
011650  172767  000020                          LDD     N54,3           ;LOAD 0,0,0,0 INTO 3
011654  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
011656  022700  047604                          CMP     #47604,FPS      ;CHECK FLOATING POINT STATUS
011662  001401                                  BEQ     .+4             ;BRANCH IF OK
011664  104000                                  HLT                     ;FPS NOT EQUAL TO 47604

011666  174367  167110                          STD     3,ANS1          ;STORE 0,0,0,0
011672  000404                                  BR      054

011674  000000  000000  000000  N54:            0,0,0,0
011702  000000
011704  022767  000000  167070  054:            CMP     #0,ANS1         ;IS IT 0?
011712  001401                                  BEQ     .+4
011714  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 0

011716  022767  000000  167060                  CMP     #0,ANS2         ;IS IT 0?
011724  001401                                  BEQ     .+4
011726  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 0

011730  022767  000000  167050                  CMP     #0,ANS3         ;IS IT 0?
011736  001401                                  BEQ     .+4
011740  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 0

011742  022767  000000  167040                  CMP     #0,ANS4         ;IS IT 0?
011750  001401                                  BEQ     .+4
011752  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 0

011754  174305                                  STD     3,%5            ;STORE AC3 INTO AC5
011756  172705                                  LDD     %5,3            ;LOAD AC5 INTO AC3
011760  174367  167016                          STD     3,ANS1          ;STORE IT AGAIN

011764  022767  000000  167010                  CMP     #0,ANS1         ;IS IT 0?
011772  001401                                  BEQ     .+4
011774  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 0

011776  022767  000000  167000                  CMP     #0,ANS2         ;IS IT 0?
012004  001401                                  BEQ     .+4
012006  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 0

012010  022767  000000  166770                  CMP     #0,ANS3         ;IS IT 0?
012016  001401                                  BEQ     .+4
012020  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 0

012022  022767  000000  166760                  CMP     #0,ANS4         ;IS IT 0?
012030  001401                                  BEQ     .+4
012032  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                ;*****************************************************************
                                ;TEST 55                LDD AND STD -1,-1,-1,-1
                                ;    USING AC3 AND AC5    FPS = 47610    FEC = N/A
                                ;*****************************************************************
012034  104400                          SCOPE
012036  170127  047600                  LDFPS   #47610&57760
012042  172767  000020                  LDD     N55,3           ;LOAD -1,-1,-1,-1 INTO 3
012046  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
012050  022700  047610                  CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
012054  001401                          BEQ     .+4             ;BRANCH IF OK
012056  104000                          HLT                     ;FPS NOT EQUAL TO 47610

012060  174367  166716                  STD     3,ANS1          ;STORE -1,-1,-1,-1
012064  000404                          BR      OS5

012066  177777  177777  177777  N55:    -1,-1,-1,-1
012074  177777
012076  022767  177777  166676  O55:    CMP     #-1,ANS1        ;IS IT -1?
012104  001401                          BEQ     .+4
012106  104004                          HLT+4                   ;ANS1 NOT EQUAL TO -1

012110  022767  177777  166666          CMP     #-1,ANS2        ;IS IT -1?
012116  001401                          BEQ     .+4
012120  104004                          HLT+4                   ;ANS2 NOT EQUAL TO -1

012122  022767  177777  166656          CMP     #-1,ANS3        ;IS IT -1?
012130  001401                          BEQ     .+4
012132  104004                          HLT+4                   ;ANS3 NOT EQUAL TO -1

012134  022767  177777  166646          CMP     #-1,ANS4        ;IS IT -1?
012142  001401                          BEQ     .+4
012144  104004                          HLT+4                   ;ANS4 NOT EQUAL TO -1

012146  174305                          STD     3,%5            ;STORE AC3 INTO AC5
012150  172705                          LDD     %5,3            ;LOAD AC5 INTO AC3
012152  174367  166624                  STD     3,ANS1          ;STORE IT AGAIN

012156  022767  177777  166616          CMP     #-1,ANS1        ;IS IT -1?
012164  001401                          BEQ     .+4
012166  104004                          HLT+4                   ;ANS1 NOT EQUAL TO -1

012170  022767  177777  166606          CMP     #-1,ANS2        ;IS IT -1?
012176  001401                          BEQ     .+4
012200  104004                          HLT+4                   ;ANS2 NOT EQUAL TO -1

012202  022767  177777  166576          CMP     #-1,ANS3        ;IS IT -1?
012210  001401                          BEQ     .+4
012212  104004                          HLT+4                   ;ANS3 NOT EQUAL TO -1

012214  022767  177777  166566          CMP     #-1,ANS4        ;IS IT -1?
012222  001401                          BEQ     .+4
012224  104004                          HLT+4                   ;ANS4 NOT EQUAL TO -1
```

```
                                ;*****************************************************************
                                ;TEST 56                LDD AND STD 125252,125252,125252,125252
                                ;    USING AC3 AND AC5    FPS = 47610    FEC = N/A
                                ;*****************************************************************
012226  104400                          SCOPE
012230  170127  047600                  LDFPS   #47610&57760
012234  172767  000020                  LDD     N56,3           ;LOAD 125252,125252,125252,125252 INTO 3
012240  170200                          STFPS   FPS             ;STORE FLOATING POINT STATUS
012242  022700  047610                  CMP     #47610,FPS      ;CHECK FLOATING POINT STATUS
012246  001401                          BEQ     .+4             ;BRANCH IF OK
012250  104000                          HLT                     ;FPS NOT EQUAL TO 47610

012252  174367  166524                  STD     3,ANS1          ;STORE 125252,125252,125252,125252
012256  000404                          BR      056

012260  125252  125252  125252  N56:    125252,125252,125252,125252
012266  125252
012270  022767  125252  166504  056:    CMP     #125252,ANS1    ;IS IT 125252?
012276  001401                          BEQ     .+4
012300  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

012302  022767  125252  166474          CMP     #125252,ANS2    ;IS IT 125252?
012310  001401                          BEQ     .+4
012312  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

012314  022767  125252  166464          CMP     #125252,ANS3    ;IS IT 125252?
012322  001401                          BEQ     .+4
012324  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

012326  022767  125252  166454          CMP     #125252,ANS4    ;IS IT 125252?
012334  001401                          BEQ     .+4
012336  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252

012340  174305                          STD     3,%5            ;STORE AC3 INTO AC5
012342  172705                          LDD     %5,3            ;LOAD AC5 INTO AC3
012344  174367  166432                  STD     3,ANS1          ;STORE IT AGAIN

012350  022767  125252  166424          CMP     #125252,ANS1    ;IS IT 125252?
012356  001401                          BEQ     .+4
012360  104004                          HLT+4                   ;ANS1 NOT EQUAL TO 125252

012362  022767  125252  166414          CMP     #125252,ANS2    ;IS IT 125252?
012370  001401                          BEQ     .+4
012372  104004                          HLT+4                   ;ANS2 NOT EQUAL TO 125252

012374  022767  125252  166404          CMP     #125252,ANS3    ;IS IT 125252?
012402  001401                          BEQ     .+4
012404  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

012406  022767  125252  166374          CMP     #125252,ANS4    ;IS IT 125252?
012414  001401                          BEQ     .+4
012416  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                   ;*************************************************************************
                                   ;TEST 57                  LDD AND STD 52525,52525,52525,52525
                                   ;    USING AC3 AND AC5     FPS = 47600     FEC = N/A
                                   ;*************************************************************************
012420  104400                             SCOPE
012422  170127  047600                     LDFPS   #47600&57760
012426  172767  000020                     LDD     N57,3             ;LOAD 52525,52525,52525,52525 INTO 3
012432  170200                             STFPS   FPS               ;STORE FLOATING POINT STATUS
012434  022700  047600                     CMP     #47600,FPS        ;CHECK FLOATING POINT STATUS
012440  001401                             BEQ     .+4               ;BRANCH IF OK
012442  104000                             HLT                       ;FPS NOT EQUAL TO 47600

012444  174367  166332                     STD     3,ANS1            ;STORE 52525,52525,52525,52525
012450  000404                             BR      O57

012452  052525  052525  052525  N57:       52525,52525,52525,52525
012460  052525
012462  022767  052525  166312  O57:       CMP     #52525,ANS1       ;IS IT 52525?
012470  001401                             BEQ     .+4
012472  104004                             HLT+4                     ;ANS1 NOT EQUAL TO 52525

012474  022767  052525  166302             CMP     #52525,ANS2       ;IS IT 52525?
012502  001401                             BEQ     .+4
012504  104004                             HLT+4                     ;ANS2 NOT EQUAL TO 52525

012506  022767  052525  166272             CMP     #52525,ANS3       ;IS IT 52525?
012514  001401                             BEQ     .+4
012516  104004                             HLT+4                     ;ANS3 NOT EQUAL TO 52525

012520  022767  052525  166262             CMP     #52525,ANS4       ;IS IT 52525?
012526  001401                             BEQ     .+4
012530  104004                             HLT+4                     ;ANS4 NOT EQUAL TO 52525

012532  174305                             STD     3,%5              ;STORE AC3 INTO AC5
012534  172705                             LDD     %5,3              ;LOAD AC5 INTO AC3
012536  174367  166240                     STD     3,ANS1            ;STORE IT AGAIN

012542  022767  052525  166232             CMP     #52525,ANS1       ;IS IT 52525?
012550  001401                             BEQ     .+4
012552  104004                             HLT+4                     ;ANS1 NOT EQUAL TO 52525

012554  022767  052525  166222             CMP     #52525,ANS2       ;IS IT 52525?
012562  001401                             BEQ     .+4
012564  104004                             HLT+4                     ;ANS2 NOT EQUAL TO 52525

012566  022767  052525  166212             CMP     #52525,ANS3       ;IS IT 52525?
012574  001401                             BEQ     .+4
012576  104004                             HLT+4                     ;ANS3 NOT EQUAL TO 52525

012600  022767  052525  166202             CMP     #52525,ANS4       ;IS IT 52525?
012606  001401                             BEQ     .+4
012610  104004                             HLT+4                     ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*******************************************************************
                                        ;TEST 60                      LDD AND STD 100000,0,0,0
                                        ;     USING AC0 AND AC0     FPS = 40214     FEC = N/A
                                        ;*******************************************************************
012612  104400                                  SCOPE
012614  170127  040200                          LDFPS   #40214&57760
012620  172467  000020                          LDD     N60,0           ;LOAD 100000,0,0,0 INTO 0
012624  170200                                  STFPS   FPS             ;STORE FLOATING POINT STATUS
012626  022700  040214                          CMP     #40214,FPS      ;CHECK FLOATING POINT STATUS
012632  001401                                  BEQ     .+4             ;BRANCH IF OK
012634  104000                                  HLT                     ;FPS NOT EQUAL TO 40214

012636  174067  166140                          STD     0,ANS1          ;STORE 100000,0,0,0
012642  000404                                  BR      060

012644  100000  000000  000000  N60:            100000,0,0,0
012652  000000
012654  022767  100000  166120  060:            CMP     #100000,ANS1    ;IS IT 100000?
012662  001401                                  BEQ     .+4
012664  104004                                  HLT+4                   ;ANS1 NOT EQUAL TO 100000

012666  022767  000000  166110                  CMP     #0,ANS2         ;IS IT 0?
012674  001401                                  BEQ     .+4
012676  104004                                  HLT+4                   ;ANS2 NOT EQUAL TO 0

012700  022767  000000  166100                  CMP     #0,ANS3         ;IS IT 0?
012706  001401                                  BEQ     .+4
012710  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 0

012712  022767  000000  166070                  CMP     #0,ANS4         ;IS IT 0?
012720  001401                                  BEQ     .+4
012722  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*******************************************************************
                                        ;TEST 61                     LDD AND STD 100000,0,0,0
                                        ;    USING AC0 AND AC0     FPS = 147614     FEC = 14
                                        ;*******************************************************************
012724  104400                                  SCOPE
012726  170127  047600                          LDFPS   #147614357760
012732  172467  000036                          LDD     N61,0               ;LOAD 100000,0,0,0 INTO 0
012736  170200                                  STFPS   FPS                 ;STORE FLOATING POINT STATUS
012740  170367  166056                          STST    FEC                 ;STORE EXCEPTION CODES
012744  022700  147614                          CMP     #147614,FPS         ;CHECK FLOATING POINT STATUS
012750  001401                                  BEQ     .+4                 ;BRANCH IF OK
012752  104000                                  HLT                         ;FPS NOT EQUAL TO 147614

012754  022767  000014  166040                  CMP     #14,    FEC         ;CHECK FLOATING EXCEPTION CODE
012762  001401                                  BEQ     .+4                 ;BRANCH IF OK
012764  104000                                  HLT                         ;FEC NOT EQUAL TO 14

012766  174067  166010                          STD     0,ANS1              ;STORE 100000,0,0,0
012772  000404                                  BR      061

012774  100000  000000  000000  N61:            100000,0,0,0
013002  000000
013004  022767  100000  165770  061:            CMP     #100000,ANS1        ;IS IT 100000?
013012  001401                                  BEQ     .+4
013014  104004                                  HLT+4                       ;ANS1 NOT EQUAL TO 100000

013016  022767  000000  165760                  CMP     #0,ANS2             ;IS IT 0?
013024  001401                                  BEQ     .+4
013026  104004                                  HLT+4                       ;ANS2 NOT EQUAL TO 0

013030  022767  000000  165750                  CMP     #0,ANS3             ;IS IT 0?
013036  001401                                  BEQ     .+4
013040  104004                                  HLT+4                       ;ANS3 NOT EQUAL TO 0

013042  022767  000000  165740                  CMP     #0,ANS4             ;IS IT 0?
013050  001401                                  BEQ     .+4
013052  104004                                  HLT+4                       ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*************************************************************
                                        ;TEST 62                LDD, LDF AND STD 0,0,0,0
                                        ;*************************************************************

        013054  104400                          SCOPE
        013056  170127  047600                  LDFPS   #47600
        013062  172467  000016                  LDD     N62,0           ;LOAD 0,0,0,0 INTO 0

        013066  170001                          SETF                    ;SET FLOATING MODE
        013070  172467  000020                  LDF     NX62,0          ;LOAD -0,-0 INTO 0

        013074  170011                          SETD                    ;SET DOUBLE MODE
        013076  174067  165700                  STD     0,ANS1          ;STORE RESULT

        013102  000406                          BR      062

        013104  000000                  N62:    0                       ;INPUT DATA
        013106  000000                          0
        013110  000000                          0                       ;ANS3 = 0
        013112  000000                          0                       ;ANS4 = 0

        013114  177777                  NX62:   -0-1                    ;NEW DATA
        013116  177777                          -0-1

        013120  022767  000000  165660  062:    CMP     #0,ANS3         ;CHECK THIRD WORD
        013126  001401                          BEQ     .+4
        013130  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 0

        013132  022767  000000  165650          CMP     #0,ANS4         ;CHECK FOURTH WORD
        013140  001401                          BEQ     .+4
        013142  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*****************************************************************
                                        ;TEST 63                LDD, LDF AND STD 177777,177777,177777,177777
                                        ;*****************************************************************

013144  104400                                  SCOPE
013146  170127  047600                          LDFPS   #47600
013152  172467  000016                          LDD     N63,0           ;LOAD 177777,177777,177777,177777 INTO 0

013156  170001                                  SETF                    ;SET FLOATING MODE
013160  172467  000020                          LDF     NX63,0          ;LOAD -177777,-177777 INTO 0

013164  170011                                  SETD                    ;SET DOUBLE MODE
013166  174067  165610                          STD     0,ANS1          ;STORE RESULT

013172  000406                                  BR      063

013174  177777                          N63:    177777                  ;INPUT DATA
013176  177777                                  177777
013200  177777                                  177777                  ;ANS3 = 177777
013202  177777                                  177777                  ;ANS4 = 177777

013204  000000                          NX63:   -177777-1               ;NEW DATA
013206  000000                                  -177777-1

013210  022767  177777  165570  063:    CMP     #177777,ANS3    ;CHECK THIRD WORD
013216  001401                                  BEQ     .+4
013220  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 177777

013222  022767  177777  165560          CMP     #177777,ANS4    ;CHECK FOURTH WORD
013230  001401                                  BEQ     .+4
013232  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 177777
```

```
                                ;*************************************************************************
                                ;TEST 64                LDD, LDF AND STD 125252,125252,125252,125252
                                ;*************************************************************************

013234  104400                          SCOPE
013236  170127  047600                  LDFPS   #47600
013242  172467  000016                  LDD     N64,0           ;LOAD 125252,125252,125252,125252 INTO 0

013246  170001                          SETF                    ;SET FLOATING MODE
013250  172467  000020                  LDF     NX64,0          ;LOAD -125252,-125252 INTO 0

013254  170011                          SETD                    ;SET DOUBLE MODE
013256  174067  165520                  STD     0,ANS1          ;STORE RESULT

013262  000406                          BR      064

013264  125252                 N64:    125252                  ;INPUT DATA
013266  125252                         125252
013270  125252                         125252                  ;ANS3 = 125252
013272  125252                         125252                  ;ANS4 = 125252

013274  052525                 NX64:   -125252-1               ;NEW DATA
013276  052525                         -125252-1

013300  022767  125252  165500 064:    CMP     #125252,ANS3    ;CHECK THIRD WORD
013306  001401                         BEQ     .+4
013310  104004                         HLT+4                   ;ANS3 NOT EQUAL TO 125252

013312  022767  125252  165470         CMP     #125252,ANS4    ;CHECK FOURTH WORD
013320  001401                         BEQ     .+4
013322  104004                         HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                ;*****************************************************************
                                ;TEST 65                LDD, LDF AND STD 52525,52525,52525,52525
                                ;*****************************************************************

013324  104400                          SCOPE
013326  170127  047600                  LDFPS   #47600
013332  172467  000016                  LDD     N65,0           ;LOAD 52525,52525,52525,52525 INTO 0

013336  170001                          SETF                    ;SET FLOATING MODE
013340  172467  000020                  LDF     NX65,0          ;LOAD -52525,-52525 INTO 0

013344  170011                          SETD                    ;SET DOUBLE MODE
013346  174067  165430                  STD     0,ANS1          ;STORE RESULT

013352  000406                          BR      065

013354  052525                  N65:    52525                   ;INPUT DATA
013356  052525                          52525
013360  052525                          52525                   ;ANS3 = 52525
013362  052525                          52525                   ;ANS4 = 52525

013364  125252                  NX65:   -52525-1                ;NEW DATA
013366  125252                          -52525-1

013370  022767  052525  165410  065:    CMP     #52525,ANS3     ;CHECK THIRD WORD
013376  001401                          BEQ     .+4
013400  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

013402  022767  052525  165400          CMP     #52525,ANS4     ;CHECK FOURTH WORD
013410  001401                          BEQ     .+4
013412  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*****************************************************************
                                        ;TEST 66                 LDD, LDF AND STD 0,0,0,0
                                        ;*****************************************************************

013414  104400                                  SCOPE
013416  170127  047600                          LDFPS   #47600
013422  172567  000016                          LDD     N66,1           ;LOAD 0,0,0,0 INTO 1

013426  170001                                  SETF                    ;SET FLOATING MODE
013430  172567  000020                          LDF     NX66,1          ;LOAD -0,-0 INTO 1

013434  170011                                  SETD                    ;SET DOUBLE MODE
013436  174167  165340                          STD     1,ANS1          ;STORE RESULT

013442  000406                                  BR      066

013444  000000                          N66:    0                       ;INPUT DATA
013446  000000                                  0
013450  000000                                  0                       ;ANS3 = 0
013452  000000                                  0                       ;ANS4 = 0

013454  177777                          NX66:   -0-1                    ;NEW DATA
013456  177777                                  -0-1

013460  022767  000000  165320  066:    CMP     #0,ANS3         ;CHECK THIRD WORD
013466  001401                                  BEQ     .+4
013470  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 0

013472  022767  000000  165310          CMP     #0,ANS4         ;CHECK FOURTH WORD
013500  001401                                  BEQ     .+4
013502  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                                        ;*****************************************************************
                                        ;TEST 67                LDD, LDF AND STD 177777,177777,177777,177777
                                        ;*****************************************************************

013504  104400                                  SCOPE
013506  170127  047600                          LDFPS   #47600
013512  172567  000016                          LDD     N67,1           ;LOAD 177777,177777,177777,177777 INTO 1

013516  170001                                  SETF                    ;SET FLOATING MODE
013520  172567  000020                          LDF     NX67,1          ;LOAD -177777,-177777 INTO 1

013524  170011                                  SETD                    ;SET DOUBLE MODE
013526  174167  165250                          STD     1,ANS1          ;STORE RESULT

013532  000406                                  BR      067

013534  177777                          N67:    177777                  ;INPUT DATA
013536  177777                                  177777
013540  177777                                  177777                  ;ANS3 = 177777
013542  177777                                  177777                  ;ANS4 = 177777

013544  000000                          NX67:   -177777-1               ;NEW DATA
013546  000000                                  -177777-1

013550  022767  177777  165230  067:    CMP     #177777,ANS3    ;CHECK THIRD WORD
013556  001401                                  BEQ     .+4
013560  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 177777

013562  022767  177777  165220          CMP     #177777,ANS4    ;CHECK FOURTH WORD
013570  001401                                  BEQ     .+4
013572  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 177777
```

```
                        ;*****************************************************************************
                        ;TEST 70                LDD, LDF AND STD 125252,125252,125252,125252
                        ;*****************************************************************************

013574  104400                  SCOPE
013576  170127  047600          LDFPS   #47600
013602  172567  000016          LDD     N70,1           ;LOAD 125252,125252,125252,125252 INTO 1

013606  170001                  SETF                    ;SET FLOATING MODE
013610  172567  000020          LDF     NX70,1          ;LOAD -125252,-125252 INTO 1

013614  170011                  SETD                    ;SET DOUBLE MODE
013616  174167  165160          STD     1,ANS1          ;STORE RESULT

013622  000406                  BR      070

013624  125252          N70:    125252                  ;INPUT DATA
013626  125252                  125252
013630  125252                  125252                  ;ANS3 = 125252
013632  125252                  125252                  ;ANS4 = 125252

013634  052525          NX70:   -125252-1               ;NEW DATA
013636  052525                  -125252-1

013640  022767  125252  165140  070:    CMP     #125252,ANS3    ;CHECK THIRD WORD
013646  001401                  BEQ     .+4
013650  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 125252

013652  022767  125252  165130          CMP     #125252,ANS4    ;CHECK FOURTH WORD
013660  001401                  BEQ     .+4
013662  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                  ;*****************************************************************
                                  ;TEST 71                      LDD, LDF AND STD 52525,52525,52525,52525
                                  ;*****************************************************************

        013664  104400                            SCOPE
        013666  170127  047600                    LDFPS   #47600
        013672  172567  000016                    LDD     N71,1           ;LOAD 52525,52525,52525,52525 INTO 1

        013676  170001                            SETF                    ;SET FLOATING MODE
        013700  172567  000020                    LDF     NX71,1          ;LOAD -52525,-52525 INTO 1

        013704  170011                            SETD                    ;SET DOUBLE MODE
        013706  174167  165070                    STD     1,ANS1          ;STORE RESULT

        013712  000406                            BR      071

        013714  052525                    N71:    52525                   ;INPUT DATA
        013716  052525                            52525
        013720  052525                            52525                   ;ANS3 = 52525
        013722  052525                            52525                   ;ANS4 = 52525

        013724  125252                    NX71:   -52525-1                ;NEW DATA
        013726  125252                            -52525-1

        013730  022767  052525  165050    071:    CMP     #52525,ANS3     ;CHECK THIRD WORD
        013736  001401                            BEQ     .+4
        013740  104004                            HLT+4                   ;ANS3 NOT EQUAL TO 52525

        013742  022767  052525  165040            CMP     #52525,ANS4     ;CHECK FOURTH WORD
        013750  001401                            BEQ     .+4
        013752  104004                            HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                                        ;*************************************************************
                                        ;TEST 72                   LDD, LDF AND STD 0,0,0,0
                                        ;*************************************************************

      013754  104400                              SCOPE
      013756  170127  047600                      LDFPS   #47600
      013762  172667  000016                      LDD     N72,2           ;LOAD 0,0,0,0 INTO 2

      013766  170001                              SETF                    ;SET FLOATING MODE
      013770  172667  000020                      LDF     NX72,2          ;LOAD -0,-0 INTO 2

      013774  170011                              SETD                    ;SET DOUBLE MODE
      013776  174267  165000                      STD     2,ANS1          ;STORE RESULT

      014002  000406                              BR      072

      014004  000000                  N72:        0                       ;INPUT DATA
      014006  000000                              0
      014010  000000                              0                       ;ANS3 = 0
      014012  000000                              0                       ;ANS4 = 0

      014014  177777                  NX72:       -0-1                    ;NEW DATA
      014016  177777                              -0-1

      014020  022767  000000  164760  072:        CMP     #0,ANS3         ;CHECK THIRD WORD
      014026  001401                              BEQ     .+4
      014030  104004                              HLT+4                   ;ANS3 NOT EQUAL TO 0

      014032  022767  000000  164750              CMP     #0,ANS4         ;CHECK FOURTH WORD
      014040  001401                              BEQ     .+4
      014042  104004                              HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                        ;*****************************************************************
                        ;TEST 73                LDD, LDF AND STD 177777,177777,177777,177777
                        ;*****************************************************************

014044  104400                  SCOPE
014046  170127  047600          LDFPS   #47600
014052  172667  000016          LDD     N73,2           ;LOAD 177777,177777,177777,177777 INTO 2

014056  170001                  SETF                    ;SET FLOATING MODE
014060  172667  000020          LDF     NX73,2          ;LOAD -177777,-177777 INTO 2

014064  170011                  SETD                    ;SET DOUBLE MODE
014066  174267  164710          STD     2,ANS1          ;STORE RESULT

014072  000406                  BR      073

014074  177777          N73:    177777                  ;INPUT DATA
014076  177777                  177777
014100  177777                  177777                  ;ANS3 = 177777
014102  177777                  177777                  ;ANS4 = 177777

014104  000000          NX73:   -177777-1               ;NEW DATA
014106  000000                  -177777-1

014110  022767  177777  164670  073:   CMP     #177777,ANS3    ;CHECK THIRD WORD
014116  001401                  BEQ     .+4
014120  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 177777

014122  022767  177777  164660          CMP     #177777,ANS4    ;CHECK FOURTH WORD
014130  001401                  BEQ     .+4
014132  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 177777
```

```
                        ;*****************************************************************************
                        ;TEST 74                LDD, LDF AND STD 125252,125252,125252,125252
                        ;*****************************************************************************

014134  104400                          SCOPE
014136  170127  047600                  LDFPS   #47600
014142  172667  000016                  LDD     N74,2           ;LOAD 125252,125252,125252,125252 INTO 2

014146  170001                          SETF                    ;SET FLOATING MODE
014150  172667  000020                  LDF     NX74,2          ;LOAD -125252,-125252 INTO 2

014154  170011                          SETD                    ;SET DOUBLE MODE
014156  174267  164620                  STD     2,ANS1          ;STORE RESULT

014162  000406                          BR      074

014164  125252                N74:     125252                  ;INPUT DATA
014166  125252                         125252
014170  125252                         125252                  ;ANS3 = 125252
014172  125252                         125252                  ;ANS4 = 125252

014174  052525                NX74:    -125252-1               ;NEW DATA
014176  052525                         -125252-1

014200  022767  125252  164600  074:    CMP     #125252,ANS3    ;CHECK THIRD WORD
014206  001401                          BEQ     .+4
014210  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 125252

014212  022767  125252  164570          CMP     #125252,ANS4    ;CHECK FOURTH WORD
014220  001401                          BEQ     .+4
014222  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                        ;*****************************************************************
                        ;TEST 75                LDD, LDF AND STD 52525,52525,52525,52525
                        ;*****************************************************************

014224  104400                          SCOPE
014226  170127  047600                  LDFPS   #47600
014232  172667  000016                  LDD     N75,2           ;LOAD 52525,52525,52525,52525 INTO 2

014236  170001                          SETF                    ;SET FLOATING MODE
014240  172667  000020                  LDF     NX75,2          ;LOAD -52525,-52525 INTO 2

014244  170011                          SETD                    ;SET DOUBLE MODE
014246  174267  164530                  STD     2,ANS1          ;STORE RESULT

014252  000406                          BR      075

014254  052525                N75:      52525                   ;INPUT DATA
014256  052525                          52525
014260  052525                          52525                   ;ANS3 = 52525
014262  052525                          52525                   ;ANS4 = 52525

014264  125252                NX75:     -52525-1                ;NEW DATA
014266  125252                          -52525-1

014270  022767  052525  164510  075:    CMP     #52525,ANS3     ;CHECK THIRD WORD
014276  001401                          BEQ     .+4
014300  104004                          HLT+4                   ;ANS3 NOT EQUAL TO 52525

014302  022767  052525  164500          CMP     #52525,ANS4     ;CHECK FOURTH WORD
014310  001401                          BEQ     .+4
014312  104004                          HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
                        ;*****************************************************************
                        ;TEST 76                LDD, LDF AND STD 0,0,0,0
                        ;*****************************************************************

014314  104400                  SCOPE
014316  170127  047600          LDFPS   #47600
014322  172767  000016          LDD     N76,3           ;LOAD 0,0,0,0 INTO 3

014326  170001                  SETF                    ;SET FLOATING MODE
014330  172767  000020          LDF     NX76,3          ;LOAD -0,-0 INTO 3

014334  170011                  SETD                    ;SET DOUBLE MODE
014336  174367  164440          STD     3,ANS1          ;STORE RESULT

014342  000406                  BR      076

014344  000000          N76:    0                       ;INPUT DATA
014346  000000                  0
014350  000000                  0                       ;ANS3 = 0
014352  000000                  0                       ;ANS4 = 0

014354  177777          NX76:   -0-1                    ;NEW DATA
014356  177777                  -0-1

014360  022767  000000  164420  076:    CMP     #0,ANS3         ;CHECK THIRD WORD
014366  001401                  BEQ     .+4
014370  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 0

014372  022767  000000  164410          CMP     #0,ANS4         ;CHECK FOURTH WORD
014400  001401                  BEQ     .+4
014402  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 0
```

```
                        ;*****************************************************************
                        ;TEST 77                LDD, LDF AND STD 177777,177777,177777,177777
                        ;*****************************************************************

014404  104400                  SCOPE
014406  170127  047600          LDFPS   #47600
014412  172767  000016          LDD     N77,3           ;LOAD 177777,177777,177777,177777 INTO 3

014416  170001                  SETF                    ;SET FLOATING MODE
014420  172767  000020          LDF     N77,3           ;LOAD -177777,-177777 INTO 3

014424  170011                  SETD                    ;SET DOUBLE MODE
014426  174367  164350          STD     3,ANS1          ;STORE RESULT

014432  000406                  BR      077

014434  177777          N77:    177777                  ;INPUT DATA
014436  177777                  177777
014440  177777                  177777                  ;ANS3 = 177777
014442  177777                  177777                  ;ANS4 = 177777

014444  000000          NX77:   -177777-1               ;NEW DATA
014446  000000                  -177777-1

014450  022767  177777  164330  077:    CMP     #177777,ANS3    ;CHECK THIRD WORD
014456  001401                  BEQ     .+4
014460  104004                  HLT+4                   ;ANS3 NOT EQUAL TO 177777

014462  022767  177777  164320          CMP     #177777,ANS4    ;CHECK FOURTH WORD
014470  001401                  BEQ     .+4
014472  104004                  HLT+4                   ;ANS4 NOT EQUAL TO 177777
```

```
                                        ;*****************************************************************
                                        ;TEST 100               LDD, LDF AND STD 125252,125252,125252,125252
                                        ;*****************************************************************

    014474  104400                              SCOPE
    014476  170127  047600                      LDFPS   #47600
    014502  172767  000016                      LDD     N100,3          ;LOAD 125252,125252,125252,125252 INTO 3

    014506  170001                              SETF                    ;SET FLOATING MODE
    014510  172767  000020                      LDF     NX100,3         ;LOAD -125252,-125252 INTO 3

    014514  170011                              SETD                    ;SET DOUBLE MODE
    014516  174367  164260                      STD     3,ANS1          ;STORE RESULT

    014522  000406                              BR      0100

    014524  125252                      N100:   125252                  ;INPUT DATA
    014526  125252                              125252
    014530  125252                              125252                  ;ANS3 = 125252
    014532  125252                              125252                  ;ANS4 = 125252

    014534  052525                      NX100:  -125252-1               ;NEW DATA
    014536  052525                              -125252-1

    014540  022767  125252  164240      0100:   CMP     #125252,ANS3    ;CHECK THIRD WORD
    014546  001401                              BEQ     .+4
    014550  104004                              HLT+4                   ;ANS3 NOT EQUAL TO 125252

    014552  022767  125252  164230              CMP     #125252,ANS4    ;CHECK FOURTH WORD
    014560  001401                              BEQ     .+4
    014562  104004                              HLT+4                   ;ANS4 NOT EQUAL TO 125252
```

```
                                        ;*************************************************************************
                                        ;TEST 101                  LDD, LDF AND STD 52525,52525,52525,52525
                                        ;*************************************************************************

014564  104400                                  SCOPE
014566  170127  047600                          LDFPS   #47600
014572  172767  000016                          LDD     N101,3          ;LOAD 52525,52525,52525,52525 INTO 3

014576  170001                                  SETF                    ;SET FLOATING MODE
014600  172767  000020                          LDF     NX101,3         ;LOAD -52525,-52525 INTO 3

014604  170011                                  SETD                    ;SET DOUBLE MODE
014606  174367  164170                          STD     3,ANS1          ;STORE RESULT

014612  000406                                  BR      0101

014614  052525                          N101:   52525                   ;INPUT DATA
014616  052525                                  52525
014620  052525                                  52525                   ;ANS3 = 52525
014622  052525                                  52525                   ;ANS4 = 52525

014624  125252                          NX101:  -52525-1                ;NEW DATA
014626  125252                                  -52525-1

014630  022767  052525  164150  0101:   CMP     #52525,ANS3     ;CHECK THIRD WORD
014636  001401                                  BEQ     .+4
014640  104004                                  HLT+4                   ;ANS3 NOT EQUAL TO 52525

014642  022767  052525  164140          CMP     #52525,ANS4     ;CHECK FOURTH WORD
014650  001401                                  BEQ     .+4
014652  104004                                  HLT+4                   ;ANS4 NOT EQUAL TO 52525
```

```
014654  104400                  DONE:   SCOPE
014656  032737  002000  177570          BIT     #SW10,@#SWR     ;RING THE BELL?
014664  001005                          BNE     1$              ;NO!
014666  012767  000007  001242          MOV     #BELL,.TYPE     ;TYPE A BELL
014674  000004  016136                  TYPE    ,.TYPE
014700  005046                  1$:     CLR     -(6)            ;CLEAR TRACE TRAP
014702  032737  010000  177570          BIT     #SW12,@#SWR     ;RUN WITH TRT?
014710  001010                          BNE     2$
014712  005167  001222                  COM     TRPB
014716  100005                          BPL     2$
014720  052716  000020                  BIS     #20,(6)         ;SET TRACE TRAP
014724  012746  001062                  MOV     #BEGIN,-(6)     ;JUMP TO START OF TEST
014730  000412                          BR      YESRT
014732  012746  001062          2$:     MOV     #BEGIN,-(6)     ;JUMP TO START OF TEST
014736  013700  000042                  MOV     @#42,R0         ;GET MONITOR ADDRESS
014742  001404                          BEQ     3$              ;IF NONE
014744  004710                          JSR     7,(0)           ;GO TO MONITOR
014746  000240                          NOP
014750  000240                          NOP
014752  000240                          NOP
014754  000002                  3$:     RTI
014756  000002                  YESRT:  RTI                     ;RETURN TO PROGRAM FROM TRAP

014760  032737  000400  177570  .EMT:   BIT     #SW08,@#SWR     ;KILL LDUB OR LOOP ON SPEC. TEST
014766  001404                          BEQ     1$
014770  123767  177570  164002          CMPB    @#SWR,ICNT      ;ON RIGHT TEST?   #SW7-0#
014776  001437                          BEQ     OVER
015000  113703  177570          1$:     MOVB    @#SWR,R3        ;GET UB BITS
015004  170003                          LDUB
015006  032737  040000  177570          BIT     #SW14,@#SWR     ;LOOP ON TEST
015014  001026                          BNE     KIT
015016  032737  004000  177570          BIT     #SW11,@#SWR     ;KILL ITERATIONS
015024  001012                          BNE     SAVLAD
015026  105767  163747                  TSTB    ICNT+1
015032  001404                          BEQ     2$              ;BRANCH IF FIRST
015034  126767  001106  163737          CMPB    TIMES,ICNT+1    ;DONE?
015042  001013                          BNE     KIT             ;BRANCH IF NOT
015044  112767  000001  163727  2$:     MOVB    #1,ICNT+1       ;FIRST ITERATION
015052  105267  163722          SAVLAD: INCB    ICNT            ;COUNT TEST NUMBERS
015056  011667  001060                  MOV     (6),LAD         ;SAVE LOOP ADDRESS
015062  016737  163712  177570          MOV     ICNT,@#DISPLAY  ;DISPLAY TEST NO. AND ITERATION COUNT
015070  000002                          RTI                     ;RETURN

015072  105267  163703          KIT:    INCB    ICNT+1
015076  016737  163676  177570  OVER:   MOV     ICNT,@#DISPLAY  ;SET UP DISPLAY
015104  005767  001032                  TST     LAD             ;FIRST ONE?
015110  001760                          BEQ     SAVLAD
015112  016716  001024                  MOV     LAD,(6)         ;FUDGE RETURN ADDRESS
015116  000002                          RTI                     ;FIXES PS
```

```
015120  032737  002000  177570  .TRP:   BIT     #SW10,@#SWR     ;BELL ON ERROR?
015126  001405                          BEQ     1$              ;NO - SKIP
015130  012767  000007  001000          MOV     #BELL,.TYPE     ;TYPE A BELL
015136  000004  016136                  TYPE    .TYPE
015142  004767  000406          1$:     JSR     PC,ERROR        ;COUNT THE NUMBER OF ERRORS
015146  010446                          MOV     R4,-(6)
015150  032737  020000  177570          BIT     #SW13,@#SWR     ;SKIP TYPEOUT IF SET
015156  001072                          BNE     4$
015160  000004  016104                  TYPE    ,RETURN
015164  016646  000002                  MOV     2(6),-(6)       ;PUT ADDRESS OF INSTRUCTION ON STACK
015170  162716  000002                  SUB     #2,(6)
015174  011605                          MOV     (6),TTY         ;TYPE (6) IN OCTAL
015176  004767  000212                  JSR     %7,PRINTR       ;TYPE LEADING ZERO'S
015202  000004  016112                  TYPE    ,SPACE+3
015206  010005                          MOV     R0,TTY          ;TYPE R0 IN OCTAL
015210  004767  000200                  JSR     %7,PRINTR       ;TYPE LEADING ZERO'S
015214  000004  016113                  TYPE    ,SPACE+4
015220  012703  001002                  MOV     #ANS1,R3        ;ADDRESS OF DATA
015224  113604                          MOVB    @(6)+,R4        ;AMOUNT OF DATA IN TABLE
015226  001426                          BEQ     3$
015230  100016                          BPL     2$              ;TYPE STACK?
015232  016667  000006  163542          MOV     6(6),ANS1
015240  016667  000010  163536          MOV     10(6),ANS2
015246  016667  000012  163532          MOV     12(6),ANS3
015254  016667  000014  163526          MOV     14(6),ANS4
015262  042704  177600                  BIC     #177600,R4      ;CLEAR SIGN
015266  000004  016113          2$:     TYPE    ,SPACE+4
015272  012305                          MOV     (3)+,TTY        ;TYPE (3)+ IN OCTAL
015274  004767  000114                  JSR     %7,PRINTR       ;TYPE LEADING ZERO'S
015300  005304                          DEC     R4
015302  001371                          BNE     2$
015304  005700                  3$:     TST     FPS
015306  100016                          BPL     4$
015310  000004  016107                  TYPE    ,SPACE
015314  170367  163502                  STST    FEC
015320  016705  163476                  MOV     FEC,TTY         ;TYPE FEC IN OCTAL
015324  004767  000064                  JSR     %7,PRINTR       ;TYPE LEADING ZERO'S
015330  000004  016112                  TYPE    ,SPACE+3
015334  016705  163464                  MOV     FEA,TTY         ;TYPE FEA IN OCTAL
015340  004767  000050                  JSR     %7,PRINTR       ;TYPE LEADING ZERO'S
015344  012604                  4$:     MOV     (6)+,R4
015346  005737  177570                  TST     @#SWR           ;HALT ON ERROR
015352  100001                          BPL     .+4             ;SKIP IF CONTINUE
015354  000000                          HALT                    ;HALT ON ERROR!
015356  032737  001000  177570          BIT     #SW09,@#SWR     ;CHECK FOR INHIBIT LOOP ON ERROR
015364  001001                          BNE     .+4             ;SKIP IF LOOP ON ERROR
015366  000002                          RTI
015370  105067  163405                  CLRB    ICNT+1
015374  032737  000400  177570          BIT     #SW08,@#SWR     ;CHECK FOR LOAD MICROBREAK
015402  001233                          BNE     KIT             ;BRANCH IF NOT
015404  113703  177570                  MOVB    @#SWR,R3        ;PUT MICROBREAK ADDRESS IN R3
015410  170003                          LDUB                    ;LOAD MICROBREAK
015412  000627                          BR      KIT             ;LOOP ON TEST UNTIL NO ERRORS
```

```
015414  112767  000001  000130  PRINTR: MOVB    #1,A4$          ;SET ZERO FILL SWITCH
015422  000402                  BR      .+6
015424  005067  000122          PRINTS: CLR     A4$             ;SUPRESS LEADING ZERO'S
015430  112767  177772  000115          MOVB    #-6,A4$+1       ;SET COUNT
015436  010446                  MOV     R4,-(6)                 ;SAVE R4
015440  012704  015542                  MOV     #3$,R4          ;SET POINTER TO FIRST ASCII CHAR.
015444  105014                  CLRB    (4)                     ;CLEAR FIRST BYTE
015446  000405                  BR      2$                      ;ROTATE FIRST BIT
015450  105014          1$:     CLRB    (4)                     ;CLEAR BYTE OF CHARACTER
015452  006105                  ROL     TTY                     ;ROTATE BIT INTO C
015454  106114                  ROLB    (4)                     ;PACK IT
015456  006105                  ROL     TTY                     ;ROTATE BIT INTO C
015460  106114                  ROLB    (4)                     ;PACK IT
015462  006105          2$:     ROL     TTY                     ;ROTATE BIT INTO C
015464  106114                  ROLB    (4)                     ;PACK IT
015466  105714                  TSTB    (4)
015470  001402                  BEQ     .+6
015472  105267  000054                  INCB    A4$
015476  105767  000050                  TSTB    A4$             ;CHECK FILL SWITCH
015502  001402                  BEQ     .+6
015504  152724  000060                  BISB    #'0,(4)+        ;MAKE INTO ASCII CHAR
015510  105267  000037                  INCB    A4$+1
015514  001355                  BNE     1$                      ;REPEAT
015516  022704  015542                  CMP     #3$,R4
015522  001002                  BNE     .+6
015524  112724  000060                  MOVB    #'0,(4)+
015530  105014                  CLRB    (4)
015532  000004  015542                  TYPE    ,3$             ;TYPE IT
015536  012604                  MOV     (6)+,R4                 ;RESTORE R4
015540  000207                  RTS     PC

015542  000004          3$:     .BLKW   4
015552  000000          A4$:    0

015554  005267  000364  ERROR:  INC     ERRORS                  ;COUNT ERRORS
015560  132737  000001  000041          BITB    #1,@#41         ;AUTO MODE?
015566  001412                  BEQ     1$                      ;NO!
015570  022767  000010  000346          CMP     #10.,ERRORS     ;TOO MANY?
015576  001006                  BNE     1$                      ;NOT YET
015600  013700  000042                  MOV     @#42,R0         ;GET ADDRESS
015604  001403                  BEQ     1$                      ;FORGET IT IF ZERO
015606  005037  000042                  CLR     @#42            ;ZAP 42
015612  004710                  JSR     PC,(0)                  ;CALL THE MONITOR
015614  000207          1$:     RTS     PC                      ;RETURN
```

```
015616  012777  016012  000306  POWDWN: MOV     #ILLUP,@UPVEC   ;SET FOR FAST UP
015624  012777  000340  000302          MOV     #340,@UPVEC+2   ;PRIO:7
015632  170246                          STFPS   -(6)            ;GET THE FPS
015634  170011                          SETD
015636  174046                          STD     AC0,-(6)        ;SAVE AC'S
015640  174146                          STD     AC1,-(6)
015642  174246                          STD     AC2,-(6)
015644  174346                          STD     AC3,-(6)
015646  172404                          LDD     AC4,AC0
015650  174046                          STD     AC0,-(6)
015652  172405                          LDD     AC5,AC0
015654  174046                          STD     AC0,-(6)
015656  010046                          MOV     R0,-(6)         ;SAVE REGISTERS
015660  010146                          MOV     R1,-(6)
015662  010246                          MOV     R2,-(6)
015664  010346                          MOV     R3,-(6)
015666  010446                          MOV     R4,-(6)
015670  010546                          MOV     R5,-(6)
015672  010667  000220                  MOV     SP,SAVE6        ;SAVE SP
015676  012777  015706  000226          MOV     #POWUP,@UPVEC   ;SET UP VECTOR
015704  000000                          HALT

015706  016706  000204          POWUP:  MOV     SAVE6,SP        ;GET SP
015712  005001                          CLR     R1              ;WAIT LOOP FOR THE TTY
015714  005201                  1$:     INC     R1
015716  001376                          BNE     1$
015720  012605                          MOV     (6)+,R5         ;GET THE REGISTERS
015722  012604                          MOV     (6)+,R4
015724  012603                          MOV     (6)+,R3
015726  012602                          MOV     (6)+,R2
015730  012601                          MOV     (6)+,R1
015732  012600                          MOV     (6)+,R0
015734  170011                          SETD
015736  172426                          LDD     (6)+,AC0        ;RESTORE THE AC'S
015740  174005                          STD     AC0,AC5
015742  172426                          LDD     (6)+,AC0
015744  174004                          STD     AC0,AC4
015746  172726                          LDD     (6)+,AC3
015750  172626                          LDD     (6)+,AC2
015752  172526                          LDD     (6)+,AC1
015754  172426                          LDD     (6)+,AC0
015756  170126                          LDFPS   (6)+            ;RESTORE FPS
015760  012777  015616  000140          MOV     #POWDWN,@DWNVEC ;SET UP THE POWER DOWN VECTOR
015766  012777  000340  000134          MOV     #340,@DWNVEC+2
015774  000004  016000                  TYPE    ..+2            ;.ASCIZ <15><12>"POWER"
016010  000002                          RTI

016012  000000          ILLUP:  HALT                    ;THE POWER UP SEQUENCE WAS STARTED
016014  000776                  BR      .-2             ; BEFORE THE POWER DOWN WAS COMPLETE
```

```
016016  010546                  .IOT:   MOV     TTY,-(6)        ;SAVE TTY
016020  017605  000002                  MOV     @2(6),TTY       ;GET ADDRESS TO BE TYPED
016024  105715                  1$:     TSTB    (TTY)           ;TERMINATOR?
016026  001406                          BEQ     2$
016030  112537  177566                  MOVB    (TTY)+,@#177566 ;LOAD AND TYPE THE CHARACTER
016034  105737  177564                  TSTB    @#177564        ;IS THE PRINTER READY
016040  100375                          BPL     .-4
016042  000770                          BR      1$              ;GET THE NEXT CHARACTER
016044  017646  000002          2$:     MOV     @2(6),-(6)      ;GET ADDRESS TO BE TYPED
016050  062766  000002  000004          ADD     #2,4(6)         ;ADD 2 TO THE ADDRESS
016056  022666  000002                  CMP     (6)+,2(6)       ;IS IT .+2?
016062  001006                          BNE     3$              ;NO
016064  062705  000002                  ADD     #2,TTY          ;ADD 2 TO THE ADDRESS
016070  042705  000001                  BIC     #1,TTY          ;BACK UP TO AN EVEN BYTE
016074  010566  000002                  MOV     TTY,2(6)        ;RESTORE ADDRESS
016100  012605                  3$:     MOV     (6)+,TTY        ;RESTORE TTY
016102  000002                          RTI                     ;RETURN

016104  005015      000         RETURN: .ASCIZ  <15><12>        ;RETURN AND LINEFEED
016107      015  020012  020040 SPACE:  .ASCIZ  <15><12>"   "   ;RETURN AND 3 SPACES
016114      000
        016116                  .EVEN
016116  000000                  SAVE6:  0
016120  172160                  FPTADR: 172160                  ;FLOATING POINT ADDRESS ON THE 11/20
016122  000244  000246          FPVECT: 244,246                 ;FLOATING POINT VECTOR ADDRESS
016126  000024  000026          DWNVEC: 24,26                   ;POWER DOWN VECTOR ADDRESS
016132  000024  000026          UPVEC:  24,26                   ;POWER UP VECTOR ADDRESS
016136  000000                  .TYPE:  0
016140  000000                  TRPB:   0
016142  000000                  LAD:    0                       ;LOOP ADDRESS
016144  000000                  ERRORS: 0                       ;ERROR COUNT
016146  000377                  TIMES:  377                     ;ITERATION COUNT
        000001                  .END
```

```
AC0     =%000000      716#   3712   3716*  3717   3718*  3719   3741*  3742   3743*  3744   3748*
AC1     =%000001      717#   3713   3747*
AC2     =%000002      718#   3714   3746*
AC3     =%000003      719#   3715   3745*
AC4     =%000004      720#   3716   3744*
AC5     =%000005      721#   3718   3742*
ANS1     001002       750#    798*   804    825*   831    852*   858    879*   885    906*   912    938*   944
                      969*    972*   973    988    995   1005*  1008   1010*  1021   1028   1038*  1043*  1061
                     1063    1073*  1078*  1096   1106*  1109   1111*  1129   1139*  1144*  1162   1164   1174*
                     1179*   1190   1198   1216*  1221*  1246*  1249*  1250   1278*  1283   1301*  1303   1331*
                     1336    1354*  1356   1384*  1389   1407*  1409   1437*  1442   1460*  1462   1490*  1495
                     1513*   1515   1543*  1548   1566*  1568   1596*  1601   1619*  1621   1649*  1654   1672*
                     1674    1702*  1707   1725*  1727   1755*  1760   1778*  1780   1808*  1813   1831*  1833
                     1861*   1866   1884*  1886   1914*  1919   1937*  1939   1967*  1972   1990*  1992   2020*
                     2025    2043*  2045   2073*  2078   2096*  2098   2126*  2131   2149*  2151   2179*  2184
                     2202*   2204   2232*  2237   2255*  2257   2285*  2290   2308*  2310   2338*  2343   2361*
                     2363    2391*  2396   2414*  2416   2444*  2449   2467*  2469   2497*  2502   2520*  2522
                     2550*   2555   2573*  2575   2603*  2608   2626*  2628   2656*  2661   2679*  2681   2709*
                     2714    2732*  2734   2762*  2767   2785*  2787   2815*  2820   2838*  2840   2868*  2873
                     2891*   2893   2921*  2926   2944*  2946   2974*  2979   3013*  3018   3047*  3080*  3113*
                     3146*   3179*  3212*  3245*  3278*  3311*  3344*  3377*  3410*  3443*  3476*  3509*  3542*
                     3628    3632*
ANS2     001004       751     808    835    862    889    916    948    977    999   1032   1067   1100   1133
                     1168    1202   1254   1287   1307   1340   1360   1393   1413   1446   1466   1499   1519
                     1552    1572   1605   1625   1658   1678   1711   1731   1764   1784   1817   1837   1870
                     1890    1923   1943   1976   1996   2029   2049   2082   2102   2135   2155   2188   2208
                     2241    2261   2294   2314   2347   2367   2400   2420   2453   2473   2506   2526   2559
                     2579    2612   2632   2665   2685   2718   2738   2771   2791   2824   2844   2877   2897
                     2930    2950   2983   3022   3633*
ANS3     001006       752#   1041   1089   1122   1142   1206   1258   1291   1311   1344   1364   1397   1417
                     1450    1470   1503   1523   1556   1576   1609   1629   1662   1682   1715   1735   1769
                     1788    1821   1841   1874   1894   1927   1947   1980   2000   2033   2053   2086   2106
                     2139    2159   2192   2212   2245   2265   2298   2318   2351   2371   2404   2424   2457
                     2477    2510   2530   2563   2583   2616   2636   2669   2689   2722   2742   2775   2795
                     2828    2848   2881   2901   2934   2954   2987   3026   3059   3092   3125   3158   3191
                     3224    3257   3290   3323   3356   3389   3422   3455   3488   3521   3554   3634*
ANS4     001010       753#   1210   1262   1295   1315   1348   1368   1401   1421   1454   1474   1507   1527
                     1560    1580   1613   1633   1666   1686   1719   1739   1772   1792   1825   1845   1878
                     1898    1931   1951   1984   2004   2037   2057   2090   2110   2143   2163   2196   2216
                     2249    2269   2302   2322   2355   2375   2408   2428   2461   2481   2514   2534   2567
                     2587    2620   2640   2673   2693   2726   2746   2779   2799   2832   2852   2885   2905
                     2938    2958   2991   3030   3063   3096   3129   3162   3195   3228   3261   3294   3327
                     3360    3393   3426   3459   3492   3525   3558   3635*
ANS5     001012       754#   1219
ANS6     001014       755#
ANS7     001016       756#
ANS8     001020       757#
ANX17    002774      1232#
ANX7     001674       959#
ANY17    003010      1238#   1244   1246
ANY7     001704       963#    967    969
A4$      015552      3664*   3666*  3667*  3681*  3682   3685*  3696#
BEG      001026       740     761#
BEGIN    001062       765     770#  3573   3575
BELL   = 000007       705#   3565   3613
DISPLA= 177570        701#   3602*  3606*
```

DCFPCB.P11 CROSS REFERENCE TABLE -- USER SYMBOLS

```
DONE    014654          3562#
DWNVEC  016126           773*    774*   3750*   3751*   3782#
ERROR   015554          3615    3698#
ERRORS  016144          3698*   3701    3787#
FEA     001024           759#   3649
FEC     001022           744*    758#    929*    934    3004*   3009    3645*   3646
FLTERR  000760           743#    781
FPS    =%000000          706#    743*    793*    794     820*    821     847*    848     874*    875     901*    902     928*
                         930    1273*   1274    1326*   1327    1379*   1380    1432*   1433    1485*   1486    1538*   1539
                        1591*   1592    1644*   1645    1697*   1698    1750*   1751    1803*   1804    1856*   1857    1909*
                        1910    1962*   1963    2015*   2016    2068*   2069    2121*   2122    2174*   2175    2227*   2228
                        2280*   2281    2333*   2334    2386*   2387    2439*   2440    2492*   2493    2545*   2546    2598*
                        2599    2651*   2652    2704*   2705    2757*   2758    2810*   2811    2863*   2864    2916*   2917
                        2969*   2970    3003*   3005    3642
FPTADR  016120           767    3780#
FPVECT  016122           781*    782*   3781#
HLT    = 104000          703#    796     806     810     823     833     837     850     860     864     877     887     891
                         904     914     918     932     936     946     950     970     975     979     997    1001    1006
                        1011    1030    1034    1039    1044    1065    1069    1074    1079    1098    1102    1107    1112
                        1131    1135    1140    1145    1166    1170    1175    1180    1200    1204    1208    1213    1217
                        1222    1247    1252    1256    1260    1264    1276    1285    1289    1293    1297    1305    1309
                        1313    1317    1329    1338    1342    1346    1350    1358    1362    1366    1370    1382    1391
                        1395    1399    1403    1411    1415    1419    1423    1435    1444    1448    1452    1456    1464
                        1468    1472    1476    1488    1497    1501    1505    1509    1517    1521    1525    1529    1541
                        1550    1554    1558    1562    1570    1574    1578    1582    1594    1603    1607    1611    1615
                        1623    1627    1631    1635    1647    1656    1660    1664    1668    1676    1680    1684    1688
                        1700    1709    1713    1717    1721    1729    1733    1737    1741    1753    1762    1766    1770
                        1774    1782    1786    1790    1794    1806    1815    1819    1823    1827    1835    1839    1843
                        1847    1859    1868    1872    1876    1880    1888    1892    1896    1900    1912    1921    1925
                        1929    1933    1941    1945    1949    1953    1965    1974    1978    1982    1986    1994    1998
                        2002    2006    2018    2027    2031    2035    2039    2047    2051    2055    2059    2071    2080
                        2084    2088    2092    2100    2104    2108    2112    2124    2133    2137    2141    2145    2153
                        2157    2161    2165    2177    2186    2190    2194    2198    2206    2210    2214    2218    2230
                        2239    2243    2247    2251    2259    2263    2267    2271    2283    2292    2296    2300    2304
                        2312    2316    2320    2324    2336    2345    2349    2353    2357    2365    2369    2373    2377
                        2389    2398    2402    2406    2410    2418    2422    2426    2430    2442    2451    2455    2459
                        2463    2471    2475    2479    2483    2495    2504    2508    2512    2516    2524    2528    2532
                        2536    2548    2557    2561    2565    2569    2577    2581    2585    2589    2601    2610    2614
                        2618    2622    2630    2634    2638    2642    2654    2663    2667    2671    2675    2683    2687
                        2691    2695    2707    2716    2720    2724    2728    2736    2740    2744    2748    2760    2769
                        2773    2777    2781    2789    2793    2797    2801    2813    2822    2826    2830    2834    2842
                        2846    2850    2854    2866    2875    2879    2883    2887    2895    2899    2903    2907    2919
                        2928    2932    2936    2940    2948    2952    2956    2960    2972    2981    2985    2989    2993
                        3007    3011    3020    3024    3028    3032    3061    3065    3094    3098    3127    3131    3160
                        3164    3193    3197    3226    3230    3259    3263    3292    3296    3325    3329    3358    3362
                        3391    3395    3424    3428    3457    3461    3490    3494    3523    3527    3556    3560
ICNT    001000           749#    783*    3587    3595    3597    3599*   3600*   3602    3605*   3606    3658*
ILLUP   016012          3708    3755#
KIT     015072          3592    3598    3605#   3660    3663
LAD     016142           784*   3601*   3607    3609    3786#
LDSC   = 170004          734#
LDUB   = 170003          730#
M      = 000006         1265#   1318    1371    1424    1477    1530    1583    1636    1689    1742    1795    1848    1901
                        1954    2007    2060    2113#   2166    2219    2272    2325    2378    2431    2484    2537    2590
                        2643    2696    2749    2802    2855    2908    2961#
MER10   002052          1004    1008#
```

```
MER11   002156          1037    1041#
MER12   002266          1072    1076#
MER13   002372          1105    1109#
MER14   002502          1138    1142#
MER15   002616          1173    1177#
MER16   002752          1215    1219#
MO12    002224          1054    1061#   1076
MO15    002554          1155    1162#   1177
MRS   = 170006           733#
MU12    002222          1053    1060#   1071
MU15    002552          1154    1161#   1172
M1120   001054           762     767#
N     = 000102           698#    785     812#    839#    866#    893#    920#    952#    980#   1013#   1046#   1081#   1114#
                        1147#   1182#   1224#   1225    1265#   1318#   1371#   1424#   1477#   1530#   1583#   1636#   1689#
                        1742#   1795#   1848#   1901#   1954#   2007#   2060#   2113#   2166#   2219#   2272#   2325#   2378#
                        2431#   2484#   2537#   2590#   2643#   2696#   2749#   2802#   2855#   2908#   2961#   2995#   3034#
                        3067#   3100#   3133#   3166#   3199#   3232#   3265#   3298#   3331#   3364#   3397#   3430#   3463#
                        3496#   3529#   3562#
NER10   002066          1009    1012#
NER11   002172          1042    1045#
NER12   002302          1077    1080#
NER13   002406          1110    1113#
NER14   002516          1143    1146#
NER15   002632          1178    1181#
NER16   002766          1220    1223#
NER17   003044          1245    1249#
NER7    001734           968     972#
NU10    002006           987     993#   1003
NU11    002112          1020    1026#   1036
NU12    002216          1059#   1060
NU13    002326          1088    1094#   1104
NU14    002436          1121    1127#   1137
NU15    002546          1160#   1161
NU16    002656          1189    1195#   1214
NX100   014534          3506    3518#
NX101   014624          3539    3551#
NX62    013114          3044    3056#
NX63    013204          3077    3089#
NX64    013274          3110    3122#
NX65    013364          3143    3155#
NX66    013454          3176    3188#
NX67    013544          3209    3221#
NX70    013634          3242    3254#
NX71    013724          3275    3287#
NX72    014014          3308    3320#
NX73    014104          3341    3353#
NX74    014174          3374    3386#
NX75    014264          3407    3419#
NX76    014354          3440    3452#
NX77    014444          3473    3485#
N1      001226           792     801#
N100    014524          3503    3513#
N101    014614          3536    3546#
N2      001310           819     828#
N20     003144          1272    1281#
N21     003336          1325    1334#
```

DCFPCB.P11 CROSS REFERENCE TABLE -- USER SYMBOLS

N22	003530	1378	1387#
N23	003722	1431	1440#
N24	004114	1484	1493#
N25	004306	1537	1546#
N26	004500	1590	1599#
N27	004672	1643	1652#
N3	001372	846	855#
N30	005064	1696	1705#
N31	005256	1749	1758#
N32	005450	1802	1811#
N33	005642	1855	1864#
N34	006034	1908	1917#
N35	006226	1961	1970#
N36	006420	2014	2023#
N37	006612	2067	2076#
N4	001454	873	882#
N40	007004	2120	2129#
N41	007176	2173	2182#
N42	007370	2226	2235#
N43	007562	2279	2288#
N44	007754	2332	2341#
N45	010146	2385	2394#
N46	010340	2438	2447#
N47	010532	2491	2500#
N5	001536	900	909#
N50	010724	2544	2553#
N51	011116	2597	2606#
N52	011310	2650	2659#
N53	011502	2703	2712#
N54	011674	2756	2765#
N55	012066	2809	2818#
N56	012260	2862	2871#
N57	012452	2915	2924#
N6	001636	927	941#
N60	012644	2968	2977#
N61	012774	3002	3016#
N62	013104	3041	3051#
N63	013174	3074	3084#
N64	013264	3107	3117#
N65	013354	3140	3150#
N66	013444	3173	3183#
N67	013534	3206	3216#
N70	013624	3239	3249#
N71	013714	3272	3282#
N72	014004	3305	3315#
N73	014074	3338	3348#
N74	014164	3371	3381#
N75	014254	3404	3414#
N76	014344	3437	3447#
N77	014434	3470	3480#
OVER	015076	3588	3606#
01	001232	799	804#
010	002012	991	995#
0100	014540	3511	3521#
0101	014630	3544	3554#
011	002116	1024	1028#

```
012       002226         1057    1063#
013       002332         1092    1096#
014       002442         1125    1129#
015       002556         1158    1164#
016       002666         1193    1198#
02        001314          826     831#
020       003154         1279    1283#
021       003346         1332    1336#
022       003540         1385    1389#
023       003732         1438    1442#
024       004124         1491    1495#
025       004316         1544    1548#
026       004510         1597    1601#
027       004702         1650    1654#
03        001376          853     858#
030       005074         1703    1707#
031       005266         1756    1760#
032       005460         1809    1813#
033       005652         1862    1866#
034       006044         1915    1919#
035       006236         1968    1972#
036       006430         2021    2025#
037       006622         2074    2078#
04        001460          880     885#
040       007014         2127    2131#
041       007206         2180    2184#
042       007400         2233    2237#
043       007572         2286    2290#
044       007764         2339    2343#
045       010156         2392    2396#
046       010350         2445    2449#
047       010542         2498    2502#
05        001542          907     912#
050       010734         2551    2555#
051       011126         2604    2608#
052       011320         2657    2661#
053       011512         2710    2714#
054       011704         2763    2767#
055       012076         2816    2820#
056       012270         2869    2873#
057       012462         2922    2926#
06        001642          939     944#
060       012654         2975    2979#
061       013004         3014    3018#
062       013120         3049    3059#
063       013210         3082    3092#
064       013300         3115    3125#
065       013370         3148    3158#
066       013460         3181    3191#
067       013550         3214    3224#
070       013640         3247    3257#
071       013730         3280    3290#
072       014020         3313    3323#
073       014110         3346    3356#
074       014200         3379    3389#
075       014270         3412    3422#
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077       014450        3478    3488#
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                        1954    2007    2060    2113#   2166    2219    2272    2325#   2378    2431    2484    2537#   2590
                        2643    2696    2749#   2802    2855    2908    2961#   3034#   3067    3100    3133    3166#   3199
                        3232    3265    3298#   3331    3364    3397    3430#   3463    3496    3529    3562#
PC      =%000007         715#   3615*   3693*   3706*   3707*
POWDWN    015616         773    3708#   3750
POWUP     015706        3727    3730#
PRINTR    015414        3623    3626    3639    3647    3650    3664#
PRINTS    015424        3666#
PS      = 177776         699#
RETURN    016104        3619    3775#
R0      =%000000         707#    776*   3576*   3625    3703*   3720    3739*
R1      =%000001         708#   3721    3731*   3732*   3738*
R2      =%000002         709#   3722    3737*
R3      =%000003         710#   3589*   3628* . 3661*   3723    3736*
R4      =%000004         711#   3616    3629*   3636*   3640*   3651*   3668    3669*   3687    3692*   3724    3735*
R5      =%000005         712#   3725    3734*
SAVE6     016116        3726*   3730    3779#
SAVLAD    015052        3594    3600#   3608
SCOPE = 104400           702#    790     817     844     871     898     925     957     985    1018    1051    1086    1119
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                        1800    1853    1906    1959    2012    2065    2118    2171    2224    2277    2330    2383    2436
                        2489    2542    2595    2648    2701    2754    2807    2860    2913    2966    3000    3039    3072
                        3105    3138    3171    3204    3237    3270    3303    3336    3369    3402    3435    3468    3501
                        3534    3562
SP      =%000006         714#    761*    771*   3726    3730*
SPACE     016107        3624    3627    3637    3644    3648    3776#
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STQD    = 170007         732#
SWR     = 177570         700#    701    3563    3568    3585    3587    3589    3591    3593    3611    3617    3652    3655
                        3659    3661
SW08    = 000400         729#   3585    3659
SW09    = 001000         728#   3655
SW10    = 002000         727#   3563    3611
SW11    = 004000         726#   3593
SW12    = 010000         725#   3568
SW13    = 020000         724#   3617
SW14    = 040000         723#   3591
SW15    = 100000         722#
TIMES     016146        3597    3788#
TRPB      016140        3570*   3785#
TTY     =%000005         713#   3622*   3625*   3638*   3646*   3649*   3673*   3675*   3677*   3757    3758*   3759    3761
                        3769*   3770*   3771    3772*
TYPE    = 000004         704#   3566    3614    3619    3624    3627    3637    3644    3648    3691    3752
UPVEC     016132        3708*   3709*   3727*   3783#
YESRT     014756         764*    772    3574    3583#
.       = 016150         736#    737     738#    742#    747#    795     805     809     822     832     836     849     859
                         863     876     886     890     903     913     917     931     935     945     949     961     964
                         974     978     996    1000    1029    1033    1064    1068    1097    1101    1130    1134    1165
                        1169    1199    1203    1207    1212    1234    1239    1251    1255    1259    1263    1275    1284
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                        1443    1447    1451    1455    1463    1467    1471    1475    1487    1496    1500    1504    1509
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                    1895    1899    1911    1920    1924    1928    1932    1940    1944    1948    1952    1964
                    1977    1981    1985    1993    1997    2001    2005    2017    2026    2030    2034    2038
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                    3763    3778#
.EMT    014760      779     3585#
.TCI    016016      775     3757#
.TRP    015120      777     3611#
.TYPE   016136  3565*   3566    3613*   3614    3784#
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          2802  2855  2908  2961  2995
DUMP      697#  3622  3625  3638  3646  3649
FDTEST    785#  3034  3067  3100  3133  3166  3199  3232  3265  3298  3331  3364  3397  3430  3463
          3496  3529
FTEST     785#   812   839   866   893   920
PRINT     697#  3752
SDUMP     697#
STATUS    697#   793   820   847   874   901   928  1273  1326  1379  1432  1485  1538  1591  1644
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          2492  2545  2598  2651  2704  2757  2810  2863  2916  2969  3003
TESTA     785#   952
TESTAX    785#  1225
TESTB     785#   980
TESTC     785#  1013
TESTD     785#  1046
TESTE     785#  1081
TESTF     785#
TESTG     785#  1114
TESTH     785#  1147
TESTI     785#  1182
TYPEM     697#  3565  3613
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F08

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	931	935	945	949	968	974	978	996	1000	1004	1009	1029	1033	1037	1042
	1064	1068	1072	1077	1097	1101	1105	1110	1130	1134	1138	1143	1165	1169	1173
	1178	1199	1203	1207	1212	1215	1220	1245	1251	1255	1259	1263	1275	1284	1288
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	1381	1390	1394	1398	1402	1410	1414	1418	1422	1434	1443	1447	1451	1455	1463
	1467	1471	1475	1487	1496	1500	1504	1508	1516	1520	1524	1528	1540	1549	1553
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	2087	2091	2099	2103	2107	2111	2123	2132	2136	2140	2144	2152	2156	2160	2164
	2176	2185	2189	2193	2197	2205	2209	2213	2217	2229	2238	2242	2246	2250	2258
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	2971	2980	2984	2988	2992	3006	3010	3019	3023	3027	3031	3060	3064	3093	3097
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BIC	3636	3770													
BIS	3572														
BISB	3684														
BIT	3563	3568	3585	3591	3593	3611	3617	3655	3659						
BITB	3699														
BNE	3564	3569	3592	3594	3598	3618	3641	3656	3660	3686	3688	3702	3733	3768	
BPL	3571	3631	3643	3653	3763										
BR	765	799	826	853	880	907	939	961	964	991	1024	1057	1092	1125	1158
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CLR	783	784	3567	3666	3705	3731									
CLRB	3658	3670	3672	3690											
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COM             3570
DEC             3640
EMT              703
HALT             737     745     962     965    1235    1236    1237    1240    1241    1242    3654    3728    3755
INC             3698    3732
INCB            3600    3605    3681    3685
IOT              704
JMP              740
JSR             3578    3615    3623    3626    3639    3647    3650    3706
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                3748
LDF              792     819     846     873     900     927     959     989    1022    1055    1090    1123    1156    1232    3044
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LDFPS            791     818     845     872     899     926     958     986    1019    1052    1087    1120    1153    1188    1231
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LDUB            3590    3662
MOV              761     762     764     767     770     771     772     773     774     775     776     777     778     779     780
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NOP             3579    3580    3581
ROL             3673    3675    3677
ROLB            3674    3676    3678
RTI              746    3582    3583    3603    3610    3657    3753    3773
RTS             3693    3707
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                3541    3711    3740
SETF            3043    3076    3109    3142    3175    3208    3241    3274    3307    3340    3373    3406    3439    3472    3505
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            3719    3742    3744
STF          790     825     852     879     906     938     963     972     990    1023    1056    1091    1124    1157    1238
            1240
STFPS        743     793     820     847     874     901     928    1273    1326    1379    1432    1485    1538    1591    1644
            1697    1750    1803    1856    1909    1962    2015    2068    2121    2174    2227    2280    2333    2386    2439
            2492    2545    2598    2651    2704    2757    2810    2863    2916    2969    3003    3710
STST         744     929    3004    3645
SUB         3621
TRAP         702
TST          763     977    1254    1258    1262    3607    3642    3652
TSTB        3595    3679    3682    3759    3762
.ASCIZ      3753    3775    3776
.BLKW       3695
.ENABL       697
.END        3789
.ENDC        794     798     821     825     848     852     875     879     902     906     930     938    1274    1279    1318
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            1592    1596    1636    1645    1649    1689    1698    1702    1742    1751    1755    1795    1804    1808    1848
            1857    1861    1901    1910    1914    1954    1963    1967    2007    2016    2020    2060    2069    2073    2113
            2122    2126    2166    2175    2179    2219    2228    2232    2272    2281    2285    2325    2334    2338    2378
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.IF          794     821     848     875     902     929    1274    1327    1380    1433    1486    1539    1592    1645    1698
            1751    1804    1857    1910    1963    2016    2069    2122    2175    2228    2281    2334    2387    2440    2493
            2546    2599    2652    2705    2758    2811    2864    2917    2970    3004
.IFNZ        798     825     852     879     906     934     938    1278    1299    1331    1352    1384    1405    1437    1458
            1490    1511    1543    1564    1596    1617    1649    1670    1702    1723    1755    1776    1808    1829    1861
            1882    1914    1935    1967    1988    2020    2041    2073    2094    2126    2147    2179    2200    2232    2253
            2285    2306    2338    2359    2391    2412    2444    2465    2497    2518    2550    2571    2603    2624    2656
            2677    2709    2730    2762    2783    2815    2836    2868    2889    2921    2942    2974    2995    3009    3013
            3034
.LIST        653     697     737     747     785     812     839     866     893     920     952     980    1013    1046    1081
            1114    1147    1182    1224    1265    1318    1371    1424    1477    1530    1583    1636    1689    1742    1795
            1848    1901    1954    2007    2060    2113    2166    2219    2272    2325    2378    2431    2484    2537    2590
            2643    2696    2749    2802    2855    2908    2961    2995    3034    3067    3100    3133    3166    3199    3232
            3265    3298    3331    3364    3397    3430    3463    3496    3529    3562    3611    3664    3709    3753    3757
.MACR        697     785
.MACRO       697
.NLIST       653     697     737     747     785     812     839     866     893     920     952     980    1013    1046    1081
            1114    1147    1182    1224    1265    1318    1371    1424    1477    1530    1583    1636    1689    1742    1795
            1848    1901    1954    2007    2060    2113    2166    2219    2272    2325    2378    2431    2484    2537    2590
            2643    2696    2749    2802    2855    2908    2961    2995    3034    3067    3100    3133    3166    3199    3232
            3265    3298    3331    3364    3397    3430    3463    3496    3529    3562    3611    3664    3709    3753    3757
.PAGE        786     812     839     866     893     920     952     980    1013    1046    1081    1114    1147    1182    1224
            1265    1318    1371    1424    1477    1530    1583    1636    1689    1742    1795    1848    1901    1954    2007
            2060    2113    2166    2219    2272    2325    2378    2431    2484    2537    2590    2643    2696    2749    2802
            2855    2908    2961    2995    3034    3067    3100    3133    3166    3199    3232    3265    3298    3331    3364
            3397    3430    3463    3496    3530    3562    3611    3664    3709    3753    3757
```

```
.REM      656
.REPT       2     328     737    1265    2113    3034
.SBTTL    653     697     747     785    3562    3611    3664    3708    3757
.TITLE    653
```

```
ERRORS DETECTED:  0
DEFAULT GLOBALS GENERATED:  0

*DCFPCB,DCFPCB.SEQ/SOL/CRF/DS:ERFZ/EN·ABS=DSKM:DCFPCB.P11
RUN-TIME:  17.30  5 SECONDS
RUN-TIME RATIO: 603/54=11.0
CORE USED:  11K  (22 PAGES)
```

JOB

Spooler runtime 11 Seconds, 47 KCS, 300 disk reads, 3 disk writes, 99 pages