

| LOC | OBJECT CODE | ADDR1 | ADDR2 | STMT  |
|-----|-------------|-------|-------|---|
| 2   |             |       |       | *****   |
| 3   |             |       |       | *   |
| 4   |             |       |       | *Testcase IEEE LOAD FP INTEGER  |
| 5   |             |       |       | * Test case capability includes IEEE exceptions trappable and           |
| 6   |             |       |       | * otherwise. Test results, FPCR flags, and any DXC are saved for all    |
| 7   |             |       |       | * tests. Load FP Integer does not set the condition code.               |
| 8   |             |       |       | *   |
| 9   |             |       |       | *   |
| 10  |             |       |       | * *****   |
| 11  |             |       |       | ** IMPORTANT! **  |
| 12  |             |       |       | * *****   |
| 13  |             |       |       | *   |
| 14  |             |       |       | * This test uses the Hercules Diagnose X'008' interface                 |
| 15  |             |       |       | * to display messages and thus your .tst runtest script                 |
| 16  |             |       |       | * MUST contain a "DIAG8CMD ENABLE" statement within it!                 |
| 17  |             |       |       | *   |
| 18  |             |       |       | *   |
| 19  |             |       |       | *****   |
| 21  |             |       |       | *****   |
| 22  |             |       |       | *   |
| 23  |             |       |       | * bfp-003-loadfpi.asm   |
| 24  |             |       |       | *   |
| 25  |             |       |       | * This assembly-language source file is part of the                     |
| 26  |             |       |       | * Hercules Binary Floating Point Validation Package                     |
| 27  |             |       |       | * by Stephen R. Orso  |
| 28  |             |       |       | *   |
| 29  |             |       |       | * Copyright 2016 by Stephen R Orso.                                     |
| 30  |             |       |       | * Runtest *Compare dependency removed by Fish on 2022-03-08             |
| 31  |             |       |       | * PADCSECT macro/usage removed by Fish on 2022-03-08                    |
| 32  |             |       |       | *   |
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|-----|-------------|-------|-------|--|
|     |             |       |       | 57 * OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT          |
|     |             |       |       | 58 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE |
|     |             |       |       | 59 * OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.  |
|     |             |       |       | 60 *   |
|     |             |       |       | 61 *****   |
|     |             |       |       | 63 *****   |
|     |             |       |       | 64 *   |
|     |             |       |       | 65 * Tests the following three conversion instructions                     |
|     |             |       |       | 66 *   LOAD FP INTEGER (short BFP, RRE)                                    |
|     |             |       |       | 67 *   LOAD FP INTEGER (long BFP, RRE)                                     |
|     |             |       |       | 68 *   LOAD FP INTEGER (extended BFP, RRE)                                 |
|     |             |       |       | 69 *   LOAD FP INTEGER (short BFP, RRF-e)                                  |
|     |             |       |       | 70 *   LOAD FP INTEGER (long BFP, RRF-e)                                   |
|     |             |       |       | 71 *   LOAD FP INTEGER (extended BFP, RRF-e)                               |
|     |             |       |       | 72 *   |
|     |             |       |       | 73 * Test data is compiled into this program. The test script that runs    |
|     |             |       |       | 74 * this program can provide alternative test data through Hercules R     |
|     |             |       |       | 75 * commands.   |
|     |             |       |       | 76 *   |
|     |             |       |       | 77 * Test Case Order   |
|     |             |       |       | 78 * 1) Short BFP inexact masking/trapping & SNaN/QNaN tests               |
|     |             |       |       | 79 * 2) Short BFP rounding mode tests                                      |
|     |             |       |       | 80 * 3) Long BFP inexact masking/trapping & SNaN/QNaN tests                |
|     |             |       |       | 81 * 4) Long BFP rounding mode tests                                       |
|     |             |       |       | 82 * 5) Extended BFP inexact masking/trapping & SNaN/QNaN tests            |
|     |             |       |       | 83 * 6) Extended BFP rounding mode tests                                   |
|     |             |       |       | 84 *   |
|     |             |       |       | 85 * Provided test data is 1, 1.5, SNaN, and QNaN.                         |
|     |             |       |       | 86 *   The second value will trigger an inexact exception when LOAD FP     |
|     |             |       |       | 87 *   INTEGER is executed. The final value will trigger an invalid        |
|     |             |       |       | 88 *   exception.  |
|     |             |       |       | 89 * Provided test data for rounding tests is                              |
|     |             |       |       | 90 *   -9.5, -5.5, -2.5, -1.5, -0.5, +0.5, +1.5, +2.5, +5.5, +9.5          |
|     |             |       |       | 91 *   This data is taken from Table 9-11 on page 9-16 of SA22-7832-10.    |
|     |             |       |       | 92 *   |
|     |             |       |       | 93 * Three input test data sets are provided, one each for short, long,    |
|     |             |       |       | 94 *   and extended precision BFP inputs.                                  |
|     |             |       |       | 95 *   |
|     |             |       |       | 96 * Also tests the following floating point support instructions          |
|     |             |       |       | 97 *   LOAD (Short)  |
|     |             |       |       | 98 *   LOAD (Long)   |
|     |             |       |       | 99 *   LFPC (Load Floating Point Control Register)                         |
|     |             |       |       | 100 *   SRNMB (Set BFP Rounding Mode 2-bit)                                |
|     |             |       |       | 101 *   SRNMB (Set BFP Rounding Mode 3-bit)                                |
|     |             |       |       | 102 *   STORE (Short)  |
|     |             |       |       | 103 *   STORE (Long)   |
|     |             |       |       | 104 *   STFPC (Store Floating Point Control Register)                      |
|     |             |       |       | 105 *  |
|     |             |       |       | 106 *****  |

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|----------|-------------|----------|-------|--------------|---|
|          |             |          |       | 108 *        |   |
|          |             |          |       | 109 *        | Note: for compatibility with the z/CMS test rig, do not change    |
|          |             |          |       | 110 *        | or use R11, R14, or R15. Everything else is fair game.            |
|          |             |          |       | 111 *        |   |
|          | 00000000    | 0000AE0B |       | 112 BFPLDFPI | START 0   |
|          | 00000000    | 00000001 |       | 113 R0       | EQU 0 Work register for cc extraction                             |
|          | 00000001    | 00000001 |       | 114 R1       | EQU 1 Available   |
|          | 00000002    | 00000001 |       | 115 R2       | EQU 2 Holds count of test input values                            |
|          | 00000003    | 00000001 |       | 116 R3       | EQU 3 Points to next test input value(s)                          |
|          | 00000004    | 00000001 |       | 117 R4       | EQU 4 Available   |
|          | 00000005    | 00000001 |       | 118 R5       | EQU 5 Available   |
|          | 00000006    | 00000001 |       | 119 R6       | EQU 6 Available   |
|          | 00000007    | 00000001 |       | 120 R7       | EQU 7 Pointer to next result value(s)                             |
|          | 00000008    | 00000001 |       | 121 R8       | EQU 8 Pointer to next FPCR result                                 |
|          | 00000009    | 00000001 |       | 122 R9       | EQU 9 Available   |
|          | 0000000A    | 00000001 |       | 123 R10      | EQU 10 Pointer to test address list                               |
|          | 0000000B    | 00000001 |       | 124 R11      | EQU 11 **Reserved for z/CMS test rig                              |
|          | 0000000C    | 00000001 |       | 125 R12      | EQU 12 Holds number of test cases in set                          |
|          | 0000000D    | 00000001 |       | 126 R13      | EQU 13 Mainline return address                                    |
|          | 0000000E    | 00000001 |       | 127 R14      | EQU 14 **Return address for z/CMS test rig                        |
|          | 0000000F    | 00000001 |       | 128 R15      | EQU 15 **Base register on z/CMS or Hyperion                       |
|          |             |          |       | 129 *        |   |
|          |             |          |       | 130 *        | Floating Point Register equates to keep the cross reference clean |
|          |             |          |       | 131 *        |   |
|          | 00000000    | 00000001 |       | 132 FPR0     | EQU 0   |
|          | 00000001    | 00000001 |       | 133 FPR1     | EQU 1   |
|          | 00000002    | 00000001 |       | 134 FPR2     | EQU 2   |
|          | 00000003    | 00000001 |       | 135 FPR3     | EQU 3   |
|          | 00000004    | 00000001 |       | 136 FPR4     | EQU 4   |
|          | 00000005    | 00000001 |       | 137 FPR5     | EQU 5   |
|          | 00000006    | 00000001 |       | 138 FPR6     | EQU 6   |
|          | 00000007    | 00000001 |       | 139 FPR7     | EQU 7   |
|          | 00000008    | 00000001 |       | 140 FPR8     | EQU 8   |
|          | 00000009    | 00000001 |       | 141 FPR9     | EQU 9   |
|          | 0000000A    | 00000001 |       | 142 FPR10    | EQU 10  |
|          | 0000000B    | 00000001 |       | 143 FPR11    | EQU 11  |
|          | 0000000C    | 00000001 |       | 144 FPR12    | EQU 12  |
|          | 0000000D    | 00000001 |       | 145 FPR13    | EQU 13  |
|          | 0000000E    | 00000001 |       | 146 FPR14    | EQU 14  |
|          | 0000000F    | 00000001 |       | 147 FPR15    | EQU 15  |
|          |             |          |       | 148 *        |   |
| 00000000 |             | 00000000 |       | 149          | USING *,R15   |
| 00000000 |             | 0000AA40 |       | 150          | USING HELPERS,R12   |
|          |             |          |       | 151 *        |   |
|          |             |          |       | 152 *        | Above works on real iron (R15=0 after sysclear)                   |
|          |             |          |       | 153 *        | and in z/CMS (R15 points to start of load module)                 |
|          |             |          |       | 154 *        |   |
|          |             |          |       | 156          | *****   |
|          |             |          |       | 157 *        |   |
|          |             |          |       | 158 *        | Low core definitions, Restart PSW, and Program Check Routine.     |
|          |             |          |       | 159 *        |   |
|          |             |          |       | 160          | *****   |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT |          |       |   |  |
|----------|-------------------|----------|----------|------|----------|-------|---|--|
| 00000000 |                   | 00000000 | 0000008E | 162  |          | ORG   | BFPLDFPI+X'8E'                            | Program check interruption code                                    |
| 0000008E | 0000              |          |          | 163  | PCINTCD  | DS    | H   |  |
|          |                   |          |          | 164  | *        |       |   |  |
|          |                   | 00000150 | 00000000 | 165  | PCOLDPSW | EQU   | BFPLDFPI+X'150'                           | z/Arch Program check old PSW                                       |
|          |                   |          |          | 166  | *        |       |   |  |
| 00000090 |                   | 00000090 | 000001A0 | 167  |          | ORG   | BFPLDFPI+X'1A0'                           | z/Arch Restart PSW   |
| 000001A0 | 00000001 80000000 |          |          | 168  |          | DC    | X'0000000180000000',AD(START)             |  |
|          |                   |          |          | 169  | *        |       |   |  |
| 000001B0 |                   | 000001B0 | 000001D0 | 170  |          | ORG   | BFPLDFPI+X'1D0'                           | z/Arch Program check NEW PSW                                       |
| 000001D0 | 00000000 00000000 |          |          | 171  |          | DC    | X'0000000000000000',AD(PROGCHK)           |  |
|          |                   |          |          | 172  | *        |       |   |  |
|          |                   |          |          | 173  | *        |       |   | Program check routine. If Data Exception, continue execution at    |
|          |                   |          |          | 174  | *        |       |   | the instruction following the program check. Otherwise, hard wait. |
|          |                   |          |          | 175  | *        |       |   | No need to collect data. All interesting DXC stuff is captured     |
|          |                   |          |          | 176  | *        |       |   | in the FPCR.   |
|          |                   |          |          | 177  | *        |       |   |  |
| 000001E0 |                   | 000001E0 | 00000200 | 178  |          | ORG   | BFPLDFPI+X'200'                           |  |
| 00000200 |                   |          |          | 179  | PROGCHK  | DS    | 0H  | Program check occurred...  |
| 00000200 | 9507 F08F         |          | 0000008F | 180  |          | CLI   | PCINTCD+1,X'07'                           | Data Exception?  |
| 00000204 | A774 0004         |          | 0000020C | 181  |          | JNE   | PCNOTDTA                                  | ..no, hardwait (not sure if R15 is ok)                             |
| 00000208 | B2B2 F150         |          | 00000150 | 182  |          | LPSWE | PCOLDPSW                                  | ..yes, resume program execution                                    |
| 0000020C | 900F F23C         |          | 0000023C | 184  | PCNOTDTA | STM   | R0,R15,SAVEREGS                           | Save registers   |
| 00000210 | 58C0 F27C         |          | 0000027C | 185  |          | L     | R12,AHELPERS                              | Get address of helper subroutines                                  |
| 00000214 | 4DD0 C000         |          | 0000AA40 | 186  |          | BAS   | R13,PGMCK                                 | Report this unexpected program check                               |
| 00000218 | 980F F23C         |          | 0000023C | 187  |          | LM    | R0,R15,SAVEREGS                           | Restore registers  |
| 0000021C | 12EE              |          |          | 189  |          | LTR   | R14,R14                                   | Return address provided?   |
| 0000021E | 077E              |          |          | 190  |          | BNZR  | R14                                       | Yes, return to z/CMS test rig.                                     |
| 00000220 | B2B2 F228         |          | 00000228 | 191  |          | LPSWE | PROGPSW                                   | Not data exception, enter disabled wait                            |
| 00000228 | 00020000 00000000 |          |          | 192  | PROGPSW  | DC    | 0D'0',X'0002000000000000',XL6'00',X'DEAD' | Abnormal end   |
| 00000238 | B2B2 F2E0         |          | 000002E0 | 193  | FAIL     | LPSWE | FAILPSW                                   | Not data exception, enter disabled wait                            |
| 0000023C | 00000000 00000000 |          |          | 194  | SAVEREGS | DC    | 16F'0'                                    | Registers save area  |
| 0000027C | 0000AA40          |          |          | 195  | AHELPERS | DC    | A(HELPERS)                                | Address of helper subroutines                                      |

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|----------|-------------|-------|----------|------|---|
|          |             |       |          | 197  | *****   |
|          |             |       |          | 198  | *   |
|          |             |       |          | 199  | * Main program. Enable Advanced Floating Point, process test cases. |
|          |             |       |          | 200  | *   |
|          |             |       |          | 201  | *****   |
| 00000280 |             |       |          | 203  | START DS 0H   |
| 00000280 | B600 F2F0   |       | 000002F0 | 204  | STCTL R0,R0,CTLR0 Store CR0 to enable AFP                           |
| 00000284 | 9604 F2F1   |       | 000002F1 | 205  | OI CTLR0+1,X'04' Turn on AFP bit                                    |
| 00000288 | B700 F2F0   |       | 000002F0 | 206  | LCTL R0,R0,CTLR0 Reload updated CR0                                 |
|          |             |       |          | 207  | *   |
| 0000028C | 41A0 F2FC   |       | 000002FC | 208  | LA R10,SHORTS Point to short BFP test inputs                        |
| 00000290 | 4DD0 F35C   |       | 0000035C | 209  | BAS R13,FIEBR Convert short BFP to integer short BFP                |
| 00000294 | 41A0 F32C   |       | 0000032C | 210  | LA R10,RMSHORTS Point to short BFP rounding test data               |
| 00000298 | 4DD0 F3A2   |       | 000003A2 | 211  | BAS R13,FIEBRA Convert using all rounding mode options              |
|          |             |       |          | 212  | *   |
| 0000029C | 41A0 F30C   |       | 0000030C | 213  | LA R10,LONGS Point to long BFP test inputs                          |
| 000002A0 | 4DD0 F474   |       | 00000474 | 214  | BAS R13,FIDBR Convert long BFP to integer long BFP                  |
| 000002A4 | 41A0 F33C   |       | 0000033C | 215  | LA R10,RMLONGS Point to long BFP rounding test data                 |
| 000002A8 | 4DD0 F4BA   |       | 000004BA | 216  | BAS R13,FIDBRA Convert using all rounding mode options              |
|          |             |       |          | 217  | *   |
| 000002AC | 41A0 F31C   |       | 0000031C | 218  | LA R10,EXTDS Point to extended BFP test inputs                      |
| 000002B0 | 4DD0 F58C   |       | 0000058C | 219  | BAS R13,FIXBR Convert extd BFP to integer extd BFP                  |
| 000002B4 | 41A0 F34C   |       | 0000034C | 220  | LA R10,RMEXTDS Point to extended BFP rounding test data             |
| 000002B8 | 4DD0 F5DE   |       | 000005DE | 221  | BAS R13,FIXBRA Convert using all rounding mode options              |
|          |             |       |          | 222  | *   |
|          |             |       |          | 223  | *****   |
|          |             |       |          | 224  | * Verify test results...  |
|          |             |       |          | 225  | *****   |
|          |             |       |          | 226  | *   |
| 000002BC | 58C0 F27C   |       | 0000027C | 227  | L R12,AHELPERS Get address of helper subroutines                    |
| 000002C0 | 4DD0 C0A0   |       | 0000AAE0 | 228  | BAS R13,VERISUB Go verify results                                   |
| 000002C4 | 12EE        |       |          | 229  | LTR R14,R14 Was return address provided?                            |
| 000002C6 | 077E        |       |          | 230  | BNZR R14 Yes, return to z/CMS test rig.                             |
| 000002C8 | B2B2 F2D0   |       | 000002D0 | 231  | LPSWE GOODPSW Load SUCCESS PSW                                      |

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|----------|-------------|----------|-------|------|----------|----|--|
| 000002D0 |             |          |       | 233  | DS       | 0D | Ensure correct alignment for PSW                       |
| 000002D0 | 00020000    | 00000000 |       | 234  | GOODPSW  | DC | X'0002000000000000',AD(0) Normal end - disabled wait   |
| 000002E0 | 00020000    | 00000000 |       | 235  | FAILPSW  | DC | X'0002000000000000',XL6'00',X'0BAD' Abnormal end       |
|          |             |          |       | 236  | *        |    |  |
| 000002F0 | 00000000    |          |       | 237  | CTLR0    | DS | F  |
| 000002F4 | 00000000    |          |       | 238  | FPCREGNT | DC | X'00000000' FPCR, trap all IEEE exceptions, zero flags |
| 000002F8 | F8000000    |          |       | 239  | FPCREGTR | DC | X'F8000000' FPCR, trap no IEEE exceptions, zero flags  |
|          |             |          |       | 240  | *        |    |  |
|          |             |          |       | 241  | *        |    | * Input values parameter list, four fullwords:         |
|          |             |          |       | 242  | *        |    | 1) Count,  |
|          |             |          |       | 243  | *        |    | 2) Address of inputs,                                  |
|          |             |          |       | 244  | *        |    | 3) Address to place results, and                       |
|          |             |          |       | 245  | *        |    | 4) Address to place DXC/Flags/cc values.               |
|          |             |          |       | 246  | *        |    |  |
| 000002FC |             |          |       | 247  | SHORTS   | DS | 0F Inputs for short BFP testing                        |
| 000002FC | 00000007    |          |       | 248  |          | DC | A(SBFPCT/4)  |
| 00000300 | 000006DC    |          |       | 249  |          | DC | A(SBFPIN)  |
| 00000304 | 00001000    |          |       | 250  |          | DC | A(SBFPOUT)   |
| 00000308 | 00001080    |          |       | 251  |          | DC | A(SBFPFLGS)  |
|          |             |          |       | 252  | *        |    |  |
| 0000030C |             |          |       | 253  | LONGS    | DS | 0F Inputs for long BFP testing                         |
| 0000030C | 00000007    |          |       | 254  |          | DC | A(LBFPCT/8)  |
| 00000310 | 00000728    |          |       | 255  |          | DC | A(LBFPIN)  |
| 00000314 | 00002000    |          |       | 256  |          | DC | A(LBFPOUT)   |
| 00000318 | 00002100    |          |       | 257  |          | DC | A(LBFPFLGS)  |
|          |             |          |       | 258  | *        |    |  |
| 0000031C |             |          |       | 259  | EXTDS    | DS | 0F Inputs for Extended BFP testing                     |
| 0000031C | 00000007    |          |       | 260  |          | DC | A(XBFPCT/16)   |
| 00000320 | 000007C0    |          |       | 261  |          | DC | A(XBFPIN)  |
| 00000324 | 00003000    |          |       | 262  |          | DC | A(XBFPOUT)   |
| 00000328 | 00003200    |          |       | 263  |          | DC | A(XBFPFLGS)  |
|          |             |          |       | 264  | *        |    |  |
| 0000032C |             |          |       | 265  | RMSHORTS | DS | 0F Inputs for short BFP rounding testing               |
| 0000032C | 0000000C    |          |       | 266  |          | DC | A(SBFPRMCT/4)  |
| 00000330 | 000006F8    |          |       | 267  |          | DC | A(SBFPINRM)  |
| 00000334 | 00001100    |          |       | 268  |          | DC | A(SBFPRMO)   |
| 00000338 | 00001400    |          |       | 269  |          | DC | A(SBFPRMOF)  |
|          |             |          |       | 270  | *        |    |  |
| 0000033C |             |          |       | 271  | RMLONGS  | DS | 0F Inputs for long BFP rounding testing                |
| 0000033C | 0000000C    |          |       | 272  |          | DC | A(LBFPRMCT/8)  |
| 00000340 | 00000760    |          |       | 273  |          | DC | A(LBFPINRM)  |
| 00000344 | 00002200    |          |       | 274  |          | DC | A(LBFPRMO)   |
| 00000348 | 00002800    |          |       | 275  |          | DC | A(LBFPRMOF)  |
|          |             |          |       | 276  | *        |    |  |
| 0000034C |             |          |       | 277  | RMEXTDS  | DS | 0F Inputs for extd BFP rounding testing                |
| 0000034C | 0000000C    |          |       | 278  |          | DC | A(XBFPRMCT/16)   |
| 00000350 | 00000830    |          |       | 279  |          | DC | A(XBFPINRM)  |
| 00000354 | 00003300    |          |       | 280  |          | DC | A(XBFPRMO)   |
| 00000358 | 00003F00    |          |       | 281  |          | DC | A(XBFPRMOF)  |

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|----------|-------------|-------|----------|------|--|
|          |             |       |          | 283  | *****  |
|          |             |       |          | 284  | *  |
|          |             |       |          | 285  | * Round short BFP inputs to integer short BFP. A pair of results is    |
|          |             |       |          | 286  | * generated for each input: one with all exceptions non-trappable, and |
|          |             |       |          | 287  | * the second with all exceptions trappable. The FPCR is stored for     |
|          |             |       |          | 288  | * each result.   |
|          |             |       |          | 289  | *  |
|          |             |       |          | 290  | *****  |
| 0000035C |             |       |          | 292  | FIEBR DS 0H Round short BFP inputs to integer BFP                      |
| 0000035C | 9823 A000   |       | 00000000 | 293  | LM R2,R3,0(R10) Get count and address of test input values             |
| 00000360 | 9878 A008   |       | 00000008 | 294  | LM R7,R8,8(R10) Get address of result area and flag area.              |
| 00000364 | 1222        |       |          | 295  | LTR R2,R2 Any test cases?  |
| 00000366 | 078D        |       |          | 296  | BZR R13 ..No, return to caller   |
| 00000368 | 0DC0        |       |          | 297  | BASR R12,0 Set top of loop   |
|          |             |       |          | 298  | *  |
| 0000036A | 7800 3000   |       | 00000000 | 299  | LE FPR0,0(,R3) Get short BFP test value                                |
| 0000036E | B29D F2F4   |       | 000002F4 | 300  | LFPC FPCREGNT Set exceptions non-trappable                             |
| 00000372 | B357 0010   |       |          | 301  | FIEBR FPR1,0,FPR0 Cvt float in FPR0 to int float in FPR1               |
| 00000376 | 7010 7000   |       | 00000000 | 302  | STE FPR1,0(,R7) Store short BFP result                                 |
| 0000037A | B29C 8000   |       | 00000000 | 303  | STFPC 0(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 304  | *  |
| 0000037E | B29D F2F8   |       | 000002F8 | 305  | LFPC FPCREGTR Set exceptions trappable                                 |
| 00000382 | B374 0010   |       |          | 306  | LZER FPR1 Eliminate any residual results                               |
| 00000386 | B357 0010   |       |          | 307  | FIEBR FPR1,0,FPR0 Cvt float in FPR0 to int float in FPR1               |
| 0000038A | 7010 7004   |       | 00000004 | 308  | STE FPR1,4(,R7) Store short BFP result                                 |
| 0000038E | B29C 8004   |       | 00000004 | 309  | STFPC 4(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 310  | *  |
| 00000392 | 4130 3004   |       | 00000004 | 311  | LA R3,4(,R3) Point to next input value                                 |
| 00000396 | 4170 7008   |       | 00000008 | 312  | LA R7,8(,R7) Point to next rounded result value pair                   |
| 0000039A | 4180 8008   |       | 00000008 | 313  | LA R8,8(,R8) Point to next FPCR result area                            |
| 0000039E | 062C        |       |          | 314  | BCTR R2,R12 Convert next input value.                                  |
| 000003A0 | 07FD        |       |          | 315  | BR R13 All converted; return.  |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |
|----------|-------------|-------|----------|---|
|          |             |       |          | 317 *****   |
|          |             |       |          | 318 *   |
|          |             |       |          | 319 * Convert short BFP to integer BFP using each possible rounding mode.   |
|          |             |       |          | 320 * Ten test results are generated for each input. A 48-byte test result  |
|          |             |       |          | 321 * section is used to keep results sets aligned on a quad-double word.   |
|          |             |       |          | 322 *   |
|          |             |       |          | 323 * The first four tests use rounding modes specified in the FPCR with    |
|          |             |       |          | 324 * the IEEE Inexact exception suppressed. SRNM (2-bit) is used for       |
|          |             |       |          | 325 * the first two FPCR-controlled tests and SRNMB (3-bit) is used for     |
|          |             |       |          | 326 * the last two To get full coverage of that instruction pair.           |
|          |             |       |          | 327 *   |
|          |             |       |          | 328 * The next six results use instruction-specified rounding modes.        |
|          |             |       |          | 329 *   |
|          |             |       |          | 330 * The default rounding mode (0 for RNTE) is not tested in this section; |
|          |             |       |          | 331 * prior tests used the default rounding mode. RNTE is tested            |
|          |             |       |          | 332 * explicitly as a rounding mode in this section.                        |
|          |             |       |          | 333 *   |
|          |             |       |          | 334 *****   |
| 000003A2 | 9823 A000   |       | 00000000 | 336 FIEBRA LM R2,R3,0(R10) Get count and address of test input values       |
| 000003A6 | 9878 A008   |       | 00000008 | 337 LM R7,R8,8(R10) Get address of result area and flag area.               |
| 000003AA | 1222        |       |          | 338 LTR R2,R2 Any test cases?   |
| 000003AC | 078D        |       |          | 339 BZR R13 ..No, return to caller  |
| 000003AE | 0DC0        |       |          | 340 BASR R12,0 Set top of loop  |
|          |             |       |          | 341 *   |
| 000003B0 | 7800 3000   |       | 00000000 | 342 LE FPR0,0(,R3) Get short BFP test value                                 |
|          |             |       |          | 343 *   |
|          |             |       |          | 344 * Test cases using rounding mode specified in the FPCR                  |
|          |             |       |          | 345 *   |
| 000003B4 | B29D F2F4   |       | 000002F4 | 346 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000003B8 | B299 0001   |       | 00000001 | 347 SRNM 1 SET FPCR to RZ, towards zero.                                    |
| 000003BC | B357 0410   |       |          | 348 FIEBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000003C0 | 7010 7000   |       | 00000000 | 349 STE FPR1,0*4(,R7) Store integer BFP result                              |
| 000003C4 | B29C 8000   |       | 00000000 | 350 STFPC 0(R8) Store resulting FPCR flags and DXC                          |
|          |             |       |          | 351 *   |
| 000003C8 | B29D F2F4   |       | 000002F4 | 352 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000003CC | B299 0002   |       | 00000002 | 353 SRNM 2 SET FPCR to RP, to +infinity                                     |
| 000003D0 | B357 0410   |       |          | 354 FIEBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000003D4 | 7010 7004   |       | 00000004 | 355 STE FPR1,1*4(,R7) Store integer BFP result                              |
| 000003D8 | B29C 8004   |       | 00000004 | 356 STFPC 1*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 357 *   |
| 000003DC | B29D F2F4   |       | 000002F4 | 358 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000003E0 | B2B8 0003   |       | 00000003 | 359 SRNMB 3 SET FPCR to RM, to -infinity                                    |
| 000003E4 | B357 0410   |       |          | 360 FIEBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000003E8 | 7010 7008   |       | 00000008 | 361 STE FPR1,2*4(,R7) Store integer BFP result                              |
| 000003EC | B29C 8008   |       | 00000008 | 362 STFPC 2*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 363 *   |
| 000003F0 | B29D F2F4   |       | 000002F4 | 364 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000003F4 | B2B8 0007   |       | 00000007 | 365 SRNMB 7 RPS, Prepare for Shorter Precision                              |
| 000003F8 | B357 0410   |       |          | 366 FIEBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000003FC | 7010 700C   |       | 0000000C | 367 STE FPR1,3*4(,R7) Store integer BFP result                              |
| 00000400 | B29C 800C   |       | 0000000C | 368 STFPC 3*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 369 *   |
|          |             |       |          | 370 * Test cases using rounding mode specified in the instruction M3 field  |
|          |             |       |          | 371 *   |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |   |
|----------|-------------|-------|----------|-------|---|
| 00000404 | B29D F2F4   |       | 000002F4 | 372   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000408 | B357 1010   |       |          | 373   | FIEBRA FPR1,1,FPR0,B'0000' RNTA, to nearest, ties away        |
| 0000040C | 7010 7010   |       | 00000010 | 374   | STE FPR1,4*4(,R7) Store integer BFP result                    |
| 00000410 | B29C 8010   |       | 00000010 | 375   | STFPC 4*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 376 * |   |
| 00000414 | B29D F2F4   |       | 000002F4 | 377   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000418 | B357 3010   |       |          | 378   | FIEBRA FPR1,3,FPR0,B'0000' RFS, prepare for shorter precision |
| 0000041C | 7010 7014   |       | 00000014 | 379   | STE FPR1,5*4(,R7) Store integer BFP result                    |
| 00000420 | B29C 8014   |       | 00000014 | 380   | STFPC 5*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 381 * |   |
| 00000424 | B29D F2F4   |       | 000002F4 | 382   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000428 | B357 4010   |       |          | 383   | FIEBRA FPR1,4,FPR0,B'0000' RNTE, to nearest, ties to even     |
| 0000042C | 7010 7018   |       | 00000018 | 384   | STE FPR1,6*4(,R7) Store integer BFP result                    |
| 00000430 | B29C 8018   |       | 00000018 | 385   | STFPC 6*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 386 * |   |
| 00000434 | B29D F2F4   |       | 000002F4 | 387   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000438 | B357 5010   |       |          | 388   | FIEBRA FPR1,5,FPR0,B'0000' RZ, toward zero                    |
| 0000043C | 7010 701C   |       | 0000001C | 389   | STE FPR1,7*4(,R7) Store integer BFP result                    |
| 00000440 | B29C 801C   |       | 0000001C | 390   | STFPC 7*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 391 * |   |
| 00000444 | B29D F2F4   |       | 000002F4 | 392   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000448 | B357 6010   |       |          | 393   | FIEBRA FPR1,6,FPR0,B'0000' RP, to +inf                        |
| 0000044C | 7010 7020   |       | 00000020 | 394   | STE FPR1,8*4(,R7) Store integer BFP result                    |
| 00000450 | B29C 8020   |       | 00000020 | 395   | STFPC 8*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 396 * |   |
| 00000454 | B29D F2F4   |       | 000002F4 | 397   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000458 | B357 7010   |       |          | 398   | FIEBRA FPR1,7,FPR0,B'0000' RM, to -inf                        |
| 0000045C | 7010 7024   |       | 00000024 | 399   | STE FPR1,9*4(,R7) Store integer BFP result                    |
| 00000460 | B29C 8024   |       | 00000024 | 400   | STFPC 9*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 401 * |   |
| 00000464 | 4130 3004   |       | 00000004 | 402   | LA R3,4(,R3) Point to next input values                       |
| 00000468 | 4170 7030   |       | 00000030 | 403   | LA R7,12*4(,R7) Point to next short BFP converted values      |
| 0000046C | 4180 8030   |       | 00000030 | 404   | LA R8,12*4(,R8) Point to next FPCR/CC result area             |
| 00000470 | 062C        |       |          | 405   | BCTR R2,R12 Convert next input value.                         |
| 00000472 | 07FD        |       |          | 406   | BR R13 All converted; return.                                 |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT |  |
|----------|-------------|-------|----------|------|--|
|          |             |       |          | 408  | *****  |
|          |             |       |          | 409  | *  |
|          |             |       |          | 410  | * Round long BFP inputs to integer long BFP. A pair of results is      |
|          |             |       |          | 411  | * generated for each input: one with all exceptions non-trappable, and |
|          |             |       |          | 412  | * the second with all exceptions trappable. The FPCR is stored for     |
|          |             |       |          | 413  | * each result.   |
|          |             |       |          | 414  | *  |
|          |             |       |          | 415  | *****  |
| 00000474 | 9823 A000   |       | 00000000 | 417  | FIDBR LM R2,R3,0(R10) Get count and address of test input values       |
| 00000478 | 9878 A008   |       | 00000008 | 418  | LM R7,R8,8(R10) Get address of result area and flag area.              |
| 0000047C | 1222        |       |          | 419  | LTR R2,R2 Any test cases?  |
| 0000047E | 078D        |       |          | 420  | BZR R13 ..No, return to caller   |
| 00000480 | 0DC0        |       |          | 421  | BASR R12,0 Set top of loop   |
|          |             |       |          | 422  | *  |
| 00000482 | 6800 3000   |       | 00000000 | 423  | LD FPR0,0(,R3) Get long BFP test value                                 |
| 00000486 | B29D F2F4   |       | 000002F4 | 424  | LFPC FPCREGNT Set exceptions non-trappable                             |
| 0000048A | B35F 0010   |       |          | 425  | FIDBR FPR1,0,FPR0 Cvt float in FPR0 to int float in FPR1               |
| 0000048E | 6010 7000   |       | 00000000 | 426  | STD R1,0(,R7) Store long BFP result                                    |
| 00000492 | B29C 8000   |       | 00000000 | 427  | STFPC 0(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 428  | *  |
| 00000496 | B29D F2F8   |       | 000002F8 | 429  | LFPC FPCREGTR Set exceptions trappable                                 |
| 0000049A | B375 0010   |       |          | 430  | LZDR FPR1 Eliminate any residual results                               |
| 0000049E | B35F 0010   |       |          | 431  | FIDBR FPR1,0,FPR0 Cvt float in FPR0 to int float in FPR1               |
| 000004A2 | 6010 7008   |       | 00000008 | 432  | STD FPR1,8(,R7) Store int-32 result                                    |
| 000004A6 | B29C 8004   |       | 00000004 | 433  | STFPC 4(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 434  | *  |
| 000004AA | 4130 3008   |       | 00000008 | 435  | LA R3,8(,R3) Point to next input value                                 |
| 000004AE | 4170 7010   |       | 00000010 | 436  | LA R7,16(,R7) Point to next rounded long BFP result pair               |
| 000004B2 | 4180 8008   |       | 00000008 | 437  | LA R8,8(,R8) Point to next FPCR result area                            |
| 000004B6 | 062C        |       |          | 438  | BCTR R2,R12 Convert next input value.                                  |
| 000004B8 | 07FD        |       |          | 439  | BR R13 All converted; return.  |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |
|----------|-------------|-------|----------|---|
|          |             |       |          | 441 *****   |
|          |             |       |          | 442 *   |
|          |             |       |          | 443 * Convert long BFP to integers using each possible rounding mode.       |
|          |             |       |          | 444 * Ten test results are generated for each input. A 48-byte test result  |
|          |             |       |          | 445 * section is used to keep results sets aligned on a quad-double word.   |
|          |             |       |          | 446 *   |
|          |             |       |          | 447 * The first four tests use rounding modes specified in the FPCR with    |
|          |             |       |          | 448 * the IEEE Inexact exception suppressed. SRNM (2-bit) is used for       |
|          |             |       |          | 449 * the first two FPCR-controlled tests and SRNMB (3-bit) is used for     |
|          |             |       |          | 450 * the last two To get full coverage of that instruction pair.           |
|          |             |       |          | 451 *   |
|          |             |       |          | 452 * The next six results use instruction-specified rounding modes.        |
|          |             |       |          | 453 *   |
|          |             |       |          | 454 * The default rounding mode (0 for RNTE) is not tested in this section; |
|          |             |       |          | 455 * prior tests used the default rounding mode. RNTE is tested            |
|          |             |       |          | 456 * explicitly as a rounding mode in this section.                        |
|          |             |       |          | 457 *   |
|          |             |       |          | 458 *****   |
| 000004BA | 9823 A000   |       | 00000000 | 460 FIDBRA LM R2,R3,0(R10) Get count and address of test input values       |
| 000004BE | 9878 A008   |       | 00000008 | 461 LM R7,R8,8(R10) Get address of result area and flag area.               |
| 000004C2 | 1222        |       |          | 462 LTR R2,R2 Any test cases?   |
| 000004C4 | 078D        |       |          | 463 BZR R13 ..No, return to caller  |
| 000004C6 | 0DC0        |       |          | 464 BASR R12,0 Set top of loop  |
|          |             |       |          | 465 *   |
| 000004C8 | 6800 3000   |       | 00000000 | 466 LD FPR0,0(,R3) Get long BFP test value                                  |
|          |             |       |          | 467 *   |
|          |             |       |          | 468 * Test cases using rounding mode specified in the FPCR                  |
|          |             |       |          | 469 *   |
| 000004CC | B29D F2F4   |       | 000002F4 | 470 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000004D0 | B299 0001   |       | 00000001 | 471 SRNM 1 SET FPCR to RZ, towards zero.                                    |
| 000004D4 | B35F 0410   |       |          | 472 FIDBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000004D8 | 6010 7000   |       | 00000000 | 473 STD FPR1,0*8(,R7) Store integer BFP result                              |
| 000004DC | B29C 8000   |       | 00000000 | 474 STFPC 0(R8) Store resulting FPCR flags and DXC                          |
|          |             |       |          | 475 *   |
| 000004E0 | B29D F2F4   |       | 000002F4 | 476 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000004E4 | B299 0002   |       | 00000002 | 477 SRNM 2 SET FPCR to RP, to +infinity                                     |
| 000004E8 | B35F 0410   |       |          | 478 FIDBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 000004EC | 6010 7008   |       | 00000008 | 479 STD FPR1,1*8(,R7) Store integer BFP result                              |
| 000004F0 | B29C 8004   |       | 00000004 | 480 STFPC 1*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 481 *   |
| 000004F4 | B29D F2F4   |       | 000002F4 | 482 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000004F8 | B2B8 0003   |       | 00000003 | 483 SRNMB 3 SET FPCR to RM, to -infinity                                    |
| 000004FC | B35F 0410   |       |          | 484 FIDBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000500 | 6010 7010   |       | 00000010 | 485 STD FPR1,2*8(,R7) Store integer BFP result                              |
| 00000504 | B29C 8008   |       | 00000008 | 486 STFPC 2*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 487 *   |
| 00000508 | B29D F2F4   |       | 000002F4 | 488 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 0000050C | B2B8 0007   |       | 00000007 | 489 SRNMB 7 RPS, Prepare for Shorter Precision                              |
| 00000510 | B35F 0410   |       |          | 490 FIDBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000514 | 6010 7018   |       | 00000018 | 491 STD FPR1,3*8(,R7) Store integer BFP result                              |
| 00000518 | B29C 800C   |       | 0000000C | 492 STFPC 3*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 493 *   |
|          |             |       |          | 494 * Test cases using rounding mode specified in the instruction M3 field  |
|          |             |       |          | 495 *   |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |   |
|----------|-------------|-------|----------|-------|---|
| 0000051C | B29D F2F4   |       | 000002F4 | 496   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000520 | B35F 1010   |       |          | 497   | FIDBRA FPR1,1,FPR0,B'0000' RNTA, to nearest, ties away        |
| 00000524 | 6010 7020   |       | 00000020 | 498   | STD FPR1,4*8(,R7) Store integer BFP result                    |
| 00000528 | B29C 8010   |       | 00000010 | 499   | STFPC 4*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 500 * |   |
| 0000052C | B29D F2F4   |       | 000002F4 | 501   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000530 | B35F 3010   |       |          | 502   | FIDBRA FPR1,3,FPR0,B'0000' RFS, prepare for shorter precision |
| 00000534 | 6010 7028   |       | 00000028 | 503   | STD FPR1,5*8(,R7) Store integer BFP result                    |
| 00000538 | B29C 8014   |       | 00000014 | 504   | STFPC 5*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 505 * |   |
| 0000053C | B29D F2F4   |       | 000002F4 | 506   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000540 | B35F 4010   |       |          | 507   | FIDBRA FPR1,4,FPR0,B'0000' RNTE, to nearest, ties to even     |
| 00000544 | 6010 7030   |       | 00000030 | 508   | STD FPR1,6*8(,R7) Store integer BFP result                    |
| 00000548 | B29C 8018   |       | 00000018 | 509   | STFPC 6*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 510 * |   |
| 0000054C | B29D F2F4   |       | 000002F4 | 511   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000550 | B35F 5010   |       |          | 512   | FIDBRA FPR1,5,FPR0,B'0000' RZ, toward zero                    |
| 00000554 | 6010 7038   |       | 00000038 | 513   | STD FPR1,7*8(,R7) Store integer BFP result                    |
| 00000558 | B29C 801C   |       | 0000001C | 514   | STFPC 7*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 515 * |   |
| 0000055C | B29D F2F4   |       | 000002F4 | 516   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000560 | B35F 6010   |       |          | 517   | FIDBRA FPR1,6,FPR0,B'0000' RP, to +inf                        |
| 00000564 | 6010 7040   |       | 00000040 | 518   | STD FPR1,8*8(,R7) Store integer BFP result                    |
| 00000568 | B29C 8020   |       | 00000020 | 519   | STFPC 8*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 520 * |   |
| 0000056C | B29D F2F4   |       | 000002F4 | 521   | LFPC FPCREGNT Set exceptions non-trappable, clear flags       |
| 00000570 | B35F 7010   |       |          | 522   | FIDBRA FPR1,7,FPR0,B'0000' RM, to -inf                        |
| 00000574 | 6010 7048   |       | 00000048 | 523   | STD FPR1,9*8(,R7) Store integer BFP result                    |
| 00000578 | B29C 8024   |       | 00000024 | 524   | STFPC 9*4(R8) Store resulting FPCR flags and DXC              |
|          |             |       |          | 525 * |   |
| 0000057C | 4130 3008   |       | 00000008 | 526   | LA R3,8(,R3) Point to next input values                       |
| 00000580 | 4170 7050   |       | 00000050 | 527   | LA R7,10*8(,R7) Point to next long BFP converted values       |
| 00000584 | 4180 8030   |       | 00000030 | 528   | LA R8,12*4(,R8) Point to next FPCR/CC result area             |
| 00000588 | 062C        |       |          | 529   | BCTR R2,R12 Convert next input value.                         |
| 0000058A | 07FD        |       |          | 530   | BR R13 All converted; return.                                 |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT |  |
|----------|-------------|-------|----------|------|--|
|          |             |       |          | 532  | *****  |
|          |             |       |          | 533  | *  |
|          |             |       |          | 534  | * Round extended BFP to integer extended BFP. A pair of results is     |
|          |             |       |          | 535  | * generated for each input: one with all exceptions non-trappable, and |
|          |             |       |          | 536  | * the second with all exceptions trappable. The FPCR is stored for     |
|          |             |       |          | 537  | * each result.   |
|          |             |       |          | 538  | *  |
|          |             |       |          | 539  | *****  |
| 0000058C | 9823 A000   |       | 00000000 | 541  | FIXBR LM R2,R3,0(R10) Get count and address of test input values       |
| 00000590 | 9878 A008   |       | 00000008 | 542  | LM R7,R8,8(R10) Get address of result area and flag area.              |
| 00000594 | 1222        |       |          | 543  | LTR R2,R2 Any test cases?  |
| 00000596 | 078D        |       |          | 544  | BZR R13 ..No, return to caller   |
| 00000598 | 0DC0        |       |          | 545  | BASR R12,0 Set top of loop   |
|          |             |       |          | 546  | *  |
| 0000059A | 6800 3000   |       | 00000000 | 547  | LD FPR0,0(,R3) Get extended BFP test value part 1                      |
| 0000059E | 6820 3008   |       | 00000008 | 548  | LD FPR2,8(,R3) Get extended BFP test value part 2                      |
| 000005A2 | B29D F2F4   |       | 000002F4 | 549  | LFPC FPCREGNT Set exceptions non-trappable                             |
| 000005A6 | B347 0010   |       |          | 550  | FIXBR FPR1,0,FPR0 Cvt FPR0-FPR2 to int float in FPR1-FPR3              |
| 000005AA | 6010 7000   |       | 00000000 | 551  | STD FPR1,0(,R7) Store integer BFP result part 1                        |
| 000005AE | 6030 7008   |       | 00000008 | 552  | STD FPR3,8(,R7) Store integer BFP result part 2                        |
| 000005B2 | B29C 8000   |       | 00000000 | 553  | STFPC 0(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 554  | *  |
| 000005B6 | B29D F2F8   |       | 000002F8 | 555  | LFPC FPCREGTR Set exceptions trappable                                 |
| 000005BA | B376 0010   |       |          | 556  | LZXR FPR1 Eliminate any residual results                               |
| 000005BE | B347 0010   |       |          | 557  | FIXBR FPR1,0,FPR0 Cvt FPR0-FPR2 to int float in FPR1-FPR3              |
| 000005C2 | 6010 7010   |       | 00000010 | 558  | STD FPR1,16(,R7) Store integer BFP result part 1                       |
| 000005C6 | 6030 7018   |       | 00000018 | 559  | STD FPR3,24(,R7) Store integer BFP result part 2                       |
| 000005CA | B29C 8004   |       | 00000004 | 560  | STFPC 4(R8) Store resulting FPCR flags and DXC                         |
|          |             |       |          | 561  | *  |
| 000005CE | 4130 3010   |       | 00000010 | 562  | LA R3,16(,R3) Point to next extended BFP input value                   |
| 000005D2 | 4170 7020   |       | 00000020 | 563  | LA R7,32(,R7) Point to next extd BFP rounded result pair               |
| 000005D6 | 4180 8008   |       | 00000008 | 564  | LA R8,8(,R8) Point to next FPCR/CC result area                         |
| 000005DA | 062C        |       |          | 565  | BCTR R2,R12 Convert next input value.                                  |
| 000005DC | 07FD        |       |          | 566  | BR R13 All converted; return.  |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |
|----------|-------------|-------|----------|---|
|          |             |       |          | 568 *****   |
|          |             |       |          | 569 *   |
|          |             |       |          | 570 * Convert extended BFP to integers using each possible rounding mode.   |
|          |             |       |          | 571 * Ten test results are generated for each input. A 48-byte test result  |
|          |             |       |          | 572 * section is used to keep results sets aligned on a quad-double word.   |
|          |             |       |          | 573 *   |
|          |             |       |          | 574 * The first four tests use rounding modes specified in the FPCR with    |
|          |             |       |          | 575 * the IEEE Inexact exception suppressed. SRNM (2-bit) is used for       |
|          |             |       |          | 576 * the first two FPCR-controlled tests and SRNMB (3-bit) is used for     |
|          |             |       |          | 577 * the last two To get full coverage of that instruction pair.           |
|          |             |       |          | 578 *   |
|          |             |       |          | 579 * The next six results use instruction-specified rounding modes.        |
|          |             |       |          | 580 *   |
|          |             |       |          | 581 * The default rounding mode (0 for RNTE) is not tested in this section; |
|          |             |       |          | 582 * prior tests used the default rounding mode. RNTE is tested            |
|          |             |       |          | 583 * explicitly as a rounding mode in this section.                        |
|          |             |       |          | 584 *   |
|          |             |       |          | 585 *****   |
| 000005DE | 9823 A000   |       | 00000000 | 587 FIXBRA LM R2,R3,0(R10) Get count and address of test input values       |
| 000005E2 | 9878 A008   |       | 00000008 | 588 LM R7,R8,8(R10) Get address of result area and flag area.               |
| 000005E6 | 1222        |       |          | 589 LTR R2,R2 Any test cases?   |
| 000005E8 | 078D        |       |          | 590 BZR R13 ..No, return to caller  |
| 000005EA | 0DC0        |       |          | 591 BASR R12,0 Set top of loop  |
|          |             |       |          | 592 *   |
| 000005EC | 6800 3000   |       | 00000000 | 593 LD FPR0,0(,R3) Get extended BFP test value part 1                       |
| 000005F0 | 6820 3008   |       | 00000008 | 594 LD FPR2,8(,R3) Get extended BFP test value part 2                       |
|          |             |       |          | 595 *   |
|          |             |       |          | 596 * Test cases using rounding mode specified in the FPCR                  |
|          |             |       |          | 597 *   |
| 000005F4 | B29D F2F4   |       | 000002F4 | 598 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 000005F8 | B299 0001   |       | 00000001 | 599 SRNM 1 SET FPCR to RZ, towards zero.                                    |
| 000005FC | B347 0410   |       |          | 600 FIXBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000600 | 6010 7000   |       | 00000000 | 601 STD FPR1,0*16(,R7) Store integer BFP result part 1                      |
| 00000604 | 6030 7008   |       | 00000008 | 602 STD FPR3,(0*16)+8(,R7) Store integer BFP result part 2                  |
| 00000608 | B29C 8000   |       | 00000000 | 603 STFPC 0(R8) Store resulting FPCR flags and DXC                          |
|          |             |       |          | 604 *   |
| 0000060C | B29D F2F4   |       | 000002F4 | 605 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 00000610 | B299 0002   |       | 00000002 | 606 SRNM 2 SET FPCR to RP, to +infinity                                     |
| 00000614 | B347 0410   |       |          | 607 FIXBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000618 | 6010 7010   |       | 00000010 | 608 STD FPR1,1*16(,R7) Store integer BFP result part 1                      |
| 0000061C | 6030 7018   |       | 00000018 | 609 STD FPR3,(1*16)+8(,R7) Store integer BFP result part 2                  |
| 00000620 | B29C 8004   |       | 00000004 | 610 STFPC 1*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 611 *   |
| 00000624 | B29D F2F4   |       | 000002F4 | 612 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 00000628 | B2B8 0003   |       | 00000003 | 613 SRNMB 3 SET FPCR to RM, to -infinity                                    |
| 0000062C | B347 0410   |       |          | 614 FIXBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000630 | 6010 7020   |       | 00000020 | 615 STD FPR1,2*16(,R7) Store integer BFP result part 1                      |
| 00000634 | 6030 7028   |       | 00000028 | 616 STD FPR3,(2*16)+8(,R7) Store integer BFP result part 2                  |
| 00000638 | B29C 8008   |       | 00000008 | 617 STFPC 2*4(R8) Store resulting FPCR flags and DXC                        |
|          |             |       |          | 618 *   |
| 0000063C | B29D F2F4   |       | 000002F4 | 619 LFPC FPCREGNT Set exceptions non-trappable, clear flags                 |
| 00000640 | B2B8 0007   |       | 00000007 | 620 SRNMB 7 RFS, Prepare for Shorter Precision                              |
| 00000644 | B347 0410   |       |          | 621 FIXBRA FPR1,0,FPR0,B'0100' FPCR ctl'd rounding, inexact masked          |
| 00000648 | 6010 7030   |       | 00000030 | 622 STD FPR1,3*16(,R7) Store integer BFP result part 1                      |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT  |  |
|----------|-------------|-------|----------|-------|--|
| 0000064C | 6030 7038   |       | 00000038 | 623   | STD FPR3,(3*16)+8(,R7) Store integer BFP result part 2               |
| 00000650 | B29C 800C   |       | 0000000C | 624   | STFPC 3*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 625 * |  |
|          |             |       |          | 626 * | Test cases using rounding mode specified in the instruction M3 field |
|          |             |       |          | 627 * |  |
| 00000654 | B29D F2F4   |       | 000002F4 | 628   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 00000658 | B347 1010   |       |          | 629   | FIXBRA FPR1,1,FPR0,B'0000' RNTA, to nearest, ties away               |
| 0000065C | 6010 7040   |       | 00000040 | 630   | STD FPR1,4*16(,R7) Store integer BFP result part 1                   |
| 00000660 | 6030 7048   |       | 00000048 | 631   | STD FPR3,(4*16)+8(,R7) Store integer BFP result part 2               |
| 00000664 | B29C 8010   |       | 00000010 | 632   | STFPC 4*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 633 * |  |
| 00000668 | B29D F2F4   |       | 000002F4 | 634   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 0000066C | B347 3010   |       |          | 635   | FIXBRA FPR1,3,FPR0,B'0000' RFS, prepare for shorter precision        |
| 00000670 | 6010 7050   |       | 00000050 | 636   | STD FPR1,5*16(,R7) Store integer BFP result part 1                   |
| 00000674 | 6030 7058   |       | 00000058 | 637   | STD FPR3,(5*16)+8(,R7) Store integer BFP result part 2               |
| 00000678 | B29C 8014   |       | 00000014 | 638   | STFPC 5*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 639 * |  |
| 0000067C | B29D F2F4   |       | 000002F4 | 640   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 00000680 | B347 4010   |       |          | 641   | FIXBRA FPR1,4,FPR0,B'0000' RNTE, to nearest, ties to even            |
| 00000684 | 6010 7060   |       | 00000060 | 642   | STD FPR1,6*16(,R7) Store integer BFP result part 1                   |
| 00000688 | 6030 7068   |       | 00000068 | 643   | STD FPR3,(6*16)+8(,R7) Store integer BFP result part 2               |
| 0000068C | B29C 8018   |       | 00000018 | 644   | STFPC 6*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 645 * |  |
| 00000690 | B29D F2F4   |       | 000002F4 | 646   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 00000694 | B347 5010   |       |          | 647   | FIXBRA FPR1,5,FPR0,B'0000' RZ, toward zero                           |
| 00000698 | 6010 7070   |       | 00000070 | 648   | STD FPR1,7*16(,R7) Store integer BFP result part 1                   |
| 0000069C | 6030 7078   |       | 00000078 | 649   | STD FPR3,(7*16)+8(,R7) Store integer BFP result part 2               |
| 000006A0 | B29C 801C   |       | 0000001C | 650   | STFPC 7*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 651 * |  |
| 000006A4 | B29D F2F4   |       | 000002F4 | 652   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 000006A8 | B347 6010   |       |          | 653   | FIXBRA FPR1,6,FPR0,B'0000' RP, to +inf                               |
| 000006AC | 6010 7080   |       | 00000080 | 654   | STD FPR1,8*16(,R7) Store integer BFP result part 1                   |
| 000006B0 | 6030 7088   |       | 00000088 | 655   | STD FPR3,(8*16)+8(,R7) Store integer BFP result part 2               |
| 000006B4 | B29C 8020   |       | 00000020 | 656   | STFPC 8*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 657 * |  |
| 000006B8 | B29D F2F4   |       | 000002F4 | 658   | LFPC FPCREGNT Set exceptions non-trappable, clear flags              |
| 000006BC | B347 7010   |       |          | 659   | FIXBRA FPR1,7,FPR0,B'0000' RM, to -inf                               |
| 000006C0 | 6010 7090   |       | 00000090 | 660   | STD FPR1,9*16(,R7) Store integer BFP result part 1                   |
| 000006C4 | 6030 7098   |       | 00000098 | 661   | STD FPR3,(9*16)+8(,R7) Store integer BFP result part 2               |
| 000006C8 | B29C 8024   |       | 00000024 | 662   | STFPC 9*4(R8) Store resulting FPCR flags and DXC                     |
|          |             |       |          | 663 * |  |
| 000006CC | 4130 3010   |       | 00000010 | 664   | LA R3,16(,R3) Point to next input value                              |
| 000006D0 | 4170 70A0   |       | 000000A0 | 665   | LA R7,10*16(,R7) Point to next long BFP converted values             |
| 000006D4 | 4180 8030   |       | 00000030 | 666   | LA R8,12*4(,R8) Point to next FPCR/CC result area                    |
| 000006D8 | 062C        |       |          | 667   | BCTR R2,R12 Convert next input value.                                |
| 000006DA | 07FD        |       |          | 668   | BR R13 All converted; return.  |

| LOC      | OBJECT CODE | ADDR1    | ADDR2    | STMT |  |     |                       |                                       |  |
|----------|-------------|----------|----------|------|--|-----|-----------------------|---------------------------------------|--|
|          |             |          |          | 670  | *****  |     |                       |                                       |  |
|          |             |          |          | 671  | *  |     |                       |                                       |  |
|          |             |          |          | 672  | * Short integer inputs for Load FP Integer testing. The same |     |                       |                                       |  |
|          |             |          |          | 673  | * values are used for short, long, and extended formats.     |     |                       |                                       |  |
|          |             |          |          | 674  | *  |     |                       |                                       |  |
|          |             |          |          | 675  | *****  |     |                       |                                       |  |
| 000006DC |             |          |          | 677  | SBFPIN   | DS  | 0F                    | Inputs for short BFP testing          |  |
| 000006DC | 3F800000    |          |          | 678  |  | DC  | X'3F800000'           | +1.0 Exact                            |  |
| 000006E0 | BFC00000    |          |          | 679  |  | DC  | X'BFC00000'           | -1.5 Inexact, incremented             |  |
| 000006E4 | 40200000    |          |          | 680  |  | DC  | X'40200000'           | +2.5 Inexact only                     |  |
| 000006E8 | 7F810000    |          |          | 681  |  | DC  | X'7F810000'           | SNaN                                  |  |
| 000006EC | 7FC10000    |          |          | 682  |  | DC  | X'7FC10000'           | QNaN                                  |  |
| 000006F0 | 3F400000    |          |          | 683  |  | DC  | X'3F400000'           | +.75 Inexact, incremented             |  |
| 000006F4 | BE800000    |          |          | 684  |  | DC  | X'BE800000'           | -.25 Inexact                          |  |
|          |             | 0000001C | 00000001 | 685  | SBFPCT   | EQU | *-SBFPIN              | Count of short BFP in list * 4        |  |
|          |             |          |          | 686  | *  |     |                       |                                       |  |
| 000006F8 |             |          |          | 687  | SBFPINRM   | DS  | 0F                    | Inputs for short BFP rounding testing |  |
| 000006F8 | C1180000    |          |          | 688  |  | DC  | X'C1180000'           | -9.5                                  |  |
| 000006FC | C0B00000    |          |          | 689  |  | DC  | X'C0B00000'           | -5.5                                  |  |
| 00000700 | C0200000    |          |          | 690  |  | DC  | X'C0200000'           | -2.5                                  |  |
| 00000704 | BFC00000    |          |          | 691  |  | DC  | X'BFC00000'           | -1.5                                  |  |
| 00000708 | BF000000    |          |          | 692  |  | DC  | X'BF000000'           | -0.5                                  |  |
| 0000070C | 3F000000    |          |          | 693  |  | DC  | X'3F000000'           | +0.5                                  |  |
| 00000710 | 3FC00000    |          |          | 694  |  | DC  | X'3FC00000'           | +1.5                                  |  |
| 00000714 | 40200000    |          |          | 695  |  | DC  | X'40200000'           | +2.5                                  |  |
| 00000718 | 40B00000    |          |          | 696  |  | DC  | X'40B00000'           | +5.5                                  |  |
| 0000071C | 41180000    |          |          | 697  |  | DC  | X'41180000'           | +9.5                                  |  |
| 00000720 | 3F400000    |          |          | 698  |  | DC  | X'3F400000'           | +.75                                  |  |
| 00000724 | BE800000    |          |          | 699  |  | DC  | X'BE800000'           | -.25                                  |  |
|          |             | 00000030 | 00000001 | 700  | SBFPRMCT   | EQU | *-SBFPINRM            | Count of short BFP rounding tests * 4 |  |
|          |             |          |          | 701  | *  |     |                       |                                       |  |
| 00000728 |             |          |          | 702  | LBFPIN   | DS  | 0F                    | Inputs for long BFP testing           |  |
| 00000728 | 3FF00000    | 00000000 |          | 703  |  | DC  | X'3FF0000000000000'   | +1.0                                  |  |
| 00000730 | BFF80000    | 00000000 |          | 704  |  | DC  | X'BFF80000000000000'  | -1.5                                  |  |
| 00000738 | 40040000    | 00000000 |          | 705  |  | DC  | X'400400000000000000' | +2.5                                  |  |
| 00000740 | 7FF01000    | 00000000 |          | 706  |  | DC  | X'7FF010000000000000' | SNaN                                  |  |
| 00000748 | 7FF81000    | 00000000 |          | 707  |  | DC  | X'7FF810000000000000' | QNaN                                  |  |
| 00000750 | 3FE80000    | 00000000 |          | 708  |  | DC  | X'3FE800000000000000' | +.75                                  |  |
| 00000758 | BFD00000    | 00000000 |          | 709  |  | DC  | X'BFD00000000000000'  | -.25                                  |  |
|          |             | 00000038 | 00000001 | 710  | LBFPCT   | EQU | *-LBFPIN              | Count of long BFP in list * 8         |  |
|          |             |          |          | 711  | *  |     |                       |                                       |  |
| 00000760 |             |          |          | 712  | LBFPINRM   | DS  | 0F                    |                                       |  |
| 00000760 | C0230000    | 00000000 |          | 713  |  | DC  | X'C02300000000000000' | -9.5                                  |  |
| 00000768 | C0160000    | 00000000 |          | 714  |  | DC  | X'C01600000000000000' | -5.5                                  |  |
| 00000770 | C0040000    | 00000000 |          | 715  |  | DC  | X'C00400000000000000' | -2.5                                  |  |
| 00000778 | BFF80000    | 00000000 |          | 716  |  | DC  | X'BFF80000000000000'  | -1.5                                  |  |
| 00000780 | BFE00000    | 00000000 |          | 717  |  | DC  | X'BFE00000000000000'  | -0.5                                  |  |
| 00000788 | 3FE00000    | 00000000 |          | 718  |  | DC  | X'3FE000000000000000' | +0.5                                  |  |
| 00000790 | 3FF80000    | 00000000 |          | 719  |  | DC  | X'3FF800000000000000' | +1.5                                  |  |
| 00000798 | 40040000    | 00000000 |          | 720  |  | DC  | X'400400000000000000' | +2.5                                  |  |
| 000007A0 | 40160000    | 00000000 |          | 721  |  | DC  | X'401600000000000000' | +5.5                                  |  |
| 000007A8 | 40230000    | 00000000 |          | 722  |  | DC  | X'402300000000000000' | +9.5                                  |  |
| 000007B0 | 3FE80000    | 00000000 |          | 723  |  | DC  | X'3FE800000000000000' | +.75                                  |  |
| 000007B8 | BFD00000    | 00000000 |          | 724  |  | DC  | X'BFD00000000000000'  | -.25                                  |  |

| LOC      | OBJECT CODE | ADDR1    | ADDR2    | STMT |          |     |                                     |   |
|----------|-------------|----------|----------|------|----------|-----|-------------------------------------|---|
|          |             | 00000060 | 00000001 | 725  | LBFPRMCT | EQU | *-LBFPINRM                          | Count of long BFP rounding tests * 8      |
|          |             |          |          | 726  | *        |     |                                     |   |
| 000007C0 |             |          |          | 727  | XBFPIN   | DS  | 0D                                  | Inputs for long BFP testing               |
| 000007C0 | 3FFF0000    | 00000000 |          | 728  |          | DC  | X'3FFF0000000000000000000000000000' | +1.0                                      |
| 000007D0 | BFFF8000    | 00000000 |          | 729  |          | DC  | X'BFFF8000000000000000000000000000' | -1.5                                      |
| 000007E0 | 40004000    | 00000000 |          | 730  |          | DC  | X'40004000000000000000000000000000' | +2.5                                      |
| 000007F0 | 7FFF0100    | 00000000 |          | 731  |          | DC  | X'7FFF0100000000000000000000000000' | SNaN                                      |
| 00000800 | 7FFF8100    | 00000000 |          | 732  |          | DC  | X'7FFF8100000000000000000000000000' | QNaN                                      |
| 00000810 | 3FFE8000    | 00000000 |          | 733  |          | DC  | X'3FFE8000000000000000000000000000' | +0.75                                     |
| 00000820 | BFFD0000    | 00000000 |          | 734  |          | DC  | X'BFFD0000000000000000000000000000' | -0.25                                     |
|          |             | 00000070 | 00000001 | 735  | XBFPCT   | EQU | *-XBFPIN                            | Count of extended BFP in list * 16        |
|          |             |          |          | 736  | *        |     |                                     |   |
| 00000830 |             |          |          | 737  | XBFPINRM | DS  | 0D                                  |   |
| 00000830 | C0023000    | 00000000 |          | 738  |          | DC  | X'C0023000000000000000000000000000' | -9.5                                      |
| 00000840 | C0016000    | 00000000 |          | 739  |          | DC  | X'C0016000000000000000000000000000' | -5.5                                      |
| 00000850 | C0004000    | 00000000 |          | 740  |          | DC  | X'C0004000000000000000000000000000' | -2.5                                      |
| 00000860 | BFFF8000    | 00000000 |          | 741  |          | DC  | X'BFFF8000000000000000000000000000' | -1.5                                      |
| 00000870 | BFFE0000    | 00000000 |          | 742  |          | DC  | X'BFFE0000000000000000000000000000' | -0.5                                      |
| 00000880 | 3FFE0000    | 00000000 |          | 743  |          | DC  | X'3FFE0000000000000000000000000000' | +0.5                                      |
| 00000890 | 3FFF8000    | 00000000 |          | 744  |          | DC  | X'3FFF8000000000000000000000000000' | +1.5                                      |
| 000008A0 | 40004000    | 00000000 |          | 745  |          | DC  | X'40004000000000000000000000000000' | +2.5                                      |
| 000008B0 | 40016000    | 00000000 |          | 746  |          | DC  | X'40016000000000000000000000000000' | +5.5                                      |
| 000008C0 | 40023000    | 00000000 |          | 747  |          | DC  | X'40023000000000000000000000000000' | +9.5                                      |
| 000008D0 | 3FFE8000    | 00000000 |          | 748  |          | DC  | X'3FFE8000000000000000000000000000' | +0.75                                     |
| 000008E0 | BFFD0000    | 00000000 |          | 749  |          | DC  | X'BFFD0000000000000000000000000000' | -0.25                                     |
|          |             | 000000C0 | 00000001 | 750  | XBFPRMCT | EQU | *-XBFPINRM                          | Count of extended BFP rounding tests * 16 |

| LOC | OBJECT CODE | ADDR1    | ADDR2 | STMT |  |
|-----|-------------|----------|-------|------|--|
|     |             |          |       | 752  | *****  |
|     |             |          |       | 753  | * ACTUAL results saved here  |
|     |             |          |       | 754  | *****  |
|     |             |          |       | 755  | * Locations for ACTUAL results                                     |
|     |             |          |       | 756  | * Locations for ACTUAL results                                     |
|     |             |          |       | 757  | * Locations for ACTUAL results                                     |
|     |             |          |       | 758  | * Locations for ACTUAL results                                     |
|     | 00001000    | 00000000 |       | 759  | SBFPOUT EQU BFPLDFPI+X'1000' Integer short BFP rounded results     |
|     |             |          |       | 760  | * ..7 used, room for 16  |
|     | 00001080    | 00000000 |       | 761  | SBFPFLGS EQU BFPLDFPI+X'1080' FPCR flags and DXC from short BFP    |
|     |             |          |       | 762  | * ..7 used, room for 16  |
|     | 00001100    | 00000000 |       | 763  | SBFPRMO EQU BFPLDFPI+X'1100' Short BFP rounding mode test results  |
|     |             |          |       | 764  | * ..12 used, room for 16   |
|     | 00001400    | 00000000 |       | 765  | SBFPRMOF EQU BFPLDFPI+X'1400' Short BFP rounding mode FPCR results |
|     |             |          |       | 766  | * ..12 used  |
|     |             |          |       | 767  | * ..12 used  |
|     | 00002000    | 00000000 |       | 768  | LBFPOUT EQU BFPLDFPI+X'2000' Integer long BFP rounded results      |
|     |             |          |       | 769  | * ..7 used, room for 16  |
|     | 00002100    | 00000000 |       | 770  | LBFPFLGS EQU BFPLDFPI+X'2100' FPCR flags and DXC from long BFP     |
|     |             |          |       | 771  | * ..7 used, room for 32  |
|     | 00002200    | 00000000 |       | 772  | LBFPRMO EQU BFPLDFPI+X'2200' Long BFP rounding mode test results   |
|     |             |          |       | 773  | * ..12 used, room for 16   |
|     | 00002800    | 00000000 |       | 774  | LBFPRMOF EQU BFPLDFPI+X'2800' Long BFP rounding mode FPCR results  |
|     |             |          |       | 775  | * ..12 used  |
|     |             |          |       | 776  | * ..12 used  |
|     | 00003000    | 00000000 |       | 777  | XBFPOUT EQU BFPLDFPI+X'3000' Integer extended BFP rounded results  |
|     |             |          |       | 778  | * ..7 used, room for 16  |
|     | 00003200    | 00000000 |       | 779  | XBFPFLGS EQU BFPLDFPI+X'3200' FPCR flags and DXC from extended BFP |
|     |             |          |       | 780  | * ..7 used, room for 32  |
|     | 00003300    | 00000000 |       | 781  | XBFPRMO EQU BFPLDFPI+X'3300' Extd BFP rounding mode test results   |
|     |             |          |       | 782  | * ..12 used, room for 16   |
|     | 00003F00    | 00000000 |       | 783  | XBFPRMOF EQU BFPLDFPI+X'3F00' Extd BFP rounding mode FPCR results  |
|     |             |          |       | 784  | * ..12 used  |

| LOC      | OBJECT CODE | ADDR1    | ADDR2    | STMT  |
|----------|-------------|----------|----------|---|
|          |             |          |          | 786 *****   |
|          |             |          |          | 787 * EXPECTED results                                |
|          |             |          |          | 788 *****   |
|          |             |          |          | 789 *   |
| 000008F0 |             | 000008F0 | 00005000 | 790 ORG BFPLDFPI+X'5000' (past end of actual results) |
|          |             |          |          | 791 *   |
|          |             | 00005000 | 00000001 | 792 SBFPOUT_GOOD EQU *                                |
| 00005000 | C3C6C5C2    | D9409985 |          | 793 DC CL48'CFEBR result pairs 1-2'                   |
| 00005030 | 3F800000    | 3F800000 |          | 794 DC XL16'3F8000003F800000C0000000C0000000'         |
| 00005040 | C3C6C5C2    | D9409985 |          | 795 DC CL48'CFEBR result pairs 3-4'                   |
| 00005070 | 40000000    | 40000000 |          | 796 DC XL16'40000000400000007FC1000000000000'         |
| 00005080 | C3C6C5C2    | D9409985 |          | 797 DC CL48'CFEBR result pair 5-6'                    |
| 000050B0 | 7FC10000    | 7FC10000 |          | 798 DC XL16'7FC100007FC100003F8000003F800000'         |
| 000050C0 | C3C6C5C2    | D9409985 |          | 799 DC CL48'CFEBR result pair 7'                      |
| 000050F0 | 80000000    | 80000000 |          | 800 DC XL16'80000000800000000000000000000000'         |
|          |             | 00000004 | 00000001 | 801 SBFPOUT_NUM EQU (*-SBFPOUT_GOOD)/64               |
|          |             |          |          | 802 *   |
|          |             |          |          | 803 *   |
|          |             | 00005100 | 00000001 | 804 SBFPFLGS_GOOD EQU *                               |
| 00005100 | C3C6C5C2    | D940C6D7 |          | 805 DC CL48'CFEBR FPC pairs 1-2'                      |
| 00005130 | 00000000    | F8000000 |          | 806 DC XL16'00000000F80000000000800000F8000C00'       |
| 00005140 | C3C6C5C2    | D940C6D7 |          | 807 DC CL48'CFEBR FPC pairs 3-4'                      |
| 00005170 | 00080000    | F8000800 |          | 808 DC XL16'00080000F800080000800000F8008000'         |
| 00005180 | C3C6C5C2    | D940C6D7 |          | 809 DC CL48'CFEBR FPC pair 5-6'                       |
| 000051B0 | 00000000    | F8000000 |          | 810 DC XL16'00000000F80000000000800000F8000C00'       |
| 000051C0 | C3C6C5C2    | D940C6D7 |          | 811 DC CL48'CFEBR FPC pair 7'                         |
| 000051F0 | 00080000    | F8000800 |          | 812 DC XL16'00080000F80008000000000000000000'         |
|          |             | 00000004 | 00000001 | 813 SBFPFLGS_NUM EQU (*-SBFPFLGS_GOOD)/64             |
|          |             |          |          | 814 *   |
|          |             |          |          | 815 *   |
|          |             | 00005200 | 00000001 | 816 SBFPRMO_GOOD EQU *                                |
| 00005200 | C3C6C5C2    | D9C14060 |          | 817 DC CL48'CFEBRA -9.5 FPC modes 1-3, 7'             |
| 00005230 | C1100000    | C1100000 |          | 818 DC XL16'C1100000C1100000C1200000C1100000'         |
| 00005240 | C3C6C5C2    | D9C14060 |          | 819 DC CL48'CFEBRA -9.5 M3 modes 1, 3-5'              |
| 00005270 | C1200000    | C1100000 |          | 820 DC XL16'C1200000C1100000C1200000C1100000'         |
| 00005280 | C3C6C5C2    | D9C14060 |          | 821 DC CL48'CFEBRA -9.5 M3 modes 6, 7'                |
| 000052B0 | C1100000    | C1200000 |          | 822 DC XL16'C1100000C120000000000000000000000'        |
| 000052C0 | C3C6C5C2    | D9C14060 |          | 823 DC CL48'CFEBRA -5.5 FPC modes 1-3, 7'             |
| 000052F0 | C0A00000    | C0A00000 |          | 824 DC XL16'C0A00000C0A00000C0C00000C0A00000'         |
| 00005300 | C3C6C5C2    | D9C14060 |          | 825 DC CL48'CFEBRA -5.5 M3 modes 1, 3-5'              |
| 00005330 | C0C00000    | C0A00000 |          | 826 DC XL16'C0C00000C0A00000C0C00000C0A00000'         |
| 00005340 | C3C6C5C2    | D9C14060 |          | 827 DC CL48'CFEBRA -5.5 M3 modes 6, 7'                |
| 00005370 | C0A00000    | C0C00000 |          | 828 DC XL16'C0A00000C0C000000000000000000000'         |
| 00005380 | C3C6C5C2    | D9C14060 |          | 829 DC CL48'CFEBRA -2.5 FPC modes 1-3, 7'             |
| 000053B0 | C0000000    | C0000000 |          | 830 DC XL16'C0000000C0000000C0400000C0400000'         |
| 000053C0 | C3C6C5C2    | D9C14060 |          | 831 DC CL48'CFEBRA -2.5 M3 modes 1, 3-5'              |
| 000053F0 | C0400000    | C0400000 |          | 832 DC XL16'C0400000C0400000C0000000C0000000'         |
| 00005400 | C3C6C5C2    | D9C14060 |          | 833 DC CL48'CFEBRA -2.5 M3 modes 6, 7'                |
| 00005430 | C0000000    | C0400000 |          | 834 DC XL16'C0000000C04000000000000000000000'         |
| 00005440 | C3C6C5C2    | D9C14060 |          | 835 DC CL48'CFEBRA -1.5 FPC modes 1-3, 7'             |
| 00005470 | BF800000    | BF800000 |          | 836 DC XL16'BF800000BF800000C0000000BF800000'         |
| 00005480 | C3C6C5C2    | D9C14060 |          | 837 DC CL48'CFEBRA -1.5 M3 modes 1, 3-5'              |
| 000054B0 | C0000000    | BF800000 |          | 838 DC XL16'C0000000BF800000C0000000BF800000'         |
| 000054C0 | C3C6C5C2    | D9C14060 |          | 839 DC CL48'CFEBRA -1.5 M3 modes 6, 7'                |
| 000054F0 | BF800000    | C0000000 |          | 840 DC XL16'BF800000C00000000000000000000000'         |
| 00005500 | C3C6C5C2    | D9C14060 |          | 841 DC CL48'CFEBRA -0.5 FPC modes 1-3, 7'             |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
| 00005530 | 80000000 80000000 |          |          | 842 DC XL16'8000000080000000BF800000BF800000'   |
| 00005540 | C3C6C5C2 D9C14060 |          |          | 843 DC CL48'CFEBRA -0.5 M3 modes 1, 3-5'        |
| 00005570 | BF800000 BF800000 |          |          | 844 DC XL16'BF800000BF8000008000000080000000'   |
| 00005580 | C3C6C5C2 D9C14060 |          |          | 845 DC CL48'CFEBRA -0.5 M3 modes 6, 7'          |
| 000055B0 | 80000000 BF800000 |          |          | 846 DC XL16'80000000BF800000000000000000000'    |
| 000055C0 | C3C6C5C2 D9C140F0 |          |          | 847 DC CL48'CFEBRA 0.5 FPC modes 1-3, 7'        |
| 000055F0 | 00000000 3F800000 |          |          | 848 DC XL16'000000003F80000000000000003F800000' |
| 00005600 | C3C6C5C2 D9C140F0 |          |          | 849 DC CL48'CFEBRA 0.5 M3 modes 1, 3-5'         |
| 00005630 | 3F800000 3F800000 |          |          | 850 DC XL16'3F8000003F8000000000000000000000'   |
| 00005640 | C3C6C5C2 D9C140F0 |          |          | 851 DC CL48'CFEBRA 0.5 M3 modes 6, 7'           |
| 00005670 | 3F800000 00000000 |          |          | 852 DC XL16'3F800000000000000000000000000000'   |
| 00005680 | C3C6C5C2 D9C140F1 |          |          | 853 DC CL48'CFEBRA 1.5 FPC modes 1-3, 7'        |
| 000056B0 | 3F800000 40000000 |          |          | 854 DC XL16'3F800000400000003F8000003F800000'   |
| 000056C0 | C3C6C5C2 D9C140F1 |          |          | 855 DC CL48'CFEBRA 1.5 M3 modes 1, 3-5'         |
| 000056F0 | 40000000 3F800000 |          |          | 856 DC XL16'400000003F800000400000003F800000'   |
| 00005700 | C3C6C5C2 D9C140F1 |          |          | 857 DC CL48'CFEBRA 1.5 M3 modes 6, 7'           |
| 00005730 | 40000000 3F800000 |          |          | 858 DC XL16'400000003F8000000000000000000000'   |
| 00005740 | C3C6C5C2 D9C140F2 |          |          | 859 DC CL48'CFEBRA 2.5 FPC modes 1-3, 7'        |
| 00005770 | 40000000 40400000 |          |          | 860 DC XL16'40000000404000004000000040400000'   |
| 00005780 | C3C6C5C2 D9C140F2 |          |          | 861 DC CL48'CFEBRA 2.5 M3 modes 1, 3-5'         |
| 000057B0 | 40400000 40400000 |          |          | 862 DC XL16'40400000404000004000000040000000'   |
| 000057C0 | C3C6C5C2 D9C140F2 |          |          | 863 DC CL48'CFEBRA 2.5 M3 modes 6, 7'           |
| 000057F0 | 40400000 40000000 |          |          | 864 DC XL16'40400000400000000000000000000000'   |
| 00005800 | C3C6C5C2 D9C140F5 |          |          | 865 DC CL48'CFEBRA 5.5 FPC modes 1-3, 7'        |
| 00005830 | 40A00000 40C00000 |          |          | 866 DC XL16'40A0000040C0000040A0000040A00000'   |
| 00005840 | C3C6C5C2 D9C140F5 |          |          | 867 DC CL48'CFEBRA 5.5 M3 modes 1, 3-5'         |
| 00005870 | 40C00000 40A00000 |          |          | 868 DC XL16'40C0000040A0000040C0000040A00000'   |
| 00005880 | C3C6C5C2 D9C140F5 |          |          | 869 DC CL48'CFEBRA 5.5 M3 modes 6, 7'           |
| 000058B0 | 40C00000 40A00000 |          |          | 870 DC XL16'40C0000040A000000000000000000000'   |
| 000058C0 | C3C6C5C2 D9C140F9 |          |          | 871 DC CL48'CFEBRA 9.5 FPC modes 1-3, 7'        |
| 000058F0 | 41100000 41200000 |          |          | 872 DC XL16'41100000412000004110000041100000'   |
| 00005900 | C3C6C5C2 D9C140F9 |          |          | 873 DC CL48'CFEBRA 9.5 M3 modes 1, 3-5'         |
| 00005930 | 41200000 41100000 |          |          | 874 DC XL16'41200000411000004120000041100000'   |
| 00005940 | C3C6C5C2 D9C140F9 |          |          | 875 DC CL48'CFEBRA 9.5 M3 modes 6, 7'           |
| 00005970 | 41200000 41100000 |          |          | 876 DC XL16'41200000411000000000000000000000'   |
| 00005980 | C3C6C5C2 D9C1404E |          |          | 877 DC CL48'CFEBRA +0.75 FPC modes 1-3, 7'      |
| 000059B0 | 00000000 3F800000 |          |          | 878 DC XL16'000000003F80000000000000003F800000' |
| 000059C0 | C3C6C5C2 D9C1404E |          |          | 879 DC CL48'CFEBRA +0.75 M3 modes 1, 3-5'       |
| 000059F0 | 3F800000 3F800000 |          |          | 880 DC XL16'3F8000003F8000003F80000000000000'   |
| 00005A00 | C3C6C5C2 D9C1404E |          |          | 881 DC CL48'CFEBRA +0.75 M3 modes 6, 7'         |
| 00005A30 | 3F800000 00000000 |          |          | 882 DC XL16'3F800000000000000000000000000000'   |
| 00005A40 | C3C6C5C2 D9C14060 |          |          | 883 DC CL48'CFEBRA -0.25 FPC modes 1-3, 7'      |
| 00005A70 | 80000000 80000000 |          |          | 884 DC XL16'8000000080000000BF800000BF800000'   |
| 00005A80 | C3C6C5C2 D9C14060 |          |          | 885 DC CL48'CFEBRA -0.25 M3 modes 1, 3-5'       |
| 00005AB0 | 80000000 BF800000 |          |          | 886 DC XL16'80000000BF8000008000000080000000'   |
| 00005AC0 | C3C6C5C2 D9C14060 |          |          | 887 DC CL48'CFEBRA -0.25 M3 modes 6, 7'         |
| 00005AF0 | 80000000 BF800000 |          |          | 888 DC XL16'80000000BF80000000000000000000000'  |
|          |                   | 00000024 | 00000001 | 889 SBFPRMO_NUM EQU (*-SBFPRMO_GOOD)/64         |
|          |                   |          |          | 890 *   |
|          |                   |          |          | 891 *   |
|          |                   | 00005B00 | 00000001 | 892 SBFPRMOF_GOOD EQU *                         |
| 00005B00 | C3C6C5C2 D9C14060 |          |          | 893 DC CL48'CFEBRA -9.5 FPC modes 1-3, 7 FCPR'  |
| 00005B30 | 00000001 00000002 |          |          | 894 DC XL16'000000010000000020000000300000007'  |
| 00005B40 | C3C6C5C2 D9C14060 |          |          | 895 DC CL48'CFEBRA -9.5 M3 modes 1, 3-5 FCPR'   |
| 00005B70 | 00080000 00080000 |          |          | 896 DC XL16'00080000000800000080000000800000'   |
| 00005B80 | C3C6C5C2 D9C14060 |          |          | 897 DC CL48'CFEBRA -9.5 M3 modes 5-7 - FCPR'    |

| LOC      | OBJECT CODE | ADDR1    | ADDR2 | STMT |   |
|----------|-------------|----------|-------|------|---|
| 00005BB0 | 00080000    | 00080000 |       | 898  | DC XL16'00080000000800000000000000000000'   |
| 00005BC0 | C3C6C5C2    | D9C14060 |       | 899  | DC CL48'CFEBRA -5.5 FPC modes 1-3, 7 FCPR'  |
| 00005BF0 | 00000001    | 00000002 |       | 900  | DC XL16'00000001000000020000000300000007'   |
| 00005C00 | C3C6C5C2    | D9C14060 |       | 901  | DC CL48'CFEBRA -5.5 M3 modes 1, 3-5 FPCR'   |
| 00005C30 | 00080000    | 00080000 |       | 902  | DC XL16'00080000000800000008000000080000'   |
| 00005C40 | C3C6C5C2    | D9C14060 |       | 903  | DC CL48'CFEBRA -5.5 M3 modes 6, 7 FCPR'     |
| 00005C70 | 00080000    | 00080000 |       | 904  | DC XL16'00080000000800000000000000000000'   |
| 00005C80 | C3C6C5C2    | D9C14060 |       | 905  | DC CL48'CFEBRA -2.5 FPC modes 1-3, 7 FCPR'  |
| 00005CB0 | 00000001    | 00000002 |       | 906  | DC XL16'00000001000000020000000300000007'   |
| 00005CC0 | C3C6C5C2    | D9C14060 |       | 907  | DC CL48'CFEBRA -2.5 M3 modes 1, 3-5 FPCR'   |
| 00005CF0 | 00080000    | 00080000 |       | 908  | DC XL16'00080000000800000008000000080000'   |
| 00005D00 | C3C6C5C2    | D9C14060 |       | 909  | DC CL48'CFEBRA -2.5 M3 modes 6, 7 FCPR'     |
| 00005D30 | 00080000    | 00080000 |       | 910  | DC XL16'00080000000800000000000000000000'   |
| 00005D40 | C3C6C5C2    | D9C14060 |       | 911  | DC CL48'CFEBRA -1.5 FPC modes 1-3, 7 FCPR'  |
| 00005D70 | 00000001    | 00000002 |       | 912  | DC XL16'00000001000000020000000300000007'   |
| 00005D80 | C3C6C5C2    | D9C14060 |       | 913  | DC CL48'CFEBRA -1.5 M3 modes 1, 3-5 FPCR'   |
| 00005DB0 | 00080000    | 00080000 |       | 914  | DC XL16'00080000000800000008000000080000'   |
| 00005DC0 | C3C6C5C2    | D9C14060 |       | 915  | DC CL48'CFEBRA -1.5 M3 modes 6, 7 FCPR'     |
| 00005DF0 | 00080000    | 00080000 |       | 916  | DC XL16'00080000000800000000000000000000'   |
| 00005E00 | C3C6C5C2    | D9C14060 |       | 917  | DC CL48'CFEBRA -0.5 FPC modes 1-3, 7 FCPR'  |
| 00005E30 | 00000001    | 00000002 |       | 918  | DC XL16'00000001000000020000000300000007'   |
| 00005E40 | C3C6C5C2    | D9C14060 |       | 919  | DC CL48'CFEBRA -0.5 M3 modes 1, 3-5 FPCR'   |
| 00005E70 | 00080000    | 00080000 |       | 920  | DC XL16'00080000000800000008000000080000'   |
| 00005E80 | C3C6C5C2    | D9C14060 |       | 921  | DC CL48'CFEBRA -0.5 M3 modes 6, 7 FCPR'     |
| 00005EB0 | 00080000    | 00080000 |       | 922  | DC XL16'00080000000800000000000000000000'   |
| 00005EC0 | C3C6C5C2    | D9C1404E |       | 923  | DC CL48'CFEBRA +0.5 FPC modes 1-3, 7 FCPR'  |
| 00005EF0 | 00000001    | 00000002 |       | 924  | DC XL16'00000001000000020000000300000007'   |
| 00005F00 | C3C6C5C2    | D9C1404E |       | 925  | DC CL48'CFEBRA +0.5 M3 modes 1, 3-5 FPCR'   |
| 00005F30 | 00080000    | 00080000 |       | 926  | DC XL16'00080000000800000008000000080000'   |
| 00005F40 | C3C6C5C2    | D9C1404E |       | 927  | DC CL48'CFEBRA +0.5 M3 modes 6, 7 FCPR'     |
| 00005F70 | 00080000    | 00080000 |       | 928  | DC XL16'00080000000800000000000000000000'   |
| 00005F80 | C3C6C5C2    | D9C1404E |       | 929  | DC CL48'CFEBRA +1.5 FPC modes 1-3, 7 FCPR'  |
| 00005FB0 | 00000001    | 00000002 |       | 930  | DC XL16'00000001000000020000000300000007'   |
| 00005FC0 | C3C6C5C2    | D9C1404E |       | 931  | DC CL48'CFEBRA +1.5 M3 modes 1, 3-5 FPCR'   |
| 00005FF0 | 00080000    | 00080000 |       | 932  | DC XL16'00080000000800000008000000080000'   |
| 00006000 | C3C6C5C2    | D9C1404E |       | 933  | DC CL48'CFEBRA +1.5 M3 modes 6, 7 FCPR'     |
| 00006030 | 00080000    | 00080000 |       | 934  | DC XL16'00080000000800000000000000000000'   |
| 00006040 | C3C6C5C2    | D9C1404E |       | 935  | DC CL48'CFEBRA +2.5 FPC modes 1-3, 7 FCPR'  |
| 00006070 | 00000001    | 00000002 |       | 936  | DC XL16'00000001000000020000000300000007'   |
| 00006080 | C3C6C5C2    | D9C1404E |       | 937  | DC CL48'CFEBRA +2.5 M3 modes 1, 3-5 FPCR'   |
| 000060B0 | 00080000    | 00080000 |       | 938  | DC XL16'00080000000800000008000000080000'   |
| 000060C0 | C3C6C5C2    | D9C1404E |       | 939  | DC CL48'CFEBRA +2.5 M3 modes 6, 7 FCPR'     |
| 000060F0 | 00080000    | 00080000 |       | 940  | DC XL16'00080000000800000000000000000000'   |
| 00006100 | C3C6C5C2    | D9C1404E |       | 941  | DC CL48'CFEBRA +5.5 FPC modes 1-3, 7 FCPR'  |
| 00006130 | 00000001    | 00000002 |       | 942  | DC XL16'00000001000000020000000300000007'   |
| 00006140 | C3C6C5C2    | D9C1404E |       | 943  | DC CL48'CFEBRA +5.5 M3 modes 1, 3-5 FPCR'   |
| 00006170 | 00080000    | 00080000 |       | 944  | DC XL16'00080000000800000008000000080000'   |
| 00006180 | C3C6C5C2    | D9C1404E |       | 945  | DC CL48'CFEBRA +5.5 M3 modes 6, 7 FCPR'     |
| 000061B0 | 00080000    | 00080000 |       | 946  | DC XL16'00080000000800000000000000000000'   |
| 000061C0 | C3C6C5C2    | D9C1404E |       | 947  | DC CL48'CFEBRA +9.5 FPC modes 1-3, 7 FCPR'  |
| 000061F0 | 00000001    | 00000002 |       | 948  | DC XL16'00000001000000020000000300000007'   |
| 00006200 | C3C6C5C2    | D9C1404E |       | 949  | DC CL48'CFEBRA +9.5 M3 modes 1, 3-5 FPCR'   |
| 00006230 | 00080000    | 00080000 |       | 950  | DC XL16'00080000000800000008000000080000'   |
| 00006240 | C3C6C5C2    | D9C1404E |       | 951  | DC CL48'CFEBRA +9.5 M3 modes 6, 7 FCPR'     |
| 00006270 | 00080000    | 00080000 |       | 952  | DC XL16'00080000000800000000000000000000'   |
| 00006280 | C3C6C5C2    | D9C1404E |       | 953  | DC CL48'CFEBRA +0.75 FPC modes 1-3, 7 FCPR' |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
| 000062B0 | 00000001 00000002 |          |          | 954 DC XL16'00000001000000020000000300000007'   |
| 000062C0 | C3C6C5C2 D9C1404E |          |          | 955 DC CL48'CFEBRA +0.75 M3 modes 1, 3-5 FCPR'  |
| 000062F0 | 00080000 00080000 |          |          | 956 DC XL16'00080000000800000008000000080000'   |
| 00006300 | C3C6C5C2 D9C1404E |          |          | 957 DC CL48'CFEBRA +0.75 M3 modes 6, 7 FCPR'    |
| 00006330 | 00080000 00080000 |          |          | 958 DC XL16'00080000000800000000000000000000'   |
| 00006340 | C3C6C5C2 D9C14060 |          |          | 959 DC CL48'CFEBRA -0.25 FPC modes 1-3, 7 FCPR' |
| 00006370 | 00000001 00000002 |          |          | 960 DC XL16'00000001000000020000000300000007'   |
| 00006380 | C3C6C5C2 D9C14060 |          |          | 961 DC CL48'CFEBRA -0.25 M3 modes 1, 3-5 FCPR'  |
| 000063B0 | 00080000 00080000 |          |          | 962 DC XL16'00080000000800000008000000080000'   |
| 000063C0 | C3C6C5C2 D9C14060 |          |          | 963 DC CL48'CFEBRA -0.25 M3 modes 6, 7 FCPR'    |
| 000063F0 | 00080000 00080000 |          |          | 964 DC XL16'00080000000800000000000000000000'   |
|          |                   | 00000024 | 00000001 | 965 SBFPRMOF_NUM EQU (*-SBFPRMOF_GOOD)/64       |
|          |                   |          |          | 966 *   |
|          |                   |          |          | 967 *   |
|          |                   | 00006400 | 00000001 | 968 LBFPOUT_GOOD EQU *                          |
| 00006400 | C3C6C4C2 D9409985 |          |          | 969 DC CL48'CFDBR result pair 1'                |
| 00006430 | 3FF00000 00000000 |          |          | 970 DC XL16'3FF00000000000003FF00000000000000'  |
| 00006440 | C3C6C4C2 D9409985 |          |          | 971 DC CL48'CFDBR result pair 2'                |
| 00006470 | C0000000 00000000 |          |          | 972 DC XL16'C000000000000000C000000000000000'   |
| 00006480 | C3C6C4C2 D9409985 |          |          | 973 DC CL48'CFDBR result pair 3'                |
| 000064B0 | 40000000 00000000 |          |          | 974 DC XL16'40000000000000004000000000000000'   |
| 000064C0 | C3C6C4C2 D9409985 |          |          | 975 DC CL48'CFDBR result pair 4'                |
| 000064F0 | 7FF81000 00000000 |          |          | 976 DC XL16'7FF81000000000007FF81000000000000'  |
| 00006500 | C3C6C4C2 D9409985 |          |          | 977 DC CL48'CFDBR result pair 5'                |
| 00006530 | 7FF81000 00000000 |          |          | 978 DC XL16'7FF81000000000007FF81000000000000'  |
| 00006540 | C3C6C4C2 D9409985 |          |          | 979 DC CL48'CFDBR result pair 6'                |
| 00006570 | 3FF00000 00000000 |          |          | 980 DC XL16'3FF00000000000003FF00000000000000'  |
| 00006580 | C3C6C4C2 D9409985 |          |          | 981 DC CL48'CFDBR result pair 7'                |
| 000065B0 | 80000000 00000000 |          |          | 982 DC XL16'80000000000000008000000000000000'   |
|          |                   | 00000007 | 00000001 | 983 LBFPOUT_NUM EQU (*-LBFPOUT_GOOD)/64         |
|          |                   |          |          | 984 *   |
|          |                   |          |          | 985 *   |
|          |                   | 000065C0 | 00000001 | 986 LBFPFLGS_GOOD EQU *                         |
| 000065C0 | C3C6C4C2 D940C6D7 |          |          | 987 DC CL48'CFDBR FPC pairs 1-2'                |
| 000065F0 | 00000000 F8000000 |          |          | 988 DC XL16'00000000F800000000080000F8000C00'   |
| 00006600 | C3C6C4C2 D940C6D7 |          |          | 989 DC CL48'CFDBR FPC pairs 3-4'                |
| 00006630 | 00080000 F8000800 |          |          | 990 DC XL16'00080000F800080000800000F8008000'   |
| 00006640 | C3C6C4C2 D940C6D7 |          |          | 991 DC CL48'CFDBR FPC pairs 5-6'                |
| 00006670 | 00000000 F8000000 |          |          | 992 DC XL16'00000000F800000000080000F8000C00'   |
| 00006680 | C3C6C4C2 D940C6D7 |          |          | 993 DC CL48'CFDBR FPC pair 7'                   |
| 000066B0 | 00080000 F8000800 |          |          | 994 DC XL16'00080000F80008000000000000000000'   |
|          |                   | 00000004 | 00000001 | 995 LBFPFLGS_NUM EQU (*-LBFPFLGS_GOOD)/64       |
|          |                   |          |          | 996 *   |
|          |                   |          |          | 997 *   |
|          |                   | 000066C0 | 00000001 | 998 LBFPRMO_GOOD EQU *                          |
| 000066C0 | C3C6C4C2 D9C14060 |          |          | 999 DC CL48'CFDBRA -9.5 FPC modes 1, 2'         |
| 000066F0 | C0220000 00000000 |          |          | 1000 DC XL16'C022000000000000C022000000000000'  |
| 00006700 | C3C6C4C2 D9C14060 |          |          | 1001 DC CL48'CFDBRA -9.5 FPC modes 3, 7'        |
| 00006730 | C0240000 00000000 |          |          | 1002 DC XL16'C024000000000000C022000000000000'  |
| 00006740 | C3C6C4C2 D9C14060 |          |          | 1003 DC CL48'CFDBRA -9.5 M3 modes 1, 3'         |
| 00006770 | C0240000 00000000 |          |          | 1004 DC XL16'C024000000000000C022000000000000'  |
| 00006780 | C3C6C4C2 D9C14060 |          |          | 1005 DC CL48'CFDBRA -9.5 M3 modes 4, 5'         |
| 000067B0 | C0240000 00000000 |          |          | 1006 DC XL16'C024000000000000C022000000000000'  |
| 000067C0 | C3C6C4C2 D9C14060 |          |          | 1007 DC CL48'CFDBRA -9.5 M3 modes 6, 7'         |
| 000067F0 | C0220000 00000000 |          |          | 1008 DC XL16'C022000000000000C024000000000000'  |
| 00006800 | C3C6C4C2 D9C14060 |          |          | 1009 DC CL48'CFDBRA -5.5 FPC modes 1, 2'        |

| LOC      | OBJECT CODE       | ADDR1 | ADDR2 | STMT  |
|----------|-------------------|-------|-------|---|
| 00006830 | C0140000 00000000 |       |       | 1010 DC XL16 'C014000000000000C014000000000000'   |
| 00006840 | C3C6C4C2 D9C14060 |       |       | 1011 DC CL48 'CFDBRA -5.5 FPC modes 3, 7'         |
| 00006870 | C0180000 00000000 |       |       | 1012 DC XL16 'C018000000000000C014000000000000'   |
| 00006880 | C3C6C4C2 D9C14060 |       |       | 1013 DC CL48 'CFDBRA -5.5 M3 modes 1, 3'          |
| 000068B0 | C0180000 00000000 |       |       | 1014 DC XL16 'C018000000000000C014000000000000'   |
| 000068C0 | C3C6C4C2 D9C14060 |       |       | 1015 DC CL48 'CFDBRA -5.5 M3 modes 4, 5'          |
| 000068F0 | C0180000 00000000 |       |       | 1016 DC XL16 'C018000000000000C014000000000000'   |
| 00006900 | C3C6C4C2 D9C14060 |       |       | 1017 DC CL48 'CFDBRA -5.5 M3 modes 6, 7'          |
| 00006930 | C0140000 00000000 |       |       | 1018 DC XL16 'C014000000000000C018000000000000'   |
| 00006940 | C3C6C4C2 D9C14060 |       |       | 1019 DC CL48 'CFDBRA -2.5 FPC modes 1, 2'         |
| 00006970 | C0000000 00000000 |       |       | 1020 DC XL16 'C000000000000000C000000000000000'   |
| 00006980 | C3C6C4C2 D9C14060 |       |       | 1021 DC CL48 'CFDBRA -2.5 FPC modes 3, 7'         |
| 000069B0 | C0080000 00000000 |       |       | 1022 DC XL16 'C008000000000000C008000000000000'   |
| 000069C0 | C3C6C4C2 D9C14060 |       |       | 1023 DC CL48 'CFDBRA -2.5 M3 modes 1, 3'          |
| 000069F0 | C0080000 00000000 |       |       | 1024 DC XL16 'C008000000000000C008000000000000'   |
| 00006A00 | C3C6C4C2 D9C14060 |       |       | 1025 DC CL48 'CFDBRA -2.5 M3 modes 4, 5'          |
| 00006A30 | C0000000 00000000 |       |       | 1026 DC XL16 'C000000000000000C000000000000000'   |
| 00006A40 | C3C6C4C2 D9C14060 |       |       | 1027 DC CL48 'CFDBRA -2.5 M3 modes 6, 7'          |
| 00006A70 | C0000000 00000000 |       |       | 1028 DC XL16 'C000000000000000C008000000000000'   |
| 00006A80 | C3C6C4C2 D9C14060 |       |       | 1029 DC CL48 'CFDBRA -1.5 FPC modes 1, 2'         |
| 00006AB0 | BFF00000 00000000 |       |       | 1030 DC XL16 'BFF0000000000000BFF000000000000000' |
| 00006AC0 | C3C6C4C2 D9C14060 |       |       | 1031 DC CL48 'CFDBRA -1.5 FPC modes 3, 7'         |
| 00006AF0 | C0000000 00000000 |       |       | 1032 DC XL16 'C000000000000000BFF00000000000000'  |
| 00006B00 | C3C6C4C2 D9C14060 |       |       | 1033 DC CL48 'CFDBRA -1.5 M3 modes 1, 3'          |
| 00006B30 | C0000000 00000000 |       |       | 1034 DC XL16 'C000000000000000BFF00000000000000'  |
| 00006B40 | C3C6C4C2 D9C14060 |       |       | 1035 DC CL48 'CFDBRA -1.5 M3 modes 4, 5'          |
| 00006B70 | C0000000 00000000 |       |       | 1036 DC XL16 'C000000000000000BFF00000000000000'  |
| 00006B80 | C3C6C4C2 D9C14060 |       |       | 1037 DC CL48 'CFDBRA -1.5 M3 modes 6, 7'          |
| 00006BB0 | BFF00000 00000000 |       |       | 1038 DC XL16 'BFF0000000000000C0000000000000000'  |
| 00006BC0 | C3C6C4C2 D9C14060 |       |       | 1039 DC CL48 'CFDBRA -0.5 FPC modes 1, 2'         |
| 00006BF0 | 80000000 00000000 |       |       | 1040 DC XL16 '80000000000000008000000000000000'   |
| 00006C00 | C3C6C4C2 D9C14060 |       |       | 1041 DC CL48 'CFDBRA -0.5 FPC modes 3, 7'         |
| 00006C30 | BFF00000 00000000 |       |       | 1042 DC XL16 'BFF0000000000000BFF000000000000000' |
| 00006C40 | C3C6C4C2 D9C14060 |       |       | 1043 DC CL48 'CFDBRA -0.5 M3 modes 1, 3'          |
| 00006C70 | BFF00000 00000000 |       |       | 1044 DC XL16 'BFF0000000000000BFF000000000000000' |
| 00006C80 | C3C6C4C2 D9C14060 |       |       | 1045 DC CL48 'CFDBRA -0.5 M3 modes 4, 5'          |
| 00006CB0 | 80000000 00000000 |       |       | 1046 DC XL16 '80000000000000008000000000000000'   |
| 00006CC0 | C3C6C4C2 D9C14060 |       |       | 1047 DC CL48 'CFDBRA -0.5 M3 modes 6, 7'          |
| 00006CF0 | 80000000 00000000 |       |       | 1048 DC XL16 '8000000000000000BFF00000000000000'  |
| 00006D00 | C3C6C4C2 D9C140F0 |       |       | 1049 DC CL48 'CFDBRA 0.5 FPC modes 1, 2'          |
| 00006D30 | 00000000 00000000 |       |       | 1050 DC XL16 '00000000000000003FF00000000000000'  |
| 00006D40 | C3C6C4C2 D9C140F0 |       |       | 1051 DC CL48 'CFDBRA 0.5 FPC modes 3, 7'          |
| 00006D70 | 00000000 00000000 |       |       | 1052 DC XL16 '00000000000000003FF00000000000000'  |
| 00006D80 | C3C6C4C2 D9C140F0 |       |       | 1053 DC CL48 'CFDBRA 0.5 M3 modes 1, 3'           |
| 00006DB0 | 3FF00000 00000000 |       |       | 1054 DC XL16 '3FF00000000000003FF00000000000000'  |
| 00006DC0 | C3C6C4C2 D9C140F0 |       |       | 1055 DC CL48 'CFDBRA 0.5 M3 modes 4, 5'           |
| 00006DF0 | 00000000 00000000 |       |       | 1056 DC XL16 '00000000000000000000000000000000'   |
| 00006E00 | C3C6C4C2 D9C140F0 |       |       | 1057 DC CL48 'CFDBRA 0.5 M3 modes 6, 7'           |
| 00006E30 | 3FF00000 00000000 |       |       | 1058 DC XL16 '3FF00000000000000000000000000000'   |
| 00006E40 | C3C6C4C2 D9C140F1 |       |       | 1059 DC CL48 'CFDBRA 1.5 FPC modes 1, 2'          |
| 00006E70 | 3FF00000 00000000 |       |       | 1060 DC XL16 '3FF00000000000004000000000000000'   |
| 00006E80 | C3C6C4C2 D9C140F1 |       |       | 1061 DC CL48 'CFDBRA 1.5 FPC modes 3, 7'          |
| 00006EB0 | 3FF00000 00000000 |       |       | 1062 DC XL16 '3FF00000000000003FF00000000000000'  |
| 00006EC0 | C3C6C4C2 D9C140F1 |       |       | 1063 DC CL48 'CFDBRA 1.5 M3 modes 1, 3'           |
| 00006EF0 | 40000000 00000000 |       |       | 1064 DC XL16 '40000000000000003FF00000000000000'  |
| 00006F00 | C3C6C4C2 D9C140F1 |       |       | 1065 DC CL48 'CFDBRA 1.5 M3 modes 4, 5'           |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
| 00006F30 | 40000000 00000000 |          |          | 1066 DC XL16 '400000000000000003FF000000000000' |
| 00006F40 | C3C6C4C2 D9C140F1 |          |          | 1067 DC CL48 'CFDBRA 1.5 M3 modes 6, 7'         |
| 00006F70 | 40000000 00000000 |          |          | 1068 DC XL16 '400000000000000003FF000000000000' |
| 00006F80 | C3C6C4C2 D9C140F2 |          |          | 1069 DC CL48 'CFDBRA 2.5 FPC modes 1, 2'        |
| 00006FB0 | 40000000 00000000 |          |          | 1070 DC XL16 '4000000000000000400800000000000'  |
| 00006FC0 | C3C6C4C2 D9C140F2 |          |          | 1071 DC CL48 'CFDBRA 2.5 FPC modes 3, 7'        |
| 00006FF0 | 40000000 00000000 |          |          | 1072 DC XL16 '4000000000000000400800000000000'  |
| 00007000 | C3C6C4C2 D9C140F2 |          |          | 1073 DC CL48 'CFDBRA 2.5 M3 modes 1, 3'         |
| 00007030 | 40080000 00000000 |          |          | 1074 DC XL16 '4008000000000000400800000000000'  |
| 00007040 | C3C6C4C2 D9C140F2 |          |          | 1075 DC CL48 'CFDBRA 2.5 M3 modes 4, 5'         |
| 00007070 | 40000000 00000000 |          |          | 1076 DC XL16 '4000000000000000400000000000000'  |
| 00007080 | C3C6C4C2 D9C140F2 |          |          | 1077 DC CL48 'CFDBRA 2.5 M3 modes 6, 7'         |
| 000070B0 | 40080000 00000000 |          |          | 1078 DC XL16 '4008000000000000400000000000000'  |
| 000070C0 | C3C6C4C2 D9C140F5 |          |          | 1079 DC CL48 'CFDBRA 5.5 FPC modes 1, 2'        |
| 000070F0 | 40140000 00000000 |          |          | 1080 DC XL16 '4014000000000000401800000000000'  |
| 00007100 | C3C6C4C2 D9C140F5 |          |          | 1081 DC CL48 'CFDBRA 5.5 FPC modes 3, 7'        |
| 00007130 | 40140000 00000000 |          |          | 1082 DC XL16 '4014000000000000401400000000000'  |
| 00007140 | C3C6C4C2 D9C140F5 |          |          | 1083 DC CL48 'CFDBRA 5.5 M3 modes 1, 3'         |
| 00007170 | 40180000 00000000 |          |          | 1084 DC XL16 '4018000000000000401400000000000'  |
| 00007180 | C3C6C4C2 D9C140F5 |          |          | 1085 DC CL48 'CFDBRA 5.5 M3 modes 4, 5'         |
| 000071B0 | 40180000 00000000 |          |          | 1086 DC XL16 '4018000000000000401400000000000'  |
| 000071C0 | C3C6C4C2 D9C140F5 |          |          | 1087 DC CL48 'CFDBRA 5.5 M3 modes 6, 7'         |
| 000071F0 | 40180000 00000000 |          |          | 1088 DC XL16 '4018000000000000401400000000000'  |
| 00007200 | C3C6C4C2 D9C140F9 |          |          | 1089 DC CL48 'CFDBRA 9.5 FPC modes 1, 2'        |
| 00007230 | 40220000 00000000 |          |          | 1090 DC XL16 '4022000000000000402400000000000'  |
| 00007240 | C3C6C4C2 D9C140F9 |          |          | 1091 DC CL48 'CFDBRA 9.5 FPC modes 3, 7'        |
| 00007270 | 40220000 00000000 |          |          | 1092 DC XL16 '4022000000000000402200000000000'  |
| 00007280 | C3C6C4C2 D9C140F9 |          |          | 1093 DC CL48 'CFDBRA 9.5 M3 modes 1, 3'         |
| 000072B0 | 40240000 00000000 |          |          | 1094 DC XL16 '4024000000000000402200000000000'  |
| 000072C0 | C3C6C4C2 D9C140F9 |          |          | 1095 DC CL48 'CFDBRA 9.5 M3 modes 4, 5'         |
| 000072F0 | 40240000 00000000 |          |          | 1096 DC XL16 '4024000000000000402200000000000'  |
| 00007300 | C3C6C4C2 D9C140F9 |          |          | 1097 DC CL48 'CFDBRA 9.5 M3 modes 6, 7'         |
| 00007330 | 40240000 00000000 |          |          | 1098 DC XL16 '4024000000000000402200000000000'  |
| 00007340 | C3C6C4C2 D9C1404E |          |          | 1099 DC CL48 'CFDBRA +0.75 FPC modes 1, 2'      |
| 00007370 | 00000000 00000000 |          |          | 1100 DC XL16 '000000000000000003FF000000000000' |
| 00007380 | C3C6C4C2 D9C1404E |          |          | 1101 DC CL48 'CFDBRA +0.75 FPC modes 3, 7'      |
| 000073B0 | 00000000 00000000 |          |          | 1102 DC XL16 '000000000000000003FF000000000000' |
| 000073C0 | C3C6C4C2 D9C1404E |          |          | 1103 DC CL48 'CFDBRA +0.75 M3 modes 1, 3'       |
| 000073F0 | 3FF00000 00000000 |          |          | 1104 DC XL16 '3FF000000000000003FF000000000000' |
| 00007400 | C3C6C4C2 D9C1404E |          |          | 1105 DC CL48 'CFDBRA +0.75 M3 modes 4, 5'       |
| 00007430 | 3FF00000 00000000 |          |          | 1106 DC XL16 '3FF0000000000000000000000000000'  |
| 00007440 | C3C6C4C2 D9C1404E |          |          | 1107 DC CL48 'CFDBRA +0.75 M3 modes 6, 7'       |
| 00007470 | 3FF00000 00000000 |          |          | 1108 DC XL16 '3FF0000000000000000000000000000'  |
| 00007480 | C3C6C4C2 D9C14060 |          |          | 1109 DC CL48 'CFDBRA -0.25 FPC modes 1, 2'      |
| 000074B0 | 80000000 00000000 |          |          | 1110 DC XL16 '8000000000000000800000000000000'  |
| 000074C0 | C3C6C4C2 D9C14060 |          |          | 1111 DC CL48 'CFDBRA -0.25 FPC modes 3, 7'      |
| 000074F0 | BFF00000 00000000 |          |          | 1112 DC XL16 'BFF0000000000000BFF000000000000'  |
| 00007500 | C3C6C4C2 D9C14060 |          |          | 1113 DC CL48 'CFDBRA -0.25 M3 modes 1, 3'       |
| 00007530 | 80000000 00000000 |          |          | 1114 DC XL16 '8000000000000000BFF000000000000'  |
| 00007540 | C3C6C4C2 D9C14060 |          |          | 1115 DC CL48 'CFDBRA -0.25 M3 modes 4, 5'       |
| 00007570 | 80000000 00000000 |          |          | 1116 DC XL16 '8000000000000000800000000000000'  |
| 00007580 | C3C6C4C2 D9C14060 |          |          | 1117 DC CL48 'CFDBRA -0.25 M3 modes 6, 7'       |
| 000075B0 | 80000000 00000000 |          |          | 1118 DC XL16 '8000000000000000BFF000000000000'  |
|          |                   | 0000003C | 00000001 | 1119 LBFPRMO_NUM EQU (*-LBFPRMO_GOOD)/64        |
|          |                   |          |          | 1120 *  |
|          |                   |          |          | 1121 *  |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
|          |                   | 000075C0 | 00000001 | 1122 LBFPRMOF_GOOD EQU *                        |
| 000075C0 | C3C6C4C2 D9C14060 |          |          | 1123 DC CL48'CFDBRA -9.5 FPC modes 1-3, 7 FCPR' |
| 000075F0 | 00000001 00000002 |          |          | 1124 DC XL16'00000001000000020000000300000007'  |
| 00007600 | C3C6C4C2 D9C14060 |          |          | 1125 DC CL48'CFDBRA -9.5 M3 modes 1, 3-5 FPCR'  |
| 00007630 | 00080000 00080000 |          |          | 1126 DC XL16'00080000000800000008000000080000'  |
| 00007640 | C3C6C4C2 D9C14060 |          |          | 1127 DC CL48'CFDBRA -9.5 M3 modes 6, 7 FCPR'    |
| 00007670 | 00080000 00080000 |          |          | 1128 DC XL16'00080000000800000000000000000000'  |
| 00007680 | C3C6C4C2 D9C14060 |          |          | 1129 DC CL48'CFDBRA -5.5 FPC modes 1-3, 7 FCPR' |
| 000076B0 | 00000001 00000002 |          |          | 1130 DC XL16'00000001000000020000000300000007'  |
| 000076C0 | C3C6C4C2 D9C14060 |          |          | 1131 DC CL48'CFDBRA -5.5 M3 modes 1, 3-5 FPCR'  |
| 000076F0 | 00080000 00080000 |          |          | 1132 DC XL16'00080000000800000008000000080000'  |
| 00007700 | C3C6C4C2 D9C14060 |          |          | 1133 DC CL48'CFDBRA -5.5 M3 modes 6, 7 FCPR'    |
| 00007730 | 00080000 00080000 |          |          | 1134 DC XL16'00080000000800000000000000000000'  |
| 00007740 | C3C6C4C2 D9C14060 |          |          | 1135 DC CL48'CFDBRA -2.5 FPC modes 1-3, 7 FCPR' |
| 00007770 | 00000001 00000002 |          |          | 1136 DC XL16'00000001000000020000000300000007'  |
| 00007780 | C3C6C4C2 D9C14060 |          |          | 1137 DC CL48'CFDBRA -2.5 M3 modes 1, 3-5 FPCR'  |
| 000077B0 | 00080000 00080000 |          |          | 1138 DC XL16'00080000000800000008000000080000'  |
| 000077C0 | C3C6C4C2 D9C14060 |          |          | 1139 DC CL48'CFDBRA -2.5 M3 modes 6, 7 FCPR'    |
| 000077F0 | 00080000 00080000 |          |          | 1140 DC XL16'00080000000800000000000000000000'  |
| 00007800 | C3C6C4C2 D9C14060 |          |          | 1141 DC CL48'CFDBRA -1.5 FPC modes 1-3, 7 FCPR' |
| 00007830 | 00000001 00000002 |          |          | 1142 DC XL16'00000001000000020000000300000007'  |
| 00007840 | C3C6C4C2 D9C14060 |          |          | 1143 DC CL48'CFDBRA -1.5 M3 modes 1, 3-5 FPCR'  |
| 00007870 | 00080000 00080000 |          |          | 1144 DC XL16'00080000000800000008000000080000'  |
| 00007880 | C3C6C4C2 D9C14060 |          |          | 1145 DC CL48'CFDBRA -1.5 M3 modes 6, 7 FCPR'    |
| 000078B0 | 00080000 00080000 |          |          | 1146 DC XL16'00080000000800000000000000000000'  |
| 000078C0 | C3C6C4C2 D9C14060 |          |          | 1147 DC CL48'CFDBRA -0.5 FPC modes 1-3, 7 FCPR' |
| 000078F0 | 00000001 00000002 |          |          | 1148 DC XL16'00000001000000020000000300000007'  |
| 00007900 | C3C6C4C2 D9C14060 |          |          | 1149 DC CL48'CFDBRA -0.5 M3 modes 1, 3-5 FPCR'  |
| 00007930 | 00080000 00080000 |          |          | 1150 DC XL16'00080000000800000008000000080000'  |
| 00007940 | C3C6C4C2 D9C14060 |          |          | 1151 DC CL48'CFDBRA -0.5 M3 modes 6, 7 FCPR'    |
| 00007970 | 00080000 00080000 |          |          | 1152 DC XL16'00080000000800000000000000000000'  |
| 00007980 | C3C6C4C2 D9C1404E |          |          | 1153 DC CL48'CFDBRA +0.5 FPC modes 1-3, 7 FCPR' |
| 000079B0 | 00000001 00000002 |          |          | 1154 DC XL16'00000001000000020000000300000007'  |
| 000079C0 | C3C6C4C2 D9C1404E |          |          | 1155 DC CL48'CFDBRA +0.5 M3 modes 1, 3-5 FPCR'  |
| 000079F0 | 00080000 00080000 |          |          | 1156 DC XL16'00080000000800000008000000080000'  |
| 00007A00 | C3C6C4C2 D9C1404E |          |          | 1157 DC CL48'CFDBRA +0.5 M3 modes 6, 7 FCPR'    |
| 00007A30 | 00080000 00080000 |          |          | 1158 DC XL16'00080000000800000000000000000000'  |
| 00007A40 | C3C6C4C2 D9C1404E |          |          | 1159 DC CL48'CFDBRA +1.5 FPC modes 1-3, 7 FCPR' |
| 00007A70 | 00000001 00000002 |          |          | 1160 DC XL16'00000001000000020000000300000007'  |
| 00007A80 | C3C6C4C2 D9C1404E |          |          | 1161 DC CL48'CFDBRA +1.5 M3 modes 1, 3-5 FPCR'  |
| 00007AB0 | 00080000 00080000 |          |          | 1162 DC XL16'00080000000800000008000000080000'  |
| 00007AC0 | C3C6C4C2 D9C1404E |          |          | 1163 DC CL48'CFDBRA +1.5 M3 modes 6, 7 FCPR'    |
| 00007AF0 | 00080000 00080000 |          |          | 1164 DC XL16'00080000000800000000000000000000'  |
| 00007B00 | C3C6C4C2 D9C1404E |          |          | 1165 DC CL48'CFDBRA +2.5 FPC modes 1-3, 7 FCPR' |
| 00007B30 | 00000001 00000002 |          |          | 1166 DC XL16'00000001000000020000000300000007'  |
| 00007B40 | C3C6C4C2 D9C1404E |          |          | 1167 DC CL48'CFDBRA +2.5 M3 modes 1, 3-5 FPCR'  |
| 00007B70 | 00080000 00080000 |          |          | 1168 DC XL16'00080000000800000008000000080000'  |
| 00007B80 | C3C6C4C2 D9C1404E |          |          | 1169 DC CL48'CFDBRA +2.5 M3 modes 6, 7 FCPR'    |
| 00007BB0 | 00080000 00080000 |          |          | 1170 DC XL16'00080000000800000000000000000000'  |
| 00007BC0 | C3C6C4C2 D9C1404E |          |          | 1171 DC CL48'CFDBRA +5.5 FPC modes 1-3, 7 FCPR' |
| 00007BF0 | 00000001 00000002 |          |          | 1172 DC XL16'00000001000000020000000300000007'  |
| 00007C00 | C3C6C4C2 D9C1404E |          |          | 1173 DC CL48'CFDBRA +5.5 M3 modes 1, 3-5 FPCR'  |
| 00007C30 | 00080000 00080000 |          |          | 1174 DC XL16'00080000000800000008000000080000'  |
| 00007C40 | C3C6C4C2 D9C1404E |          |          | 1175 DC CL48'CFDBRA +5.5 M3 modes 6, 7 FCPR'    |
| 00007C70 | 00080000 00080000 |          |          | 1176 DC XL16'00080000000800000000000000000000'  |
| 00007C80 | C3C6C4C2 D9C1404E |          |          | 1177 DC CL48'CFDBRA +9.5 FPC modes 1-3, 7 FCPR' |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT   |
|----------|-------------------|----------|----------|--|
| 00007CB0 | 00000001 00000002 |          |          | 1178 DC XL16'00000001000000020000000300000007'   |
| 00007CC0 | C3C6C4C2 D9C1404E |          |          | 1179 DC CL48'CFDBRA +9.5 M3 modes 1, 3-5 FPCR'   |
| 00007CF0 | 00080000 00080000 |          |          | 1180 DC XL16'00080000000800000008000000080000'   |
| 00007D00 | C3C6C4C2 D9C1404E |          |          | 1181 DC CL48'CFDBRA +9.5 M3 modes 6, 7 FCPR'     |
| 00007D30 | 00080000 00080000 |          |          | 1182 DC XL16'00080000000800000000000000000000'   |
| 00007D40 | C3C6C4C2 D9C1404E |          |          | 1183 DC CL48'CFDBRA +0.75 FPC modes 1-3, 7 FCPR' |
| 00007D70 | 00000001 00000002 |          |          | 1184 DC XL16'00000001000000020000000300000007'   |
| 00007D80 | C3C6C4C2 D9C1404E |          |          | 1185 DC CL48'CFDBRA +0.75 M3 modes 1, 3-5 FPCR'  |
| 00007DB0 | 00080000 00080000 |          |          | 1186 DC XL16'00080000000800000008000000080000'   |
| 00007DC0 | C3C6C4C2 D9C1404E |          |          | 1187 DC CL48'CFDBRA +0.75 M3 modes 6, 7 FCPR'    |
| 00007DF0 | 00080000 00080000 |          |          | 1188 DC XL16'00080000000800000000000000000000'   |
| 00007E00 | C3C6C4C2 D9C14060 |          |          | 1189 DC CL48'CFDBRA -0.25 FPC modes 1-3, 7 FCPR' |
| 00007E30 | 00000001 00000002 |          |          | 1190 DC XL16'00000001000000020000000300000007'   |
| 00007E40 | C3C6C4C2 D9C14060 |          |          | 1191 DC CL48'CFDBRA -0.25 M3 modes 1, 3-5 FPCR'  |
| 00007E70 | 00080000 00080000 |          |          | 1192 DC XL16'00080000000800000008000000080000'   |
| 00007E80 | C3C6C4C2 D9C14060 |          |          | 1193 DC CL48'CFDBRA -0.25 M3 modes 6, 7 FCPR'    |
| 00007EB0 | 00080000 00080000 |          |          | 1194 DC XL16'00080000000800000000000000000000'   |
|          |                   | 00000024 | 00000001 | 1195 LBFPRMOF_NUM EQU (*-LBFPRMOF_GOOD)/64       |
|          |                   |          |          | 1196 *   |
|          |                   |          |          | 1197 *   |
|          |                   | 00007EC0 | 00000001 | 1198 XBFPOUT_GOOD EQU *                          |
| 00007EC0 | C3C6E7C2 D9409985 |          |          | 1199 DC CL48'CFXBR result pair 1a'               |
| 00007EF0 | 3FFF0000 00000000 |          |          | 1200 DC XL16'3FFF0000000000000000000000000000'   |
| 00007F00 | C3C6E7C2 D9409985 |          |          | 1201 DC CL48'CFXBR result pair 1b'               |
| 00007F30 | 3FFF0000 00000000 |          |          | 1202 DC XL16'3FFF0000000000000000000000000000'   |
| 00007F40 | C3C6E7C2 D9409985 |          |          | 1203 DC CL48'CFXBR result pair 2a'               |
| 00007F70 | C0000000 00000000 |          |          | 1204 DC XL16'C0000000000000000000000000000000'   |
| 00007F80 | C3C6E7C2 D9409985 |          |          | 1205 DC CL48'CFXBR result pair 2b'               |
| 00007FB0 | C0000000 00000000 |          |          | 1206 DC XL16'C0000000000000000000000000000000'   |
| 00007FC0 | C3C6E7C2 D9409985 |          |          | 1207 DC CL48'CFXBR result pair 3a'               |
| 00007FF0 | 40000000 00000000 |          |          | 1208 DC XL16'40000000000000000000000000000000'   |
| 00008000 | C3C6E7C2 D9409985 |          |          | 1209 DC CL48'CFXBR result pair 3b'               |
| 00008030 | 40000000 00000000 |          |          | 1210 DC XL16'40000000000000000000000000000000'   |
| 00008040 | C3C6E7C2 D9409985 |          |          | 1211 DC CL48'CFXBR result pair 4a'               |
| 00008070 | 7FFF8100 00000000 |          |          | 1212 DC XL16'7FFF8100000000000000000000000000'   |
| 00008080 | C3C6E7C2 D9409985 |          |          | 1213 DC CL48'CFXBR result pair 4b'               |
| 000080B0 | 00000000 00000000 |          |          | 1214 DC XL16'00000000000000000000000000000000'   |
| 000080C0 | C3C6E7C2 D9409985 |          |          | 1215 DC CL48'CFXBR result pair 5a'               |
| 000080F0 | 7FFF8100 00000000 |          |          | 1216 DC XL16'7FFF8100000000000000000000000000'   |
| 00008100 | C3C6E7C2 D9409985 |          |          | 1217 DC CL48'CFXBR result pair 5b'               |
| 00008130 | 7FFF8100 00000000 |          |          | 1218 DC XL16'7FFF8100000000000000000000000000'   |
| 00008140 | C3C6E7C2 D9409985 |          |          | 1219 DC CL48'CFXBR result pair 6a'               |
| 00008170 | 3FFF0000 00000000 |          |          | 1220 DC XL16'3FFF0000000000000000000000000000'   |
| 00008180 | C3C6E7C2 D9409985 |          |          | 1221 DC CL48'CFXBR result pair 6b'               |
| 000081B0 | 3FFF0000 00000000 |          |          | 1222 DC XL16'3FFF0000000000000000000000000000'   |
| 000081C0 | C3C6E7C2 D9409985 |          |          | 1223 DC CL48'CFXBR result pair 7a'               |
| 000081F0 | 80000000 00000000 |          |          | 1224 DC XL16'80000000000000000000000000000000'   |
| 00008200 | C3C6E7C2 D9409985 |          |          | 1225 DC CL48'CFXBR result pair 7b'               |
| 00008230 | 80000000 00000000 |          |          | 1226 DC XL16'80000000000000000000000000000000'   |
|          |                   | 0000000E | 00000001 | 1227 XBFPOUT_NUM EQU (*-XBFPOUT_GOOD)/64         |
|          |                   |          |          | 1228 *   |
|          |                   |          |          | 1229 *   |
|          |                   | 00008240 | 00000001 | 1230 XBFPFLGS_GOOD EQU *                         |
| 00008240 | C3C6E7C2 D940C6D7 |          |          | 1231 DC CL48'CFXBR FPC pairs 1-2'                |
| 00008270 | 00000000 F8000000 |          |          | 1232 DC XL16'00000000F800000000080000F8000C00'   |
| 00008280 | C3C6E7C2 D940C6D7 |          |          | 1233 DC CL48'CFXBR FPC pairs 3-4'                |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
| 000082B0 | 00080000 F8000800 |          |          | 1234 DC XL16'00080000F800080000080000F80008000' |
| 000082C0 | C3C6E7C2 D940C6D7 |          |          | 1235 DC CL48'CFXBR FPC pairs 5-6'               |
| 000082F0 | 00000000 F8000000 |          |          | 1236 DC XL16'00000000F800000000080000F8000C00'  |
| 00008300 | C3C6E7C2 D940C6D7 |          |          | 1237 DC CL48'CFXBR FPC pair 7'                  |
| 00008330 | 00080000 F8000800 |          |          | 1238 DC XL16'00080000F80008000000000000000000'  |
|          |                   | 00000004 | 00000001 | 1239 XBFPLGS_NUM EQU (*-XBFPLGS_GOOD)/64        |
|          |                   |          |          | 1240 *  |
|          |                   |          |          | 1241 *  |
|          |                   | 00008340 | 00000001 | 1242 XBFPRMO_GOOD EQU *                         |
| 00008340 | C3C6E7C2 D9C14060 |          |          | 1243 DC CL48'CFXBRA -9.5 FPC mode 1'            |
| 00008370 | C0022000 00000000 |          |          | 1244 DC XL16'C0022000000000000000000000000000'  |
| 00008380 | C3C6E7C2 D9C14060 |          |          | 1245 DC CL48'CFXBRA -9.5 FPC mode 2'            |
| 000083B0 | C0022000 00000000 |          |          | 1246 DC XL16'C0022000000000000000000000000000'  |
| 000083C0 | C3C6E7C2 D9C14060 |          |          | 1247 DC CL48'CFXBRA -9.5 FPC mode 3'            |
| 000083F0 | C0024000 00000000 |          |          | 1248 DC XL16'C0024000000000000000000000000000'  |
| 00008400 | C3C6E7C2 D9C14060 |          |          | 1249 DC CL48'CFXBRA -9.5 FPC mode 7'            |
| 00008430 | C0022000 00000000 |          |          | 1250 DC XL16'C0022000000000000000000000000000'  |
| 00008440 | C3C6E7C2 D9C14060 |          |          | 1251 DC CL48'CFXBRA -9.5 M3 mode 1'             |
| 00008470 | C0024000 00000000 |          |          | 1252 DC XL16'C0024000000000000000000000000000'  |
| 00008480 | C3C6E7C2 D9C14060 |          |          | 1253 DC CL48'CFXBRA -9.5 M3 mode 3'             |
| 000084B0 | C0022000 00000000 |          |          | 1254 DC XL16'C0022000000000000000000000000000'  |
| 000084C0 | C3C6E7C2 D9C14060 |          |          | 1255 DC CL48'CFXBRA -9.5 M3 mode 4'             |
| 000084F0 | C0024000 00000000 |          |          | 1256 DC XL16'C0024000000000000000000000000000'  |
| 00008500 | C3C6E7C2 D9C14060 |          |          | 1257 DC CL48'CFXBRA -9.5 M3 mode 5'             |
| 00008530 | C0022000 00000000 |          |          | 1258 DC XL16'C0022000000000000000000000000000'  |
| 00008540 | C3C6E7C2 D9C14060 |          |          | 1259 DC CL48'CFXBRA -9.5 M3 mode 6'             |
| 00008570 | C0022000 00000000 |          |          | 1260 DC XL16'C0022000000000000000000000000000'  |
| 00008580 | C3C6E7C2 D9C14060 |          |          | 1261 DC CL48'CFXBRA -9.5 M3 mode 7'             |
| 000085B0 | C0024000 00000000 |          |          | 1262 DC XL16'C0024000000000000000000000000000'  |
| 000085C0 | C3C6E7C2 D9C14060 |          |          | 1263 DC CL48'CFXBRA -5.5 FPC mode 1'            |
| 000085F0 | C0014000 00000000 |          |          | 1264 DC XL16'C0014000000000000000000000000000'  |
| 00008600 | C3C6E7C2 D9C14060 |          |          | 1265 DC CL48'CFXBRA -5.5 FPC mode 2'            |
| 00008630 | C0014000 00000000 |          |          | 1266 DC XL16'C0014000000000000000000000000000'  |
| 00008640 | C3C6E7C2 D9C14060 |          |          | 1267 DC CL48'CFXBRA -5.5 FPC mode 3'            |
| 00008670 | C0018000 00000000 |          |          | 1268 DC XL16'C0018000000000000000000000000000'  |
| 00008680 | C3C6E7C2 D9C14060 |          |          | 1269 DC CL48'CFXBRA -5.5 FPC mode 7'            |
| 000086B0 | C0014000 00000000 |          |          | 1270 DC XL16'C0014000000000000000000000000000'  |
| 000086C0 | C3C6E7C2 D9C14060 |          |          | 1271 DC CL48'CFXBRA -5.5 M3 mode 1'             |
| 000086F0 | C0018000 00000000 |          |          | 1272 DC XL16'C0018000000000000000000000000000'  |
| 00008700 | C3C6E7C2 D9C14060 |          |          | 1273 DC CL48'CFXBRA -5.5 M3 mode 3'             |
| 00008730 | C0014000 00000000 |          |          | 1274 DC XL16'C0014000000000000000000000000000'  |
| 00008740 | C3C6E7C2 D9C14060 |          |          | 1275 DC CL48'CFXBRA -5.5 M3 mode 4'             |
| 00008770 | C0018000 00000000 |          |          | 1276 DC XL16'C0018000000000000000000000000000'  |
| 00008780 | C3C6E7C2 D9C14060 |          |          | 1277 DC CL48'CFXBRA -5.5 M3 mode 5'             |
| 000087B0 | C0014000 00000000 |          |          | 1278 DC XL16'C0014000000000000000000000000000'  |
| 000087C0 | C3C6E7C2 D9C14060 |          |          | 1279 DC CL48'CFXBRA -5.5 M3 mode 6'             |
| 000087F0 | C0014000 00000000 |          |          | 1280 DC XL16'C0014000000000000000000000000000'  |
| 00008800 | C3C6E7C2 D9C14060 |          |          | 1281 DC CL48'CFXBRA -5.5 M3 mode 7'             |
| 00008830 | C0018000 00000000 |          |          | 1282 DC XL16'C0018000000000000000000000000000'  |
| 00008840 | C3C6E7C2 D9C14060 |          |          | 1283 DC CL48'CFXBRA -2.5 FPC mode 1'            |
| 00008870 | C0000000 00000000 |          |          | 1284 DC XL16'C0000000000000000000000000000000'  |
| 00008880 | C3C6E7C2 D9C14060 |          |          | 1285 DC CL48'CFXBRA -2.5 FPC mode 2'            |
| 000088B0 | C0000000 00000000 |          |          | 1286 DC XL16'C0000000000000000000000000000000'  |
| 000088C0 | C3C6E7C2 D9C14060 |          |          | 1287 DC CL48'CFXBRA -2.5 FPC mode 3'            |
| 000088F0 | C0008000 00000000 |          |          | 1288 DC XL16'C0008000000000000000000000000000'  |
| 00008900 | C3C6E7C2 D9C14060 |          |          | 1289 DC CL48'CFXBRA -2.5 FPC mode 7'            |



| LOC      | OBJECT CODE       | ADDR1 | ADDR2 | STMT  |
|----------|-------------------|-------|-------|---|
| 00009030 | 3FFF0000 00000000 |       |       | 1346 DC XL16 '3FFF0000000000000000000000000000' |
| 00009040 | C3C6E7C2 D9C140F0 |       |       | 1347 DC CL48 'CFXBRA 0.5 FPC mode 3'            |
| 00009070 | 00000000 00000000 |       |       | 1348 DC XL16 '00000000000000000000000000000000' |
| 00009080 | C3C6E7C2 D9C140F0 |       |       | 1349 DC CL48 'CFXBRA 0.5 FPC mode 7'            |
| 000090B0 | 3FFF0000 00000000 |       |       | 1350 DC XL16 '3FFF0000000000000000000000000000' |
| 000090C0 | C3C6E7C2 D9C140F0 |       |       | 1351 DC CL48 'CFXBRA 0.5 M3 mode 1'             |
| 000090F0 | 3FFF0000 00000000 |       |       | 1352 DC XL16 '3FFF0000000000000000000000000000' |
| 00009100 | C3C6E7C2 D9C140F0 |       |       | 1353 DC CL48 'CFXBRA 0.5 M3 mode 3'             |
| 00009130 | 3FFF0000 00000000 |       |       | 1354 DC XL16 '3FFF0000000000000000000000000000' |
| 00009140 | C3C6E7C2 D9C140F0 |       |       | 1355 DC CL48 'CFXBRA 0.5 M3 mode 4'             |
| 00009170 | 00000000 00000000 |       |       | 1356 DC XL16 '00000000000000000000000000000000' |
| 00009180 | C3C6E7C2 D9C140F0 |       |       | 1357 DC CL48 'CFXBRA 0.5 M3 mode 5'             |
| 000091B0 | 00000000 00000000 |       |       | 1358 DC XL16 '00000000000000000000000000000000' |
| 000091C0 | C3C6E7C2 D9C140F0 |       |       | 1359 DC CL48 'CFXBRA 0.5 M3 mode 6'             |
| 000091F0 | 3FFF0000 00000000 |       |       | 1360 DC XL16 '3FFF0000000000000000000000000000' |
| 00009200 | C3C6E7C2 D9C140F0 |       |       | 1361 DC CL48 'CFXBRA 0.5 M3 mode 7'             |
| 00009230 | 00000000 00000000 |       |       | 1362 DC XL16 '00000000000000000000000000000000' |
| 00009240 | C3C6E7C2 D9C140F1 |       |       | 1363 DC CL48 'CFXBRA 1.5 FPC mode 1'            |
| 00009270 | 3FFF0000 00000000 |       |       | 1364 DC XL16 '3FFF0000000000000000000000000000' |
| 00009280 | C3C6E7C2 D9C140F1 |       |       | 1365 DC CL48 'CFXBRA 1.5 FPC mode 2'            |
| 000092B0 | 40000000 00000000 |       |       | 1366 DC XL16 '40000000000000000000000000000000' |
| 000092C0 | C3C6E7C2 D9C140F1 |       |       | 1367 DC CL48 'CFXBRA 1.5 FPC mode 3'            |
| 000092F0 | 3FFF0000 00000000 |       |       | 1368 DC XL16 '3FFF0000000000000000000000000000' |
| 00009300 | C3C6E7C2 D9C140F1 |       |       | 1369 DC CL48 'CFXBRA 1.5 FPC mode 7'            |
| 00009330 | 3FFF0000 00000000 |       |       | 1370 DC XL16 '3FFF0000000000000000000000000000' |
| 00009340 | C3C6E7C2 D9C140F1 |       |       | 1371 DC CL48 'CFXBRA 1.5 M3 mode 1'             |
| 00009370 | 40000000 00000000 |       |       | 1372 DC XL16 '40000000000000000000000000000000' |
| 00009380 | C3C6E7C2 D9C140F1 |       |       | 1373 DC CL48 'CFXBRA 1.5 M3 mode 3'             |
| 000093B0 | 3FFF0000 00000000 |       |       | 1374 DC XL16 '3FFF0000000000000000000000000000' |
| 000093C0 | C3C6E7C2 D9C140F1 |       |       | 1375 DC CL48 'CFXBRA 1.5 M3 mode 4'             |
| 000093F0 | 40000000 00000000 |       |       | 1376 DC XL16 '40000000000000000000000000000000' |
| 00009400 | C3C6E7C2 D9C140F1 |       |       | 1377 DC CL48 'CFXBRA 1.5 M3 mode 5'             |
| 00009430 | 3FFF0000 00000000 |       |       | 1378 DC XL16 '3FFF0000000000000000000000000000' |
| 00009440 | C3C6E7C2 D9C140F1 |       |       | 1379 DC CL48 'CFXBRA 1.5 M3 mode 6'             |
| 00009470 | 40000000 00000000 |       |       | 1380 DC XL16 '40000000000000000000000000000000' |
| 00009480 | C3C6E7C2 D9C140F1 |       |       | 1381 DC CL48 'CFXBRA 1.5 M3 mode 7'             |
| 000094B0 | 3FFF0000 00000000 |       |       | 1382 DC XL16 '3FFF0000000000000000000000000000' |
| 000094C0 | C3C6E7C2 D9C140F2 |       |       | 1383 DC CL48 'CFXBRA 2.5 FPC mode 1'            |
| 000094F0 | 40000000 00000000 |       |       | 1384 DC XL16 '40000000000000000000000000000000' |
| 00009500 | C3C6E7C2 D9C140F2 |       |       | 1385 DC CL48 'CFXBRA 2.5 FPC mode 2'            |
| 00009530 | 40008000 00000000 |       |       | 1386 DC XL16 '40008000000000000000000000000000' |
| 00009540 | C3C6E7C2 D9C140F2 |       |       | 1387 DC CL48 'CFXBRA 2.5 FPC mode 3'            |
| 00009570 | 40000000 00000000 |       |       | 1388 DC XL16 '40000000000000000000000000000000' |
| 00009580 | C3C6E7C2 D9C140F2 |       |       | 1389 DC CL48 'CFXBRA 2.5 FPC mode 7'            |
| 000095B0 | 40008000 00000000 |       |       | 1390 DC XL16 '40008000000000000000000000000000' |
| 000095C0 | C3C6E7C2 D9C140F2 |       |       | 1391 DC CL48 'CFXBRA 2.5 M3 mode 1'             |
| 000095F0 | 40008000 00000000 |       |       | 1392 DC XL16 '40008000000000000000000000000000' |
| 00009600 | C3C6E7C2 D9C140F2 |       |       | 1393 DC CL48 'CFXBRA 2.5 M3 mode 3'             |
| 00009630 | 40008000 00000000 |       |       | 1394 DC XL16 '40008000000000000000000000000000' |
| 00009640 | C3C6E7C2 D9C140F2 |       |       | 1395 DC CL48 'CFXBRA 2.5 M3 mode 4'             |
| 00009670 | 40000000 00000000 |       |       | 1396 DC XL16 '40000000000000000000000000000000' |
| 00009680 | C3C6E7C2 D9C140F2 |       |       | 1397 DC CL48 'CFXBRA 2.5 M3 mode 5'             |
| 000096B0 | 40000000 00000000 |       |       | 1398 DC XL16 '40000000000000000000000000000000' |
| 000096C0 | C3C6E7C2 D9C140F2 |       |       | 1399 DC CL48 'CFXBRA 2.5 M3 mode 6'             |
| 000096F0 | 40008000 00000000 |       |       | 1400 DC XL16 '40008000000000000000000000000000' |
| 00009700 | C3C6E7C2 D9C140F2 |       |       | 1401 DC CL48 'CFXBRA 2.5 M3 mode 7'             |

| LOC      | OBJECT CODE       | ADDR1 | ADDR2 | STMT  |
|----------|-------------------|-------|-------|---|
| 00009730 | 40000000 00000000 |       |       | 1402 DC XL16 '40000000000000000000000000000000' |
| 00009740 | C3C6E7C2 D9C140F5 |       |       | 1403 DC CL48 'CFXBRA 5.5 FPC mode 1'            |
| 00009770 | 40014000 00000000 |       |       | 1404 DC XL16 '40014000000000000000000000000000' |
| 00009780 | C3C6E7C2 D9C140F5 |       |       | 1405 DC CL48 'CFXBRA 5.5 FPC mode 2'            |
| 000097B0 | 40018000 00000000 |       |       | 1406 DC XL16 '40018000000000000000000000000000' |
| 000097C0 | C3C6E7C2 D9C140F5 |       |       | 1407 DC CL48 'CFXBRA 5.5 FPC mode 3'            |
| 000097F0 | 40014000 00000000 |       |       | 1408 DC XL16 '40014000000000000000000000000000' |
| 00009800 | C3C6E7C2 D9C140F5 |       |       | 1409 DC CL48 'CFXBRA 5.5 FPC mode 7'            |
| 00009830 | 40014000 00000000 |       |       | 1410 DC XL16 '40014000000000000000000000000000' |
| 00009840 | C3C6E7C2 D9C140F5 |       |       | 1411 DC CL48 'CFXBRA 5.5 M3 mode 1'             |
| 00009870 | 40018000 00000000 |       |       | 1412 DC XL16 '40018000000000000000000000000000' |
| 00009880 | C3C6E7C2 D9C140F5 |       |       | 1413 DC CL48 'CFXBRA 5.5 M3 mode 3'             |
| 000098B0 | 40014000 00000000 |       |       | 1414 DC XL16 '40014000000000000000000000000000' |
| 000098C0 | C3C6E7C2 D9C140F5 |       |       | 1415 DC CL48 'CFXBRA 5.5 M3 mode 4'             |
| 000098F0 | 40018000 00000000 |       |       | 1416 DC XL16 '40018000000000000000000000000000' |
| 00009900 | C3C6E7C2 D9C140F5 |       |       | 1417 DC CL48 'CFXBRA 5.5 M3 mode 5'             |
| 00009930 | 40014000 00000000 |       |       | 1418 DC XL16 '40014000000000000000000000000000' |
| 00009940 | C3C6E7C2 D9C140F5 |       |       | 1419 DC CL48 'CFXBRA 5.5 M3 mode 6'             |
| 00009970 | 40018000 00000000 |       |       | 1420 DC XL16 '40018000000000000000000000000000' |
| 00009980 | C3C6E7C2 D9C140F5 |       |       | 1421 DC CL48 'CFXBRA 5.5 M3 mode 7'             |
| 000099B0 | 40014000 00000000 |       |       | 1422 DC XL16 '40014000000000000000000000000000' |
| 000099C0 | C3C6E7C2 D9C140F9 |       |       | 1423 DC CL48 'CFXBRA 9.5 FPC mode 1'            |
| 000099F0 | 40022000 00000000 |       |       | 1424 DC XL16 '40022000000000000000000000000000' |
| 00009A00 | C3C6E7C2 D9C140F9 |       |       | 1425 DC CL48 'CFXBRA 9.5 FPC mode 2'            |
| 00009A30 | 40024000 00000000 |       |       | 1426 DC XL16 '40024000000000000000000000000000' |
| 00009A40 | C3C6E7C2 D9C140F9 |       |       | 1427 DC CL48 'CFXBRA 9.5 FPC mode 3'            |
| 00009A70 | 40022000 00000000 |       |       | 1428 DC XL16 '40022000000000000000000000000000' |
| 00009A80 | C3C6E7C2 D9C140F9 |       |       | 1429 DC CL48 'CFXBRA 9.5 FPC mode 7'            |
| 00009AB0 | 40022000 00000000 |       |       | 1430 DC XL16 '40022000000000000000000000000000' |
| 00009AC0 | C3C6E7C2 D9C140F9 |       |       | 1431 DC CL48 'CFXBRA 9.5 M3 mode 1'             |
| 00009AF0 | 40024000 00000000 |       |       | 1432 DC XL16 '40024000000000000000000000000000' |
| 00009B00 | C3C6E7C2 D9C140F9 |       |       | 1433 DC CL48 'CFXBRA 9.5 M3 mode 3'             |
| 00009B30 | 40022000 00000000 |       |       | 1434 DC XL16 '40022000000000000000000000000000' |
| 00009B40 | C3C6E7C2 D9C140F9 |       |       | 1435 DC CL48 'CFXBRA 9.5 M3 mode 4'             |
| 00009B70 | 40024000 00000000 |       |       | 1436 DC XL16 '40024000000000000000000000000000' |
| 00009B80 | C3C6E7C2 D9C140F9 |       |       | 1437 DC CL48 'CFXBRA 9.5 M3 mode 5'             |
| 00009BB0 | 40022000 00000000 |       |       | 1438 DC XL16 '40022000000000000000000000000000' |
| 00009BC0 | C3C6E7C2 D9C140F9 |       |       | 1439 DC CL48 'CFXBRA 9.5 M3 mode 6'             |
| 00009BF0 | 40024000 00000000 |       |       | 1440 DC XL16 '40024000000000000000000000000000' |
| 00009C00 | C3C6E7C2 D9C140F9 |       |       | 1441 DC CL48 'CFXBRA 9.5 M3 mode 7'             |
| 00009C30 | 40022000 00000000 |       |       | 1442 DC XL16 '40022000000000000000000000000000' |
| 00009C40 | C3C6E7C2 D9C1404E |       |       | 1443 DC CL48 'CFXBRA +0.75 FPC mode 1'          |
| 00009C70 | 00000000 00000000 |       |       | 1444 DC XL16 '00000000000000000000000000000000' |
| 00009C80 | C3C6E7C2 D9C1404E |       |       | 1445 DC CL48 'CFXBRA +0.75 FPC mode 2'          |
| 00009CB0 | 3FFF0000 00000000 |       |       | 1446 DC XL16 '3FFF0000000000000000000000000000' |
| 00009CC0 | C3C6E7C2 D9C1404E |       |       | 1447 DC CL48 'CFXBRA +0.75 FPC mode 3'          |
| 00009CF0 | 00000000 00000000 |       |       | 1448 DC XL16 '00000000000000000000000000000000' |
| 00009D00 | C3C6E7C2 D9C1404E |       |       | 1449 DC CL48 'CFXBRA +0.75 FPC mode 7'          |
| 00009D30 | 3FFF0000 00000000 |       |       | 1450 DC XL16 '3FFF0000000000000000000000000000' |
| 00009D40 | C3C6E7C2 D9C1404E |       |       | 1451 DC CL48 'CFXBRA +0.75 M3 mode 1'           |
| 00009D70 | 3FFF0000 00000000 |       |       | 1452 DC XL16 '3FFF0000000000000000000000000000' |
| 00009D80 | C3C6E7C2 D9C1404E |       |       | 1453 DC CL48 'CFXBRA +0.75 M3 mode 3'           |
| 00009DB0 | 3FFF0000 00000000 |       |       | 1454 DC XL16 '3FFF0000000000000000000000000000' |
| 00009DC0 | C3C6E7C2 D9C1404E |       |       | 1455 DC CL48 'CFXBRA +0.75 M3 mode 4'           |
| 00009DF0 | 3FFF0000 00000000 |       |       | 1456 DC XL16 '3FFF0000000000000000000000000000' |
| 00009E00 | C3C6E7C2 D9C1404E |       |       | 1457 DC CL48 'CFXBRA +0.75 M3 mode 5'           |

| LOC      | OBJECT CODE | ADDR1    | ADDR2    | STMT   |
|----------|-------------|----------|----------|--|
| 00009E30 | 00000000    | 00000000 |          | 1458 DC XL16'00000000000000000000000000000000'   |
| 00009E40 | C3C6E7C2    | D9C1404E |          | 1459 DC CL48'CFXBRA +0.75 M3 mode 6'             |
| 00009E70 | 3FFF0000    | 00000000 |          | 1460 DC XL16'3FFF0000000000000000000000000000'   |
| 00009E80 | C3C6E7C2    | D9C1404E |          | 1461 DC CL48'CFXBRA +0.75 M3 mode 7'             |
| 00009EB0 | 00000000    | 00000000 |          | 1462 DC XL16'00000000000000000000000000000000'   |
| 00009EC0 | C3C6E7C2    | D9C14060 |          | 1463 DC CL48'CFXBRA -0.25 FPC mode 1'            |
| 00009EF0 | 80000000    | 00000000 |          | 1464 DC XL16'80000000000000000000000000000000'   |
| 00009F00 | C3C6E7C2    | D9C14060 |          | 1465 DC CL48'CFXBRA -0.25 FPC mode 2'            |
| 00009F30 | 80000000    | 00000000 |          | 1466 DC XL16'80000000000000000000000000000000'   |
| 00009F40 | C3C6E7C2    | D9C14060 |          | 1467 DC CL48'CFXBRA -0.25 FPC mode 3'            |
| 00009F70 | BFFF0000    | 00000000 |          | 1468 DC XL16'BFFF0000000000000000000000000000'   |
| 00009F80 | C3C6E7C2    | D9C14060 |          | 1469 DC CL48'CFXBRA -0.25 FPC mode 7'            |
| 00009FB0 | BFFF0000    | 00000000 |          | 1470 DC XL16'BFFF0000000000000000000000000000'   |
| 00009FC0 | C3C6E7C2    | D9C14060 |          | 1471 DC CL48'CFXBRA -0.25 M3 mode 1'             |
| 00009FF0 | 80000000    | 00000000 |          | 1472 DC XL16'80000000000000000000000000000000'   |
| 0000A000 | C3C6E7C2    | D9C14060 |          | 1473 DC CL48'CFXBRA -0.25 M3 mode 3'             |
| 0000A030 | BFFF0000    | 00000000 |          | 1474 DC XL16'BFFF0000000000000000000000000000'   |
| 0000A040 | C3C6E7C2    | D9C14060 |          | 1475 DC CL48'CFXBRA -0.25 M3 mode 4'             |
| 0000A070 | 80000000    | 00000000 |          | 1476 DC XL16'80000000000000000000000000000000'   |
| 0000A080 | C3C6E7C2    | D9C14060 |          | 1477 DC CL48'CFXBRA -0.25 M3 mode 5'             |
| 0000A0B0 | 80000000    | 00000000 |          | 1478 DC XL16'80000000000000000000000000000000'   |
| 0000A0C0 | C3C6E7C2    | D9C14060 |          | 1479 DC CL48'CFXBRA -0.25 M3 mode 6'             |
| 0000A0F0 | 80000000    | 00000000 |          | 1480 DC XL16'80000000000000000000000000000000'   |
| 0000A100 | C3C6E7C2    | D9C14060 |          | 1481 DC CL48'CFXBRA -0.25 M3 mode 7'             |
| 0000A130 | BFFF0000    | 00000000 |          | 1482 DC XL16'BFFF0000000000000000000000000000'   |
|          |             | 00000078 | 00000001 | 1483 XBFPRMO_NUM EQU (*-XBFPRMO_GOOD)/64         |
|          |             |          |          | 1484 *   |
|          |             |          |          | 1485 *   |
|          |             | 0000A140 | 00000001 | 1486 XBFPRMOF_GOOD EQU *                         |
| 0000A140 | C3C6E7C2    | D9C14060 |          | 1487 DC CL48'CFXBRA -9.5 FPC mode 1-3, 7 FCPR'   |
| 0000A170 | 00000001    | 00000002 |          | 1488 DC XL16'0000000100000000200000000300000007' |
| 0000A180 | C3C6E7C2    | D9C14060 |          | 1489 DC CL48'CFXBRA -9.5 M3 mode 1, 3-5 FPCR'    |
| 0000A1B0 | 00080000    | 00080000 |          | 1490 DC XL16'0008000000008000000080000000800000' |
| 0000A1C0 | C3C6E7C2    | D9C14060 |          | 1491 DC CL48'CFXBRA -9.5 M3 mode 6, 7 FCPR'      |
| 0000A1F0 | 00080000    | 00080000 |          | 1492 DC XL16'00080000000080000000000000000000'   |
| 0000A200 | C3C6E7C2    | D9C14060 |          | 1493 DC CL48'CFXBRA -5.5 FPC mode 1-3, 7 FCPR'   |
| 0000A230 | 00000001    | 00000002 |          | 1494 DC XL16'0000000100000000200000000300000007' |
| 0000A240 | C3C6E7C2    | D9C14060 |          | 1495 DC CL48'CFXBRA -5.5 M3 mode 1, 3-5 FPCR'    |
| 0000A270 | 00080000    | 00080000 |          | 1496 DC XL16'0008000000008000000080000000800000' |
| 0000A280 | C3C6E7C2    | D9C14060 |          | 1497 DC CL48'CFXBRA -5.5 M3 mode 6, 7 FCPR'      |
| 0000A2B0 | 00080000    | 00080000 |          | 1498 DC XL16'0008000000008000000000000000000000' |
| 0000A2C0 | C3C6E7C2    | D9C14060 |          | 1499 DC CL48'CFXBRA -2.5 FPC mode 1-3, 7 FCPR'   |
| 0000A2F0 | 00000001    | 00000002 |          | 1500 DC XL16'0000000100000000200000000300000007' |
| 0000A300 | C3C6E7C2    | D9C14060 |          | 1501 DC CL48'CFXBRA -2.5 M3 mode 1, 3-5 FPCR'    |
| 0000A330 | 00080000    | 00080000 |          | 1502 DC XL16'0008000000008000000080000000800000' |
| 0000A340 | C3C6E7C2    | D9C14060 |          | 1503 DC CL48'CFXBRA -2.5 M3 mode 6, 7 FCPR'      |
| 0000A370 | 00080000    | 00080000 |          | 1504 DC XL16'0008000000008000000000000000000000' |
| 0000A380 | C3C6E7C2    | D9C14060 |          | 1505 DC CL48'CFXBRA -1.5 FPC mode 1-3, 7 FCPR'   |
| 0000A3B0 | 00000001    | 00000002 |          | 1506 DC XL16'0000000100000000200000000300000007' |
| 0000A3C0 | C3C6E7C2    | D9C14060 |          | 1507 DC CL48'CFXBRA -1.5 M3 mode 1, 3-5 FPCR'    |
| 0000A3F0 | 00080000    | 00080000 |          | 1508 DC XL16'0008000000008000000080000000800000' |
| 0000A400 | C3C6E7C2    | D9C14060 |          | 1509 DC CL48'CFXBRA -1.5 M3 mode 6, 7 FCPR'      |
| 0000A430 | 00080000    | 00080000 |          | 1510 DC XL16'0008000000008000000000000000000000' |
| 0000A440 | C3C6E7C2    | D9C14060 |          | 1511 DC CL48'CFXBRA -0.5 FPC mode 1-3, 7 FCPR'   |
| 0000A470 | 00000001    | 00000002 |          | 1512 DC XL16'0000000100000000200000000300000007' |
| 0000A480 | C3C6E7C2    | D9C14060 |          | 1513 DC CL48'CFXBRA -0.5 M3 mode 1, 3-5 FPCR'    |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT  |
|----------|-------------------|----------|----------|---|
| 0000A4B0 | 00080000 00080000 |          |          | 1514 DC XL16'00080000000800000008000000080000'  |
| 0000A4C0 | C3C6E7C2 D9C14060 |          |          | 1515 DC CL48'CFXBRA -0.5 M3 mode 6, 7 FCPR'     |
| 0000A4F0 | 00080000 00080000 |          |          | 1516 DC XL16'00080000000800000000000000000000'  |
| 0000A500 | C3C6E7C2 D9C1404E |          |          | 1517 DC CL48'CFXBRA +0.5 FPC mode 1-3, 7 FCPR'  |
| 0000A530 | 00000001 00000002 |          |          | 1518 DC XL16'00000001000000020000000300000007'  |
| 0000A540 | C3C6E7C2 D9C1404E |          |          | 1519 DC CL48'CFXBRA +0.5 M3 mode 1, 3-5 FPCR'   |
| 0000A570 | 00080000 00080000 |          |          | 1520 DC XL16'00080000000800000008000000080000'  |
| 0000A580 | C3C6E7C2 D9C1404E |          |          | 1521 DC CL48'CFXBRA +0.5 M3 mode 6, 7 FCPR'     |
| 0000A5B0 | 00080000 00080000 |          |          | 1522 DC XL16'00080000000800000000000000000000'  |
| 0000A5C0 | C3C6E7C2 D9C1404E |          |          | 1523 DC CL48'CFXBRA +1.5 FPC mode 1-3, 7 FCPR'  |
| 0000A5F0 | 00000001 00000002 |          |          | 1524 DC XL16'00000001000000020000000300000007'  |
| 0000A600 | C3C6E7C2 D9C1404E |          |          | 1525 DC CL48'CFXBRA +1.5 M3 mode 1, 3-5 FPCR'   |
| 0000A630 | 00080000 00080000 |          |          | 1526 DC XL16'00080000000800000008000000080000'  |
| 0000A640 | C3C6E7C2 D9C1404E |          |          | 1527 DC CL48'CFXBRA +1.5 M3 mode 6, 7 FCPR'     |
| 0000A670 | 00080000 00080000 |          |          | 1528 DC XL16'00080000000800000000000000000000'  |
| 0000A680 | C3C6E7C2 D9C1404E |          |          | 1529 DC CL48'CFXBRA +2.5 FPC mode 1-3, 7 FCPR'  |
| 0000A6B0 | 00000001 00000002 |          |          | 1530 DC XL16'00000001000000020000000300000007'  |
| 0000A6C0 | C3C6E7C2 D9C1404E |          |          | 1531 DC CL48'CFXBRA +2.5 M3 mode 1, 3-5 FPCR'   |
| 0000A6F0 | 00080000 00080000 |          |          | 1532 DC XL16'00080000000800000008000000080000'  |
| 0000A700 | C3C6E7C2 D9C1404E |          |          | 1533 DC CL48'CFXBRA +2.5 M3 mode 6, 7 FCPR'     |
| 0000A730 | 00080000 00080000 |          |          | 1534 DC XL16'00080000000800000000000000000000'  |
| 0000A740 | C3C6E7C2 D9C1404E |          |          | 1535 DC CL48'CFXBRA +5.5 FPC mode 1-3, 7 FCPR'  |
| 0000A770 | 00000001 00000002 |          |          | 1536 DC XL16'00000001000000020000000300000007'  |
| 0000A780 | C3C6E7C2 D9C1404E |          |          | 1537 DC CL48'CFXBRA +5.5 M3 mode 1, 3-5 FPCR'   |
| 0000A7B0 | 00080000 00080000 |          |          | 1538 DC XL16'00080000000800000008000000080000'  |
| 0000A7C0 | C3C6E7C2 D9C1404E |          |          | 1539 DC CL48'CFXBRA +5.5 M3 mode 6, 7 FCPR'     |
| 0000A7F0 | 00080000 00080000 |          |          | 1540 DC XL16'00080000000800000000000000000000'  |
| 0000A800 | C3C6E7C2 D9C1404E |          |          | 1541 DC CL48'CFXBRA +9.5 FPC mode 1-3, 7 FCPR'  |
| 0000A830 | 00000001 00000002 |          |          | 1542 DC XL16'00000001000000020000000300000007'  |
| 0000A840 | C3C6E7C2 D9C1404E |          |          | 1543 DC CL48'CFXBRA +9.5 M3 mode 1, 3-5 FPCR'   |
| 0000A870 | 00080000 00080000 |          |          | 1544 DC XL16'00080000000800000008000000080000'  |
| 0000A880 | C3C6E7C2 D9C1404E |          |          | 1545 DC CL48'CFXBRA +9.5 M3 mode 6, 7 FCPR'     |
| 0000A8B0 | 00080000 00080000 |          |          | 1546 DC XL16'00080000000800000000000000000000'  |
| 0000A8C0 | C3C6E7C2 D9C1404E |          |          | 1547 DC CL48'CFXBRA +0.75 FPC mode 1-3, 7 FCPR' |
| 0000A8F0 | 00000001 00000002 |          |          | 1548 DC XL16'00000001000000020000000300000007'  |
| 0000A900 | C3C6E7C2 D9C1404E |          |          | 1549 DC CL48'CFXBRA +0.75 M3 mode 1, 3-5 FPCR'  |
| 0000A930 | 00080000 00080000 |          |          | 1550 DC XL16'00080000000800000008000000080000'  |
| 0000A940 | C3C6E7C2 D9C1404E |          |          | 1551 DC CL48'CFXBRA +0.75 M3 mode 6, 7 FCPR'    |
| 0000A970 | 00080000 00080000 |          |          | 1552 DC XL16'00080000000800000000000000000000'  |
| 0000A980 | C3C6E7C2 D9C14060 |          |          | 1553 DC CL48'CFXBRA -0.25 FPC mode 1-3, 7 FCPR' |
| 0000A9B0 | 00000001 00000002 |          |          | 1554 DC XL16'00000001000000020000000300000007'  |
| 0000A9C0 | C3C6E7C2 D9C14060 |          |          | 1555 DC CL48'CFXBRA -0.25 M3 mode 1, 3-5 FPCR'  |
| 0000A9F0 | 00080000 00080000 |          |          | 1556 DC XL16'00080000000800000008000000080000'  |
| 0000AA00 | C3C6E7C2 D9C14060 |          |          | 1557 DC CL48'CFXBRA -0.25 M3 mode 6, 7 FCPR'    |
| 0000AA30 | 00080000 00080000 |          |          | 1558 DC XL16'00080000000800000000000000000000'  |
|          |                   | 00000024 | 00000001 | 1559 XBFPRMOF_NUM EQU (*-XBFPRMOF_GOOD)/64      |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT |          |   |   |                                  |
|----------|-------------------|----------|----------|------|----------|---|---|----------------------------------|
| 0000AA40 |                   |          |          | 1561 | HELPERS  | DS  | 0H  | (R12 base of helper subroutines) |
|          |                   |          |          | 1563 | *****    |   |   |                                  |
|          |                   |          |          | 1564 | *        | REPORT UNEXPECTED PROGRAM CHECK             |   |                                  |
|          |                   |          |          | 1565 | *****    |   |   |                                  |
| 0000AA40 |                   |          |          | 1567 | PGMCK    | DS  | 0H  |                                  |
| 0000AA40 | F342 C072 F08E    | 0000AAB2 | 0000008E | 1568 | UNPK     | PROGCODE(L'PROGCODE+1),PCINTCD(L'PCINTCD+1) |   |                                  |
| 0000AA46 | 926B C076         |          | 0000AAB6 | 1569 | MVI      | PGMCOMMA,C','                               |   |                                  |
| 0000AA4A | DC03 C072 C178    | 0000AAB2 | 0000ABB8 | 1570 | TR       | PROGCODE,HEXTRTAB                           |   |                                  |
| 0000AA50 | F384 C07C F150    | 0000AABC | 00000150 | 1572 | UNPK     | PGMPSW+(0*9)(9),PCOLDPSW+(0*4)(5)           |   |                                  |
| 0000AA56 | 9240 C084         |          | 0000AAC4 | 1573 | MVI      | PGMPSW+(0*9)+8,C' '                         |   |                                  |
| 0000AA5A | DC07 C07C C178    | 0000AABC | 0000ABB8 | 1574 | TR       | PGMPSW+(0*9)(8),HEXTRTAB                    |   |                                  |
| 0000AA60 | F384 C085 F154    | 0000AAC5 | 00000154 | 1576 | UNPK     | PGMPSW+(1*9)(9),PCOLDPSW+(1*4)(5)           |   |                                  |
| 0000AA66 | 9240 C08D         |          | 0000AACD | 1577 | MVI      | PGMPSW+(1*9)+8,C' '                         |   |                                  |
| 0000AA6A | DC07 C085 C178    | 0000AAC5 | 0000ABB8 | 1578 | TR       | PGMPSW+(1*9)(8),HEXTRTAB                    |   |                                  |
| 0000AA70 | F384 C08E F158    | 0000AACE | 00000158 | 1580 | UNPK     | PGMPSW+(2*9)(9),PCOLDPSW+(2*4)(5)           |   |                                  |
| 0000AA76 | 9240 C096         |          | 0000AAD6 | 1581 | MVI      | PGMPSW+(2*9)+8,C' '                         |   |                                  |
| 0000AA7A | DC07 C08E C178    | 0000AACE | 0000ABB8 | 1582 | TR       | PGMPSW+(2*9)(8),HEXTRTAB                    |   |                                  |
| 0000AA80 | F384 C097 F15C    | 0000AAD7 | 0000015C | 1584 | UNPK     | PGMPSW+(3*9)(9),PCOLDPSW+(3*4)(5)           |   |                                  |
| 0000AA86 | 9240 C09F         |          | 0000AADF | 1585 | MVI      | PGMPSW+(3*9)+8,C' '                         |   |                                  |
| 0000AA8A | DC07 C097 C178    | 0000AAD7 | 0000ABB8 | 1586 | TR       | PGMPSW+(3*9)(8),HEXTRTAB                    |   |                                  |
| 0000AA90 | 4100 0042         |          | 00000042 | 1588 | LA       | R0,L'PROGMSG                                | R0 <== length of message                  |                                  |
| 0000AA94 | 4110 C05E         |          | 0000AA9E | 1589 | LA       | R1,PROGMSG                                  | R1 --> the message text itself            |                                  |
| 0000AA98 | 4520 C27A         |          | 0000ACBA | 1590 | BAL      | R2,MSG                                      | Go display this message                   |                                  |
|          |                   |          |          | 1591 |          |   |   |                                  |
| 0000AA9C | 07FD              |          |          | 1592 | BR       | R13   | Return to caller                          |                                  |
| 0000AA9E |                   |          |          | 1594 | PROGMSG  | DS  | 0CL66                                     |                                  |
| 0000AA9E | D7D9D6C7 D9C1D440 |          |          | 1595 |          | DC  | CL20'PROGRAM CHECK! CODE '                |                                  |
| 0000AAB2 | 88888888          |          |          | 1596 | PROGCODE | DC  | CL4'hhhh'                                 |                                  |
| 0000AAB6 | 6B                |          |          | 1597 | PGMCOMMA | DC  | CL1','                                    |                                  |
| 0000AAB7 | 40D7E2E6 40       |          |          | 1598 |          | DC  | CL5' PSW '                                |                                  |
| 0000AABC | 88888888 88888888 |          |          | 1599 | PGMPSW   | DC  | CL36'hhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh ' |                                  |

| LOC      | OBJECT CODE | ADDR1 | ADDR2    | STMT     |          |   |                                    |   |
|----------|-------------|-------|----------|----------|----------|---|------------------------------------|---|
|          |             |       |          | 1601     | *****    |   |                                    |   |
|          |             |       |          | 1602     | *        | VERIFICATION ROUTINE                          |                                    |   |
|          |             |       |          | 1603     | *****    |   |                                    |   |
| 0000AAE0 |             |       |          | 1605     | VERISUB  | DS  | 0H                                 |   |
|          |             |       |          | 1606     | *        |   |                                    |   |
|          |             |       |          | 1607     | **       | Loop through the VERIFY TABLE...              |                                    |   |
|          |             |       |          | 1608     | *        |   |                                    |   |
| 0000AAE0 | 4110        | C32C  | 0000AD6C | 1610     | LA       | R1,VERIFTAB                                   | R1 --> Verify table                |   |
| 0000AAE4 | 4120        | 000C  | 0000000C | 1611     | LA       | R2,VERIFLEN                                   | R2 <== Number of entries           |   |
| 0000AAE8 | 0D30        |       |          | 1612     | BASR     | R3,0  | Set top of loop                    |   |
| 0000AAEA | 9846        | 1000  | 00000000 | 1614     | LM       | R4,R6,0(R1)                                   | Load verify table values           |   |
| 0000AAEE | 4D70        | C0C2  | 0000AB02 | 1615     | BAS      | R7,VERIFY                                     | Verify results                     |   |
| 0000AAF2 | 4110        | 100C  | 0000000C | 1616     | LA       | R1,12(,R1)                                    | Next verify table entry            |   |
| 0000AAF6 | 0623        |       |          | 1617     | BCTR     | R2,R3   | Loop through verify table          |   |
| 0000AAF8 | 9500        | C278  | 0000ACB8 | 1619     | CLI      | FAILFLAG,X'00'                                | Did all tests verify okay?         |   |
| 0000AAFC | 078D        |       |          | 1620     | BER      | R13   | Yes, return to caller              |   |
| 0000AAFE | 47F0        | F238  | 00000238 | 1621     | B        | FAIL  | No, load FAILURE disabled wait PSW |   |
|          |             |       |          | 1623     | *        |   |                                    |   |
|          |             |       |          | 1624     | **       | Loop through the ACTUAL / EXPECTED results... |                                    |   |
|          |             |       |          | 1625     | *        |   |                                    |   |
| 0000AB02 | 0D80        |       |          | 1627     | VERIFY   | BASR  | R8,0                               | Set top of loop                                     |
| 0000AB04 | D50F        | 4000  | 5030     | 00000000 | 00000030 | 1629  | CLC                                | 0(16,R4),48(R5) Actual results == Expected results? |
| 0000AB0A | 4770        | C0DA  |          | 0000AB1A | 1630     | BNE   | VERIFAIL                           | No, show failure                                    |
| 0000AB0E | 4140        | 4010  |          | 00000010 | 1631     | VERINEXT                                      | LA                                 | R4,16(,R4) Next actual result                       |
| 0000AB12 | 4150        | 5040  |          | 00000040 | 1632     | LA  | R5,64(,R5) Next expected result    |   |
| 0000AB16 | 0668        |       |          | 1633     | BCTR     | R6,R8   | Loop through results               |   |
| 0000AB18 | 07F7        |       |          | 1635     | BR       | R7  | Return to caller                   |   |

| LOC      | OBJECT CODE    | ADDR1    | ADDR2    | STMT  |
|----------|----------------|----------|----------|---|
|          |                |          |          | 1637 *****  |
|          |                |          |          | 1638 * Report the failure...                                  |
|          |                |          |          | 1639 *****  |
| 0000AB1A | 9005 C250      |          | 0000AC90 | 1641 VERIFAIL STM R0,R5,SAVER0R5 Save registers               |
| 0000AB1E | 92FF C278      |          | 0000ACB8 | 1642 MVI FAILFLAG,X'FF' Remember verification failure         |
|          |                |          |          | 1643 *  |
|          |                |          |          | 1644 ** First, show them the description...                   |
|          |                |          |          | 1645 *  |
| 0000AB22 | D22F C1E0 5000 | 0000AC20 | 00000000 | 1646 MVC FAILDESC,0(R5) Save results/test description         |
| 0000AB28 | 4100 0044      |          | 00000044 | 1647 LA R0,L'FAILMSG1 R0 <== length of message                |
| 0000AB2C | 4110 C1CC      |          | 0000AC0C | 1648 LA R1,FAILMSG1 R1 --> the message text itself            |
| 0000AB30 | 4520 C27A      |          | 0000ACBA | 1649 BAL R2,MSG Go display this message                       |
|          |                |          |          | 1650 *  |
|          |                |          |          | 1651 ** Save address of actual and expected results           |
|          |                |          |          | 1652 *  |
| 0000AB34 | 5040 C24C      |          | 0000AC8C | 1653 ST R4,AACTUAL Save A(actual results)                     |
| 0000AB38 | 4150 5030      |          | 00000030 | 1654 LA R5,48(,R5) R5 ==> expected results                    |
| 0000AB3C | 5050 C248      |          | 0000AC88 | 1655 ST R5,AEXPECT Save A(expected results)                   |
|          |                |          |          | 1656 *  |
|          |                |          |          | 1657 ** Format and show them the EXPECTED ("Want") results... |
|          |                |          |          | 1658 *  |
| 0000AB40 | D205 C210 C3C0 | 0000AC50 | 0000AE00 | 1659 MVC WANTGOT,=CL6'Want: '                                 |
| 0000AB46 | F384 C216 C248 | 0000AC56 | 0000AC88 | 1660 UNPK FAILADR(L'FAILADR+1),AEXPECT(L'AEXPECT+1)           |
| 0000AB4C | 9240 C21E      |          | 0000AC5E | 1661 MVI BLANKEQ,C' '   |
| 0000AB50 | DC07 C216 C178 | 0000AC56 | 0000ABB8 | 1662 TR FAILADR,HEXTRTAB                                      |
| 0000AB56 | F384 C221 5000 | 0000AC61 | 00000000 | 1664 UNPK FAILVALS+(0*9)(9),(0*4)(5,R5)                       |
| 0000AB5C | 9240 C229      |          | 0000AC69 | 1665 MVI FAILVALS+(0*9)+8,C' '                                |
| 0000AB60 | DC07 C221 C178 | 0000AC61 | 0000ABB8 | 1666 TR FAILVALS+(0*9)(8),HEXTRTAB                            |
| 0000AB66 | F384 C22A 5004 | 0000AC6A | 00000004 | 1668 UNPK FAILVALS+(1*9)(9),(1*4)(5,R5)                       |
| 0000AB6C | 9240 C232      |          | 0000AC72 | 1669 MVI FAILVALS+(1*9)+8,C' '                                |
| 0000AB70 | DC07 C22A C178 | 0000AC6A | 0000ABB8 | 1670 TR FAILVALS+(1*9)(8),HEXTRTAB                            |
| 0000AB76 | F384 C233 5008 | 0000AC73 | 00000008 | 1672 UNPK FAILVALS+(2*9)(9),(2*4)(5,R5)                       |
| 0000AB7C | 9240 C23B      |          | 0000AC7B | 1673 MVI FAILVALS+(2*9)+8,C' '                                |
| 0000AB80 | DC07 C233 C178 | 0000AC73 | 0000ABB8 | 1674 TR FAILVALS+(2*9)(8),HEXTRTAB                            |
| 0000AB86 | F384 C23C 500C | 0000AC7C | 0000000C | 1676 UNPK FAILVALS+(3*9)(9),(3*4)(5,R5)                       |
| 0000AB8C | 9240 C244      |          | 0000AC84 | 1677 MVI FAILVALS+(3*9)+8,C' '                                |
| 0000AB90 | DC07 C23C C178 | 0000AC7C | 0000ABB8 | 1678 TR FAILVALS+(3*9)(8),HEXTRTAB                            |
| 0000AB96 | 4100 0035      |          | 00000035 | 1680 LA R0,L'FAILMSG2 R0 <== length of message                |
| 0000AB9A | 4110 C210      |          | 0000AC50 | 1681 LA R1,FAILMSG2 R1 --> the message text itself            |
| 0000AB9E | 4520 C27A      |          | 0000ACBA | 1682 BAL R2,MSG Go display this message                       |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT |              |  |  |
|----------|-------------------|----------|----------|------|--------------|--|--|
|          |                   |          |          | 1684 | *            |  |  |
|          |                   |          |          | 1685 | **           | Format and show them the ACTUAL ("Got") results... |  |
|          |                   |          |          | 1686 | *            |  |  |
| 0000ABA2 | D205 C210 C3C6    | 0000AC50 | 0000AE06 | 1687 | MVC          | WANTGOT,=CL6'Got: '                                |  |
| 0000ABA8 | F384 C216 C24C    | 0000AC56 | 0000AC8C | 1688 | UNPK         | FAILADR(L'FAILADR+1),AACTUAL(L'AACTUAL+1)          |  |
| 0000ABAE | 9240 C21E         |          | 0000AC5E | 1689 | MVI          | BLANKEQ,C' '                                       |  |
| 0000ABB2 | DC07 C216 C178    | 0000AC56 | 0000ABB8 | 1690 | TR           | FAILADR,HEXTRTAB                                   |  |
| 0000ABB8 | F384 C221 4000    | 0000AC61 | 00000000 | 1692 | UNPK         | FAILVALS+(0*9)(9),(0*4)(5,R4)                      |  |
| 0000ABBE | 9240 C229         |          | 0000AC69 | 1693 | MVI          | FAILVALS+(0*9)+8,C' '                              |  |
| 0000ABC2 | DC07 C221 C178    | 0000AC61 | 0000ABB8 | 1694 | TR           | FAILVALS+(0*9)(8),HEXTRTAB                         |  |
| 0000ABC8 | F384 C22A 4004    | 0000AC6A | 00000004 | 1696 | UNPK         | FAILVALS+(1*9)(9),(1*4)(5,R4)                      |  |
| 0000ABCE | 9240 C232         |          | 0000AC72 | 1697 | MVI          | FAILVALS+(1*9)+8,C' '                              |  |
| 0000ABD2 | DC07 C22A C178    | 0000AC6A | 0000ABB8 | 1698 | TR           | FAILVALS+(1*9)(8),HEXTRTAB                         |  |
| 0000ABD8 | F384 C233 4008    | 0000AC73 | 00000008 | 1700 | UNPK         | FAILVALS+(2*9)(9),(2*4)(5,R4)                      |  |
| 0000ABDE | 9240 C23B         |          | 0000AC7B | 1701 | MVI          | FAILVALS+(2*9)+8,C' '                              |  |
| 0000ABE2 | DC07 C233 C178    | 0000AC73 | 0000ABB8 | 1702 | TR           | FAILVALS+(2*9)(8),HEXTRTAB                         |  |
| 0000ABE8 | F384 C23C 400C    | 0000AC7C | 0000000C | 1704 | UNPK         | FAILVALS+(3*9)(9),(3*4)(5,R4)                      |  |
| 0000ABEE | 9240 C244         |          | 0000AC84 | 1705 | MVI          | FAILVALS+(3*9)+8,C' '                              |  |
| 0000ABF2 | DC07 C23C C178    | 0000AC7C | 0000ABB8 | 1706 | TR           | FAILVALS+(3*9)(8),HEXTRTAB                         |  |
| 0000ABF8 | 4100 0035         |          | 00000035 | 1708 | LA           | R0,L'FAILMSG2 R0 <== length of message             |  |
| 0000ABFC | 4110 C210         |          | 0000AC50 | 1709 | LA           | R1,FAILMSG2 R1 --> the message text itself         |  |
| 0000AC00 | 4520 C27A         |          | 0000ACBA | 1710 | BAL          | R2,MSG Go display this message                     |  |
| 0000AC04 | 9805 C250         |          | 0000AC90 | 1712 | LM           | R0,R5,SAVER0R5 Restore registers                   |  |
| 0000AC08 | 47F0 C0CE         |          | 0000AB0E | 1713 | B            | VERINEXT Continue with verification...             |  |
| 0000AC0C |                   |          |          | 1715 | FAILMSG1 DS  | 0CL68  |  |
| 0000AC0C | C3D6D4D7 C1D9C9E2 |          |          | 1716 | DC           | CL20'COMPARISON FAILURE! '                         |  |
| 0000AC20 | 4D8485A2 83998997 |          |          | 1717 | FAILDESC DC  | CL48'(description)'                                |  |
| 0000AC50 |                   |          |          | 1719 | FAILMSG2 DS  | 0CL53  |  |
| 0000AC50 | 40404040 4040     |          |          | 1720 | WANTGOT DC   | CL6' ' 'Want: ' -or- 'Got: '                       |  |
| 0000AC56 | C1C1C1C1 C1C1C1C1 |          |          | 1721 | FAILADR DC   | CL8'AAAAAAA'                                       |  |
| 0000AC5E | 407E40            |          |          | 1722 | BLANKEQ DC   | CL3' = '   |  |
| 0000AC61 | 88888888 88888888 |          |          | 1723 | FAILVALS DC  | CL36'hhhhhhh hhhhhh hhhhhh hhhhhh '                |  |
| 0000AC88 | 00000000          |          |          | 1725 | AEXPECT DC   | F'0' ==> Expected ("Want") results                 |  |
| 0000AC8C | 00000000          |          |          | 1726 | AACTUAL DC   | F'0' ==> Actual ("Got") results                    |  |
| 0000AC90 | 00000000 00000000 |          |          | 1727 | SAVER0R5 DC  | 6F'0' Registers R0 - R5 save area                  |  |
| 0000ACA8 | F0F1F2F3 F4F5F6F7 |          |          | 1728 | CHARHEX DC   | CL16'0123456789ABCDEF'                             |  |
|          |                   | 0000ABB8 | 00000010 | 1729 | HEXTRTAB EQU | CHARHEX-X'F0' Hexadecimal translation table        |  |
| 0000ACB8 | 00                |          |          | 1730 | FAILFLAG DC  | X'00' FF = Fail, 00 = Success                      |  |

| LOC      | OBJECT CODE       | ADDR1    | ADDR2    | STMT |         |   |                     |  |                                  |  |
|----------|-------------------|----------|----------|------|---------|---|---------------------|--|----------------------------------|--|
|          |                   |          |          | 1732 | *****   |   |                     |  |                                  |  |
|          |                   |          |          | 1733 | *       | Issue HERCULES MESSAGE pointed to by R1, length in R0 |                     |  |                                  |  |
|          |                   |          |          | 1734 | *****   |   |                     |  |                                  |  |
| 0000ACBA | 4900 C3BC         |          | 0000ADFC | 1736 | MSG     | CH  | R0,=H'0'            |  | Do we even HAVE a message?       |  |
| 0000ACBE | 07D2              |          |          | 1737 |         | BNHR  | R2                  |  | No, ignore                       |  |
| 0000ACC0 | 9002 C2B0         |          | 0000ACF0 | 1739 |         | STM   | R0,R2,MSGSAVE       |  | Save registers                   |  |
| 0000ACC4 | 4900 C3BE         |          | 0000ADFE | 1741 |         | CH  | R0,=AL2(L'MSGMSG)   |  | Message length within limits?    |  |
| 0000ACC8 | 47D0 C290         |          | 0000ACD0 | 1742 |         | BNH   | MSGOK               |  | Yes, continue                    |  |
| 0000ACCC | 4100 005F         |          | 0000005F | 1743 |         | LA  | R0,L'MSGMSG         |  | No, set to maximum               |  |
| 0000ACD0 | 1820              |          |          | 1745 | MSGOK   | LR  | R2,R0               |  | Copy length to work register     |  |
| 0000ACD2 | 0620              |          |          | 1746 |         | BCTR  | R2,0                |  | Minus-1 for execute              |  |
| 0000ACD4 | 4420 C2BC         |          | 0000ACFC | 1747 |         | EX  | R2,MSGMVC           |  | Copy message to O/P buffer       |  |
| 0000ACD8 | 4120 200A         |          | 0000000A | 1749 |         | LA  | R2,1+L'MSGCMD(,R2)  |  | Calculate true command length    |  |
| 0000ACDC | 4110 C2C2         |          | 0000AD02 | 1750 |         | LA  | R1,MSGCMD           |  | Point to true command            |  |
| 0000ACE0 | 83120008          |          |          | 1752 |         | DC  | X'83',X'12',X'0008' |  | Issue Hercules Diagnose X'008'   |  |
| 0000ACE4 | 4780 C2AA         |          | 0000ACEA | 1753 |         | BZ  | MSGRET              |  | Return if successful             |  |
| 0000ACE8 | 0000              |          |          | 1754 |         | DC  | H'0'                |  | CRASH for debugging purposes     |  |
| 0000ACEA | 9802 C2B0         |          | 0000ACF0 | 1756 | MSGRET  | LM  | R0,R2,MSGSAVE       |  | Restore registers                |  |
| 0000ACEE | 07F2              |          |          | 1757 |         | BR  | R2                  |  | Return to caller                 |  |
| 0000ACF0 | 00000000 00000000 |          |          | 1759 | MSGSAVE | DC  | 3F'0'               |  | Registers save area              |  |
| 0000ACFC | D200 C2CB 1000    | 0000AD0B | 00000000 | 1760 | MSGMVC  | MVC   | MSGMSG(0),0(R1)     |  | Executed instruction             |  |
| 0000AD02 | D4E2C7D5 D6C8405C |          |          | 1762 | MSGCMD  | DC  | C'MSGNOH * '        |  | *** HERCULES MESSAGE COMMAND *** |  |
| 0000AD0B | 40404040 40404040 |          |          | 1763 | MSGMSG  | DC  | CL95' '             |  | The message text to be displayed |  |

| LOC      | OBJECT CODE | ADDR1 | ADDR2 | STMT  |
|----------|-------------|-------|-------|---|
|          |             |       |       | 1765 *****  |
|          |             |       |       | 1766 * VERIFY TABLE   |
|          |             |       |       | 1767 *****  |
|          |             |       |       | 1768 *  |
|          |             |       |       | 1769 * A(actual results), A(expected results), A(#of results) |
|          |             |       |       | 1770 *  |
|          |             |       |       | 1771 *****  |
| 0000AD6C |             |       |       | 1773 VERIFTAB DC 0F'0'  |
| 0000AD6C | 00001000    |       |       | 1774 DC A(SBFPOUT)  |
| 0000AD70 | 00005000    |       |       | 1775 DC A(SBFPOUT_GOOD)                                       |
| 0000AD74 | 00000004    |       |       | 1776 DC A(SBFPOUT_NUM)  |
|          |             |       |       | 1777 *  |
| 0000AD78 | 00001080    |       |       | 1778 DC A(SBFPFLGS)   |
| 0000AD7C | 00005100    |       |       | 1779 DC A(SBFPFLGS_GOOD)                                      |
| 0000AD80 | 00000004    |       |       | 1780 DC A(SBFPFLGS_NUM)                                       |
|          |             |       |       | 1781 *  |
| 0000AD84 | 00001100    |       |       | 1782 DC A(SBFPRMO)  |
| 0000AD88 | 00005200    |       |       | 1783 DC A(SBFPRMO_GOOD)                                       |
| 0000AD8C | 00000024    |       |       | 1784 DC A(SBFPRMO_NUM)  |
|          |             |       |       | 1785 *  |
| 0000AD90 | 00001400    |       |       | 1786 DC A(SBFPRMOF)   |
| 0000AD94 | 00005B00    |       |       | 1787 DC A(SBFPRMOF_GOOD)                                      |
| 0000AD98 | 00000024    |       |       | 1788 DC A(SBFPRMOF_NUM)                                       |
|          |             |       |       | 1789 *  |
| 0000AD9C | 00002000    |       |       | 1790 DC A(LBFPOUT)  |
| 0000ADA0 | 00006400    |       |       | 1791 DC A(LBFPOUT_GOOD)                                       |
| 0000ADA4 | 00000007    |       |       | 1792 DC A(LBFPOUT_NUM)  |
|          |             |       |       | 1793 *  |
| 0000ADA8 | 00002100    |       |       | 1794 DC A(LBFPFLGS)   |
| 0000ADAC | 000065C0    |       |       | 1795 DC A(LBFPFLGS_GOOD)                                      |
| 0000ADB0 | 00000004    |       |       | 1796 DC A(LBFPFLGS_NUM)                                       |
|          |             |       |       | 1797 *  |
| 0000ADB4 | 00002200    |       |       | 1798 DC A(LBFPRMO)  |
| 0000ADB8 | 000066C0    |       |       | 1799 DC A(LBFPRMO_GOOD)                                       |
| 0000ADBC | 0000003C    |       |       | 1800 DC A(LBFPRMO_NUM)  |
|          |             |       |       | 1801 *  |
| 0000ADC0 | 00002800    |       |       | 1802 DC A(LBFPRMOF)   |
| 0000ADC4 | 000075C0    |       |       | 1803 DC A(LBFPRMOF_GOOD)                                      |
| 0000ADC8 | 00000024    |       |       | 1804 DC A(LBFPRMOF_NUM)                                       |
|          |             |       |       | 1805 *  |
| 0000ADCC | 00003000    |       |       | 1806 DC A(XBFPOUT)  |
| 0000ADD0 | 00007EC0    |       |       | 1807 DC A(XBFPOUT_GOOD)                                       |
| 0000ADD4 | 0000000E    |       |       | 1808 DC A(XBFPOUT_NUM)  |
|          |             |       |       | 1809 *  |
| 0000ADD8 | 00003200    |       |       | 1810 DC A(XBFPFLGS)   |
| 0000ADDC | 00008240    |       |       | 1811 DC A(XBFPFLGS_GOOD)                                      |
| 0000ADE0 | 00000004    |       |       | 1812 DC A(XBFPFLGS_NUM)                                       |
|          |             |       |       | 1813 *  |
| 0000ADE4 | 00003300    |       |       | 1814 DC A(XBFPRMO)  |
| 0000ADE8 | 00008340    |       |       | 1815 DC A(XBFPRMO_GOOD)                                       |
| 0000ADEC | 00000078    |       |       | 1816 DC A(XBFPRMO_NUM)  |
|          |             |       |       | 1817 *  |
| 0000ADF0 | 00003F00    |       |       | 1818 DC A(XBFPRMOF)   |
| 0000ADF4 | 0000A140    |       |       | 1819 DC A(XBFPRMOF_GOOD)                                      |
| 0000ADF8 | 00000024    |       |       | 1820 DC A(XBFPRMOF_NUM)                                       |



| LOC      | OBJECT CODE   | ADDR1 | ADDR2 | STMT |                |
|----------|---------------|-------|-------|------|----------------|
| 0000ADFC |               |       |       | 1824 | END            |
| 0000ADFC | 0000          |       |       | 1825 | =H'0'          |
| 0000ADFE | 005F          |       |       | 1826 | =AL2(L'MSGMSG) |
| 0000AE00 | E68195A3 7A40 |       |       | 1827 | =CL6'Want: '   |
| 0000AE06 | C796A37A 4040 |       |       | 1828 | =CL6'Got: '    |

| SYMBOL   | TYPE | VALUE  | LENGTH | DEFN | REFERENCES   |
|----------|------|--------|--------|------|--|
| AACTUAL  | F    | 00AC8C | 4      | 1726 | 1653 1688  |
| AEXPECT  | F    | 00AC88 | 4      | 1725 | 1655 1660  |
| AHELPERS | A    | 00027C | 4      | 195  | 185 227  |
| BFPLDFPI | J    | 000000 | 44556  | 112  | 162 165 167 170 178 759 761 763 765 768 770 772 774 777<br>779 781 783 790   |
| BLANKEQ  | C    | 00AC5E | 3      | 1722 | 1661 1689  |
| CHARHEX  | C    | 00ACA8 | 16     | 1728 | 1729   |
| CTLR0    | F    | 0002F0 | 4      | 237  | 204 205 206  |
| EXTDS    | F    | 00031C | 4      | 259  | 218  |
| FAIL     | I    | 000238 | 4      | 193  | 1621   |
| FAILADR  | C    | 00AC56 | 8      | 1721 | 1660 1662 1688 1690  |
| FAILDESC | C    | 00AC20 | 48     | 1717 | 1646   |
| FAILFLAG | X    | 00ACB8 | 1      | 1730 | 1619 1642  |
| FAILMSG1 | C    | 00AC0C | 68     | 1715 | 1647 1648  |
| FAILMSG2 | C    | 00AC50 | 53     | 1719 | 1680 1681 1708 1709  |
| FAILPSW  | X    | 0002E0 | 8      | 235  | 193  |
| FAILVALS | C    | 00AC61 | 36     | 1723 | 1664 1665 1666 1668 1669 1670 1672 1673 1674 1676 1677 1678 1692 1693<br>1694 1696 1697 1698 1700 1701 1702 1704 1705 1706   |
| FIDBR    | I    | 000474 | 4      | 417  | 214  |
| FIDBRA   | I    | 0004BA | 4      | 460  | 216  |
| FIEBR    | H    | 00035C | 2      | 292  | 209  |
| FIEBRA   | I    | 0003A2 | 4      | 336  | 211  |
| FIXBR    | I    | 00058C | 4      | 541  | 219  |
| FIXBRA   | I    | 0005DE | 4      | 587  | 221  |
| FPCREGNT | X    | 0002F4 | 4      | 238  | 300 346 352 358 364 372 377 382 387 392 397 424 470 476<br>482 488 496 501 506 511 516 521 549 598 605 612 619 628<br>634 640 646 652 658  |
| FPCREGTR | X    | 0002F8 | 4      | 239  | 305 429 555  |
| FPR0     | U    | 000000 | 1      | 132  | 299 301 307 342 348 354 360 366 373 378 383 388 393 398<br>423 425 431 466 472 478 484 490 497 502 507 512 517 522<br>547 550 557 593 600 607 614 621 629 635 641 647 653 659  |
| FPR1     | U    | 000001 | 1      | 133  | 301 302 306 307 308 348 349 354 355 360 361 366 367 373<br>374 378 379 383 384 388 389 393 394 398 399 425 430 431<br>432 472 473 478 479 484 485 490 491 497 498 502 503 507<br>508 512 513 517 518 522 523 550 551 556 557 558 600 601<br>607 608 614 615 621 622 629 630 635 636 641 642 647 648<br>653 654 659 660 |
| FPR10    | U    | 00000A | 1      | 142  |  |
| FPR11    | U    | 00000B | 1      | 143  |  |
| FPR12    | U    | 00000C | 1      | 144  |  |
| FPR13    | U    | 00000D | 1      | 145  |  |
| FPR14    | U    | 00000E | 1      | 146  |  |
| FPR15    | U    | 00000F | 1      | 147  |  |
| FPR2     | U    | 000002 | 1      | 134  | 548 594  |
| FPR3     | U    | 000003 | 1      | 135  | 552 559 602 609 616 623 631 637 643 649 655 661  |
| FPR4     | U    | 000004 | 1      | 136  |  |
| FPR5     | U    | 000005 | 1      | 137  |  |
| FPR6     | U    | 000006 | 1      | 138  |  |
| FPR7     | U    | 000007 | 1      | 139  |  |
| FPR8     | U    | 000008 | 1      | 140  |  |
| FPR9     | U    | 000009 | 1      | 141  |  |
| GOODPSW  | X    | 0002D0 | 8      | 234  | 231  |
| HELPERS  | H    | 00AA40 | 2      | 1561 | 150 195  |
| HEXTRTAB | U    | 00ABB8 | 16     | 1729 | 1570 1574 1578 1582 1586 1662 1666 1670 1674 1678 1690 1694 1698 1702<br>1706  |
| IMAGE    | 1    | 000000 | 44556  | 0    |  |

| SYMBOL        | TYPE | VALUE  | LENGTH | DEFN | REFERENCES |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|--------|--------|------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LBFPC         | U    | 000038 | 1      | 710  | 254        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPFLGS      | U    | 002100 | 0      | 770  | 257        | 1794 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPFLGS_GOOD | U    | 0065C0 | 1      | 986  | 995        | 1795 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPFLGS_NUM  | U    | 000004 | 1      | 995  | 1796       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPIN        | F    | 000728 | 4      | 702  | 710        | 255  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPINRM      | F    | 000760 | 4      | 712  | 725        | 273  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPOUT       | U    | 002000 | 0      | 768  | 256        | 1790 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPOUT_GOOD  | U    | 006400 | 1      | 968  | 983        | 1791 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPOUT_NUM   | U    | 000007 | 1      | 983  | 1792       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMCT      | U    | 000060 | 1      | 725  | 272        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMO       | U    | 002200 | 0      | 772  | 274        | 1798 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMOF      | U    | 002800 | 0      | 774  | 275        | 1802 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMOF_GOOD | U    | 0075C0 | 1      | 1122 | 1195       | 1803 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMOF_NUM  | U    | 000024 | 1      | 1195 | 1804       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMO_GOOD  | U    | 0066C0 | 1      | 998  | 1119       | 1799 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LBFPRMO_NUM   | U    | 00003C | 1      | 1119 | 1800       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| LONGS         | F    | 00030C | 4      | 253  | 213        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MSG           | I    | 00ACBA | 4      | 1736 | 1590       | 1649 | 1682 | 1710 |      |      |      |      |      |      |      |      |      |      |      |
| MSGCMD        | C    | 00AD02 | 9      | 1762 | 1749       | 1750 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MSGMSG        | C    | 00AD0B | 95     | 1763 | 1743       | 1760 | 1741 |      |      |      |      |      |      |      |      |      |      |      |      |
| MSGMVC        | I    | 00ACFC | 6      | 1760 | 1747       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MSGOK         | I    | 00ACD0 | 2      | 1745 | 1742       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MSGRET        | I    | 00ACEA | 4      | 1756 | 1753       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MSGSAVE       | F    | 00ACF0 | 4      | 1759 | 1739       | 1756 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PCINTCD       | H    | 00008E | 2      | 163  | 180        | 1568 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PCNOTDTA      | I    | 00020C | 4      | 184  | 181        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PCOLDPSW      | U    | 000150 | 0      | 165  | 182        | 1572 | 1576 | 1580 | 1584 |      |      |      |      |      |      |      |      |      |      |
| PGMCK         | H    | 00AA40 | 2      | 1567 | 186        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PGMCOMMA      | C    | 00AAB6 | 1      | 1597 | 1569       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PGMPSW        | C    | 00AABC | 36     | 1599 | 1572       | 1573 | 1574 | 1576 | 1577 | 1578 | 1580 | 1581 | 1582 | 1584 | 1585 | 1586 |      |      |      |
| PROGCHK       | H    | 000200 | 2      | 179  | 171        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PROGCODE      | C    | 00AAB2 | 4      | 1596 | 1568       | 1570 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PROGMSG       | C    | 00AA9E | 66     | 1594 | 1588       | 1589 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PROGPSW       | D    | 000228 | 8      | 192  | 191        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R0            | U    | 000000 | 1      | 113  | 184        | 187  | 204  | 206  | 1588 | 1641 | 1647 | 1680 | 1708 | 1712 | 1736 | 1739 | 1741 | 1743 |      |
|               |      |        |        |      |            | 1745 | 1756 |      |      |      |      |      |      |      |      |      |      |      |      |
| R1            | U    | 000001 | 1      | 114  | 426        | 1589 | 1610 | 1614 | 1616 | 1648 | 1681 | 1709 | 1750 | 1760 |      |      |      |      |      |
| R10           | U    | 00000A | 1      | 123  | 208        | 210  | 213  | 215  | 218  | 220  | 293  | 294  | 336  | 337  | 417  | 418  | 460  | 461  |      |
|               |      |        |        |      |            | 541  | 542  | 587  | 588  |      |      |      |      |      |      |      |      |      |      |
| R11           | U    | 00000B | 1      | 124  |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R12           | U    | 00000C | 1      | 125  | 150        | 185  | 227  | 297  | 314  | 340  | 405  | 421  | 438  | 464  | 529  | 545  | 565  | 591  |      |
|               |      |        |        |      |            | 667  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R13           | U    | 00000D | 1      | 126  | 186        | 209  | 211  | 214  | 216  | 219  | 221  | 228  | 296  | 315  | 339  | 406  | 420  | 439  |      |
|               |      |        |        |      |            | 463  | 530  | 544  | 566  | 590  | 668  | 1592 | 1620 |      |      |      |      |      |      |
| R14           | U    | 00000E | 1      | 127  | 189        | 190  | 229  | 230  |      |      |      |      |      |      |      |      |      |      |      |
| R15           | U    | 00000F | 1      | 128  | 149        | 184  | 187  |      |      |      |      |      |      |      |      |      |      |      |      |
| R2            | U    | 000002 | 1      | 115  | 293        | 295  | 314  | 336  | 338  | 405  | 417  | 419  | 438  | 460  | 462  | 529  | 541  | 543  |      |
|               |      |        |        |      |            | 565  | 587  | 589  | 667  | 1590 | 1611 | 1617 | 1649 | 1682 | 1710 | 1737 | 1739 | 1745 | 1746 |
|               |      |        |        |      |            | 1747 | 1749 | 1756 | 1757 |      |      |      |      |      |      |      |      |      |      |
| R3            | U    | 000003 | 1      | 116  | 293        | 299  | 311  | 336  | 342  | 402  | 417  | 423  | 435  | 460  | 466  | 526  | 541  | 547  |      |
|               |      |        |        |      |            | 548  | 562  | 587  | 593  | 594  | 664  | 1612 | 1617 |      |      |      |      |      |      |
| R4            | U    | 000004 | 1      | 117  | 1614       | 1629 | 1631 | 1653 | 1692 | 1696 | 1700 | 1704 |      |      |      |      |      |      |      |
| R5            | U    | 000005 | 1      | 118  | 1629       | 1632 | 1641 | 1646 | 1654 | 1655 | 1664 | 1668 | 1672 | 1676 | 1712 |      |      |      |      |
| R6            | U    | 000006 | 1      | 119  | 1614       | 1633 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R7            | U    | 000007 | 1      | 120  | 294        | 302  | 308  | 312  | 337  | 349  | 355  | 361  | 367  | 374  | 379  | 384  | 389  | 394  |      |
|               |      |        |        |      |            | 399  | 403  | 418  | 426  | 432  | 436  | 461  | 473  | 479  | 485  | 491  | 498  | 503  | 508  |

| SYMBOL         | TYPE | VALUE  | LENGTH | DEFN | REFERENCES  |
|----------------|------|--------|--------|------|---|
|                |      |        |        |      | 513 518 523 527 542 551 552 558 559 563 588 601 602 608   |
|                |      |        |        |      | 609 615 616 622 623 630 631 636 637 642 643 648 649 654   |
| R8             | U    | 000008 | 1      | 121  | 655 660 661 665 1615 1635<br>294 303 309 313 337 350 356 362 368 375 380 385 390 395<br>400 404 418 427 433 437 461 474 480 486 492 499 504 509<br>514 519 524 528 542 553 560 564 588 603 610 617 624 632<br>638 644 650 656 662 666 1627 1633 |
| R9             | U    | 000009 | 1      | 122  |   |
| RMEXTDS        | F    | 00034C | 4      | 277  | 220   |
| RMLONGS        | F    | 00033C | 4      | 271  | 215   |
| RMSHORTS       | F    | 00032C | 4      | 265  | 210   |
| SAVER0R5       | F    | 00AC90 | 4      | 1727 | 1641 1712   |
| SAVEREGS       | F    | 00023C | 4      | 194  | 184 187   |
| SBFPCT         | U    | 00001C | 1      | 685  | 248   |
| SBFPFLGS       | U    | 001080 | 0      | 761  | 251 1778  |
| SBFPFLGS_GOOD  | U    | 005100 | 1      | 804  | 813 1779  |
| SBFPFLGS_NUM   | U    | 000004 | 1      | 813  | 1780  |
| SBFPIN         | F    | 0006DC | 4      | 677  | 685 249   |
| SBFPINRM       | F    | 0006F8 | 4      | 687  | 700 267   |
| SBFPOUT        | U    | 001000 | 0      | 759  | 250 1774  |
| SBFPOUT_GOOD   | U    | 005000 | 1      | 792  | 801 1775  |
| SBFPOUT_NUM    | U    | 000004 | 1      | 801  | 1776  |
| SBFPRMCT       | U    | 000030 | 1      | 700  | 266   |
| SBFPRMO        | U    | 001100 | 0      | 763  | 268 1782  |
| SBFPRMOF       | U    | 001400 | 0      | 765  | 269 1786  |
| SBFPRMOF_GOOD  | U    | 005B00 | 1      | 892  | 965 1787  |
| SBFPRMOF_NUM   | U    | 000024 | 1      | 965  | 1788  |
| SBFPRMO_GOOD   | U    | 005200 | 1      | 816  | 889 1783  |
| SBFPRMO_NUM    | U    | 000024 | 1      | 889  | 1784  |
| SHORTS         | F    | 0002FC | 4      | 247  | 208   |
| START          | H    | 000280 | 2      | 203  | 168   |
| VERIFAIL       | I    | 00AB1A | 4      | 1641 | 1630  |
| VERIFLEN       | U    | 00000C | 1      | 1822 | 1611  |
| VERIFTAB       | F    | 00AD6C | 4      | 1773 | 1822 1610   |
| VERIFY         | I    | 00AB02 | 2      | 1627 | 1615  |
| VERINEXT       | I    | 00AB0E | 4      | 1631 | 1713  |
| VERISUB        | H    | 00AAE0 | 2      | 1605 | 228   |
| WANTGOT        | C    | 00AC50 | 6      | 1720 | 1659 1687   |
| XBFPCT         | U    | 000070 | 1      | 735  | 260   |
| XBFPFLGS       | U    | 003200 | 0      | 779  | 263 1810  |
| XBFPFLGS_GOOD  | U    | 008240 | 1      | 1230 | 1239 1811   |
| XBFPFLGS_NUM   | U    | 000004 | 1      | 1239 | 1812  |
| XBFPIN         | D    | 0007C0 | 8      | 727  | 735 261   |
| XBFPINRM       | D    | 000830 | 8      | 737  | 750 279   |
| XBFPOUT        | U    | 003000 | 0      | 777  | 262 1806  |
| XBFPOUT_GOOD   | U    | 007EC0 | 1      | 1198 | 1227 1807   |
| XBFPOUT_NUM    | U    | 00000E | 1      | 1227 | 1808  |
| XBFPRMCT       | U    | 0000C0 | 1      | 750  | 278   |
| XBFPRMO        | U    | 003300 | 0      | 781  | 280 1814  |
| XBFPRMOF       | U    | 003F00 | 0      | 783  | 281 1818  |
| XBFPRMOF_GOOD  | U    | 00A140 | 1      | 1486 | 1559 1819   |
| XBFPRMOF_NUM   | U    | 000024 | 1      | 1559 | 1820  |
| XBFPRMO_GOOD   | U    | 008340 | 1      | 1242 | 1483 1815   |
| XBFPRMO_NUM    | U    | 000078 | 1      | 1483 | 1816  |
| =AL2(L'MSGMSG) | R    | 00ADFE | 2      | 1826 | 1741  |
| =CL6'Got: '    | C    | 00AE06 | 6      | 1828 | 1687  |

| SYMBOL       | TYPE | VALUE  | LENGTH | DEFN | REFERENCES |
|--------------|------|--------|--------|------|------------|
| =CL6'Want: ' | C    | 00AE00 | 6      | 1827 | 1659       |
| =H'0'        | H    | 00ADFC | 2      | 1825 | 1736       |

MACRO DEFN REFERENCES

No defined macros

| DESC | SYMBOL | SIZE | POS | ADDR |
|------|--------|------|-----|------|
|------|--------|------|-----|------|

Entry: 0

|        |          |       |           |           |
|--------|----------|-------|-----------|-----------|
| Image  | IMAGE    | 44556 | 0000-AE0B | 0000-AE0B |
| Region |          | 44556 | 0000-AE0B | 0000-AE0B |
| CSECT  | BFPLDFPI | 44556 | 0000-AE0B | 0000-AE0B |

STMT

FILE NAME

1 c:\Users\Fish\Documents\Visual Studio 2008\Projects\MyProjects\ASMA-0\bfp-003-loadfpi\bfp-003-loadfpi.asm

\*\* NO ERRORS FOUND \*\*