```
CLEAR STORAGE 1     ,008015,022026,030037,044,049,053053N000000N00001026                                    1
CLEAR STORAGE 2     L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0?                  2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039              ,0010011040                 3

                          1401 FORTRAN SYSTEM   VERSION THREE                      50003              PAGE    1

 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   273    JOB   1401 FORTRAN SYSTEM   VERSION THREE
 102  1 02          CTL   645 11
 103  1 03          ORG   111                                                                 0111
 104  1 04   XDOAD1 DCW   #1                                                        1  0111                      4
 105  1 05   XDOAD2 DCW   #1                                                        1  0112                      4
 106  1 06   XDOAD3 DCW   #1                                                        1  0113                      4
 107  1 07   XDOINI DCW   #1                                                        1  0114                      4
 108  1 08   XOBLST DCW   #1                                                        1  0115                      4
 109  1 09   XDOSBS DCW   #1                                                        1  0116                      4
 110  1 10   XCOMF1 DCW   #1                                                        1  0117                      4
 111  1 11   XSINFU DCW   #1                                                        1  0118                      5
 112  1 12   XLOGFN DCW   #1                                                        1  0119                      5
 113  1 13   XXPNTL DCW   #1                                                        1  0120                      5
 114  1 14   XATANF DCW   #1                                                        1  0121                      5
 115  1 15   XABSVA DCW   #1                                                        1  0122                      5
 116  1 16   XNEGTF DCW   #1                                                        1  0123                      5
 117  1 17   XFIXFU DCW   #1                                                        1  0124                      5
 118  1 18   XFLTFU DCW   #1                                                        1  0125                      6
 119  1 19   XSQRTF DCW   #1                                                        1  0126                      6
 120  1 20   XUSER1 DCW   #1                                                        1  0127                      6
 121  1 21   XUSER2 DCW   #1                                                        1  0128                      6
 122  1 22   XUSER3 DCW   #1                                                        1  0129                      6
 123  1 23   XUSER4 DCW   #1                                                        1  0130                      6
 124  1 24   XUSER5 DCW   #1                                                        1  0131                      6
 125  1 25   XUSER6 DCW   #1                                                        1  0132                      7
 126  1 26   XUSER7 DCW   #1                                                        1  0133                      7
 127  1 27   XUSER8 DCW   #1                                                        1  0134                      7
 128  1 28   XUSER9 DCW   #1                                                        1  0135                      7
 129  1 29   XUSR10 DCW   #1                                                        1  0136                      7
 130  1 30   XUSR11 DCW   #1                                                        1  0137                      7
 131  1 31   XUSR12 DCW   #1                                                        1  0138                      7
 132  1 32   XLINKF DCW   #1                                                        1  0139                      8
 133  1 33   NDTABL EQU   *&1                                                          0140
 134  1 34   ONEADR DCW   #3                 ADDRESS OF CONSTANT ONE                3  0142                      8
 135  1 35   ADTBLL DCW   #3                 NXBTM FOR STNUM TWO & RESORT 4         3  0145                      8
 136  1 36   BSAUCE DCW   #3                 BOTTOM OF OBJECT FOR RESORT            3  0148                      8
 137  1 37   GNSTMZ DCW   #3                 TOTAL NO OF DO-GENERATED STMTS         3  0151                      8
 138  1 38   PERIOD DCW   #3                 ADDRESS OF PERIOD (NO LIST)            3  0154                      8
 139  1 39   XEXPON DCW   #3                ADDRESS OF CONSTANT .1                  3  0157                      8
 140  1 40   PLUSDF DCW   #3          (PARAMA&2)-CONLST#16000S COMP. OF MACFLS       3  0160                      9
 141  1 41   MACFLS DCW   #3         COMPILE TIME ADR.&MACFLS#OBJ. TIME ADR.        3  0163                      9
 142  1 42          ORG   181                                                                 0181
 143  1 43   INTSTZ DCW   #3                 TOTAL NUMBER OF INPUT STATEMENTS       3  0183                     10
 144  1 44   GOGOGO EQU   *                  ADDRESS OF FIRST EXECUTABLE STMT          0183
 145  1 45   FAILSW DC    #1                 CRIPPLE GO CONDITION SWITCH            1  0184                     10
 146  1 46   XLINKW DCW   #1                 LOAD XLINK SWITCH                      1  0185                     10
 147  1 47   GOTOFN DCW   #3                 ADDR OF FUNC SELECT ROUTINE            3  0188                     10
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48   SUBSCR DCW   #3              OBJT TIME ADDR OF DOSBS FUNC     3  0191                    10
149  1 49   CONLST DCW   #3               ADR. OF POS. IMM. BEFORE ARRAYS 3  0194                    10
150  1 50   FUNCSW DC    #1                                            1  0195                    10
151  1 51          ORG   196                                                    0196
152  1 52          DCW   @V3M0@                                        4  0199                    10
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
153  1 53          JOB   1401 FORTRAN  SNAPSHOT ROUTINE
154  1 54          SFX   7
155  1 55   XXX    EQU   0                            7      0000
156  1 56   XL1    EQU   089                          7      0089
157  1 57   089    DCW   000                          7   3  0089                      11
158  1 58   XL3    EQU   099                          7      0099
159  1 59   099    DCW   000                          7   3  0099                      12
160  1 60          ORG   333                          7            0333
161  1 61          SBR   PRTXT&3                      7   4  0333  H 567               13
162  1 62          SBR   HLDXT&6                      7   4  0337  H 408               13
163  1 63          MCW   @000@,LINCT-2                7   7  0341  M 661 656           13
164  1 64          MCW   XL3, HLD32&6                 7   7  0348  M 099 415           13
165  1 65          MCW   XL1, HLD31&6                 7   7  0355  M 089 422           13
166  1 66          SBR   XL1, 1                       7   7  0362  H 089 001           13
167  1 67          SBR   XL3, 202                     7   7  0369  H 099 202           14
168  1 68          CS    332                          7   4  0376  / 332               14
169  1 69          CS                                 7   1  0380  /                   14
170  1 70          MCW   110,210                      7   7  0381  M 110 210           14
171  1 71          BSS   ONLY,F                      7   5  0388  B 621 F             14
172  1 72          CC    1                            7   2  0393  F 1                 14
173  1 73          MCW   094,250                      7   7  0395  M 094 250           14
174  1 74   HLDXT  SBR   216,XXX                      7   7  0402  H 216 000           15
175  1 75   HLD32  SBR   256,XXX                      7   7  0409  H 256 000           15
176  1 76   HLD31  SBR   244,XXX                      7   7  0416  H 244 000           15
177  1 77          W                                  7   1  0423  2                   15
178  1 78          CC    K                            7   2  0424  F K                 15
179  1 79          ZA    &2,PGCTR#2                   7   7  0426  ? 662 664           15
180  1 80   NULINE CS    332                          7   4  0433  / 332               15
181  1 81          CS                                 7   1  0437  /                   16
182  1 82          CC    J                            7   2  0438  F J                 16
183  1 83          MCW   LINCT,306                    7   7  0440  M 658 306           16
184  1 84          MCW                                7   1  0447  M                   16
185  1 85          SBR   MVHED&6                      7   4  0448  H 465               16
186  1 86          MCW   @9@, CTR-1                   7   7  0452  M 665 668           16
187  1 87   MVHED  MCW   CTR-1,XXX                    7   7  0459  M 668 000           16
188  1 88          MCW   HEAD                         7   4  0466  M 651               17
189  1 89          SBR   MVHED&6                      7   4  0470  H 465               17
190  1 90          A     @I0@, CTR#2                  7   7  0474  A 667 669           17
191  1 91          BWZ   MVHED, CTR-1, 2              7   8  0481  V 459 668 2         17
192  1 92          A     &1,LINCT-2                   7   7  0489  A 670 656           17
193  1 93          W                                  7   1  0496  2                   17
194  1 94   LOOP   SW    0&X3                         7   4  0497  , 0?0               17
195  1 95          MCW   0&X1,0&X3                    7   7  0501  M 0|0 0?0           18
196  1 96          BW    CMPAB,0&X1                   7   8  0508  V 520 0|0 1         18
197  1 97          CW    0&X3                         7   4  0516  ) 0?0               18
198  1 98   CMPAB  C     XL1,PARAMA&2                 7   7  0520  C 089 688           18
199  1 99          BU    CPL                          7   5  0527  B 568 /             18
200  2 00          W                                  7   1  0532  2                   18
201  2 01          WM                                 7   2  0533  2 )                 18
202  2 02   RSTRX  MCW   HLD31&6,XL1                  7   7  0535  M 422 089           19
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
203  2 03           MCW   HLD32&6,XL3                7  7  0542  M 415 099          19
204  2 04           CS    332                        7  4  0549  / 332              19
205  2 05           CS                               7  1  0553  /                  19
206  2 06           BSS   *&5,G                      7  5  0554  B 563 G            19
207  2 07           B     PRTXT                      7  4  0559  B 564              19
208  2 08           H                                7  1  0563  .                  19
209  2 09  PRTXT    B     0                          7  4  0564  B 000              20
210  2 10  CPL      SBR   XL1, 1&X1                  7  7  0568  H 089 0|1          20
211  2 11           BCE   INC, XL3-2, 2              7  8  0575  B 632 097 2        20
212  2 12           SBR   XL3, 201                   7  7  0583  H 099 201          20
213  2 13           W                                7  1  0590  2                  20
214  2 14           WM                               7  2  0591  2 )                20
215  2 15           A     &1,PGCTR                   7  7  0593  A 670 664          20
216  2 16           C     PGCTR,&15                  7  7  0600  C 664 672          21
217  2 17           BU    NULINE                     7  5  0607  B 433 /            21
218  2 18           S     PGCTR                      7  4  0612  S 664              21
219  2 19           CCB   NULINE,1                   7  5  0616  F 433 1            21
220  2 20  ONLY     MCW   @EXECUTED@,220             7  7  0621  M 680 220          21
221  2 21           W     RSTRX                      7  4  0628  2 535              21
222  2 22  INC      A     &1,XL3                     7  7  0632  A 670 099          21
223  2 23           B     LOOP                       7  4  0639  B 497              22
224  2 24  HEAD     DCW   @9........@               7  9  0651                      22
225  2 25           DCW   @9-@                       7  2  0653                      22
226  2 26  LINCT    DCW   00000                      7  5  0658                      22
227  2 27           LTORG *                          7        0659
                    DCW   @000@                      7  3  0661           LIT        22
                    DCW   &2                         7  1  0662           LIT        22
               PGCTR7 DCW #02                        7  2  0664           AREA       22
                    DCW   @9@                        7  1  0665           LIT        23
                    DCW   @I0@                       7  2  0667           LIT        23
               CTR  7 DCW #02                        7  2  0669           AREA       23
                    DCW   &1                         7  1  0670           LIT        23
                    DCW   &15                        7  2  0672           LIT        23
                    DCW   @EXECUTED@                 7  8  0680           LIT        23
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                   SFX CT  LOCN  INSTRUCTION TYPE  CARD

228  2 28           JOB   1401 FORTRAN  SYSTEM MONITOR AND PARAMETER CARD
229  2 29           SFX   A
230  2 30   PRMCD   DA    1X19                                        A      0681   0699              23
231  2 31   PARAM         6                                          A      0686              SBFLD
232  2 32   MONTER  MCW   BCLEAR-2,CCLEAR-2                          A   7  0700  M 831 828           24
233  2 33   ACLEAR  CS    0                                          A   4  0707  / 000               24
234  2 34           SBR   TCLEAR                                     A   4  0711  H 710               24
235  2 35           C     TCLEAR,CCLEAR                              A   7  0715  C 710 830           24
236  2 36           BU    ACLEAR                                     A   5  0722  B 707 /             24
237  2 37           SW    LOD&4                                      A   4  0727  , 758               24
238  2 38           MCW   TCLEAR,LOD&6                              A   7  0731  M 710 760           25
239  2 39           CW    LOD&4                                      A   4  0738  ) 758               25
240  2 40   CK      C     LOD&6,BCLEAR#3                             A   7  0742  C 760 833           25
241  2 41           BE    MONTOR                                     A   5  0749  B 769 S             25
242  2 42   LOD     LCA   @ @,0                        BLANK         A   7  0754  L 834 000           25
243  2 43           SBR   LOD&6                                     A   4  0761  H 760               25
244  2 44           B     CK                                         A   4  0765  B 742               25
245  2 45   TCLEAR  EQU   ACLEAR&3                                   A      0710
246  2 46   *RESTRICTIONS ON CLEAR ROUTINE
247  2 47   *               1. MUST CLEAR AT LEAST ONE CENTURY
248  2 48   *               2. CANNOT CLEAR ABOVE 4K
249  2 49   MONTOR  R     040                                        A   4  0769  1 040               26
250  2 50   NINE    MCW   &9,RDCNT                                   A   7  0773  M 835 837           26
251  2 51   INITAP  RTW   1,XBEGIN                                   A   8  0780  L %U1 838 R         26
252  2 52           BER   ERRTP                                      A   5  0788  B 797 L             26
253  2 53   INITXT  B     XBEGIN                                     A   4  0793  B 838               26
254  2 54   ERRTP   BSP   1                                          A   5  0797  U %U1 B             26
255  2 55           S     &1,RDCNT#1                                 A   7  0802  S 836 837           27
256  2 56           BWZ   INITAP,RDCNT,B                           A   8  0809  V 780 837 B         27
257  2 57           H     3333,3333                                  A   7  0817  . C33 C33           27
258  2 58           B     NINE                                       A   4  0824  B 773               27
259  2 59   CCLEAR  DCW   999                                        A   3  0830                      27
260  2 60           LTORG *                                          A             0831
               BCLEAR  DCW   #03                                    A   3  0833              AREA    27
                       DCW   @ @                                    A   1  0834              LIT     27
                       DCW   &9                                     A   1  0835              LIT     28
                       DCW   &1                                     A   1  0836              LIT     28
               RDCNTA  DCW   #01                                    A   1  0837              AREA    28
261  2 61   XBEGIN  EQU   *&1                                       A      0838
```

```
SEQ  PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION  TYPE   CARD
262   2 62           JOB    1401 FORTRAN  LOADER PHASE
263   2 63           FBEGN  LOADER,XL1,R,XL2,R,XL3,R,A                                          MACRO
264                  SFX    A                                                                  GEN
265          110     DCW    @LOADER@                                   A   6  0110             GEN     29
266          XL1     EQU    089                                        A      0089             GEN
267          089     DCW    000                                        A   3  0089             GEN     30
268          091     DC     00                                         A   2  0091             GEN     30
269          XL2     EQU    094                                        A      0094             GEN
270          094     DCW    000                                        A   3  0094             GEN     30
271          096     DC     00                                         A   2  0096             GEN     30
272          XL3     EQU    099                                        A      0099             GEN
273          099     DCW    000                                        A   3  0099             GEN     30
274          100     DC     0                                          A   1  0100             GEN     30
275   2 64   START   BCE    *&8,1,                        BLANK        A   8  0838  B 853 001          31
276   2 65           MCW    @N@,MONTOR                                 A   7  0846  M N49 769          31
277   2 66           CS     080                                        A   4  0853  / 080              31
278   2 67           SW     1,GM                                       A   7  0857  , 001 N29          31
279   2 68           SW     81,84                                      A   7  0864  , 081 084          31
280   2 69           CS     332                                        A   4  0871  / 332              31
281   2 70           CS                                                A   1  0875  /                  31
282   2 71           R                                                 A   1  0876  1                  32
283   2 72           LCA    19,PRMCD&18                                A   7  0877  L 019 699          32
284   2 73           C      PRMCD&4,@PARAM@                            A   7  0884  C 685 N54          32
285   2 74           BU     NOPRM                                      A   5  0891  B L24 /            32
286   2 75           SW     073                                        A   4  0896  , 073              32
287   2 76           SW     006,007                                    A   7  0900  , 006 007          32
288   2 77           SW     PARAM                                      A   4  0907  , 686              32
289   2 78           MCW    80,PARAM-1                                 A   7  0911  M 080 685          33
290   2 79           CS     0                        DETERMINE TOP OF  A   4  0918  / 000              33
291   2 80           SBR    LARRY#3                   MACHINE          A   4  0922  H N57              33
292   2 81           MCW    PARAM&2,DUM3#3                             A   7  0926  M 688 N60          33
293   2 82           B      UNPAK                                      A   4  0933  B Y76              33
294   2 83           MCW    DUM5#5,WK5                                 A   7  0937  M N65 O53          33
295   2 84           MCW    LARRY,DUM3                                 A   7  0944  M N57 N60          34
296   2 85           B      UNPAK                                      A   4  0951  B Y76              34
297   2 86           MCW    DUM5,WK51                                  A   7  0955  M N65 O48          34
298   2 87           A      &1,WK5                                     A   7  0962  A N66 O53          34
299   2 88           A      &1,WK51                                    A   7  0969  A N66 O48          34
300   2 89           CS     332                                        A   4  0976  / 332              34
301   2 90           CS                                                A   1  0980  /                  34
302   2 91           MESSG  @START OF FORTRAN COMPILATION@,28,1,J                               MACRO
303                  CC     1                                          A   2  0981  F 1          GEN     35
304                  CS     332                                        A   4  0983  / 332        GEN     35
305                  CS                                                A   1  0987  /            GEN     35
306                  MCW    @START OF FORTRAN COMPILATION@,28&200      A   7  0988  M N94 228    GEN     35
307                  W                                                 A   1  0995  2            GEN     35
308                  CC     J                                          A   2  0996  F J          GEN     35
309   2 92           MCW    WK5,231                                    A   7  0998  M O53 231          35
310   2 93           MCW    @MACHINE SIZE SPECIFIED IS @               A   4  1005  M O20              36
311   2 94           W                                                 A   1  1009  2                  36
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
312  2 95          CS    235                                                      A   4  1010  / 235              36
313  2 96          MCW   WK51,228                                                A   7  1014  M O48 228          36
314  2 97          MCW   @ACTUAL MACHINE SIZE IS @                              A   4  1021  M O43              36
315  2 98          BCE   EXIT,PARAM&9,T                                          A   8  1025  B |96 695 T        36
316  2 99          W                                                             A   1  1033  2                 36
317  3 00          C     WK51#5,WK5#5                                            A   7  1034  C O48 O53          37
318  3 01          BH    MSERR                                                   A   5  1041  B |77 U           37
319  3 02          C     WK5,@03900@                                             A   7  1046  C O53 O58          37
320  3 03          BL    EXIT                                                    A   5  1053  B |96 T           37
321  3 04          MESSG @MACHINE SIZE ERROR@,18,J                                                MACRO
322                CC    J                                                       A   2  1058  F J        GEN     37
323                CS    332                                                     A   4  1060  / 332      GEN     37
324                CS                                                            A   1  1064  /          GEN     37
325                MCW   @MACHINE SIZE ERROR@,18&200                             A   7  1065  M O76 218   GEN     38
326                W                                                             A   1  1072  2          GEN     38
327  3 05          B     L2PRM                                                   A   4  1073  B |89              38
328  3 06   MSERR  MCW   @SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@,267   A   7  1077  M P22 267         38
329  3 07          MCW   @ERROR - MACHINE SIZE @                                 A   4  1084  M P43             38
330  3 08          W                                                             A   1  1088  2                 38
331  3 09   L2PRM  MCW   LARRY,PARAM&2                                           A   7  1089  M N57 688         38
332  3 10   EXIT   MCW   PARAM&2,CLR&3                                          A   7  1096  M 688 /06         39
333  3 11   CLR    CS    0                                                       A   4  1103  / 000             39
334  3 12          SBR   CLR&3                                                   A   4  1107  H /06             39
335  3 13          C     CLR&3,&SYSGM                                            A   7  1111  C /06 P46         39
336  3 14          BU    CLR                                                     A   5  1118  B /03 /           39
337  3 15          R                                                             A   1  1123  1                 39
338  3 16          MZ    *-006,WORK&76                                           A   7  1124  Y /24 N01         39
339  3 17          MZ    *-006,ABIT&007                                          A   7  1131  Y /31 X07         40
340  3 18          MZ    *-6,ABIT2&7                                             A   7  1138  Y /38 Z80         40
341  3 19          MZ    *-6,CHAR-1                                              A   7  1145  Y /45 L87         40
342  3 20          MCW   NUMBER,WORK&003                                         A   7  1152  M N33 M28         40
343  3 21          MCW   PARAM&002,DUMMY&003                                     A   7  1159  M 688 /69         40
344  3 22   DUMMY  CW    0000                                                    A   4  1166  ) 000             40
345  3 23          SBR   STORE&006                                               A   4  1170  H T70             41
346  3 24   MOVE   BW    MVIPT,ENDSW                                             A   8  1174  V S11 Q28 1       41
347  3 25          BCE   SCANR,001,:                    5-8                      A   8  1182  B !70 001 :       41
348  3 26   PRMSG  MESSG @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@,70,1,1                              MACRO
349         PRMSG  CC    1                                                       A   2  1190  F 1        GEN     41
350                CS    332                                                     A   4  1192  / 332      GEN     41
351                CS                                                            A   1  1196  /          GEN     41
352                MCW   @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@,70&200     A   7  1197  M P87 270   GEN     41
353                W                                                             A   1  1204  2          GEN     42
354                CC    1                                                       A   2  1205  F 1        GEN     42
355  3 27          H     *-3                                                     A   4  1207  . S07             42
356  3 28   MVIPT  MCW   0072,WORK&075                                           A   7  1211  M 072 N00         42
357  3 29          MCW                                                           A   1  1218  M                 42
358  3 30          MCW                                                           A   1  1219  M                 42
359  3 31          BCE   SCANR,WORK&004,:                  5-8                  A   8  1220  B !70 M29 :       42
360  3 32   TOVL   BIN   PRTHD,    CARRIAGE OVERFLOW TEST - INITIALIZED          A   5  1228  B K67             43
361  3 33   M2PRT  CS    300                                                     A   4  1233  / 300             43
```

```
SEQ  PG LIN  LABEL   OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
362   3 34           CS                                          A   1  1237  /                   43
363   3 35           MCW   0072,0283                            A   7  1238  M 072 283            43
364   3 36           MCW   006,215                               A   7  1245  M 006 215            43
365   3 37           BCE   CMNT,WORK&4,C                        A   8  1252  B L58 M29 C          43
366   3 38   FSTNU   B     NEW                                   A   4  1260  B V46               43
367   3 39           BCE   NEW,WORK&009,0                        A   8  1264  B V46 M34 0         44
368   3 40           BCE   NEW,WORK&009,                         A   8  1272  B V46 M34           44
369   3 41           A     &1,CTUCD                              A   7  1280  A N66 Q24           44
370   3 42           BCE   *&8,CTUCD-1,0                         A   8  1287  B T02 Q23 0         44
371   3 43           MCW   @CONTINUE CD ERR@,300                 A   7  1295  M Q02 300           44
372   3 44           W                                           A   1  1302  2                   44
373   3 45           MCW   INILZ1,SEL&003                       A   7  1303  M N06 T13           45
374   3 46   SEL     MCW   0000,FIXED                           A   7  1310  M 000 Q31           45
375   3 47           SW    SEL&001                               A   4  1317  , T11              45
376   3 48           A     ONE,SEL&003                           A   7  1321  A N10 T13           45
377   3 49           CW    SEL&001                               A   4  1328  ) T11              45
378   3 50   SW1     NOP   CKLHC                                 A   4  1332  N Z73              45
379   3 51           BCE   SEL,FIXED,                  BLANK     A   8  1336  B T10 Q31          46
380   3 52           MCW   FIXED,*&8                             A   7  1344  M Q31 T58           46
381   3 53           BCE   ABIT,CHAR,0                           A   8  1351  B X00 L88 0         46
382   3 54           CHAIN 5                                                   MACRO
383                  BCE                                         A   1  1359  B           GEN    46
384                  BCE                                         A   1  1360  B           GEN    46
385                  BCE                                         A   1  1361  B           GEN    46
386                  BCE                                         A   1  1362  B           GEN    46
387                  BCE                                         A   1  1363  B           GEN    47
388   3 55   STORE   MCW   FIXED,0000                           A   7  1364  M Q31 000           47
389   3 56           SBR   STORE&006                             A   4  1371  H T70              47
390   3 57   INCTO   A     &1,TOTAL#5                            A   7  1375  A N66 Q07           47
391   3 58           C     STORE&6,&LDRND                        A   7  1382  C T70 Q10           47
392   3 59           BE    QUIT                                  A   5  1389  B K33 S             47
393   3 60   HSW     BCE   HOLLR,FIXED,H                        A   8  1394  B X51 Q31 H         47
394   3 61   HSW2    NOP   @B@,HSW                             A   7  1402  N Q11 T94           48
395   3 62   CMPAR   C     SEL&003,INILZ1                        A   7  1409  C T13 N06           48
396   3 63   SWTCH2  BIN   SEL,/                                 A   5  1416  B T10 /             48
397   3 64           SW    STORE&004                             A   4  1421  , T68              48
398   3 65   JUMP    MCW   STORE&006,XL2                        A   7  1425  M T70 094           48
399   3 66           CW    STORE&004                             A   4  1432  ) T68              48
400   3 67           MCW   N,JUMP                                A   7  1436  M N28 U25           49
401   3 68           MCW   N,SWTCH2                              A   7  1443  M N28 U16           49
402   3 69           A     TEN,COUNT                             A   7  1450  A N36 N03           49
403   3 70           BCE   TSTND,COUNT-1,5                       A   8  1457  B W69 N02 5         49
404   3 71           SW    ENDSW                                 A   4  1465  , Q28              49
405   3 72           BWZ   SEL,COUNT-001,2                      A   8  1469  V T10 N02 2         50
406   3 73           MCW   B,SWTCH2                             A   7  1477  M N11 U16           50
407   3 74   REMOVE  MCW   0&X2,OUT                            A   7  1484  M 0!0 N20           50
408   3 75           C     FORMAT,OUT                            A   7  1491  C N27 N20           50
409   3 76           BU    SEL                                   A   5  1498  B T10 /             50
410   3 77           MCW   @B@,HSW                             A   7  1503  M Q11 T94           51
411   3 78           MCW   0&X3,WORK6#6                         A   7  1510  M 0?0 Q17           51
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
412  3 79           MCW   @F@,WORK6-3                              A   7  1517  M Q18 Q14          51
413  3 80           MCW   WORK6,0&X3                              A   7  1524  M Q17 0?0          51
414  3 81           B     SEL                                      A   4  1531  B T10              51
415  3 82   SLASH   MCW   @@@,FIXED                               A   7  1535  M Q19 Q31          51
416  3 83           B     STORE                                    A   4  1542  B T64              52
417  3 84   NEW     MCW   @N@,FSTNU                               A   7  1546  M N49 S60          52
418  3 85           A     &1,STMNO#3                               A   7  1553  A N66 Q22          52
419  3 86           MCW   @N@,HSW                                 A   7  1560  M N49 T94          52
420  3 87           MCW   @N@,HSW2                                A   7  1567  M N49 U02          52
421  3 88           MCW   5,211                                   A   7  1574  M 005 211          52
422  3 89           S     CTUCD#2                                  A   4  1581  S Q24              53
423  3 09           MCW   @N@,SW1                                 A   7  1585  M N49 T32          53
424  3 91           MCS   STMNO,203                               A   7  1592  Z Q22 203          53
425  3 92           W                                              A   1  1599  2                  53
426  3 93           SW    STORE&004                                A   4  1600  , T68              53
427  3 94           MCW   STORE&006,LOADGM&006                    A   7  1604  M T70 W28          53
428  3 95           CW    STORE&4                                  A   4  1611  ) T68              53
429  3 96           MCW   M,JUMP                                   A   7  1615  M N37 U25          54
430  3 97   LOADGM  LCA   GM,0000                                 A   7  1622  L N29 000          54
431  3 98           SBR   XL3                                      A   4  1629  H 099              54
432  3 99           SBR   STORE&006                                A   4  1633  H T70              54
433  4 00           MCW   MARK,WORK&009                           A   7  1637  M N34 M34          54
434  4 01           MCW   B,SWTCH2                                 A   7  1644  M N11 U16          54
435  4 02           MCW   TWO,COUNT                                A   7  1651  M N13 N03          55
436  4 03           MCW   INILZ2,SEL&003                           A   7  1658  M N09 T13          55
437  4 04           B     SEL                                      A   4  1665  B T10              55
438  4 05   TSTND   C     0&X2,@DNE@                               A   7  1669  C 0!0 Q27          55
439  4 06           BU    SEL                                      A   5  1676  B T10 /            55
440  4 07           CW    ENDSW#1                                  A   4  1681  ) Q28              55
441  4 08           B     SEL                                      A   4  1685  B T10              55
442  4 09   ATSGN   MCW   @-@,FIXED                               A   7  1689  M Q29 Q31          56
443  4 10           B     STORE                                    A   4  1696  B T64              56
444  4 11   ABIT    BCE   INPUT,FIXED,                 ABIT       A   8  1700  B L73 Q31          56
445  4 12           BCE   INPUT,FIXED,|                          A   8  1708  B L73 Q31 |         56
446  4 13           BCE   SLASH,FIXED,/                          A   8  1716  B V35 Q31 /         56
447  4 14           BCE   ATSGN,FIXED,@                          A   8  1724  B W89 Q31 @         57
448  4 15           MCW   @*@,300                                A   7  1732  M Q30 300           57
449  4 16           MCW   KPROC                                    A   4  1739  M N48              57
450  4 17           MCW   FIXED#1                                 A   4  1743  M Q31              57
451  4 18           B     STORE                                    A   4  1747  B T64              57
452  4 19   HOLLR   MCW   STORE&6,XL1                             A   7  1751  M T70 089          57
453  4 20           MCW   @N@,HSW                                  A   7  1758  M N49 T94          58
454  4 21           MCW   @N@,HSW2                                 A   7  1765  M N49 U02          58
455  4 22           MCW   @B@,SW1                                  A   7  1772  M Q11 T32          58
456  4 23           MCW   4&X1,WORK3#3                            A   7  1779  M 0|4 Q34          58
457  4 24           BCE   *&9,WORK3-1,@                           A   8  1786  B Y02 Q33 @         58
458  4 25           BWZ   MYB2,WORK3-1,2                         A   8  1794  V Y17 Q33 2         59
459  4 26           MCW   WORK3-2,WORK3                          A   7  1802  M Q32 Q34          59
460  4 27           MCW   @00@                                    A   4  1809  M Q36              59
461  4 28           B     CMPAR                                    A   4  1813  B U09              59
```

```
SEQ  PG  LIN  LABEL   OP     OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE   CARD
462   4  29   MYB2    BCE    *&9,WORK3,@                  A   8  1817  B Y33 Q34 @         59
463   4  30           BWZ    ISTRI,WORK3,2                A   8  1825  V Y51 Q34 2         59
464   4  31           MCW    WORK3-2,WORK3                A   7  1833  M Q32 Q34           60
465   4  32           MCW    @0@,WORK3-2                  A   7  1840  M Q37 Q32           60
466   4  33           B      CMPAR                        A   4  1847  B U09               60
467   4  34   ISTRI   MCW    WORK3,SAV1#1                 A   7  1851  M Q34 Q38           60
468   4  35           MCW    WORK3-2,WORK3                A   7  1858  M Q32 Q34           60
469   4  36           MCW    SAV1,WORK3-2                 A   7  1865  M Q38 Q32           60
470   4  37           B      CMPAR                        A   4  1872  B U09               61
471   4  38   UNPAK   SBR    PKXT&3                       A   4  1876  H Z72               61
472   4  39           UNPAK  DUM3,DUM5                                                MACRO
473                    S      )0M005#2                     A   4  1880  S Q40       GEN     61
474                    S      )0L005#2                     A   4  1884  S Q42       GEN     61
475                    MZ     DUM3,)0M005-1                A   7  1888  Y N60 Q39   GEN     61
476                    MZ     DUM3-2,)0L005-1              A   7  1895  Y N58 Q41   GEN     61
477           )0J005   BWZ    )0K005, )0L005-1, 2          A   8  1902  V Z21 Q41 2 GEN     61
478                    A      @A0@, )0L005                 A   7  1910  A Q44 Q42   GEN     62
479                    B      )0J005                       A   4  1917  B Z02       GEN     62
480           )0K005   BWZ    )0P005, )0M005-1, 2          A   8  1921  V Z40 Q39 2 GEN     62
481                    A      @?4@, )0M005                 A   7  1929  A Q46 Q40   GEN     62
482                    B      )0K005                       A   4  1936  B Z21       GEN     62
483           )0P005   A      )0L005-1,)0M005              A   7  1940  A Q41 Q40   GEN     62
484                    MCW    DUM3,DUM5                    A   7  1947  M N60 N65   GEN     63
485                    MCW    )0M005                       A   4  1954  M Q40       GEN     63
486                    ZA     DUM5                         A   4  1958  ? N65       GEN     63
487                    MZ     *-4, DUM5                    A   7  1962  Y Z64 N65   GEN     63
488   4  40   PKXT    B      000                          A   4  1969  B 000               63
489   4  41   ABIT2   EQU    *&1                          A      1973                      
490   4  42   CKLHC   BCE    INPUT,FIXED,                 A   8  1973  B L73 Q31           63
491   4  43           S      &1,WORK3                     A   7  1981  S N66 Q34           64
492   4  44           C      WORK3,&000                   A   7  1988  C Q34 Q49           64
493   4  45           BU     STORE                        A   5  1995  B T64 /             64
494   4  46           MCW    @M@,HSW2                     A   7  2000  M Q50 U02           64
495   4  47           MCW    N,SW1                        A   7  2007  M N28 T32           64
496   4  48           MCW    SEL&3,XL1                    A   7  2014  M T13 089           65
497   4  49           C      0&X1,@,@                     A   7  2021  C 0|0 Q51           65
498   4  50           BE     STORE                        A   5  2028  B T64 S             65
499   4  51           MCW    STORE&6,*&7                  A   7  2033  M T70 !46           65
500   4  52           MCW    0,0                          A   7  2040  M 000 000           65
501   4  53           MCW    @,@                          A   4  2047  M Q51               65
502   4  54           SBR    STORE&6                      A   4  2051  H T70               66
503   4  55           A      &1,TOTAL                     A   7  2055  A N66 Q07           66
504   4  46           B      INCTO                        A   4  2062  B T75               66
505   4  57           B      STORE                        A   4  2066  B T64               66
506   4  58   SCANR   MCW    STORE&6,XL1                  A   7  2070  M T70 089           66
507   4  59           LCA    GM,0&X1                      A   7  2077  L N29 0|0           66
508   4  60           SBR    XL1                          A   4  2084  H 089               66
509   4  61           CC     1                            A   2  2088  F 1                 67
510   4  62           CS     332                          A   4  2090  / 332               67
511   4  63           CS                                  A   1  2094  /                   67
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
512  4 64           MCS   TOTAL,205                                    A  7  2095  Z Q07 205          67
513  4 65           MCW   @INPUT CHARACTERS@,222                       A  7  2102  M Q67 222          67
514  4 66           W                                                  A  1  2109  2                 67
515  4 67           CC    J                                            A  2  2110  F J               67
516  4 68           MCW   STMNO,INTSTZ                                 A  7  2112  M Q22 183          68
517  4 69           LCA   @ }POTS:R000@,0&X1          G-M,5-8        A  7  2119  L Q78 0|0          68
518  4 70           SBR   XL1                                          A  4  2126  H 089             68
519  4 71           SW    2&X1                                         A  4  2130  , 0|2             68
520  4 72           A     &1,INTSTZ                                    A  7  2134  A N66 183          68
521  4 73           BCE   *&5,LDRND,                    BLANK          A  8  2141  B J53 ?00          68
522  4 74           B     QUIT                                         A  4  2149  B K33             69
523  4 75           SBR   TCLEAR,SYSGM                                 A  7  2153  H 710 R99          69
524  4 76           SBR   BCLEAR,XBEGIN                                A  7  2160  H 833 838          69
525  4 77           BSS   333,C                                        A  5  2167  B 333 C            69
526  4 78           LCA   @SCANNER@,110                                A  7  2172  L Q85 110          69
527  4 79           CS    080                                          A  4  2179  / 080             69
528  4 80           SW    1,40                                         A  7  2183  , 001 040          70
529  4 81           SW    47,54                                        A  7  2190  , 047 054          70
530  4 82           SW    61,68                                        A  7  2197  , 061 068          70
531  4 83           SW    72                                           A  4  2204  , 072             70
532  4 84           BCE   MONTER,MONTOR,N         TAPE SYSTEM         A  8  2208  B 700 769 N          70
533  4 85           R                                                  A  1  2216  1                 70
534  4 86           C     7,@SCANNER@                                  A  7  2217  C 007 Q92          71
535  4 87           BE    MONTER                                       A  5  2224  B 700 S            71
536  4 88           B     PRMSG                                        A  4  2229  B /90             71
537  4 89  QUIT     FQUIT                                                                 MACRO
538           QUIT  CS    332                                          A  4  2233  / 332       GEN   71
539                 CS                                                 A  1  2237  /           GEN   71
540                 CC    1                                            A  2  2238  F 1         GEN   71
541                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   A  7  2240  M R28 270   GEN   71
542                 W                                                  A  1  2247  2           GEN   72
543                 CC    1                                            A  2  2248  F 1         GEN   72
544                 BCE   *&6,MONTOR,1                                 A  8  2250  B K63 769 1 GEN   72
545                 RWD   1                                            A  5  2258  U %U1 R     GEN   72
546                 H     *-3                                          A  4  2263  . K63       GEN   72
547  4 90  PRTHD    CC    1                                            A  2  2267  F 1               72
548  4 91           MCW   @@@,TOVL&4                                   A  7  2269  M Q19 S32          72
549  4 92           CS    299                                          A  4  2276  / 299             73
550  4 93           A     ONE,PGNO#003                                 A  7  2280  A N10 R31          73
551  4 94           MCS   PGNO,299                                     A  7  2287  Z R31 299          73
552  4 95           MCW   @   PAGE @,295                              A  7  2294  M R39 295          73
553  4 96           MCW   080                                          A  4  2301  M 080             73
554  4 97           W                                                  A  1  2305  2                 73
555  4 98           CS    299                                          A  4  2306  / 299             73
556  4 99           MCW   KFSM,234                                    A  7  2310  M M23 234          74
557  5 00           W                                                  A  1  2317  2                 74
558  5 01           CC    J                                            A  2  2318  F J               74
559  5 02           B     M2PRT                                        A  4  2320  B S33             74
560  5 03  NOPRM    MESSG @MESSAGE 3 - NO PARAMETER CARD@,70,1,1                                MACRO
561           NOPRM  CC    1                                            A  2  2324  F 1         GEN   74
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
562                 CS    332                                                      A   4  2326  / 332       GEN     74
563                 CS                                                             A   1  2330  /           GEN     74
564                 MCW   @MESSAGE 3 - NO PARAMETER CARD@,70&200                  A   7  2331  M R68 270   GEN     75
565                 W                                                              A   1  2338  2           GEN     75
566                 CC    1                                                        A   2  2339  F 1         GEN     75
567  5 04           BCE   *&6,MONTOR,1                                             A   8  2341  B L54 769 1         75
568  5 05           RWD   1                                                        A   5  2349  U %U1 R            75
569  5 06           H     *-3                                                      A   4  2354  . L54              75
570  5 07   CMNT    MCW   BLNK3#3,203                                             A   7  2358  M R71 203          75
571  5 08           MCW   005,211                                                  A   7  2365  M 005 211          76
572  5 09           W                                                              A   1  2372  2                  76
573  5 10   INPUT   BLC   SCANR                                                   A   5  2373  B !70 A            76
574  5 11           R                                                              A   1  2378  1                  76
575  5 12           B     MOVE                                                     A   4  2379  B /74              76
576  5 13   CHAR    DCW   @$@/|  @                        LAST TWO A-BIT,BLANK    A   6  2388                     76
577  5 14   KFSM    DCW   @ SEQ   STMNT      FORTRAN STATEMENT@                   A  35  2423                     77
578  5 15           DCW   @ @                                                      A   1  2424                     77
579  5 16   WORK    DS    01                                                       A      2425
580  5 17           DS    76                                                       A      2501
581  5 18   COUNT   DCW   #2                                                       A   2  2503                     78
582  5 19   INILZ1  DSA   &WORK&010                                                A   3  2506  M35               78
583  5 20   INILZ2  DSA   &WORK                                                    A   3  2509  M25               78
584  5 21   ONE     DCW   @1@                                                      A   1  2510                     78
585  5 22   B       DC    @B@                                                      A   1  2511                     78
586  5 23   TWO     DC    @20@                                                     A   2  2513                     78
587  5 24   OUT     DCW   @       @                                                A   7  2520                     78
588  5 25   FORMAT  DCW   @%TAMROF@                                               A   7  2527                     78
589  5 26   N       DC    @N@                                                      A   1  2528                     78
590  5 27   GM      DC    @}@                              GROUP MARK              A   1  2529           GMARK     78
591  5 28   NUMBER  DCW   @000R@                                                  A   4  2533                     78
592  5 29   MARK    DCW   @:@                              5-8                     A   1  2534                     79
593  5 30   TEN     DCW   @10@                                                    A   2  2536                     79
594  5 31   M       DC    @M@                                                      A   1  2537                     79
595  5 32   KPROC   DCW   @ PROCESSED @                                           A  11  2548                     79
596  5 33           LTORG *                                                        A          2549
                    DCW   @N@                                                      A   1  2549           LIT       79
                    DCW   @PARAM@                                                  A   5  2554           LIT       79
               LARRYA DCW   #03                                                    A   3  2557           AREA      79
               DUM3 A DCW   #03                                                    A   3  2560           AREA      79
               DUM5 A DCW   #05                                                    A   5  2565           AREA      80
                    DCW   &1                                                       A   1  2566           LIT       80
                    DCW   @START OF FORTRAN COMPILATION@                           A  28  2594           LIT       80
                    DCW   @MACHINE SIZE SPECIFIED IS @                             A  26  2620           LIT       81
                    DCW   @ACTUAL MACHINE SIZE IS @                                A  23  2643           LIT       82
               WK51 A DCW   #05                                                    A   5  2648           AREA      82
               WK5  A DCW   #05                                                    A   5  2653           AREA      82
                    DCW   @03900@                                                  A   5  2658           LIT       82
                    DCW   @MACHINE SIZE ERROR@                                     A  18  2676           LIT       83
                    DCW   @SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@         A  46  2722           LIT       85
                    DCW   @ERROR - MACHINE SIZE @                                  A  21  2743           LIT       85
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
                    DCW   &SYSGMA                                    A  3  2746  R99         ADCON  85
                    DCW   @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@ A 41  2787              LIT    87
                    DCW   @CONTINUE CD ERR@                          A 15  2802              LIT    87
              TOTALA DCW  #05                                        A  5  2807              AREA   87
                    DCW   &LDRNDA                                    A  3  2810  ?00         ADCON  87
                    DCW   @B@                                        A  1  2811              LIT    87
              WORK6A DCW  #06                                        A  6  2817              AREA   88
                    DCW   @F@                                        A  1  2818              LIT    88
                    DCW   @@@                                        A  1  2819              LIT    88
              STMNOA DCW  #03                                        A  3  2822              AREA   88
              CTUCDA DCW  #02                                        A  2  2824              AREA   88
                    DCW   @DNE@                                      A  3  2827              LIT    88
              ENDSWA DCW  #01                                        A  1  2828              AREA   88
                    DCW   @-@                                        A  1  2829              LIT    89
                    DCW   @*@                                        A  1  2830              LIT    89
              FIXEDA DCW  #01                                        A  1  2831              AREA   89
              WORK3A DCW  #03                                        A  3  2834              AREA   89
                    DCW   @00@                                       A  2  2836              LIT    89
                    DCW   @0@                                        A  1  2837              LIT    89
              SAV1 A DCW  #01                                        A  1  2838              AREA   89
              )0M005 DCW  #02                                        A  2  2840              AREA   90
              )0L005 DCW  #02                                        A  2  2842              AREA   90
                    DCW   @A0@                                       A  2  2844              LIT    90
                    DCW   @?4@                                       A  2  2846              LIT    90
                    DCW   &000                                       A  3  2849              LIT    90
                    DCW   @M@                                        A  1  2850              LIT    90
                    DCW   @,@                                        A  1  2851              LIT    90
                    DCW   @INPUT CHARACTERS@                         A 16  2867              LIT    91
                    DCW   @ }POTS:R000@                              A 11  2878              LIT    91
                    DCW   @SCANNER@                                  A  7  2885              LIT    91
                    DCW   @SCANNER@                                  A  7  2892              LIT    92
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     A 36  2928              LIT    93
              PGNO A DCW  #03                                        A  3  2931              AREA   93
                    DCW   @   PAGE @                                 A  8  2939              LIT    94
                    DCW   @MESSAGE 3 - NO PARAMETER CARD@            A 29  2968              LIT    94
              BLNK3A DCW  #03                                        A  3  2971              AREA   95
597  5 34           ORG   *&X00                                      A           3000
598  5 35           ORG   *-1                                       A           2999
599  5 36   SYSGM   DCW   @}@            WORK AND SYSTEM GROUP MARK A  1  2999              GMARK  96
600  5 37   LDRND   EQU   *&1                                       A     3000
601  5 38           XFR   START                                      A           B 838               97
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
602  5 39          JOB   1401 FORTRAN  SCANNER PHASE
603  5 40   110    DCW   @:@                          5-8 FIRST CARD  A  1  0110                    100
604  5 41          FBEGN SCANNER,X1,R,,,,,B                                                MACRO
605                SFX   B                                                                 GEN
606          110   DCW   @SCANNER@                                    B  7  0110            GEN     101
607          X1    EQU   089                                          B     0089            GEN
608          089   DCW   000                                          B  3  0089            GEN     102
609          091   DC    00                                           B  2  0091            GEN     102
610  5 42          ORG   XBEGIN                                      B           0838
611  5 43   START  MCW   PARAMA&2,DUMMY&6                            B  7  0838  M 688 985          103
612  5 44          SW    PARAMA&3,PARAMA&5                          B  7  0845  , 689 691          103
613  5 45          BCE   *&5,PARAMA&4,                 BLANK        B  8  0852  B 864 690          103
614  5 46          B     *&8                                        B  4  0860  B 871              103
615  5 47          MCW   @05@,PARAMA&4                              B  7  0864  M M42 690          103
616  5 48          BCE   *&5,PARAMA&6,                 BLANK        B  8  0871  B 883 692          104
617  5 49          B     *&8                                        B  4  0879  B 890              104
618  5 50          MCW   @08@,PARAMA&6                              B  7  0883  M M44 692          104
619  5 51          C     PARAMA&4,@01@                              B  7  0890  C 690 M46          104
620  5 52          BH    RDXER                                      B  5  0897  B U69 U            104
621  5 53          C     PARAMA&4,@20@                              B  7  0902  C 690 M48          104
622  5 54          BL    RDXER                                      B  5  0909  B U69 T            105
623  5 55   CKCMT  C     PARAMA&6,@20@                              B  7  0914  C 692 M48          105
624  5 56          BL    MNTER                                      B  5  0921  B U95 T            105
625  5 57          C     PARAMA&6,@02@                              B  7  0926  C 692 M50          105
626  5 58          BH    MNTER                                      B  5  0933  B U95 U            105
627  5 59   PRDX   CS    332                                        B  4  0938  / 332              105
628  5 60          CS                                               B  1  0942  /                  105
629  5 61          MCW   @MODULUS IS@,210                          B  7  0943  M M60 210          106
630  5 62          MCS   PARAMA&4,213                              B  7  0950  Z 690 213          106
631  5 63          W                                                B  1  0957  2                  106
632  5 64          CS    299                                        B  4  0958  / 299              106
633  5 65          MCW   @MANTISSA IS@,211                        B  7  0962  M M71 211          106
634  5 66          MCS   PARAMA&6,214                              B  7  0969  Z 692 214          106
635  5 67          W                                                B  1  0976  2                  106
636  5 68          CC    J                                          B  2  0977  F J                107
637  5 69   DUMMY  BCE   DUMMY,0000,0                               B  8  0979  B 979 000 0        107
638  5 70          BCE                                              B  1  0987  B                  107
639  5 71          SBR   MARTY&6                                    B  4  0988  H T24              107
640  5 72          SBR   REMV&003                                   B  4  0992  H 999              107
641  5 73   REMV   LCA   0000,WORK                                   B  7  0996  L 000 L97          107
642  5 74          SAR   REMV&003                                   B  4  1003  Q 999              107
643  5 75          MCW   NMBR,WORK                                  B  7  1007  M M00 L97          108
644  5 76          A     ONE,NMBR                                   B  7  1014  A M01 M00          108
645  5 77          BCE   REPLCE,WORK-3,F                           B  8  1021  B T14 L94 F        108
646  5 78          SBR   TWLV58&6,WORK-4                           B  7  1029  H |49 L93          108
647  5 79          SBR   FIRST,WORK-5                              B  7  1036  H M04 L92          108
648  5 80   TWLV58 BCE   ARITH1,WORK-4,:          5-8   UNDEFINED CHAR.. B  8  1043  B |75 L93 :      109
649  5 81          SBR   TWLV58&006                                B  4  1051  H |49              109
650  5 82          SBR   LENNY&006                                 B  4  1055  H |65              109
651  5 83   LENNY  BCE   LENNY,0000,                               B  8  1059  B |59 000          109
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
652  5 84           SBR   FIRST                                    B  4  1067  H M04              109
653  5 85           B     TWLV58                                   B  4  1071  B |43              109
654  5 86   ARITH1  MCW   FIRST,TEST1&006                         B  7  1075  M M04 |95          109
655  5 87           MCW   FIRST,TEST2&006                         B  7  1082  M M04 /08          110
656  5 88   TEST1   BCE   ENCODE,0000,}          GROUP MARK       B  8  1089  B /73 000 } GMARK  110
657  5 89           BCE                                            B  1  1097  B                 110
658  5 90           SBR   TEST1&6                                 B  4  1098  H |95              110
659  5 91   TEST2   BCE   ARITH2,0000,#                          B  8  1102  B /19 000 #        110
660  5 92           BCE                                            B  1  1110  B                 110
661  5 93           SBR   TEST2&6                                 B  4  1111  H /08              110
662  5 94           B     TEST1                                    B  4  1115  B |89              111
663  5 95   ARITH2  SW    TEST1&004                                B  4  1119  , |93              111
664  5 96           MCW   TEST1&006,SEL&003                       B  7  1123  M |95 /37          111
665  5 97           CW    TEST1&004                                B  4  1130  ) |93              111
666  5 98   SEL     MCW   0000,FIXED                               B  7  1134  M 000 M05          111
667  5 99           SAR   SEL&003                                 B  4  1141  Q /37              111
668  6 00           BCE   CKFUN, FIXED,%                         B  8  1145  B T49 M05 %        111
669  6 01           BCE   CKFUN, FIXED,}          GROUP MARK       B  8  1153  B T49 M05 } GMARK  112
670  6 02           BCE   ENCODE,FIXED,,                         B  8  1161  B /73 M05 ,        112
671  6 03           B     SEL                                      B  4  1169  B /34              112
672  6 04   ENCODE  MCW   FIRST,GRAB10&003                       B  7  1173  M M04 /83          112
673  6 05   GRAB10  MCW   0000,FRONT                             B  7  1180  M 000 M15          112
674  6 06           SW    FRONT                                    B  4  1187  , M15             112
675  6 07           SW                                             B  1  1191  ,                 112
676  6 08           MCW   FRONT,SCFB&007                         B  7  1192  M M15 S06          113
677  6 09   SCFB    BCE   STORE1,CODE,          COLUMN 39 MODIFIED B  8  1199  B S37 M24        113
678  6 10           CHAIN 3                                                                MACRO
679                 BCE                                            B  1  1207  B               GEN  113
680                 BCE                                            B  1  1208  B               GEN  113
681                 BCE                                            B  1  1209  B               GEN  113
682  6 11           MCW   FRONT-001,AUNIQ&007                    B  7  1210  M M14 S24          113
683  6 12   AUNIQ   BCE   STORE2,CODE-004,          COLUMN 39 MODIFIED B  8  1217  B S71 M20        113
684  6 13           CHAIN 4                                                                MACRO
685                 BCE                                            B  1  1225  B               GEN  114
686                 BCE                                            B  1  1226  B               GEN  114
687                 BCE                                            B  1  1227  B               GEN  114
688                 BCE                                            B  1  1228  B               GEN  114
689  6 14           SW    WORK-003                                 B  4  1229  , L94             114
690  6 15           B     EASY                                     B  4  1233  B U22             114
691  6 16   STORE1  C     FRONT-2,@ESN@       SENSE LIGHT          B  7  1237  C M13 M74         114
692  6 17           BE    SENSE                                    B  5  1244  B S60 S           115
693  6 18           MCW   FRONT,WORK-003                          B  7  1249  M M15 L94         115
694  6 19           B     CLEAR                                    B  4  1256  B T09             115
695  6 20   SENSE   MCW   @J@,WORK-3                             B  7  1260  M M75 L94         115
696  6 21           B     CLEAR                                    B  4  1267  B T09             115
697  6 22   STORE2  MCW   FRONT-001,WORK-003                      B  7  1271  M M14 L94         115
698  6 23           BCE   *&5,AUNIQ&7,N                            B  8  1278  B S90 S24 N       116
699  6 24           B     CLEAR                                    B  4  1286  B T09             116
700  6 25           C     FRONT-2,@ELIFD@                          B  7  1290  C M13 M80         116
701  6 26           BE    CLEAR                                    B  5  1297  B T09 S           116
```

```
SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
702   6 27          MCW   @/@,WORK-3                                B   7  1302  M M81 L94          116
703   6 28   CLEAR  CW    FRONT                                     B   4  1309  ) M15              116
704   6 29          CW                                              B   1  1313  )                  116
705   6 30   REPLCE CW    WORK-003                                  B   4  1314  ) L94              117
706   6 31   MARTY  LCA   WORK,0000                                 B   7  1318  L L97 000          117
707   6 32          SBR   MARTY&006                                 B   4  1325  H T24              117
708   6 33          SBR   END&006                                   B   4  1329  H T43              117
709   6 34          SBR   083                                       B   4  1333  H 083              117
710   6 35   END    BCE   RELOKT,0000,                             B   8  1337  B W72 000          117
711   6 36          B     REMV                                      B   4  1345  B 996              117
712   6 37   CKFUN  MCW   TEST2&6,X1                                B   7  1349  M /08 089          118
713   6 38          BCE   MAYFN,1&X1,)                              B   8  1356  B T69 0|1 )        118
714   6 39          BCE                                             B   1  1364  B                  118
715   6 40          B     REPLCE                                    B   4  1365  B T14              118
716   6 41   MAYFN  BCE   NDFND,2&X1,%                             B   8  1369  B T85 0|2 %        118
717   6 42          SBR   X1                                        B   4  1377  H 089              118
718   6 43          B     MAYFN                                     B   4  1381  B T69              118
719   6 44   NDFND  BCE   PROBF,3&X1,F                             B   8  1385  B T97 0|3 F        119
720   6 45          B     REPLCE                                    B   4  1393  B T14              119
721   6 46   PROBF  BCE   REPLCE,6&X1,:              5-8            B   8  1397  B T14 0|6 :        119
722   6 47          BCE                                             B   1  1405  B                  119
723   6 48          BCE                                             B   1  1406  B                  119
724   6 49          MCW   @R@,WORK-3                                B   7  1407  M M82 L94          119
725   6 50          SW    FUNCSW                                    B   4  1414  , 195              119
726   6 51          B     REPLCE                                    B   4  1418  B T14              120
727   6 52   EASY   CW    FRONT                                     B   4  1422  ) M15              120
728   6 53          CW                                              B   1  1426  )                  120
729   6 54          C     FRONT,SNSE                 IF SENSE SWITCH B   7  1427  C M15 M32          120
730   6 55          BIN   DO,/                                      B   5  1434  B V21 /            120
731   6 56          BCE   LIGHT,FRONT-8,L                           B   8  1439  B U58 M07 L        120
732   6 57          MCW   CONST,WORK-003                            B   7  1447  M M40 L94          120
733   6 58          B     REPLCE                                    B   4  1454  B T14              121
734   6 59   LIGHT  MCW   @K@,WORK-3                                B   7  1458  M M83 L94          121
735   6 60          B     REPLCE                                    B   4  1465  B T14              121
736   6 61   RDXER  MESSG @ERROR 42 - MODULUS@,18,,J                                        MACRO
737          RDXER  CS    332                                       B   4  1469  / 332        GEN   121
738                 CS                                              B   1  1473  /            GEN   121
739                 MCW   @ERROR 42 - MODULUS@,18&200               B   7  1474  M N01 218    GEN   121
740                 W                                               B   1  1481  2            GEN   121
741                 CC    J                                         B   2  1482  F J          GEN   122
742   6 62          MCW   @05@,PARAMA&4                            B   7  1484  M M42 690          122
743   6 63          B     CKCMT                                     B   4  1491  B 914              122
744   6 64   MNTER  MESSG @ERROR 43 - MANTISSA@,19,,J                                       MACRO
745          MNTER  CS    332                                       B   4  1495  / 332        GEN   122
746                 CS                                              B   1  1499  /            GEN   122
747                 MCW   @ERROR 43 - MANTISSA@,19&200              B   7  1500  M N20 219    GEN   122
748                 W                                               B   1  1507  2            GEN   122
749                 CC    J                                         B   2  1508  F J          GEN   123
750   6 65          MCW   @08@,PARAMA&6                            B   7  1510  M M44 692          123
751   6 66          B     PRDX                                      B   4  1517  B 938              123
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
752  6 67   DO     BCE   PUT1,FRONT,D                  D FOR DO    B   8  1521  B V95 M15 D        123
753  6 68          BCE   PUT2,FRONT-002,%              3RD PAREN IF B   8  1529  B W06 M13 %        123
754  6 69          BCE   PUT3,FRONT-004,%              5TH PAREN GO TO B   8  1537  B W17 M11 %        123
755  6 70          BCE   PUT4,FRONT,G                  G FOR GO TO  B   8  1545  B W28 M15 G        124
756  6 71          BCE   PUT5,FRONT,P                  P FO PRINT   B   8  1553  B W39 M15 P        124
757  6 72          BWZ   PUT6,FRONT-004,2              5TH NUMERL READN B   8  1561  V W50 M11 2        124
758  6 73          BCE   PUT7,FRONT-005,D              6TH D FOR REWIND B   8  1569  B W61 M10 D        124
759  6 74          MCW   ONE,WORK-003                                B   7  1577  M M01 L94          124
760  6 75          MN    FRONT-005,WORK-003                          B   7  1584  D M10 L94          125
761  6 76          B     REPLCE                                      B   4  1591  B T14              125
762  6 77   PUT1   MCW   CONST-001,WORK-003                          B   7  1595  M M39 L94          125
763  6 78          B     REPLCE                                      B   4  1602  B T14              125
764  6 79   PUT2   MCW   CONST-002,WORK-003                          B   7  1606  M M38 L94          125
765  6 80          B     REPLCE                                      B   4  1613  B T14              125
766  6 81   PUT3   MCW   CONST-003,WORK-003                          B   7  1617  M M37 L94          126
767  6 82          B     REPLCE                                      B   4  1624  B T14              126
768  6 83   PUT4   MCW   CONST-004,WORK-003                          B   7  1628  M M36 L94          126
769  6 84          B     REPLCE                                      B   4  1635  B T14              126
770  6 85   PUT5   MCW   CONST-005,WORK-003                          B   7  1639  M M35 L94          126
771  6 86          B     REPLCE                                      B   4  1646  B T14              126
772  6 87   PUT6   MCW   CONST-006,WORK-003                          B   7  1650  M M34 L94          127
773  6 88          B     REPLCE                                      B   4  1657  B T14              127
774  6 89   PUT7   MCW   CONST-007,WORK-003                          B   7  1661  M M33 L94          127
775  6 90          B     REPLCE                                      B   4  1668  B T14              127
776  6 91   RELOKT FENDX C,,,,BEGINC,,CLRFCT,SORTER ONE                                  MACRO
777          RELOKT BSS   333,C                                     B   5  1672  B 333 C      GEN    127
778                 SBR   INITXT&3,BEGINC                          B   7  1677  H 796 |10    GEN    127
779                 SBR   TCLEAR,CLRFCT                            B   7  1684  H 710 N99    GEN    128
780                 LCA   @SORTER ONE@,110                         B   7  1691  L N30 110    GEN    128
781                 B     MONTER                                   B   4  1698  B 700        GEN    128
782  6 92           DCW   @ @                        BLANK         B   1  1702                      128
783  6 93           DCW   @ @                                      B   1  1703                      128
784  6 94           ORG   *&693                                    B            2397
785  6 95   WORK    DS    01                                       B       2397
786  6 96   NMBR    DCW   @001@                                    B   3  2400                      129
787  6 97   ONE     DCW   @1@                                      B   1  2401                      129
788  6 98   FIRST   DCW   #3                                       B   3  2404                      129
789  6 99   FIXED   DCW   #1                                       B   1  2405                      129
790  7 00   FRONT   DCW   #10                                      B  10  2415                      129
791  7 01   CODE    DC    @QINUABFCS@                              B   9  2424                      129
792  7 02   SNSE    DCW   @ESNES%FI@                              B   8  2432                      129
793  7 03   CONST   DC    @ZLPGTEDW@                               B   8  2440                      130
794  7 04           LTORG *                                        B            2441
                    DCW   @05@                                     B   2  2442              LIT    130
                    DCW   @08@                                     B   2  2444              LIT    130
                    DCW   @01@                                     B   2  2446              LIT    130
                    DCW   @20@                                     B   2  2448              LIT    130
                    DCW   @02@                                     B   2  2450              LIT    131
                    DCW   @MODULUS IS@                             B  10  2460              LIT    131
                    DCW   @MANTISSA IS@                            B  11  2471              LIT    131
```

SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@ESN@		B	3	2474		LIT	131
				DCW	@J@		B	1	2475		LIT	131
				DCW	@ELIFD@		B	5	2480		LIT	131
				DCW	@/@		B	1	2481		LIT	131
				DCW	@R@		B	1	2482		LIT	132
				DCW	@K@		B	1	2483		LIT	132
				DCW	@ERROR 42 - MODULUS@		B	18	2501		LIT	132
				DCW	@ERROR 43 - MANTISSA@		B	19	2520		LIT	132
				DCW	@SORTER ONE@		B	10	2530		LIT	133
795	7	05		ORG	*&X00		B			2600		
796	7	06	CLRFCT	EQU	*		B		2599			
797	7	07		DCW	@}@	SYSTEM GROUP MARK	B	1	2600		GMARK	134
798	7	08		XFR	START		B			B 838		135

```
SEQ PG LIN  LABEL  OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
799  7 09          JOB    1401 FORTRAN  SORTER PHASE ONE
800  7 10          FBEGN  SORTER ONE,XL1,R,XL2,R,XL3,R,C,XXXX                          MACRO
801                 SFX    C                                                           GEN
802          XXXX   EQU    0                                        C      0000       GEN
803          110    DCW    @SORTER ONE@                             C  10  0110       GEN    138
804          XL1    EQU    089                                      C      0089       GEN
805          089    DCW    000                                      C   3  0089       GEN    139
806          091    DC     00                                       C   2  0091       GEN    139
807          XL2    EQU    094                                      C      0094       GEN
808          094    DCW    000                                      C   3  0094       GEN    139
809          096    DC     00                                       C   2  0096       GEN    139
810          XL3    EQU    099                                      C      0099       GEN
811          099    DCW    000                                      C   3  0099       GEN    139
812          100    DC     0                                        C   1  0100       GEN    139
813  7 11          ORG    XBEGIN                                   C          0838
814  7 12   TABLE  DA     40X3,C                                   C      0838  0957            139
815  7 13          ORG    *&X00                                    C          1000
816  7 14          DS     6                                        C      1005
817  7 15   ZONE   DCW    @2SKB@                                   C   4  1009                  150
818  7 16   BEGIN  CS     CLRFCT                                   C   4  1010  / N99           150
819  7 17          CHAIN  8                                                           MACRO
820                 CS                                              C   1  1014  /       GEN    150
821                 CS                                              C   1  1015  /       GEN    150
822                 CS                                              C   1  1016  /       GEN    150
823                 CS                                              C   1  1017  /       GEN    150
824                 CS                                              C   1  1018  /       GEN    150
825                 CS                                              C   1  1019  /       GEN    151
826                 CS                                              C   1  1020  /       GEN    151
827                 CS                                              C   1  1021  /       GEN    151
828  7 18   START  MCW    083,XL3                                  C   7  1022  M 083 099       151
829  7 19          MCM    2&X3                  GET LAST STATEMENT C   4  1029  P 0?2           151
830  7 20          MCW                           NUMBER            C   1  1033  M               151
831  7 21          SBR    XL3                                      C   4  1034  H 099           151
832  7 22          MCW    0&X3,WORK3#3                             C   7  1038  M 0?0 T52       152
833  7 23          ZA     WORK3,HOLD5#5         MULTIPLY BY THREE  C   7  1045  ? T52 T57      152
834  7 24          A      HOLD5                                    C   4  1052  A T57          152
835  7 25          A      WORK3,HOLD5                              C   7  1056  A T52 T57       152
836  7 26          S      &2,HOLD5                                 C   7  1063  S T58 T57       152
837  7 27          MCW    HOLD5,HLD5A#5                            C   7  1070  M T57 T63       152
838  7 28          MCW    @16000@,HOLD5                            C   7  1077  M T68 T57       153
839  7 29          S      HLD5A,HOLD5                              C   7  1084  S T63 T57       153
840  7 30          BAV    *&1                                      C   5  1091  B |96 Z         153
841  7 31   SUB    A      &96,HOLD5-3           COMPUTE NEW ADDRESS C   7  1096  A T70 T54       153
842  7 32          BAV    SUB                                      C   5  1103  B |96 Z         153
843  7 33          MN     HOLD5-3,*&4                              C   7  1108  D T54 /18       153
844  7 34          MZ     ZONE,HOLD5-2                             C   7  1115  Y |09 T55       154
845  7 35          MCW    083,XL1                                  C   7  1122  M 083 089       154
846  7 36          MCW    XL1,NOP&3                                C   7  1129  M 089 /53       154
847  7 37          MCW    HOLD5,XL2                                C   7  1136  M T57 094       154
848  7 38          MZ     @J@,NOP&2                                C   7  1143  Y T71 /52       154
```

```
SEQ PG LIN  LABEL   OP     OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
849  7 39   NOP     NOP    XXXX                                         C   4  1150  N 000            154
850  7 40           SAR    XL2                                          C   4  1154  Q 094            155
851  7 41           UNPAK  XL2,HOLD5                                                   MACRO
852                 S      )0M013#2                                     C   4  1158  S T73       GEN  155
853                 S      )0L013#2                                     C   4  1162  S T75       GEN  155
854                 MZ     XL2,)0M013-1                                 C   7  1166  Y 094 T72   GEN  155
855                 MZ     XL2-2,)0L013-1                               C   7  1173  Y 092 T74   GEN  155
856          )0J013 BWZ    )0K013, )0L013-1, 2                          C   8  1180  V /99 T74 2 GEN  155
857                 A      @A0@, )0L013                                 C   7  1188  A T77 T75   GEN  156
858                 B      )0J013                                       C   4  1195  B /80       GEN  156
859          )0K013 BWZ    )0P013, )0M013-1, 2                          C   8  1199  V S18 T72 2 GEN  156
860                 A      @?4@, )0M013                                 C   7  1207  A T79 T73   GEN  156
861                 B      )0K013                                       C   4  1214  B /99       GEN  156
862          )0P013 A      )0L013-1,)0M013                              C   7  1218  A T74 T73   GEN  156
863                 MCW    XL2,HOLD5                                    C   7  1225  M 094 T57   GEN  157
864                 MCW    )0M013                                       C   4  1232  M T73       GEN  157
865                 ZA     HOLD5                                        C   4  1236  ? T57       GEN  157
866                 MZ     *-4, HOLD5                                   C   7  1240  Y S42 T57   GEN  157
867  7 42           C      HOLD5,@02900@                                C   7  1247  C T57 T84       157
868  7 43           BL     MOVE                                         C   5  1254  B S93 T         157
869  7 44           FQUIT                                                            MACRO
870                 CS     332                                          C   4  1259  / 332       GEN  157
871                 CS                                                  C   1  1263  /           GEN  158
872                 CC     1                                            C   2  1264  F 1         GEN  158
873                 MCW    @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   C   7  1266  M U20 270   GEN  158
874                 W                                                   C   1  1273  2           GEN  158
875                 CC     1                                            C   2  1274  F 1         GEN  158
876                 BCE    *&6,MONTOR,1                                 C   8  1276  B S89 769 1 GEN  158
877                 RWD    1                                            C   5  1284  U %U1 R     GEN  158
878                 H      *-3                                          C   4  1289  . S89       GEN  159
879  7 45   MOVE    MCW    XL2,083                                      C   7  1293  M 094 083       159
880  7 46           MCM    0&X1                                         C   4  1300  P 0|0           159
881  7 47           SAR    XL1                                          C   4  1304  Q 089           159
882  7 48           FENDX  C,,,START,NUSTM,START,SYSMK,SORT 2                       MACRO
883                 BSS    333,C                                        C   5  1308  B 333 C     GEN  159
884                 SBR    INITAP&6,START                               C   7  1313  H 786 |22   GEN  159
885                 SBR    BCLEAR                                       C   4  1320  H 833       GEN  159
886                 SBR    INITXT&3,NUSTM                               C   7  1324  H 796 |22   GEN  160
887                 SBR    TCLEAR,SYSMK                                 C   7  1331  H 710 U27   GEN  160
888                 LCA    @SORT 2@,110                                 C   7  1338  L U26 110   GEN  160
889                 B      MONTER                                       C   4  1345  B 700       GEN  160
890  7 49           DCW    0                                            C   1  1349                  160
891  7 50           LTORG  *                                            C            1350
             WORK3C DCW    #03                                          C   3  1352           AREA  160
             HOLD5C DCW    #05                                          C   5  1357           AREA  160
                    DCW    &2                                           C   1  1358           LIT   161
             HLD5AC DCW    #05                                          C   5  1363           AREA  161
                    DCW    @16000@                                      C   5  1368           LIT   161
                    DCW    &96                                          C   2  1370           LIT   161
                    DCW    @J@                                          C   1  1371           LIT   161
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

           )0M013 DCW   #02                                        C   2  1373              AREA   161
           )0L013 DCW   #02                                        C   2  1375              AREA   161
                  DCW   @A0@                                       C   2  1377              LIT    162
                  DCW   @?4@                                       C   2  1379              LIT    162
                  DCW   @02900@                                    C   5  1384              LIT    162
                  DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     C  36  1420              LIT    163
                  DCW   @SORT 2@                                   C   6  1426              LIT    164
892  7 51   SYSMK  DCW   @}@                    SYSTEM GROUP MARK   C   1  1427              GMARK  164
893  7 52          XFR   BEGIN                                      C          B |10             165
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
894  7 53           JOB   1401 FORTRAN  SORTER PHASE TWO
895  7 54   110     DCW   @SORT 2@                                C   6  0110                    168
896  7 55           ORG   START                                   C            1022
897  7 56   NUSTM   MCW   XL1,XL3                                 C   7  1022  M 089 099          169
898  7 57           SW    GM2                                     C   4  1029  , S19              169
899  7 58           MCM   0&X1                                    C   4  1033  P 0|0              169
900  7 59           MN                                            C   1  1037  D                  169
901  7 60           MN                                            C   1  1038  D                  169
902  7 61           SAR   XL1                                     C   4  1039  Q 089              169
903  7 62           LCA   0&X1, HOLD-3                            C   7  1043  L 0|0 Z19          169
904  7 63           MCM   0&X1                                    C   4  1050  P 0|0              170
905  7 64           SAR   XL1                                     C   4  1054  Q 089              170
906  7 65           MCM   0&X3,0&X2                               C   7  1058  P 0?0 0!0          170
907  7 66           SBR   XL2                                     C   4  1065  H 094              170
908  7 67           LCA   HOLD,1&X2                               C   7  1069  L Z22 0!1          170
909  7 68           S     XL3&1                                   C   4  1076  S 100              170
910  7 69           MCW   0&X2,HOLD6#6                           C   7  1080  M 0!0 !05          170
911  7 70           MN    HOLD6-5, XL3                            C   7  1087  D !00 099          171
912  7 71           MCW   XL3,SAVE3                             C   7  1094  M 099 !03          171
913  7 72           A     XL3                                     C   4  1101  A 099              171
914  7 73           A     SAVE3,XL3                               C   7  1105  A !03 099          171
915  7 74           BWZ   CNTU,HOLD6-5, 2                       C   8  1112  V /57 !00 2        171
916  7 75           A     &30,XL3                                 C   7  1120  A !07 099          172
917  7 76           BWZ   CNTU,HOLD6-5, S                       C   8  1127  V /57 !00 S        172
918  7 77           A     &30,XL3                                 C   7  1135  A !07 099          172
919  7 78           BWZ   CNTU,HOLD6-5, K                       C   8  1142  V /57 !00 K        172
920  7 79           A     &30,XL3                                 C   7  1150  A !07 099          172
921  7 80   CNTU    MCW   TABLE&2&X3,1&X2          INSERT TABLE ENTRY  C   7  1157  M 8D0 0!1          173
922  7 81           LCA   GM2,2&X2                                C   7  1164  L S19 0!2          173
923  7 82           SBR   TABLE&2&X3                             C   4  1171  H 8D0              173
924  7 83           MCM   2&X2                                    C   4  1175  P 0!2              173
925  7 84           SAR   XL2                                     C   4  1179  Q 094              173
926  7 85           C     XL2,PARAMA&2                            C   7  1183  C 094 688          173
927  7 86           BU    NUSTM                                   C   5  1190  B |22 /            173
928  7 87           FENDX C,GM2,,,,,END-1,SORT 3                                                MACRO
929                 BSS   333,C                                   C   5  1195  B 333 C     GEN  174
930                 SBR   TCLEAR,END-1                            C   7  1200  H 710 Q99   GEN  174
931                 LCA   @SORT 3@,110                            C   7  1207  L !13 110   GEN  174
932                 B     MONTER                                  C   4  1214  B 700       GEN  174
933  7 88           DCW   0                                       C   1  1218                    174
934  7 89   GM2     DC    @}@                       G-M           C   1  1219            GMARK  174
935  7 90           ORG   *&700                                   C            1920
936  7 91   HOLD    DC    #3                                      C   3  1922                    175
937  7 92           ORG   *&X00                                   C            2000
938  7 93   EOTWO   EQU   *&1                                     C       2000
939  7 94           LTORG *                                       C            2000
               HOLD6C DCW   #06                                   C   6  2005            AREA   176
                      DCW   &30                                   C   2  2007            LIT    176
                      DCW   @SORT 3@                              C   6  2013            LIT    176
940  7 95           DCW   @}@                       SYSTEM GROUP MARK   C   1  2014            GMARK  176
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
941	7	96		XFR	NUSTM	C		B |22		177

```
SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
942  7 97          JOB   1401 FORTRAN  SORTER PHASE 3
943  7 98   110    DCW   @SORT 3@                                C   6  0110                    180
944  7 99   X1     EQU   089                                     C      0089
945  8 00   X2     EQU   094                                     C      0094
946  8 01          ORG   START                                   C            1022
947  8 02   AGAIN  MCW   083,XL3                                 C   7  1022  M 083 099          181
948  8 03          SW    GM                                      C   4  1029  , Y06              181
949  8 04          SBR   XL1,END-1                               C   7  1033  H 089 Q99          181
950  8 05          SW    END                                     C   4  1040  , R00              181
951  8 06          MN    0&X3                                    C   4  1044  D 0?0              181
952  8 07          LCA   GM                                      C   4  1048  L Y06              181
953  8 08          SBR   PICK&6                                  C   4  1052  H /10              181
954  8 09          SBR   TBEGIN#3,LIST                           C   7  1056  H Y10 X99          182
955  8 10  NUTYP   MCW   TBEGIN,XL3                 GET LIST ENTRY  C   7  1063  M Y10 099          182
956  8 11          MCW   0&X3,XL3                                C   7  1070  M 0?0 099          182
957  8 12          SAR   TBEGIN                                  C   4  1077  Q Y10              182
958  8 13          BCE   EOJ,XL3,X                               C   8  1081  B W47 099 X        182
959  8 14          MCW   TABLE&2&X3,XL3          GET TABLE ENTRY C   7  1089  M 8D0 099          183
960  8 15          BCE   NUTYP,XL3,              ANY OF THIS TYPE C   8  1096  B |63 099          183
961  8 16  PICK    MCW   0&X3,XXXX               PICKUP STATEMENT C   7  1104  M 0?0 000          183
962  8 17          SAR   XL2                                     C   4  1111  Q 094              183
963  8 18          BCE   AOK1,1&X2,}              CAN IT FIT   G-M C   8  1115  B /27 0!1 } GMARK  183
964  8 19          B     PACK                                    C   4  1123  B S95              183
965  8 20  AOK1    SBR   XL2,2&X2                               C   7  1127  H 094 0!2          184
966  8 21  BACK5   MCM   0&X2                                   C   4  1134  P 0!0              184
967  8 22          SBR   SBR6&6                                 C   4  1138  H /67              184
968  8 23          MCM   0&X2,1&X1                             C   7  1142  P 0!0 0|1          184
969  8 24          SBR   X1                                    C   4  1149  H 089              184
970  8 25          MN    0&X1                                    C   4  1153  D 0|0              184
971  8 26          SBR   X1                                    C   4  1157  H 089              184
972  8 27  SBR6    SBR   X2,0                                  C   7  1161  H 094 000          185
973  8 28          BCE   BACK5,0&X1,|                          C   8  1168  B /34 0|0 |        185
974  8 29          SBR   X1,1&X1                               C   7  1176  H 089 0|1          185
975  8 30          CW    PAKSW                                 C   4  1183  ) Y07              185
976  8 31          MN    0&X1                                    C   4  1187  D 0|0              185
977  8 32          CHAIN 3                                                                MACRO
978                MN                                          C   1  1191  D                GEN    185
979                MN                                          C   1  1192  D                GEN    185
980                MN                                          C   1  1193  D                GEN    186
981  8 33          SAR   XL1                                   C   4  1194  Q 089              186
982  8 34          LCA   GM,0&X1                               C   7  1198  L Y06 0|0          186
983  8 35          SBR   083                                   C   4  1205  H 083              186
984  8 36          SBR   XL1                                   C   4  1209  H 089              186
985  8 37  PMOV1   MCM   1&X1                                  C   4  1213  P 0|1              186
986  8 38          MN                                          C   1  1217  D                  186
987  8 39          SAR   XL1                                   C   4  1218  Q 089              187
988  8 40          BCE   PMOV1,0&X1,|                          C   8  1222  B S13 0|0 |        187
989  8 41          MN    0&X3                                    C   4  1230  D 0?0              187
990  8 42          CHAIN 5                                                                MACRO
991                MN                                          C   1  1234  D                GEN    187
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
 992                MN                                C   1  1235  D           GEN    187
 993                MN                                C   1  1236  D           GEN    187
 994                MN                                C   1  1237  D           GEN    187
 995                MN                                C   1  1238  D           GEN    188
 996  8 43          SAR   XL3                         C   4  1239  Q 099              188
 997  8 44          MN    0&X1                        C   4  1243  D 0|0              188
 998  8 45          LCA   3&X3                        C   4  1247  L 0?3              188
 999  8 46          MCW   @#@,0&X3                    C   7  1251  M Y11 0?0          188
1000  8 47  PMOV2   MCM   2&X3                        C   4  1258  P 0?2              188
1001  8 48          MN                                C   1  1262  D                 188
1002  8 49          MN                                C   1  1263  D                 189
1003  8 50          SAR   XL3                         C   4  1264  Q 099              189
1004  8 51          BCE   PMOV2,1&X3,|                C   8  1268  B S58 0?1 |        189
1005  8 52          BCE   NUTYP,0&X3,                 C   8  1276  B |63 0?0          189
1006  8 53          MCW   0&X3,XL3                    C   7  1284  M 0?0 099          189
1007  8 54          B     PICK                        C   4  1291  B /04              189
1008  8 55  PACK    BW    CERR,PAKSW                  C   8  1295  V W88 Y07 1        190
1009  8 56          SW    PAKSW                       C   4  1303  , Y07              190
1010  8 57          MCW   PARAMA&2,XL2                C   7  1307  M 688 094          190
1011  8 58          MN    0&X2                        C   4  1314  D 0!0              190
1012  8 59          SAR   XL2                         C   4  1318  Q 094              190
1013  8 60          MCW   XL2,XL3                     C   7  1322  M 094 099          190
1014  8 61  LOOP1   LCA   0&X2,0&X3                   C   7  1329  L 0!0 0?0          191
1015  8 62          SAR   XL2                         C   4  1336  Q 094              191
1016  8 63          MCW   0&X3,WORK9#9                C   7  1340  M 0?0 Y20          191
1017  8 64          BCE   DONE,WORK9-6,#               C   8  1347  B T66 Y14 #        191
1018  8 65          LCA   0&X3,0&X3                   C   7  1355  L 0?0 0?0          191
1019  8 66          SAR   XL3                         C   4  1362  Q 099              191
1020  8 67  DONE    C     PICK&6,XL2                  C   7  1366  C /10 094          192
1021  8 68          BU    LOOP1                       C   5  1373  B T29 /            192
1022  8 69          MCW   XL3,PICK&6                  C   7  1378  M 099 /10          192
1023  8 70          MCW   XL3,XL2                     C   7  1385  M 099 094          192
1024  8 71          MZ    XL3,ALL92                   C   7  1392  Y 099 Y05          192
1025  8 72          MZ                                C   1  1399  Y                 192
1026  8 73          MCW                               C   1  1400  M                 192
1027  8 74          MZ    XL1,ALL9                    C   7  1401  Y 089 Y02          193
1028  8 75          MZ                                C   1  1408  Y                 193
1029  8 76          MCW                               C   1  1409  M                 193
1030  8 77          C     ALL9,ALL92                  C   7  1410  C Y02 Y05          193
1031  8 78          BE    ZADD                        C   5  1417  B U42 S            193
1032  8 79  CLEER   CS    0&X3                        C   4  1422  / 0?0              193
1033  8 80          SBR   XL3                         C   4  1426  H 099              193
1034  8 81          C     XL3,ALL9                    C   7  1430  C 099 Y02          194
1035  8 82          BU    CLEER                       C   5  1437  B U22 /            194
1036  8 83  ZADD    ZA    &39,SAVE3                   C   7  1442  ? Y22 !03          194
1037  8 84          S     XL3&1                       C   4  1449  S 100              194
1038  8 85  MUVE    MCW   BLNK3#3,TABLE&2&X3          C   7  1453  M Y25 8D0          194
1039  8 86          S     &1,SAVE3                    C   7  1460  S Y26 !03          194
1040  8 87          BM    EXIT,SAVE3                  C   8  1467  V U86 !03 K        195
1041  8 88          A     &3,XL3                      C   7  1475  A Y27 099          195
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1042  8 89          B     MUVE                                               C  4  1482  B U53              195
1043  8 90   EXIT   MCM   1&X2                                              C  4  1486  P 0!1              195
1044  8 91          MN                                                       C  1  1490  D                  195
1045  8 92          SAR   XL2                                                C  4  1491  Q 094              195
1046  8 93          BCE   EXIT,0&X2,|                                       C  8  1495  B U86 0!0 |         195
1047  8 94          SBR   XL2,1&X2                                           C  7  1503  H 094 0!1          196
1048  8 95          S     XL3&1                                              C  4  1510  S 100              196
1049  8 96          C     0&X2                                               C  4  1514  C 0!0              196
1050  8 97          SAR   *&4                                                C  4  1518  Q V25              196
1051  8 98          MCW   0,WORK9                                            C  7  1522  M 000 Y20          196
1052  8 99          MN    WORK9-6,XL3                                        C  7  1529  D Y14 099          196
1053  9 00          MCW   XL3,SAVE3                                          C  7  1536  M 099 !03         197
1054  9 01          A     XL3                                                C  4  1543  A 099              197
1055  9 02          A     SAVE3,XL3                                          C  7  1547  A !03 099         197
1056  9 03          BWZ   CNT,WORK9-6,2                                      C  8  1554  V V99 Y14 2        197
1057  9 04          A     &30,XL3                                            C  7  1562  A Y29 099          197
1058  9 05          BWZ   CNT,WORK9-6,S                                      C  8  1569  V V99 Y14 S        198
1059  9 06          A     &30,XL3                                            C  7  1577  A Y29 099          198
1060  9 07          BWZ   CNT,WORK9-6,K                                      C  8  1584  V V99 Y14 K        198
1061  9 08          A     &30,XL3                                            C  7  1592  A Y29 099          198
1062  9 09   CNT    MN    0&X2                                               C  4  1599  D 0!0              198
1063  9 10          MN                                                       C  1  1603  D                  198
1064  9 11          MCW   TABLE&2&X3                                         C  4  1604  M 8D0              198
1065  9 12          C     0&X2                                               C  4  1608  C 0!0              199
1066  9 13          SAR   TABLE&2&X3                                         C  4  1612  Q 8D0              199
1067  9 14          C     XL2,PARAMA&2                                       C  7  1616  C 094 688          199
1068  9 15          BU    EXIT                                               C  5  1623  B U86 /            199
1069  9 16          MCW   TBEGIN,XL3                                         C  7  1628  M Y10 099          199
1070  9 17          NOP   3&X3                                               C  4  1635  N 0?3              199
1071  9 18          SAR   TBEGIN                                             C  4  1639  Q Y10              199
1072  9 19          B     NUTYP                                              C  4  1643  B |63             200
1073  9 20   EOJ    FENDX C,GM,,XBEGIN,XBEGIN,XBEGIN,SAVE3,GROUP MARK                                      MACRO
1074         EOJ    BSS   333,C                                              C  5  1647  B 333 C    GEN   200
1075               SBR   INITAP&6,XBEGIN                                    C  7  1652  H 786 838  GEN   200
1076               SBR   BCLEAR                                             C  4  1659  H 833      GEN   200
1077               SBR   INITXT&3,XBEGIN                                    C  7  1663  H 796 838  GEN   200
1078               SBR   TCLEAR,SAVE3                                       C  7  1670  H 710 !03  GEN   200
1079               LCA   @GROUP MARK@,110                                   C  7  1677  L Y39 110  GEN   201
1080               B     MONTER                                             C  4  1684  B 700      GEN   201
1081  9 21   CERR   FQUIT                                                                              MACRO
1082         CERR   CS    332                                                C  4  1688  / 332      GEN   201
1083               CS                                                       C  1  1692  /            GEN   201
1084               CC    1                                                  C  2  1693  F 1          GEN   201
1085               MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270         C  7  1695  M Y75 270  GEN   201
1086               W                                                        C  1  1702  2            GEN   201
1087               CC    1                                                  C  2  1703  F 1          GEN   202
1088               BCE   *&6,MONTOR,1                                       C  8  1705  B X18 769 1  GEN   202
1089               RWD   1                                                  C  5  1713  U %U1 R      GEN   202
1090               H     *-3                                                C  4  1718  . X18        GEN   202
1091  9 22         DCW   @XXX@                                              C  3  1724                     202
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1092  9 23          DCW   117                       I DIMENSION      C   3  1727                    202
1093  9 24          DCW   084                       Q EQUIVALENCE    C   3  1730                    202
1094  9 25          DCW   108                       F FORMAT         C   3  1733                    203
1095  9 26          DCW   009                       3 WRITE TAPE     C   3  1736                    203
1096  9 27          DCW   003                       1 READ TAPE      C   3  1739                    203
1097  9 28          DCW   018                       6 WRITE OUTPUT TAPE C 3  1742                    203
1098  9 29          DCW   081                       P PRINT          C   3  1745                    203
1099  9 30          DCW   042                       U PNCH           C   3  1748                    203
1100  9 31          DCW   015                       5 READ INPUT TAPE C  3  1751                    203
1101  9 32          DCW   069                       L READ           C   3  1754                    204
1102  9 33          DCW   087                       R ARITH          C   3  1757                    204
1103  9 34          DCW   105                       E IF             C   3  1760                    204
1104  9 35          DCW   027                       9 FUNCTION STMTS C   3  1763                    204
1105  9 36          DCW   096                       B BACKSPACE      C   3  1766                    204
1106  9 37          DCW   057                       Z REWIND         C   3  1769                    204
1107  9 38          DCW   075                       N END OF FILE    C   3  1772                    204
1108  9 39          DCW   039                       T COMPUTED GO TO C   3  1775                    205
1109  9 40          DCW   111                       G GO TO          C   3  1778                    205
1110  9 41          DCW   036                       S STOP           C   3  1781                    205
1111  9 42          DCW   093                       A PAUSE          C   3  1784                    205
1112  9 43          DCW   063                       J SENSE LIGHT    C   3  1787                    205
1113  9 44          DCW   066                       K IF SENSE LIGHT C   3  1790                    205
1114  9 45          DCW   048                       W IF SENSE SWITCH C  3  1793                    205
1115  9 46          DCW   099                       C CONTINUE       C   3  1796                    206
1116  9 47  LIST    DCW   102                       D DO             C   3  1799                    206
1117  9 48  ALL9    DCW   999                                        C   3  1802                    206
1118  9 49  ALL92   DCW   999                                        C   3  1805                    206
1119  9 50  GM      DC    @}@                       GROUP MARK       C   1  1806          GMARK     206
1120  9 51  PAKSW   DC    0                                          C   1  1807                    206
1121  9 52          LTORG *                                          C          1808
              TBEGIN DCW   #03                                      C   3  1810          AREA      206
                     DCW   @#@                                      C   1  1811          LIT       206
              WORK9C DCW   #09                                      C   9  1820          AREA      206
                     DCW   &39                                      C   2  1822          LIT       207
              BLNK3C DCW   #03                                      C   3  1825          AREA      207
                     DCW   &1                                       C   1  1826          LIT       207
                     DCW   &3                                       C   1  1827          LIT       207
                     DCW   &30                                      C   2  1829          LIT       207
                     DCW   @GROUP MARK@                             C  10  1839          LIT       207
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@   C  36  1875          LIT       208
1122  9 53          ORG   EOTWO&1                                   C          2001
1123  9 54  SAVE3   DCW   #3                                        C   3  2003                    209
1124  9 55          ORG   ORGVBI&X00                 VARBL ONE LONGEST C        2900
1125  9 56  END     EQU   *&1                                        C      2900
1126  9 57          DCW   @}@                       SYSTEM GROUP MARK C   1  2900          GMARK     210
1127  9 58          XFR   AGAIN                                      C             B |22              211
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1128  9 59          JOB   1401 FORTRAN  INSERT GROUP PHASE
1129  9 60          FBEGN GROUP MARK,X1,R,X2,R,,,D                                                MACRO
1130                SFX   D                                                                       GEN
1131          110   DCW   @GROUP MARK@                              D  10  0110                   GEN    214
1132          X1    EQU   089                                       D      0089                   GEN
1133          089   DCW   000                                       D   3  0089                   GEN    215
1134          091   DC    00                                        D   2  0091                   GEN    215
1135          X2    EQU   094                                       D      0094                   GEN
1136          094   DCW   000                                       D   3  0094                   GEN    215
1137          096   DC    00                                        D   2  0096                   GEN    215
1138  9 61          ORG   XBEGIN                                    D             0838
1139  9 62    START MCW   083,X1                                    D   7  0838  M 083 089               216
1140  9 63          SW    GM                                        D   4  0845  , |91                   216
1141  9 64    LOOP1 BCE   RPLCE,0&X1,:        5-8                 D   8  0849  B 881 0|0 :             216
1142  9 65    BTEST BCE   EOJ,0&X1,            BLANK              D   8  0857  B 949 0|0               216
1143  9 66          BCE   CKFMT,0&X1,}          GROUP MARK         D   8  0865  B 904 0|0 } GMARK      216
1144  9 67          SBR   X1                                        D   4  0873  H 089                   216
1145  9 68          B     LOOP1                                     D   4  0877  B 849                   217
1146  9 69    RPLCE LCA   GM, 0&X1          INSERT GM/WM            D   7  0881  L |91 0|0               217
1147  9 70          SBR   X1                                        D   4  0888  H 089                   217
1148  9 71          C     0&X1                                      D   4  0892  C 0|0                   217
1149  9 72          SAR   X1                                        D   4  0896  Q 089                   217
1150  9 73          B     LOOP1                                     D   4  0900  B 849                   217
1151  9 74    CKFMT MCW   0&X1,HOLD5#5                            D   7  0904  M 0|0 |96               217
1152  9 75          BCE   ISFMT,HOLD5-4,F                         D   8  0911  B 938 |92 F             218
1153  9 76          MCW   @B@,BTEST                                 D   7  0919  M |97 857               218
1154  9 77    BUMP  MN    0&X1                                      D   4  0926  D 0|0                   218
1155  9 78          SBR   X1                                        D   4  0930  H 089                   218
1156  9 79          B     LOOP1                                     D   4  0934  B 849                   218
1157  9 80    ISFMT MCW   @N@,BTEST                                 D   7  0938  M |98 857               218
1158  9 81          B     BUMP                                      D   4  0945  B 926                   218
1159  9 82    EOJ   MCW   PARAMA&2,X2                               D   7  0949  M 688 094               219
1160  9 83          MZ    083,ALL9                                  D   7  0956  Y 083 |90               219
1161  9 84          MZ                                              D   1  0963  Y                       219
1162  9 85          MCW                                             D   1  0964  M                       219
1163  9 86    CLEAR CS    0&X2                                      D   4  0965  / 0!0                   219
1164  9 87          SBR   X2                                        D   4  0969  H 094                   219
1165  9 88          C     X2,ALL9                                   D   7  0973  C 094 |90               219
1166  9 89          BU    CLEAR                                     D   5  0980  B 965 /                 220
1167  9 90    CMPAR C     083,X2                                    D   7  0985  C 083 094               220
1168  9 91          BE    FXPRM                                     D   5  0992  B |16 S                 220
1169  9 92          MCW   BLANK#1,0&X2                              D   7  0997  M |99 0!0               220
1170  9 93          CW    0&X2                                      D   4  1004  ) 0!0                   220
1171  9 94          SBR   X2                                        D   4  1008  H 094                   220
1172  9 95          B     CMPAR                                     D   4  1012  B 985                   220
1173  9 96    FXPRM SW    PARAMA&3                                  D   4  1016  , 689                   221
1174  9 97          A     BLANK,PARAMA&6                            D   7  1020  A |99 692               221
1175  9 98          C     PARAMA&4,@00@                             D   7  1027  C 690 /01               221
1176  9 99          BU    *&8                                       D   5  1034  B |46 /                 221
1177 10 00          MCW   @05@,PARAMA&4                             D   7  1039  M /03 690               221
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1178 10 01           C     PARAMA&6,@00@                            D   7  1046  C 692 /01          221
1179 10 02           BU    EOPHS                                    D   5  1053  B |65 /           222
1180 10 03           MCW   @08@,PARAMA&6                            D   7  1058  M /05 692        222
1181 10 04   EOPHS   FENDX C,GM,,,,,SYS1,SQUOZE                                                MACRO
1182         EOPHS   BSS   333,C                                    D   5  1065  B 333 C     GEN   222
1183                 SBR   TCLEAR,SYS1                              D   7  1070  H 710 /12   GEN   222
1184                 LCA   @SQUOZE@,110                             D   7  1077  L /11 110   GEN   222
1185                 B     MONTER                                   D   4  1084  B 700       GEN   222
1186 10 05   ALL9    DCW   999                                      D   3  1090                GEN   222
1187 10 06   GM      DC    @}@                    GROUP MARK        D   1  1091                GMARK 222
1188 10 07           LTORG *                                        D          1092
             HOLD5D  DCW   #05                                      D   5  1096                AREA  223
                     DCW   @B@                                      D   1  1097                LIT   223
                     DCW   @N@                                      D   1  1098                LIT   223
             BLANKD  DCW   #01                                      D   1  1099                AREA  223
                     DCW   @00@                                     D   2  1101                LIT   223
                     DCW   @05@                                     D   2  1103                LIT   223
                     DCW   @08@                                     D   2  1105                LIT   223
                     DCW   @SQUOZE@                                 D   6  1111                LIT   224
1189 10 08   SYS1    DCW   @}@                    SYSTEM GROUP MARK D   1  1112                GMARK 224
1190 10 09           XFR   START                                    D          B 838             225
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1191 10 10          JOB    1401 FORTRAN  SQUOZE PHASE
1192 10 11          FBEGN  SQUOZE,XL1,R,XL2,R,XL3,R,E,XXXX                                    MACRO
1193                SFX    E                                                                  GEN
1194          XXXX  EQU    0                                          E      0000            GEN
1195          110   DCW    @SQUOZE@                                   E   6  0110            GEN    228
1196          XL1   EQU    089                                        E      0089            GEN
1197          089   DCW    000                                        E   3  0089            GEN    229
1198          091   DC     00                                         E   2  0091            GEN    229
1199          XL2   EQU    094                                        E      0094            GEN
1200          094   DCW    000                                        E   3  0094            GEN    229
1201          096   DC     00                                         E   2  0096            GEN    229
1202          XL3   EQU    099                                        E      0099            GEN
1203          099   DCW    000                                        E   3  0099            GEN    229
1204          100   DC     0                                          E   1  0100            GEN    229
1205 10 12    X1    EQU    XL1                                        E      0089
1206 10 13    X2    EQU    XL2                                        E      0094
1207 10 14    STLOC EQU    083                                        E      0083
1208 10 15          ORG    XBEGIN                                     E            0838
1209 10 16    BEGIN MCW    STLOC,XL2                 INITIALIZE INDEX LOCS  E   7  0838  M 083 094          230
1210 10 17          MCW    STLOC,XL1                  WITH START ADDRESS    E   7  0845  M 083 089          230
1211 10 18    NUSTM MCW    0&X1,STMNO#3              SAVE STATEMENT NUMBER  E   7  0852  M 0|0 U94          230
1212 10 19          MCW    0&X1,HOLD4#4                                     E   7  0859  M 0|0 U98          230
1213 10 20          BCE    ARITH,HOLD4-3,R                                  E   8  0866  B /56 U95 R        230
1214 10 21          BCE    ENDCD,HOLD4-3,/                                  E   8  0874  B /82 U95 /        231
1215 10 22    BYP   BCE    LOD,HOLD4-3,X                                    E   8  0882  B 991 U95 X        231
1216 10 23          MZ     HOLD4-3,BYP&7                                    E   7  0890  Y U95 889          231
1217 10 24          MN     HOLD4-3,BYP&7                                    E   7  0897  D U95 889          231
1218 10 25          MN     HOLD4-3,HOLD1#1       GENERATE TABLE ENTRY       E   7  0904  D U95 U99          231
1219 10 26          ZA     HOLD1,HOLD3#3          ADDRESS                   E   7  0911  ? U99 V02          232
1220 10 27          A      HOLD3                                            E   4  0918  A V02              232
1221 10 28          A      HOLD1,HOLD3                                      E   7  0922  A U99 V02          232
1222 10 29          MZ     BLANK#1,HOLD3                                    E   7  0929  Y V03 V02          232
1223 10 30          LCA    &TABLE-3,RTREV&3                                 E   7  0936  L V06 979          232
1224 10 31          A      HOLD3,RTREV&3                                    E   7  0943  A V02 979          232
1225 10 32          MZ     HOLD4-3,RTREV&2                                  E   7  0950  Y U95 978          233
1226 10 33          CW     RTREV&1                                          E   4  0957  ) 977              233
1227 10 34          MCW    XL2,HOLDX#8               SAVE INDEX LOCS 1 & 2  E   7  0961  M 094 V14          233
1228 10 35          MCW                                                     E   1  0968  M                  233
1229 10 36          MCM    DATA,XL1-2                RETRIEVE TABLE ENTRY   E   7  0969  P U78 087          233
1230 10 37    RTREV MCW    XXXX,XL3                                         E   7  0976  M 000 099          233
1231 10 38          MCW    HOLDX,XL2                                        E   7  0983  M V14 094          234
1232 10 39          MCW                                                     E   1  0990  M                  234
1233 10 40    LOD   MVDWN  X1,X2                                                                MACRO
1234          LOD   LCA    0&X1,0&X2                                        E   7  0991  L 0|0 0!0   GEN    234
1235                SAR    X1                                               E   4  0998  Q 089       GEN    234
1236                C      0&X2                                             E   4  1002  C 0!0       GEN    234
1237                SAR    X2                                               E   4  1006  Q 094       GEN    234
1238 10 41          C      0&X1,0&X3                 CHECK STATEMENT NAME   E   7  1010  C 0|0 0?0          234
1239 10 42          SAR    XL1                                              E   4  1017  Q 089              235
1240 10 43          BU     ERROR                                            E   5  1021  B |92 /            235
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1241 10 44   SHIFT  MVDWN X1,X2                                                                MACRO
1242         SHIFT  LCA   0&X1,0&X2                                  E   7  1026  L 0|0 0!0   GEN    235
1243                SAR   X1                                        E   4  1033  Q 089       GEN    235
1244                C     0&X2                                      E   4  1037  C 0!0       GEN    235
1245                SAR   X2                                        E   4  1041  Q 094       GEN    235
1246 10 45   CKDON  BCE   DONE,0&X1,                BLANK CHECK FOR EOJ  E   8  1045  B |57 0|0          235
1247 10 46          B     NUSTM                                     E   4  1053  B 852              236
1248 10 47   DONE   CS    0&X2                                      E   4  1057  / 0!0              236
1249 10 48          CS                                              E   1  1061  /                  236
1250 10 49          FENDX C,,,,INITLF,,SYS1,DIMEN1                                            MACRO
1251                BSS   333,C                                     E   5  1062  B 333 C     GEN    236
1252                SBR   INITXT&3,INITLF                           E   7  1067  H 796 839   GEN    236
1253                SBR   TCLEAR,SYS1                               E   7  1074  H 710 V67   GEN    236
1254                LCA   @DIMEN1@,110                              E   7  1081  L V20 110   GEN    236
1255                B     MONTER                                    E   4  1088  B 700       GEN    237
1256 10 50   ERROR  FTMSG 1,UNDETERMINABLE STATEMENT,STMNO,25                                  MACRO
1257         ERROR  CS    332                                       E   4  1092  / 332       GEN    237
1258                CS                                              E   1  1096  /           GEN    237
1259                SW    FAILSW                                    E   4  1097  , 184       GEN    237
1260                MN    STMNO,224&25                              E   7  1101  D U94 249   GEN    237
1261                MN                                              E   1  1108  D           GEN    237
1262                MN                                              E   1  1109  D           GEN    237
1263                MCW   @ERROR 1 - UNDETERMINABLE STATEMENT, STATEMENT @  E   4  1110  M V66       GEN    238
1264                W                                               E   1  1114  2           GEN    238
1265                BCV   *&5                                       E   5  1115  B /24 @     GEN    238
1266                B     *&3                                       E   4  1120  B /26       GEN    238
1267                CC    1                                         E   2  1124  F 1         GEN    238
1268 10 51   PMOV3  MCM   2&X2                                      E   4  1126  P 0!2              238
1269 10 52          MN                                              E   1  1130  D                  238
1270 10 53          MN                                              E   1  1131  D                  239
1271 10 54          SAR   XL2                                       E   4  1132  Q 094              239
1272 10 55          BCE   PMOV3,1&X2,|                             E   8  1136  B /26 0!1 |         239
1273 10 56          C     0&X1                                      E   4  1144  C 0|0              239
1274 10 57          SAR   XL1                                       E   4  1148  Q 089              239
1275 10 58          B     CKDON                                     E   4  1152  B |45              239
1276 10 59   ARITH  LCA   0&X1,0&X2                                 E   7  1156  L 0|0 0!0          239
1277 10 60          SAR   XL1                                       E   4  1163  Q 089              240
1278 10 61          LCA   0&X2,0&X2                                 E   7  1167  L 0!0 0!0          240
1279 10 62          SBR   XL2                                       E   4  1174  H 094              240
1280 10 63          B     SHIFT                                     E   4  1178  B |26              240
1281 10 64   ENDCD  C     0&X1                                      E   4  1182  C 0|0              240
1282 10 65          C                                               E   1  1186  C                  240
1283 10 66          SAR   XL1                                       E   4  1187  Q 089              240
1284 10 67          B     CKDON                     / END           E   4  1191  B |45              241
1285 10 68   TABLE  DCW   RDTAP                     1 READ TAPE     E   3  1197  U03                241
1286 10 69          DCW   XXXX                      2               E   3  1200  000                241
1287 10 70          DCW   WRTAP                     3 WRITE TAPE    E   3  1203  U12                241
1288 10 71          DCW   XXXX                      4               E   3  1206  000                241
1289 10 72          DCW   RDITP                     5 READ INPUT TAPE  E   3  1209  T70             241
1290 10 73          DCW   WTOTP                     6 WRITE OUTPUT TAPE  E   3  1212  T95           241
```

SEQ	PG	LIN	LABEL	OP	OPERANDS			SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1291	10	74		DCW	XXXX	7		E	3	1215	000	242
1292	10	75		DCW	XXXX	8		E	3	1218	000	242
1293	10	76		DCW	BLANK	9	FUNCTION STATEMENTS	E	3	1221	V03	242
1294	10	77		DCW	XXXX	/		E	3	1224	000	242
1295	10	78		DCW	STOP	S	STOP	E	3	1227	T36	242
1296	10	79		DCW	CGOTO	T	COMPUTED GO TO	E	3	1230	T11	242
1297	10	80		DCW	PUNCH	U	PUNCH	E	3	1233	T75	242
1298	10	81		DCW	XXXX	V		E	3	1236	000	243
1299	10	82		DCW	IFSSW	W	IF SENSE SWITCH	E	3	1239	T27	243
1300	10	83		DCW	XXXX	X		E	3	1242	000	243
1301	10	84		DCW	XXXX	Y		E	3	1245	000	243
1302	10	85		DCW	RWD	Z	REWIND	E	3	1248	U25	243
1303	10	86		DCW	SENLT	J	SENSE LIGHT	E	3	1251	U77	243
1304	10	87		DCW	IFSL	K	IF SENSE LIGHT	E	3	1254	U67	243
1305	10	88		DCW	READ	L	READ	E	3	1257	T57	244
1306	10	89		DCW	XXXX	M		E	3	1260	000	244
1307	10	90		DCW	EOF	N	END OF FILE	E	3	1263	U19	244
1308	10	91		DCW	XXXX	O		E	3	1266	000	244
1309	10	92		DCW	PRINT	P	PRINT	E	3	1269	T80	244
1310	10	93		DCW	EQUIV	Q	EQUIVALENCE	E	3	1272	U54	244
1311	10	94		DCW	XXXX	R	ARITHMETIC	E	3	1275	000	244
1312	10	95		DCW	PAUSE	A	PAUSE	E	3	1278	T32	245
1313	10	96		DCW	BSP	B	BACKSPACE	E	3	1281	U34	245
1314	10	97		DCW	CNTU	C	CONTINUE	E	3	1284	T46	245
1315	10	98		DCW	DO	D	DO	E	3	1287	T38	245
1316	10	99		DCW	IF	E	IF	E	3	1290	T13	245
1317	11	00		DCW	FRMAT	F	FORMAT	E	3	1293	T53	245
1318	11	01		DCW	GOTO	G	GO TO	E	3	1296	T06	245
1319	11	02		DCW	XXXX	H		E	3	1299	000	246
1320	11	03		DCW	DMSN	I	DIMENSION	E	3	1302	U43	246
1321	11	04	GOTO	DCW	@OTOG@			E	4	1306		246
1322	11	05	CGOTO	DCW	@%OTOG@			E	5	1311		246
1323	11	06	IF	DCW	@FI@			E	2	1313		246
1324	11	07	IFSSW	DCW	@HCTIWSESNES%FI@			E	14	1327		246
1325	11	08	PAUSE	DCW	@ESUAP@			E	5	1332		246
1326	11	09	STOP	DCW	@POTS@			E	4	1336		247
1327	11	10	DO	DCW	@OD@			E	2	1338		247
1328	11	11	CNTU	DCW	@EUNITNOC@			E	8	1346		247
1329	11	12	FRMAT	DCW	@%TAMROF@			E	7	1353		247
1330	11	13	READ	DCW	@DAER@			E	4	1357		247
1331	11	14	RDITP	DCW	@EPATTUPNIDAER@			E	13	1370		247
1332	11	15	PUNCH	DCW	@HCNUP@			E	5	1375		248
1333	11	16	PRINT	DCW	@TNIRP@			E	5	1380		248
1334	11	17	WTOTP	DCW	@EPATTUPTUOETIRW@			E	15	1395		248
1335	11	18	RDTAP	DCW	@EPATDAER@			E	8	1403		248
1336	11	19	WRTAP	DCW	@EPATETIRW@			E	9	1412		249
1337	11	20	EOF	DCW	@ELIFDNE@			E	7	1419		249
1338	11	21	RWD	DCW	@DNIWER@			E	6	1425		249
1339	11	22	BSP	DCW	@ECAPSKCAB@			E	9	1434		249
1340	11	23	DMSN	DCW	@NOISNEMID@			E	9	1443		250

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

1341 11 24   EQUIV  DCW   @ECNELAVIUQE@                                   E  11  1454                    250
1342 11 25   IFSL   DCW   @THGILESNES%FI@                                 E  13  1467                    250
1343 11 26   SENLT  DCW   @THGILESNES@                                    E  10  1477                    251
1344 11 27   DATA   EQU   *&1                                             E      1478
1345 11 28          DCW   @0270005400081|@                                E  14  1491                    251
1346 11 29          LTORG *                                               E             1492
             STMNOE DCW   #03                                            E   3  1494          AREA    251
             HOLD4E DCW   #04                                            E   4  1498          AREA    251
             HOLD1E DCW   #01                                            E   1  1499          AREA    251
             HOLD3E DCW   #03                                            E   3  1502          AREA    251
             BLANKE DCW   #01                                            E   1  1503          AREA    251
                    DCW   &TABLEE-3                                      E   3  1506  /94      ADCON   252
             HOLDXE DCW   #08                                            E   8  1514          AREA    252
                    DCW   @DIMEN1@                                       E   6  1520          LIT     252
                    DCW   @ERROR 1 - UNDETERMINABLE STATEMENT, STATEMENT @ E 46  1566          LIT     254
1347 11 30   SYS1   DCW   @}@                          SYSTEM GROUP MARK  E   1  1567          GMARK   254
1348 11 31          XFR   BEGIN                                           E             B 838           255
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1349 11 32          JOB   1401 FORTRAN DIMENSION PHASE ONE
1350 11 33          FBEGN DIMEN 1,X1,,X2,R,X3,R,F                                              MACRO
1351                SFX   F                                                                    GEN
1352          110   DCW   @DIMEN 1@                                 F   7  0110              GEN    258
1353          X1    EQU   089                                        F      0089              GEN
1354          X2    EQU   094                                        F      0094              GEN
1355          094   DCW   000                                        F   3  0094              GEN    259
1356          096   DC    00                                         F   2  0096              GEN    259
1357          X3    EQU   099                                        F      0099              GEN
1358          099   DCW   000                                        F   3  0099              GEN    259
1359          100   DC    0                                          F   1  0100              GEN    259
1360 11 34          ORG   XBEGIN                                     F            0838
1361 11 35   COMPAT DCW   0                                          F   1  0838                     260
1362 11 36   INITL  SW    GM                                         F   4  0839  , W91              260
1363 11 37          MCW   83,X1                                      F   7  0843  M 083 089          260
1364 11 38          A     BLANK#1,PARAMA&6                           F   7  0850  A X01 692          260
1365 11 39          MCW   PARAMA&6,HOLD#2                            F   7  0857  M 692 X03          260
1366 11 40          A     &2,HOLD                                    F   7  0864  A X04 X03          260
1367 11 41          C     PARAMA&4,HOLD                              F   7  0871  C 690 X03          261
1368 11 42          BU    *&5                                        F   5  0878  B 887 /            261
1369 11 43          CW    COMPAT                                     F   4  0883  ) 838              261
1370 11 44          LCA   GM,1&X1                                    F   7  0887  L W91 0|1          261
1371 11 45          LCA   PARAMA&2,X2                               F   7  0894  L 688 094          261
1372 11 46          MN    0000&X2                                    F   4  0901  D 0!0              261
1373 11 47          MN                                               F   1  0905  D                  261
1374 11 48          MCW   @ @                          BLANK         F   4  0906  M X05              262
1375 11 49          SBR   X2                                        F   4  0910  H 094              262
1376 11 50   START  MCW   BLANK,001            B OP INITIALIZED     F   7  0914  M X01 001          262
1377 11 51          MCW   @<@,2&X1           12-6-8                F   7  0921  M X06 0|2          262
1378 11 52          NOP   2&X1                                       F   4  0928  N 0|2              262
1379 11 53          SAR   START&6                                    F   4  0932  Q 920              262
1380 11 54          LCA   0&X1,WORK                                  F   7  0936  L 0|0 W90          262
1381 11 55          SAR   X1                                         F   4  0943  Q 089              263
1382 11 56          SBR   X3                                         F   4  0947  H 099              263
1383 11 57          BCE   CKNOD,WORK,                  BLANK         F   8  0951  B V45 W90          263
1384 11 58          BCE   DIMEN,WORK-3,I                            F   8  0959  B 979 W87 I        263
1385 11 59          BCE   BYP,WORK-3,/                              F   8  0967  B V33 W87 /        263
1386 11 60          B     CKNOD                                      F   4  0975  B V45              263
1387 11 61   DIMEN  BCE   NAME,000&X1,%       LEFT PAREN           F   8  0979  B |19 0|0 %        264
1388 11 62          FBCEQ SYNER,0&X1,,,),}      12-7-8                                         MACRO
1389                BCE   SYNER, 0&X1, ,                            F   8  0987  B U84 0|0 , GEN    264
1390                BCE   SYNER, 0&X1, )                            F   8  0995  B U84 0|0 ) GEN    264
1391                BCE   SYNER, 0&X1, }                            F   8  1003  B U84 0|0 } GEN    264
1392 11 63          SBR   X1                                         F   4  1011  H 089              264
1393 11 64          B     DIMEN                                      F   4  1015  B 979              265
1394 11 65   NAME   SW    DIMSW                                      F   4  1019  , X00              265
1395 11 66          MN    0&X1                                       F   4  1023  D 0|0              265
1396 11 67          SAR   X1                                         F   4  1027  Q 089              265
1397 11 68          SW    002&X1                                     F   4  1031  , 0|2              265
1398 11 69          MCW   X2,HEX2#3                                  F   7  1035  M 094 X09          265
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                   SFX CT  LOCN  INSTRUCTION TYPE  CARD
1399 11 70   *    TEST TO SEE IF ARRAY WAS PREVIOUSLY DEFINED
1400 11 71          BW    OK,DSW#1                                    F   8  1042  V /12 X10 1        265
1401 11 72   UNIQ   MCM   1&X2                                       F   4  1050  P 0!1              266
1402 11 73          SAR   X2                                         F   4  1054  Q 094              266
1403 11 74          BCE   OK,0&X2,      BLANK                       F   8  1058  B /12 0!0          266
1404 11 75   GET    MCM   2&X2                                       F   4  1066  P 0!2              266
1405 11 76          MN                                               F   1  1070  D                  266
1406 11 77          MN                                               F   1  1071  D                  266
1407 11 78          SBR   X2                                         F   4  1072  H 094              266
1408 11 79          BCE   GET,1&X2,|                                 F   8  1076  B |66 0!1 |         267
1409 11 80   COMP   C     0&X2,0&X3      REST V. NEW                 F   7  1084  C 0!0 0?0          267
1410 11 81          SAR   X2                                         F   4  1091  Q 094              267
1411 11 82          BU    UNIQ                                       F   5  1095  B |50 /            267
1412 11 83   *    CAN GET EQUAL COMPARE IF A FIELD LONGER THAN B FIELD
1413 11 84          BWZ   MULTY,1&X2,1                               F   8  1100  V T56 0!1 1        267
1414 11 85          B     UNIQ                                       F   4  1108  B |50             267
1415 11 86   OK     MCW   HEX2,X2                                    F   7  1112  M X09 094          268
1416 11 87          LCA   GM,000&X2                                  F   7  1119  L W91 0!0          268
1417 11 88          LCA   000&X3                                     F   4  1126  L 0?0              268
1418 11 89          LCA   PRED                                       F   4  1130  L W94              268
1419 11 90          SBR   X2                                         F   4  1134  H 094              268
1420 11 91          MCW   PRED,X3        PRED INITIALLY BLANK       F   7  1138  M W94 099          268
1421 11 92          BCE   *&5,X3,                        BLANK       F   8  1145  B /57 099          269
1422 11 93          B     *&8                                        F   4  1153  B /64             269
1423 11 94          A     BLANK,X3                                   F   7  1157  A X01 099          269
1424 11 95          LCA   @   @,000&X2                               F   7  1164  L X13 0!0          269
1425 11 96          LCA   @   @                                      F   4  1171  L X13              269
1426 11 97          SBR   006&X3                                     F   4  1175  H 0?6              269
1427 11 98          SBR   PRED                                       F   4  1179  H W94              269
1428 11 99          LCA   @     @                                    F   4  1183  L X18              270
1429 12 00          SBR   X2                                         F   4  1187  H 094              270
1430 12 01   RESET  FFLIP 0&X1,MN,X1,X3,,,,,),}         GROUP MARK                          MACRO
1431         RESET  MN    MN                                         F   4  1191  D W95        GEN   270
1432                MN                                               F   1  1195  D            GEN   270
1433                SAR   X3                                         F   4  1196  Q 099        GEN   270
1434                SBR   X1, 0&X1                                   F   7  1200  H 089 0|0     GEN   270
1435         )0K028 MCW   0&X1,)0L028#1                              F   7  1207  M 0|0 X19     GEN   270
1436                SAR   X1                                         F   4  1214  Q 089        GEN   271
1437                BCE   )0M028, )0L028, )                          F   8  1218  B S57 X19 )  GEN   271
1438                BCE   )0M028, )0L028, }                          F   8  1226  B S57 X19 }  GEN   271
1439                BCE   )0M028, )0L028, ,                          F   8  1234  B S57 X19 ,  GEN   271
1440                MCW   )0L028, 2&X3                               F   7  1242  M X19 0?2     GEN   271
1441                SBR   X3                                         F   4  1249  H 099        GEN   271
1442                B     )0K028                                     F   4  1253  B S07        GEN   272
1443         )0M028 EQU   *&1                                        F       1257              GEN
1444 12 02          BCE   SYNER,1&X1,}                 12-7-8      F   8  1257  B U84 0|1 }  GMARK 272
1445 12 03          LCA   001&X3,000&X2                             F   7  1265  L 0?1 0!0          272
1446 12 04          SBR   X2                                         F   4  1272  H 094              272
1447 12 05          BCE   RESET,1&X1,,                              F   8  1276  B /91 0|1 ,        272
1448 12 06          MCW   START&6,X3                                 F   7  1284  M 920 099          272
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
1449 12 07          BCE   *&5,0&X3,<          12-6-8                       F   8  1291  B T03 0?0 <        273
1450 12 08          B     FAIL                                             F   4  1299  B W46            273
1451 12 09          CW    DSW                                              F   4  1303  ) X10            273
1452 12 10   CKGM     BCE   NEXT,0&X1,}          12-7-8                    F   8  1307  B T44 0|0 } GMARK  273
1453 12 11          B                       LAST CHAR OF DIMEN MIGHT BE ,  F   1  1315  B              273
1454 12 12          BCE   *&5,0&X1,,                                       F   8  1316  B T28 0|0 ,      273
1455 12 13          B     SYNER                                            F   4  1324  B U84            273
1456 12 14          MN    000&X1                                           F   4  1328  D 0|0            274
1457 12 15          SAR   X1                                               F   4  1332  Q 089            274
1458 12 16          SBR   X3                                               F   4  1336  H 099            274
1459 12 17          B     DIMEN                                            F   4  1340  B 979            274
1460 12 18   NEXT   C     0&X1                                             F   4  1344  C 0|0            274
1461 12 19          SAR   X1                                               F   4  1348  Q 089            274
1462 12 20          B     START                                            F   4  1352  B 914            274
1463 12 21   MULTY  CS    332                                              F   4  1356  / 332            275
1464 12 22          CS                                                     F   1  1360  /                275
1465 12 23          SW    FAILSW                                           F   4  1361  , 184            275
1466 12 24          MCW   @ERROR 2 - DOUBLY DEFINED ARRAY@,230             F   7  1365  M X49 230         275
1467 12 25          MCW   COMP&6,X2                                        F   7  1372  M |90 094         275
1468 12 26          FFLIP 0&X3,232,X3,X2,INCL,WM                                                MACRO
1469                MN    232                                              F   4  1379  D 232      GEN   275
1470                MN                                                     F   1  1383  D          GEN   275
1471                SAR   X2                                               F   4  1384  Q 094      GEN   276
1472                SBR   X3, 0&X3                                         F   7  1388  H 099 0?0  GEN   276
1473         )0K029 MCW   0&X3,)0L029#1                                    F   7  1395  M 0?0 X50  GEN   276
1474                SAR   X3                                               F   4  1402  Q 099      GEN   276
1475                MCW   )0L029, 2&X2                                     F   7  1406  M X50 0!2  GEN   276
1476                SBR   X2                                               F   4  1413  H 094      GEN   276
1477                BW    )0M029, 1&X3                                     F   8  1417  V U29 0?1 1 GEN   277
1478                B     )0K029                                           F   4  1425  B T95      GEN   277
1479         )0M029 EQU   *&1                                              F      1429             GEN
1480 12 27          W                                                      F   1  1429  2                277
1481 12 28          FORMS                                                                       MACRO
1482                BCV   *&5                                              F   5  1430  B U39 @    GEN   277
1483                B     *&3                                              F   4  1435  B U41      GEN   277
1484                CC    1                                                F   2  1439  F 1        GEN   277
1485 12 29   LOZSC  BCE   CTUL,0&X1,)                                      F   8  1441  B U65 0|0 )       277
1486 12 30          SBR   X1                                               F   4  1449  H 089            278
1487 12 31          BCE   SYNER,1&X1,}      12-7-8                         F   8  1453  B U84 0|1 } GMARK  278
1488 12 32          B     LOZSC                                            F   4  1461  B U41            278
1489 12 33   CTUL   MN    0&X1                                             F   4  1465  D 0|0            278
1490 12 34          SAR   X1                                               F   4  1469  Q 089            278
1491 12 35          MCW   HEX2,X2                                          F   7  1473  M X09 094         278
1492 12 36          B     CKGM                                             F   4  1480  B T07            278
1493 12 37   SYNER  FTMSG 3,DIMENSION SYNTAX,WORK,17                                                MACRO
1494         SYNER  CS    332                                              F   4  1484  / 332      GEN   279
1495                CS                                                     F   1  1488  /          GEN   279
1496                SW    FAILSW                                           F   4  1489  , 184      GEN   279
1497                MN    WORK,224&17                                      F   7  1493  D W90 241   GEN   279
1498                MN                                                     F   1  1500  D          GEN   279
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1499             MN                                                        F   1  1501  D           GEN    279
1500             MCW   @ERROR 3 - DIMENSION SYNTAX, STATEMENT @            F   4  1502  M X88       GEN    279
1501             W                                                         F   1  1506  2           GEN    280
1502             BCV   *&5                                                 F   5  1507  B V16 @     GEN    280
1503             B     *&3                                                 F   4  1512  B V18       GEN    280
1504             CC    1                                                   F   2  1516  F 1         GEN    280
1505 12 38       MCW   HEX2,X2                                             F   7  1518  M X09 094          280
1506 12 39       BCE   START,1&X1,}                  12-7-8                 F   8  1525  B 914 0|1 } GMARK  280
1507 12 40  BYP  C     0&X1                                                F   4  1533  C 0|0              280
1508 12 41       SAR   X1                                                  F   4  1537  Q 089              281
1509 12 42       B     START                                               F   4  1541  B 914              281
1510 12 43  CKNOD BW    OUT,DIMSW                                         F   8  1545  V V88 X00 1        281
1511 12 44       LCA   GM,0&X2                                             F   7  1553  L W91 0!0          281
1512 12 45       LCA   @:@                          5-8                    F   4  1560  L X89              281
1513 12 46       LCA   BLNK3#3                                             F   4  1564  L X92              281
1514 12 47       LCA   BLNK3                                               F   4  1568  L X92              281
1515 12 48       LCA   BLNK3                                               F   4  1572  L X92              282
1516 12 49       LCA   BLANK5#5                                            F   4  1576  L X97              282
1517 12 50       LCA   @10@                                                F   4  1580  L X99              282
1518 12 51       SBR   X2                                                  F   4  1584  H 094              282
1519 12 52  OUT  NOP   002&X1                                             F   4  1588  N 0|2              282
1520 12 53       MCM                                                       F   1  1592  P                  282
1521 12 54       MCW                                                       F   1  1593  M                  282
1522 12 55       SAR   X1                                                  F   4  1594  Q 089              283
1523 12 56       MCW   006,086                                            F   7  1598  M 006 086          283
1524 12 57       FENDX C,GM,,XBEGIN&1,INITLG,XBEGIN&1,SYS1,EQUIV ONE                                 MACRO
1525             BSS   333,C                                               F   5  1605  B 333 C     GEN    283
1526             SBR   INITAP&6,XBEGIN&1                                   F   7  1610  H 786 839   GEN    283
1527             SBR   BCLEAR                                              F   4  1617  H 833       GEN    283
1528             SBR   INITXT&3,INITLG                                     F   7  1621  H 796 |34   GEN    283
1529             SBR   TCLEAR,SYS1                                         F   7  1628  H 710 Y45   GEN    284
1530             LCA   @EQUIV ONE@,110                                     F   7  1635  L Y08 110   GEN    284
1531             B     MONTER                                              F   4  1642  B 700       GEN    284
1532 12 58  FAIL FQUIT                                                                               MACRO
1533        FAIL CS    332                                                 F   4  1646  / 332       GEN    284
1534             CS                                                        F   1  1650  /           GEN    284
1535             CC    1                                                   F   2  1651  F 1         GEN    284
1536             MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270          F   7  1653  M Y44 270   GEN    284
1537             W                                                         F   1  1660  2           GEN    285
1538             CC    1                                                   F   2  1661  F 1         GEN    285
1539             BCE   *&6,MONTOR,1                                        F   8  1663  B W76 769 1 GEN    285
1540             RWD   1                                                   F   5  1671  U %U1 R     GEN    285
1541             H     *-3                                                 F   4  1676  . W76       GEN    285
1542 12 59       DCW   0                                                   F   1  1680                      285
1543 12 60  WORK DC    #10                                                 F  10  1690                      285
1544 12 61  GM   DC    @}@          12-7-8                                 F   1  1691              GMARK  285
1545 12 62  PRED DCW   #3                                                  F   3  1694                      285
1546 12 63  MN   DCW   #1                                                  F   1  1695                      286
1547 21 64       DC    #4                                                  F   4  1699                      286
1548 12 65  DIMSW DC    #1                                                F   1  1700                      286
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1549 12 66          LTORG *                                          F            1701
             BLANKF DCW   #01                                       F   1  1701              AREA   286
             HOLD F DCW   #02                                       F   2  1703              AREA   286
                    DCW   &2                                        F   1  1704              LIT    286
                    DCW   @ @                                       F   1  1705              LIT    286
                    DCW   @<@                                       F   1  1706              LIT    286
             HEX2 F DCW   #03                                       F   3  1709              AREA   286
             DSW  F DCW   #01                                       F   1  1710              AREA   287
                    DCW   @   @                                     F   3  1713              LIT    287
                    DCW   @     @                                   F   5  1718              LIT    287
             )0L028 DCW   #01                                       F   1  1719              AREA   287
                    DCW   @ERROR 2 - DOUBLY DEFINED ARRAY@          F  30  1749              LIT    288
             )0L029 DCW   #01                                       F   1  1750              AREA   288
                    DCW   @ERROR 3 - DIMENSION SYNTAX, STATEMENT @  F  38  1788              LIT    289
                    DCW   @:@                                       F   1  1789              LIT    289
             BLNK3F DCW   #03                                       F   3  1792              AREA   290
             BLANK5 DCW   #05                                       F   5  1797              AREA   290
                    DCW   @10@                                      F   2  1799              LIT    290
                    DCW   @EQUIV ONE@                               F   9  1808              LIT    290
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@    F  36  1844              LIT    291
1550 12 67   SYS1   DCW   @}@                                SYSTEM GROUP MARK  F   1  1845              GMARK  291
1551 12 68          XFR   INITL                                      F            B 839                  292
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1552 12 69          JOB   1401 FORTRAN  EQUIVALENCE PHASE ONE
1553 12 70          FBEGN EQUIV ONE,X1,,X2,,X3,R,G                                          MACRO
1554                SFX   G                                                               GEN
1555          110   DCW   @EQUIV ONE@                               G   9  0110          GEN   295
1556          X1    EQU   089                                       G      0089          GEN
1557          X2    EQU   094                                       G      0094          GEN
1558          X3    EQU   099                                       G      0099          GEN
1559          099   DCW   000                                       G   3  0099          GEN   296
1560          100   DC    0                                         G   1  0100          GEN   296
1561 12 71          ORG   XBEGIN&1                                  G            0839
1562 12 72    FIRST EQU   086                                       G      0086
1563 12 73    GM    DC    @}@                          12-7-8       G   1  0839          GMARK 297
1564 12 74    WORK  DC    #10                                       G  10  0849                297
1565 12 75    DRESS DCW   #3                                        G   3  0852                297
1566 12 76    CHAMP DCW   #5                                        G   5  0857                297
1567 12 77          DC    #3                                        G   3  0860                297
1568 12 78    TALLY DCW   #5                                        G   5  0865                297
1569 12 79          DC    #3                                        G   3  0868                297
1570 12 80    ACCUM DCW   #5                                        G   5  0873                297
1571 12 81    HEX3  DC    #3                                        G   3  0876                297
1572 12 82          DC    #1                                        G   1  0877                297
1573 12 83    SPACE DCW   #1                                        G   1  0878                298
1574 12 84          DC    #4                                        G   4  0882                298
1575 12 85    SYNER FTMSG 4,EQUIVALENCE SYNTAX,WORK,19                                MACRO
1576          SYNER CS    332                                       G   4  0883  / 332         GEN   298
1577                CS                                            G   1  0887  /             GEN   298
1578                SW    FAILSW                                    G   4  0888  , 184         GEN   298
1579                MN    WORK,224&19                               G   7  0892  D 849 243     GEN   298
1580                MN                                            G   1  0899  D             GEN   298
1581                MN                                            G   1  0900  D             GEN   298
1582                MCW   @ERROR 4 - EQUIVALENCE SYNTAX, STATEMENT @ G   4  0901  M Y21         GEN   299
1583                W                                             G   1  0905  2             GEN   299
1584                BCV   *&5                                     G   5  0906  B 915 @       GEN   299
1585                B     *&3                                     G   4  0911  B 917         GEN   299
1586                CC    1                                       G   2  0915  F 1           GEN   299
1587 12 86          C     0&X1                                    G   4  0917  C 0|0                299
1588 12 87          SAR   X1                                      G   4  0921  Q 089                299
1589 12 88          B     START                                   G   4  0925  B /15                300
1590 12 89    LOOP  FBCEQ NAME,0&X1,,,%,)                                             MACRO
1591          LOOP  BCE   NAME, 0&X1, ,                           G   8  0929  B 969 0|0 , GEN   300
1592                BCE   NAME, 0&X1, %                           G   8  0937  B 969 0|0 % GEN   300
1593                BCE   NAME, 0&X1, )                           G   8  0945  B 969 0|0 ) GEN   300
1594 12 90          BCE   SYNER,0&X1,}                 G-M        G   8  0953  B 883 0|0 } GMARK 300
1595 12 91          SBR   X1                                      G   4  0961  H 089           301
1596 12 92          B     LOOP                                    G   4  0965  B 929           301
1597 12 93    NAME  SW    001&X1                                  G   4  0969  , 0|1           301
1598 12 94          MCW   DRESS,X2        DRESS EQUALS &TABLE-2  G   7  0973  M 852 094       301
1599 12 95    FIND  BCE   CKSIM,2&X2,                  BLANK      G   8  0980  B S74 0!2       301
1600 12 96    GET   MCM   2&X2                                    G   4  0988  P 0!2           301
1601 12 97          MN                                            G   1  0992  D               301
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1602 12 98           MN                                     G   1  0993  D                    302
1603 12 99           SAR   X2                               G   4  0994  Q 094                302
1604 13 00           BCE   GET,1&X2,|                       G   8  0998  B 988 0!1 |          302
1605 13 01  COMP     C     000,000&X2          EQUIV V. TABLE G   7  1006  C 000 0!0          302
1606 13 02           SAR   X3                               G   4  1013  Q 099              302
1607 13 03           BU    FIND                             G   5  1017  B 980 /            302
1608 13 04  A3       BWZ   ISIN,1&X3,1                      G   8  1022  V W73 0?1 1        302
1609 13 05           B     FIND                             G   4  1030  B 980              303
1610 13 06  INITL    MN    000&X2                           G   4  1034  D 0!0              303
1611 13 07           SAR   DRESS                            G   4  1038  Q 852              303
1612 13 08           SBR   HEX3                             G   4  1042  H 876              303
1613 13 09           SW    GM                               G   4  1046  , 839              303
1614 13 10           BW    *&8,COMPAT                       G   8  1050  V |65 838 1        303
1615 13 11           MCW   @B@,CMPSW                       G   7  1058  M Y22 /77          303
1616 13 12           MCW   X1,SAVE1                        G   7  1065  M 089 Z68          304
1617 13 13           MCW   @<@,2&X1             12-6-8     G   7  1072  M Y23 0|2          304
1618 13 14           SBR   KLOBR&6,2&X1                    G   7  1079  H T99 0|2          304
1619 13 15  GET2     MCM   2&X2                             G   4  1086  P 0!2              304
1620 13 16           MN                                     G   1  1090  D                  304
1621 13 17           MN                                     G   1  1091  D                  304
1622 13 18           SAR   X2                               G   4  1092  Q 094              304
1623 13 19           BCE   GET2,1&X2,|                      G   8  1096  B |86 0!1 |        305
1624 13 20           C     0&X2                             G   4  1104  C 0!0              305
1625 13 21           CHAIN 3                                                MACRO
1626                 C                                      G   1  1108  C          GEN     305
1627                 C                                      G   1  1109  C          GEN     305
1628                 C                                      G   1  1110  C          GEN     305
1629 13 22           SAR   PRED#3                           G   4  1111  Q Y26              305
1630 13 23  START    LCA   000&X1,WORK                      G   7  1115  L 0|0 849          305
1631 13 24           SAR   X1                               G   4  1122  Q 089              306
1632 13 25  A1       BCE   OUT1,WORK,             BLANK     G   8  1126  B W85 849          306
1633 13 26           BCE   CKPRN,WORK-3,Q                   G   8  1134  B /46 846 Q        306
1634 13 27  A2       B     OUT1                             G   4  1142  B W85              306
1635 13 28  CKPRN    BCE   ISEQU,0&X1,%                     G   8  1146  B /58 0|0 %        306
1636 13 29           B     SYNER                            G   4  1154  B 883              306
1637 13 30  ISEQU    SW    FXSW#1,FLTSW#1                   G   7  1158  , Y27 Y28          307
1638 13 31  EQUIV    MN    000&X1                           G   4  1165  D 0|0              307
1639 13 32           SAR   X1                               G   4  1169  Q 089              307
1640 13 33           SBR   COMP&3                          G   4  1173  H |09              307
1641 13 34  CMPSW    NOP   LOOP                             G   4  1177  N 929              307
1642 13 35  SVORG    EQU   *&1                             G      1181
1643 13 36           MN    0&X1,TST1&7                      G   7  1181  D 0|0 S02          307
1644 13 37           MZ    0&X1,TST1&7                      G   7  1188  Y 0|0 S02          307
1645 13 38  TST1     BCE   FIXED,@IJKLMN@,X                G   8  1195  B S16 Y34 X        308
1646 13 39           CHAIN 5                                                MACRO
1647                 BCE                                    G   1  1203  B          GEN     308
1648                 BCE                                    G   1  1204  B          GEN     308
1649                 BCE                                    G   1  1205  B          GEN     308
1650                 BCE                                    G   1  1206  B          GEN     308
1651                 BCE                                    G   1  1207  B          GEN     308
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1652 13 40          CW    FLTSW                                              G   4  1208  ) Y28             308
1653 13 41          B     *&5                                                G   4  1212  B S20             309
1654 13 42  FIXED   CW    FXSW                                               G   4  1216  ) Y27             309
1655 13 43          BW    LOOP,FLTSW                                         G   8  1220  V 929 Y28 1       309
1656 13 44          BWZ                                                      G   1  1228  V                 309
1657 13 45          FTMSG 5,ILLEGAL EQUIVALENCE MIXING,WORK,27                                 MACRO
1658                CS    332                                                G   4  1229  / 332       GEN   309
1659                CS                                                       G   1  1233  /           GEN   309
1660                SW    FAILSW                                             G   4  1234  , 184       GEN   309
1661                MN    WORK,224&27                                        G   7  1238  D 849 251   GEN   310
1662                MN                                                       G   1  1245  D           GEN   310
1663                MN                                                       G   1  1246  D           GEN   310
1664                MCW   @ERROR 5 - ILLEGAL EQUIVALENCE MIXING, STATEMENT @  G   4  1247  M Y82       GEN   310
1665                W                                                        G   1  1251  2           GEN   310
1666                BCV   *&5                                                G   5  1252  B S61 @     GEN   310
1667                B     *&3                                                G   4  1257  B S63       GEN   310
1668                CC    1                                                  G   2  1261  F 1         GEN   311
1669 13 46          SW    FXSW,FLTSW                                         G   7  1263  , Y27 Y28         311
1670 13 47          B     LOOP                                               G   4  1270  B 929             311
1671 13 48  CKSIM   MCW   X1,X3                                             G   7  1274  M 089 099         311
1672 13 49          BCE   ERR,0&X1,%                                        G   8  1281  B V05 0|0 %       311
1673 13 50          MCW   DRESS,X2                                          G   7  1289  M 852 094         311
1674 13 51          LCA   GM,1&X2                                           G   7  1296  L 839 0!1         312
1675 13 52          SBR   X2                                                 G   4  1303  H 094            312
1676 13 53          MCW   COMP&3,X3                                         G   7  1307  M |09 099        312
1677 13 54          LCA   0&X3,0&X2                                        G   7  1314  L 0?0 0!0        312
1678 13 55          SBR   X2                                                 G   4  1321  H 094            312
1679 13 56          MCW   PRED,X3                                          G   7  1325  M Y26 099        312
1680 13 57          LCA   PRED,0&X2                                        G   7  1332  L Y26 0!0        313
1681 13 58          LCA   BLNK5-2                                          G   4  1339  L Y85            313
1682 13 59          LCA   BLNK5-2                                          G   4  1343  L Y85            313
1683 13 60          SBR   PRED                                             G   4  1347  H Y26            313
1684 13 61          SBR   X2                                               G   4  1351  H 094            313
1685 13 62          LCA   BLNK5#5,0&X2                                     G   7  1355  L Y87 0!0        313
1686 13 63          LCA   @1@                                              G   4  1362  L Y88            313
1687 13 64          SBR   X2                                               G   4  1366  H 094            314
1688 13 65          MCW   PRED,6&X3                                        G   7  1370  M Y26 0?6        314
1689 13 66          BCE   NEWCD,086,                                       G   8  1377  B U35 086        314
1690 13 67  OLDCD   MN    0&X2                                             G   4  1385  D 0!0            314
1691 13 68          SAR   DRESS                                            G   4  1389  Q 852            314
1692 13 69  KLOBR   BCE   BSTAR,0,<                    12-6-8              G   8  1393  B U46 000 <      314
1693 13 70          FQUIT                                                                  MACRO
1694                CS    332                                                G   4  1401  / 332       GEN   314
1695                CS                                                       G   1  1405  /           GEN   315
1696                CC    1                                                  G   2  1406  F 1         GEN   315
1697                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270         G   7  1408  M Z24 270   GEN   315
1698                W                                                        G   1  1415  2           GEN   315
1699                CC    1                                                  G   2  1416  F 1         GEN   315
1700                BCE   *&6,MONTOR,1                                       G   8  1418  B U31 769 1 GEN   315
1701                RWD   1                                                  G   5  1426  U %U1 R     GEN   315
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1702                H     *-3                                          G  4  1431  . U31       GEN    316
1703 13 71   NEWCD  MCW   PRED,086        EQUIV WITH NO DIMEN STMT     G  7  1435  M Y26 086         316
1704 13 72          B     OLDCD                                        G  4  1442  B T85             316
1705 13 73   BSTAR  BCE   *&5,0&X1,)                                   G  8  1446  B U58 0|0 )       316
1706 13 74          B     EQBX1                                        G  4  1454  B U65             316
1707 13 75          SW    FXSW,FLTSW                                   G  7  1458  , Y27 Y28         316
1708 13 76   EQBX1  MN    0&X1                                         G  4  1465  D 0|0             316
1709 13 77          SBR   X1                                          G  4  1469  H 089             317
1710 13 78          SBR   COMP&3                                      G  4  1473  H |09             317
1711 13 79          BCE   CTU4,0&X1,,                                 G  8  1477  B W61 0|0 ,         317
1712 13 80          BCE   BSTAR,0&X1,}          GROUP MARK            G  8  1485  B U46 0|0 } GMARK  317
1713 13 81          BCE   START,1&X1,}             12-7-8             G  8  1493  B /15 0|1 } GMARK  317
1714 13 82          B     CMPSW                                        G  4  1501  B /77             317
1715 13 83   ERR    CS    299                                          G  4  1505  / 299             318
1716 13 84          MCW   X3,X1                                       G  7  1509  M 099 089         318
1717 13 85          MCW   X2,HEX2#3                                   G  7  1516  M 094 Z27         318
1718 13 86          FFLIP 0&X1,248,X1,X2,,,%                                                 MACRO
1719                MN    248                                          G  4  1523  D 248         GEN    318
1720                MN                                                 G  1  1527  D             GEN    318
1721                SAR   X2                                          G  4  1528  Q 094         GEN    318
1722                SBR   X1, 0&X1                                    G  7  1532  H 089 0|0       GEN    318
1723         )0K039 MCW   0&X1,)0L039#1                               G  7  1539  M 0|0 Z28      GEN    319
1724                SAR   X1                                          G  4  1546  Q 089         GEN    319
1725                BCE   )0M039, )0L039, %                          G  8  1550  B V73 Z28 %    GEN    319
1726                MCW   )0L039, 2&X2                               G  7  1558  M Z28 0!2      GEN    319
1727                SBR   X2                                          G  4  1565  H 094         GEN    319
1728                B     )0K039                                       G  4  1569  B V39         GEN    319
1729         )0M039 EQU   *&1                                          G     1573               GEN
1730 13 87          MCW   HEX2,X2                                     G  7  1573  M Z27 094         320
1731 13 88          SW    FAILSW                                       G  4  1580  , 184             320
1732 13 89          MN    WORK,240                                     G  7  1584  D 849 240         320
1733 13 90          CHAIN 2                                                                  MACRO
1734                MN                                                 G  1  1591  D             GEN    320
1735                MN                                                 G  1  1592  D             GEN    320
1736 13 91          MCW   @ERROR 6 - UNDEFINED ARRAY, STATEMENT @      G  4  1593  M Z65             320
1737 13 92          FORMS                                                                    MACRO
1738                BCV   *&5                                          G  5  1597  B W06 @       GEN    320
1739                B     *&3                                          G  4  1602  B W08         GEN    321
1740                CC    1                                            G  2  1606  F 1           GEN    321
1741 13 93          W                                                  G  1  1608  2                 321
1742 13 94   SCAN2  MN    0&X1                                         G  4  1609  D 0|0             321
1743 13 95          SAR   X1                                          G  4  1613  Q 089             321
1744 13 96          BCE   CTU4,0&X1,)                                 G  8  1617  B W61 0|0 )       321
1745 13 97          FBCEQ SYNER,0&X1,%,}          CLOSE PAREN, GM                            MACRO
1746                BCE   SYNER, 0&X1, %                             G  8  1625  B 883 0|0 % GEN    321
1747                BCE   SYNER, 0&X1, }                             G  8  1633  B 883 0|0 } GEN    322
1748 13 98          BCE   SCAN2,0&X1,,                                G  8  1641  B W09 0|0 ,         322
1749 13 99          BWZ   SCAN2,0&X1,2                                G  8  1649  V W09 0|0 2         322
1750 14 00          B     SYNER                                        G  4  1657  B 883             322
1751 14 01   CTU4   MN    0&X1                                         G  4  1661  D 0|0             322
```

```
 SEQ PG LIN  LABEL    OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1752 14 02           SAR   X1                                                 G   4  1665  Q 089             322
1753 14 03           B     BSTAR                                              G   4  1669  B U46             323
1754 14 04   ISIN    BCE   SCAN2,0&X1,%                                       G   8  1673  B W09 0|0 %       323
1755 14 05           B     BSTAR                                              G   4  1681  B U46             323
1756 14 06   OUT1    SBR   A1&3,OUT                                          G   7  1685  H /29 X35         323
1757 14 07           SBR   A2&3,OUT                                          G   7  1692  H /45 X35         323
1758 14 08           SBR   FIND&3,NOTIN                                      G   7  1699  H 983 Y00         323
1759 14 09           SBR   A3&3,FOUND                                        G   7  1706  H |25 /81         324
1760 14 10           MCW   DRESS,HEX3                                        G   7  1713  M 852 876         324
1761 14 11           MCW   SAVE1#3,X1                                        G   7  1720  M Z68 089         324
1762 14 12           MCW   @B@,CMPSW                                         G   7  1727  M Y22 /77         324
1763 14 13           MCW   @N@,ISEQU                                         G   7  1734  M Z69 /58         324
1764 14 14           FENDX C,,,SVORG,START,SVORG,SYS1,EQUIV TWO                                 MACRO
1765                 BSS   333,C                                             G   5  1741  B 333 C    GEN    325
1766                 SBR   INITAP&6,SVORG                                    G   7  1746  H 786 /81  GEN    325
1767                 SBR   BCLEAR                                            G   4  1753  H 833      GEN    325
1768                 SBR   INITXT&3,START                                    G   7  1757  H 796 /15  GEN    325
1769                 SBR   TCLEAR,SYS1                                       G   7  1764  H 710 Z79  GEN    325
1770                 LCA   @EQUIV TWO@,110                                   G   7  1771  L Z78 110  GEN    325
1771                 B     MONTER                                            G   4  1778  B 700     GEN    326
1772 14 15           LTORG *                                                 G          1782                 
                     DCW   @ERROR 4 - EQUIVALENCE SYNTAX, STATEMENT @        G  40  1821            LIT    328
                     DCW   @B@                                               G   1  1822            LIT    328
                     DCW   @<@                                               G   1  1823            LIT    328
             PRED G  DCW   #03                                               G   3  1826            AREA   328
             FXSW G  DCW   #01                                               G   1  1827            AREA   328
             FLTSWG  DCW   #01                                               G   1  1828            AREA   329
                     DCW   @IJKLMN@                                          G   6  1834            LIT    329
                     DCW   @ERROR 5 - ILLEGAL EQUIVALENCE MIXING, STATEMENT @ G 48  1882            LIT    331
             BLNK5G  DCW   #05                                               G   5  1887            AREA   331
                     DCW   @1@                                               G   1  1888            LIT    331
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@            G  36  1924            LIT    332
             HEX2 G  DCW   #03                                               G   3  1927            AREA   332
             )0L039  DCW   #01                                               G   1  1928            AREA   333
                     DCW   @ERROR 6 - UNDEFINED ARRAY, STATEMENT @           G  37  1965            LIT    333
             SAVE1G  DCW   #03                                               G   3  1968            AREA   334
                     DCW   @N@                                               G   1  1969            LIT    334
                     DCW   @EQUIV TWO@                                       G   9  1978            LIT    334
1773 14 16   SYS1    DCW   @}@                          SYSTEM GROUP MARK    G   1  1979            GMARK  334
1774 14 17           XFR   INITL                                            G          B |34             335
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1775 14 18          JOB   1401 FORTRAN  EQUIVALENCE PHASE 2
1776 14 19   110    DCW   @EQUIV TWO@                               G   9  0110                    338
1777 14 20          ORG   SVORG                                     G            1181               
1778 14 21   FOUND  LCA   @000000@,TALLY                            G   7  1181  L Z91 865         339
1779 14 22          NOP   000&X2                                    G   4  1188  N 0!0             339
1780 14 23          MCW                                             G   1  1192  M                 339
1781 14 24          MCW                                             G   1  1193  M                 339
1782 14 25          MCW                                             G   1  1194  M                 339
1783 14 26          MCW                                             G   1  1195  M                 339
1784 14 27          SAR   X2                                        G   4  1196  Q 094             339
1785 14 28          BAV   *&1                                       G   5  1200  B S05 Z           340
1786 14 29          S     ERCTR#3                                   G   4  1205  S Z94             340
1787 14 30   NEST   BCE   NOMO,001&X2,   BLANK                     G   8  1209  B S47 0!1         340
1788 14 31          A     000&X2,TALLY                              G   7  1217  A 0!0 865         340
1789 14 32          MCW   003&X2,X2                                 G   7  1224  M 0!3 094         340
1790 14 33          A     &1,ERCTR                                  G   7  1231  A Z95 Z94         340
1791 14 34          BAV   MSG                                       G   5  1238  B Z51 Z           341
1792 14 35          B     NEST                                      G   4  1243  B S09             341
1793 14 36   NOMO   MCW   X2,TALLY&3                               G   7  1247  M 094 868         341
1794 14 37          BCE   TURN,000&X1,%                             G   8  1254  B V92 0|0 %       341
1795 14 38          A     @1@,TALLY                                 G   7  1262  A Z96 865         341
1796 14 39   FIGHT  MCW   HEX3,X3                                   G   7  1269  M 876 099         341
1797 14 40          LCA   CHAMP,ACCUM                               G   7  1276  L 857 873         342
1798 14 41          S     TALLY,ACCUM                               G   7  1283  S 865 873         342
1799 14 42          BWZ   CHUMP,ACCUM,K                            G   8  1290  V W53 873 K       342
1800 14 43          LCA   TALLY&3,000&X3                           G   7  1298  L 868 0?0         342
1801 14 44          SBR   HEX3                                      G   4  1305  H 876             342
1802 14 45   ANYMO  BCE   EQUIV,000&X1,,     COMMA                  G   8  1309  B /65 0|0 ,       343
1803 14 46          BCE   BPDWN,0&X1,)                              G   8  1317  B T29 0|0 )       343
1804 14 47          B     SYNER                                     G   4  1325  B 883             343
1805 14 48   BPDWN  MN    0&X1                                      G   4  1329  D 0|0             343
1806 14 49          MN                                              G   1  1333  D                 343
1807 14 50          SAR   HEX1#3                                   G   4  1334  Q Z99             343
1808 14 51          MCW   HEX3,X3                                   G   7  1338  M 876 099         343
1809 14 52          LCA   @$@,000&X3                               G   7  1345  L !00 0?0         344
1810 14 53          MCW   DRESS,X3                                  G   7  1352  M 852 099         344
1811 14 54   MAIN   BCE   DONE,000&X3,$                            G   8  1359  B W83 0?0 $       344
1812 14 55          MCW   0&X3,HOLD3#3                              G   7  1367  M 0?0 !03         344
1813 14 56          C     CHAMP&3,HOLD3                             G   7  1374  C 860 !03         344
1814 14 57          BE    OOPS1                                     G   5  1381  B Y28 S           345
1815 14 58   GT1    MCW   0&X3,X2                                   G   7  1386  M 0?0 094         345
1816 14 59          SAR   HEX3                                      G   4  1393  Q 876             345
1817 14 60          BCE   *&5,0&X2,                    BLANK        G   8  1397  B U09 0!0         345
1818 14 61          B     OOPS2                                     G   4  1405  B Z72             345
1819 14 62   PULL1  MCW   9&X2,X1                                   G   7  1409  M 0!9 089         345
1820 14 63   LOWER  MCW   006&X2,X3      AFTER TAIL OF NEW FOLLOWER G   7  1416  M 0!6 099         346
1821 14 64          BCE   LAST,X3,       BLANK                     G   8  1423  B U47 099         346
1822 14 65          BCE   LAST,001&X3,   BLANK                     G   8  1431  B U47 0?1         346
1823 14 66          SBR   X2             TAIL OF NEW FOLLOWER      G   4  1439  H 094             346
1824 14 67          B     LOWER                                     G   4  1443  B U16             346
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1825 14 68   LAST   BCE   *&8,X3,        BLANK                      G   8  1447  B U62 099          346
1826 14 69          MCW   X1,9&X3                                   G   7  1455  M 089 0?9          347
1827 14 70          BCE   INISH,X1,         BLANK                   G   8  1462  B X24 089          347
1828 14 71          MCW   X3,6&X1                                   G   7  1470  M 099 0|6          347
1829 14 72   LINK   MCW   CHAMP&3,X1        HEAD OF LEADER          G   7  1477  M 860 089          347
1830 14 73          MCW   006&X1,006&X2                             G   7  1484  M 0|6 0!6          347
1831 14 74          MCW   6&X1,X3                                   G   7  1491  M 0|6 099          348
1832 14 75          MCW   X2,9&X3                                   G   7  1498  M 094 0?9          348
1833 14 76          MCW   HEX3,X3                                   G   7  1505  M 876 099          348
1834 14 77          MCW   003&X3,X2         HEAD OF NEW FOLLOWER    G   7  1512  M 0?3 094          348
1835 14 78          MCW   X2,006&X1                                 G   7  1519  M 094 0|6          348
1836 14 79          MCW   X1,9&X2                                   G   7  1526  M 089 0!9          349
1837 14 80          MCW   CHAMP&3,003&X2                            G   7  1533  M 860 0!3          349
1838 14 81          MCW                                             G   1  1540  M                  349
1839 14 82          S     000&X3,000&X2                             G   7  1541  S 0?0 0!0          349
1840 14 83          SAR   X3                                        G   4  1548  Q 099              349
1841 14 84          BW    MAIN,ERRSW                                G   8  1552  V T59 J44 1        349
1842 14 85          SW    ERRSW                                     G   4  1560  , J44              349
1843 14 86          C     0&X2, SAVE5                               G   7  1564  C 0!0 J43          350
1844 14 87          BE    ISRED                                     G   5  1571  B V84 S            350
1845 14 88          B     QVERR                                     G   4  1576  B Y67              350
1846 14 89          B     MAIN                                      G   4  1580  B T59              350
1847 14 90   ISRED  B     RDMSG                                     G   4  1584  B Z09              350
1848 14 91          B     MAIN                                      G   4  1588  B T59              350
1849 14 92   TURN   FFLIP 0&X1,SPACE-1,X1,X3,,,)                                                MACRO
1850        TURN   MN    SPACE-1                                   G   4  1592  D 877         GEN  350
1851               MN                                              G   1  1596  D             GEN  351
1852               SAR   X3                                        G   4  1597  Q 099         GEN  351
1853               SBR   X1, 0&X1                                  G   7  1601  H 089 0|0      GEN  351
1854        )0K043 MCW   0&X1,)0L043#1                             G   7  1608  M 0|0 !04      GEN  351
1855               SAR   X1                                        G   4  1615  Q 089         GEN  351
1856               BCE   )0M043, )0L043, )                         G   8  1619  B W42 !04 )    GEN  351
1857               MCW   )0L043, 2&X3                            G   7  1627  M !04 0?2      GEN  351
1858               SBR   X3                                        G   4  1634  H 099         GEN  352
1859               B     )0K043                                    G   4  1638  B W08         GEN  352
1860        )0M043 EQU   *&1                                       G      1642                GEN
1861 14 93          A     001&X3,TALLY                              G   7  1642  A 0?1 865          352
1862 14 94          B     FIGHT                                     G   4  1649  B S69              352
1863 14 95   CHUMP  BCE   CINCH,CHAMP,   BLANK                     G   8  1653  B W72 857          352
1864 14 96          LCA   CHAMP&3,000&X3                            G   7  1661  L 860 0?0          352
1865 14 97          SBR   HEX3                                      G   4  1668  H 876              352
1866 14 98   CINCH  MCW   TALLY&3,CHAMP&3                          G   7  1672  M 868 860          353
1867 14 99          B     ANYMO                                     G   4  1679  B T09              353
1868 15 00   DONE   MCW   HEX1,X1                                   G   7  1683  M Z99 089          353
1869 15 01          LCA   @     @,CHAMP                             G   7  1690  L !09 857          353
1870 15 02          MCW   DRESS,HEX3                                G   7  1697  M 852 876          353
1871 15 03          BCE   ISEQU,1&X1,,                              G   8  1704  B /58 0|1 ,        354
1872 15 04          BCE   START,1&X1,}                  G-M        G   8  1712  B /15 0|1 } GMARK  354
1873 15 05          B     SYNER                                     G   4  1720  B 883              354
1874 15 06   INISH  MCW   X3,FIRST                                  G   7  1724  M 099 086          354
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1875 15 07          B     LINK                                               G   4  1731  B U77              354
1876 15 08    OUT   MCW   DRESS,X3                                          G   7  1735  M 852 099          354
1877 15 09          MCW   GM, 001&X3                                        G   7  1742  M 839 0?1          355
1878 15 10          MCM   5&X1                                              G   4  1749  P 0|5              355
1879 15 11          MN                                                      G   1  1753  D                  355
1880 15 12          MN                                                      G   1  1754  D                  355
1881 15 13          SAR   X1                                               G   4  1755  Q 089              355
1882 15 14          FENDX C,GM,,XBEGIN,XBEGIN,XBEGIN,SYS2,DIMEN TWO                                 MACRO
1883                BSS   333,C                                             G   5  1759  B 333 C    GEN     355
1884                SBR   INITAP&6,XBEGIN                                   G   7  1764  H 786 838  GEN     355
1885                SBR   BCLEAR                                            G   4  1771  H 833      GEN     356
1886                SBR   INITXT&3,XBEGIN                                   G   7  1775  H 796 838  GEN     356
1887                SBR   TCLEAR,SYS2                                       G   7  1782  H 710 J45  GEN     356
1888                LCA   @DIMEN TWO@,110                                   G   7  1789  L !18 110  GEN     356
1889                B     MONTER                                            G   4  1796  B 700      GEN     356
1890 15 15    NOTIN BCE   CTU3,0&X1,)                                       G   8  1800  B Y16 0|0 )        356
1891 15 16          SBR   X1                                               G   4  1808  H 089              357
1892 15 17          B     NOTIN                                             G   4  1812  B Y00              357
1893 15 18    CTU3  MN    0&X1                                              G   4  1816  D 0|0              357
1894 15 19          SAR   X1                                               G   4  1820  Q 089              357
1895 15 20          B     EQUIV                                             G   4  1824  B /65              357
1896 15 21    OOPS1 MCW   0&X3, X2                                          G   7  1828  M 0?0 094          357
1897 15 22          SAR   X2                                               G   4  1835  Q 094              357
1898 15 23          C     0&X2, CHAMP                                       G   7  1839  C 0!0 857          358
1899 15 24          BE    REDUN                                             G   5  1846  B Y59 S            358
1900 15 25          B     QVERR                                             G   4  1851  B Y67              358
1901 15 26          B     GT1                                               G   4  1855  B T86              358
1902 15 27    REDUN B     RDMSG                                             G   4  1859  B Z09              358
1903 15 28          B     GT1                                               G   4  1863  B T86              358
1904 15 29    QVERR SBR   QVXT&3                                           G   4  1867  H Z08              358
1905 15 30          FTMSG 7,ILLEGAL EQUIVALENCE,WORK,20                                             MACRO
1906                CS    332                                               G   4  1871  / 332      GEN     359
1907                CS                                                      G   1  1875  /          GEN     359
1908                SW    FAILSW                                            G   4  1876  , 184      GEN     359
1909                MN    WORK,224&20                                       G   7  1880  D 849 244  GEN     359
1910                MN                                                      G   1  1887  D          GEN     359
1911                MN                                                      G   1  1888  D          GEN     359
1912                MCW   @ERROR 7 - ILLEGAL EQUIVALENCE, STATEMENT @       G   4  1889  M !59      GEN     359
1913                W                                                       G   1  1893  2          GEN     360
1914                BCV   *&5                                               G   5  1894  B Z03 @    GEN     360
1915                B     *&3                                               G   4  1899  B Z05      GEN     360
1916                CC    1                                                 G   2  1903  F 1        GEN     360
1917 15 31    QVXT  B     0                                                 G   4  1905  B 000              360
1918 15 32    RDMSG SBR   RDXT&3                                            G   4  1909  H Z50              360
1919 15 33          FTMSG 8,REDUNDANT EQUIVALENCE,WORK,22                                           MACRO
1920                CS    332                                               G   4  1913  / 332      GEN     360
1921                CS                                                      G   1  1917  /          GEN     361
1922                SW    FAILSW                                            G   4  1918  , 184      GEN     361
1923                MN    WORK,224&22                                       G   7  1922  D 849 246  GEN     361
1924                MN                                                      G   1  1929  D          GEN     361
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
1925             MN                                                      G   1  1930  D           GEN    361
1926             MCW   @ERROR 8 - REDUNDANT EQUIVALENCE, STATEMENT @      G   4  1931  M J02       GEN    361
1927             W                                                       G   1  1935  2           GEN    361
1928             BCV   *&5                                               G   5  1936  B Z45 @     GEN    362
1929             B     *&3                                               G   4  1941  B Z47       GEN    362
1930             CC    1                                                 G   2  1945  F 1         GEN    362
1931 15 34  RDXT B     0                                                 G   4  1947  B 000             362
1932 15 35  MSG  MESSG @CORRECT ERRORS INDICATED AND RESTART@,70,L,1                                MACRO
1933        MSG  CC    L                                                 G   2  1951  F L         GEN    362
1934             CS    332                                               G   4  1953  / 332       GEN    362
1935             CS                                                      G   1  1957  /           GEN    362
1936             MCW   @CORRECT ERRORS INDICATED AND RESTART@,70&200     G   7  1958  M J38 270   GEN    363
1937             W                                                       G   1  1965  2           GEN    363
1938             CC    1                                                 G   2  1966  F 1         GEN    363
1939 15 36       H     *-3                                               G   4  1968  . Z68             363
1940 15 37  OOPS2 MCW   0&X2, SAVE5#5                                    G   7  1972  M 0!0 J43         363
1941 15 38       CW    ERRSW#1                                           G   4  1979  ) J44           363
1942 15 39       B     PULL1                                             G   4  1983  B U09           363
1943 15 40       LTORG *                                                 G              1987
                 DCW   @000000@                                        G   5  1991            LIT    364
            ERCTRG DCW   #03                                            G   3  1994            AREA   364
                 DCW   &1                                              G   1  1995            LIT    364
                 DCW   @1@                                             G   1  1996            LIT    364
            HEX1 G DCW   #03                                            G   3  1999            AREA   364
                 DCW   @$@                                             G   1  2000            LIT    364
            HOLD3G DCW   #03                                            G   3  2003            AREA   364
            )0L043 DCW   #01                                            G   1  2004            AREA   365
                 DCW   @     @                                         G   5  2009            LIT    365
                 DCW   @DIMEN TWO@                                     G   9  2018            LIT    365
                 DCW   @ERROR 7 - ILLEGAL EQUIVALENCE, STATEMENT @     G  41  2059            LIT    367
                 DCW   @ERROR 8 - REDUNDANT EQUIVALENCE, STATEMENT @   G  43  2102            LIT    369
                 DCW   @CORRECT ERRORS INDICATED AND RESTART@          G  36  2138            LIT    370
            SAVE5G DCW   #05                                            G   5  2143            AREA   371
            ERRSWG DCW   #01                                            G   1  2144            AREA   371
1944 15 41  SYS2 DCW   @}@                          SYSTEM GROUP MARK   G   1  2145            GMARK  371
1945 15 42       XFR   START                                           G          B /15             372
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1946 15 43          JOB   1401 FORTRAN   DIMENSION PHASE TWO
1947 15 44          FBEGN DIMEN TWO,X1,,X2,R,X3,,H                                                MACRO
1948                SFX   H                                                                     GEN
1949          110   DCW   @DIMEN TWO@                               H   9  0110              GEN    375
1950          X1    EQU   089                                       H      0089              GEN
1951          X2    EQU   094                                       H      0094              GEN
1952          094   DCW   000                                       H   3  0094              GEN    376
1953          096   DC    00                                        H   2  0096              GEN    376
1954          X3    EQU   099                                       H      0099              GEN
1955 15 45    PARAM EQU   PARAMA                                    H      0686
1956 15 46          ORG   XBEGIN                                    H             0838
1957 15 47    TSTIO BCE   INITL,PARAM&10,    BLANK                  H   8  0838  B 891 696           377
1958 15 48          SBR   X2,AFORM                                  H   7  0846  H 094 !60           377
1959 15 49          BCE   MOVE,PARAM&10,A                           H   8  0853  B !33 696 A         377
1960 15 50          SBR   X2,LIMIO                                  H   7  0861  H 094 !68           377
1961 15 51          BCE   MOVE,PARAM&10,L                           H   8  0868  B !33 696 L         377
1962 15 52          SBR   X2,NOIO                                   H   7  0876  H 094 !76           378
1963 15 53          BCE   MOVE,PARAM&10,X                           H   8  0883  B !33 696 X         378
1964 15 54    INITL MCW   X3,083    ADDRESS OF TABLE-1              H   7  0891  M 099 083           378
1965 15 55          A     &2,PARAM&6                                H   7  0898  A J30 692           378
1966 15 56          SW    GM                                        H   4  0905  , !85              378
1967 15 57          LCA   GM,001&X3                                 H   7  0909  L !85 0?1           379
1968 15 58          BCE   NIX,086,            BLANK, NO DIMENSION  H   8  0916  B V98 086           379
1969 15 59          MCW   086,X3    ADDRESS OF LOWEST ARRAY         H   7  0924  M 086 099           379
1970 15 60    START S     ACCUM#6                                   H   4  0931  S J36              379
1971 15 61          MCW   006&X3,LINK#3                            H   7  0935  M 0?6 J39           379
1972 15 62          BCE   LEADR,001&X3,       BLANK                H   8  0942  B T43 0?1           380
1973 15 63          MCW   003&X3,X2      ADDRESS OF LEADER IN X2   H   7  0950  M 0?3 094           380
1974 15 64          ZA    000&X3,PROD                               H   7  0957  ? 0?0 !91           380
1975 15 65          M     005&X2,PROD&3                             H   7  0964  @ 0!5 !94           380
1976 15 66          A     000&X2,PROD&3                             H   7  0971  A 0!0 !94           380
1977 15 67          MCW   PROD&3,000&X3                           H   7  0978  M !94 0?0           381
1978 15 68    PACK  MCW   000&X3,ACCUM                             H   7  0985  M 0?0 J36           381
1979 15 69          SAR   X3                                        H   4  0992  Q 099              381
1980 15 70          S     &1,ACCUM                                  H   7  0996  S J40 J36           381
1981 15 71          MCW   X3,X2                                    H   7  1003  M 099 094           381
1982 15 72    LOOP3 MCM   2&X2                                      H   4  1010  P 0!2              381
1983 15 73          MN                                            H   1  1014  D                  381
1984 15 74          MN                                            H   1  1015  D                  382
1985 15 75          SAR   X2                                       H   4  1016  Q 094              382
1986 15 76          BCE   LOOP3,1&X2,|                            H   8  1020  B |10 0!1 |         382
1987 15 77          MCW   0&X2,BOX#1                              H   7  1028  M 0!0 J41           382
1988 15 78          MCW   BOX,*&8                                 H   7  1035  M J41 |49           382
1989 15 79          BCE   FIX1,@IJKLMN@,0                         H   8  1042  B T32 J47 0         382
1990 15 80          CHAIN 5                                                                       MACRO
1991                BCE                                           H   1  1050  B                  GEN    382
1992                BCE                                           H   1  1051  B                  GEN    383
1993                BCE                                           H   1  1052  B                  GEN    383
1994                BCE                                           H   1  1053  B                  GEN    383
1995                BCE                                           H   1  1054  B                  GEN    383
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1996 15 81          A     PARAMA&6,ACCUM                             H   7  1055  A 692 J36          383
1997 15 82   CTU3   MCW   ACCUM,14&X3                               H   7  1062  M J36 0A4          383
1998 15 83          MCW   ACCUM-3,X2                                 H   7  1069  M J33 094          383
1999 15 84          A     X2                                         H   4  1076  A 094              384
2000 15 85          MZ    ZONES&X2,012&X3                            H   7  1080  Y !R8 0A2          384
2001 15 86          MZ    ZONES&1&X2,014&X3                          H   7  1087  Y !R9 0A4          384
2002 15 87          ZA    @0@,PROD                                   H   7  1094  ? J48 !91          384
2003 15 88          MCW   000&X3,PROD                                H   7  1101  M 0?0 !91          384
2004 15 89          MCW   BLANK                                      H   4  1108  M !96              384
2005 15 90          SBR   MPLR&6                                     H   4  1112  H /39              385
2006 15 91          NOP   000&X3                                     H   4  1116  N 0?0              385
2007 15 92          MCW                                              H   1  1120  M                  385
2008 15 93          SAR   X2                                         H   4  1121  Q 094              385
2009 15 94          BCE   NOCOL,000&X2,}       12-7-8, INITL SETS IN DRESS&1  H   8  1125  B /47 0!0 } GMARK  385
2010 15 95   MPLR   MCW   000&X2,000                                 H   7  1133  M 0!0 000          385
2011 15 96          M     000&X3,PROD                                H   7  1140  @ 0?0 !91          385
2012 15 97   NOCOL  LCA   @   @,008&X3                              H   7  1147  L J51 0?8          386
2013 15 98          MCW   X1,HOLD1#3                                H   7  1154  M 089 J54          386
2014 15 99          MCW   14&X3,X1                                  H   7  1161  M 0A4 089          386
2015 16 00          MCW   BOX,*&8                                   H   7  1168  M J41 /82          386
2016 16 01          BCE   FIXED,@IJKLMN@,0                          H   8  1175  B T65 J60 0         386
2017 16 02          CHAIN 5                                                                MACRO
2018                BCE                                            H   1  1183  B                  GEN    386
2019                BCE                                            H   1  1184  B                  GEN    386
2020                BCE                                            H   1  1185  B                  GEN    387
2021                BCE                                            H   1  1186  B                  GEN    387
2022                BCE                                            H   1  1187  B                  GEN    387
2023 16 03          M     PARAM&6,PROD&3                             H   7  1188  @ 692 !94          387
2024 16 04          MZ    @A@,007&X3                                 H   7  1195  Y J61 0?7          387
2025 16 05          MCW   PARAM&6,010&X3                             H   7  1202  M 692 0A0          387
2026 16 06   BUMP   MZ    7&X3,13&X3                                 H   7  1209  Y 0?7 0A3          387
2027 16 07          MCW   HOLD1,X1                                   H   7  1216  M J54 089          388
2028 16 08          S     10&X3,ACCUM                                H   7  1223  S 0A0 J36          388
2029 16 09          A     PROD&3,ACCUM                               H   7  1230  A !94 J36          388
2030 16 10          FPACK ACCUM,8&X3,X2                                                    MACRO
2031                INCLD ZONES                                                            MACRO
2032                MN    ACCUM,8&X3                                 H   7  1237  D J36 0?8    GEN    388
2033                MN                                               H   1  1244  D            GEN    388
2034                MN                                               H   1  1245  D            GEN    388
2035                SAR   *&4                                        H   4  1246  Q S53         GEN    388
2036                MCW   0,X2                                       H   7  1250  M 000 094     GEN    389
2037                MCW   @0@                                        H   4  1257  M J48         GEN    389
2038                A     X2                                         H   4  1261  A 094        GEN    389
2039                MZ    ZONES&1&X2,8&X3                            H   7  1265  Y !R9 0?8    GEN    389
2040                CW                                               H   1  1272  )            GEN    389
2041                SBR   *&7                                        H   4  1273  H S83        GEN    389
2042                MZ    ZONES&X2, 0                                H   7  1277  Y !R8 000    GEN    389
2043 16 11          A     &1,ACCUM                                   H   7  1284  A J40 J36          390
2044 16 12          S     ACCUM,COUNT                                H   7  1291  S J36 !49          390
2045 16 13          BWZ   ALTER,COUNT,K                              H   8  1298  V T54 !49 K        390
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2046 16 14          A     ACCUM,COUNT                        H   7  1306  A J36 !49          390
2047 16 15    TEST  BCE   OUT,LINK,        BLANK            H   8  1313  B T90 J39          390
2048 16 16          MCW   LINK,X3                            H   7  1321  M J39 099          391
2049 16 17          B     START                              H   4  1328  B 931              391
2050 16 18    FIX1  A     PARAMA&4,ACCUM                     H   7  1332  A 690 J36          391
2051 16 19          B     CTU3                               H   4  1339  B |62              391
2052 16 20    LEADR MCW   COUNT,000&X3                       H   7  1343  M !49 0?0          391
2053 16 21          B     PACK                               H   4  1350  B 985              391
2054 16 22    ALTER MCW   ACCUM,COUNT                       H   7  1354  M J36 !49          392
2055 16 23          B     TEST                               H   4  1361  B T13              392
2056 16 24    FIXED M     PARAM&4,PROD&3                     H   7  1365  @ 690 !94          392
2057 16 25          MZ    @J@,007&X3                         H   7  1372  Y J62 0?7          392
2058 16 26          MCW   PARAM&4,010&X3                     H   7  1379  M 690 0A0          392
2059 16 27          B     BUMP                               H   4  1386  B S09              392
2060 16 28    OUT   UNPAK PARAM&2,RELOC                                                MACRO
2061          OUT   S     )0M050#2                           H   4  1390  S J64       GEN    393
2062                S     )0L050#2                           H   4  1394  S J66       GEN    393
2063                MZ    PARAM&2,)0M050-1                   H   7  1398  Y 688 J63   GEN    393
2064                MZ    PARAM&2-2,)0L050-1                 H   7  1405  Y 686 J65   GEN    393
2065          )0J050 BWZ  )0K050, )0L050-1, 2                H   8  1412  V U31 J65 2 GEN    393
2066                A     @A0@, )0L050                       H   7  1420  A J68 J66   GEN    393
2067                B     )0J050                             H   4  1427  B U12       GEN    394
2068          )0K050 BWZ  )0P050, )0M050-1, 2                H   8  1431  V U50 J63 2 GEN    394
2069                A     @?4@, )0M050                       H   7  1439  A J70 J64   GEN    394
2070                B     )0K050                             H   4  1446  B U31       GEN    394
2071          )0P050 A    )0L050-1,)0M050                    H   7  1450  A J65 J64   GEN    394
2072                MCW   PARAM&2,RELOC                      H   7  1457  M 688 !81   GEN    394
2073                MCW   )0M050                             H   4  1464  M J64       GEN    395
2074                ZA    RELOC                              H   4  1468  ? !81       GEN    395
2075                MZ    *-4, RELOC                         H   7  1472  Y U74 !81   GEN    395
2076 16 29          S     COUNT,RELOC                        H   7  1479  S !49 !81          395
2077 16 30          S     &1,RELOC                           H   7  1486  S J40 !81          395
2078 16 31          BWZ   TUBIG,RELOC,K                      H   8  1493  V V66 !81 K        395
2079 16 32          FPACK RELOC,ADJST,X2                                                 MACRO
2080                INCLD ZONES                                                          MACRO
2081                MN    RELOC,ADJST                        H   7  1501  D !81 !84   GEN    396
2082                MN                                       H   1  1508  D          GEN    396
2083                MN                                       H   1  1509  D          GEN    396
2084                SAR   *&4                                H   4  1510  Q V17       GEN    396
2085                MCW   0,X2                               H   7  1514  M 000 094   GEN    396
2086                MCW   @0@                                H   4  1521  M J48       GEN    396
2087                A     X2                                 H   4  1525  A 094       GEN    396
2088                MZ    ZONES&1&X2,ADJST                   H   7  1529  Y !R9 !84  GEN    397
2089                CW                                       H   1  1536  )          GEN    397
2090                SBR   *&7                                H   4  1537  H V47       GEN    397
2091                MZ    ZONES&X2, 0                        H   7  1541  Y !R8 000  GEN    397
2092 16 33          MCW   NXTOP,CONLST                       H   7  1548  M !52 194          397
2093 16 34          MA    ADJST,CONLST                       H   7  1555  # !84 194          397
2094 16 35          B     SKIPF                              H   4  1562  B W05              397
2095 16 36    TUBIG BW    SKIPF,LGSW                         H   8  1566  V W05 !95 1        398
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2096 16 37          CS    332                                                H  4  1574  / 332              398
2097 16 38          CS                                                       H  1  1578  /                  398
2098 16 39          MLC   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270         H  7  1579  M K06 270          398
2099 16 40          W                                                        H  1  1586  2                  398
2100 16 41          SW    FAILSW,LGSW                                        H  7  1587  , 184 !95          398
2101 16 42          S     RELOC                                              H  4  1594  S !81             398
2102 16 43   NIX    MCW   PARAM&2,CONLST                                     H  7  1598  M 688 194          399
2103 16 44   SKIPF  MCW   NXTOP,086                                          H  7  1605  M !52 086         399
2104 16 45   *DUMP ARRAY TABLE
2105 16 46          CC    L                                                  H  2  1612  F L               399
2106 16 47          FORMS                                                                  MACRO
2107                BCV   *&5                                                H  5  1614  B W23 @     GEN   399
2108                B     *&3                                                H  4  1619  B W25       GEN   399
2109                CC    1                                                  H  2  1623  F 1         GEN   399
2110 16 48          CS    332                                                H  4  1625  / 332             399
2111 16 49          CS                                                       H  1  1629  /                 400
2112 16 50          MCW   @STORAGE ASSIGNMENT-ARRAYS & EQUATED VARIABLES@,247 H  7  1630  M K51 247         400
2113 16 51          W                                                        H  1  1637  2                 400
2114 16 52          CC    J                                                  H  2  1638  F J               400
2115 16 53          MCW   083,X3                                             H  7  1640  M 083 099         400
2116 16 54   LOOPA  NOP   10&X3                                             H  4  1647  N 0A0             400
2117 16 55          MCM                                                      H  1  1651  P                 400
2118 16 56          SAR   X3                                                 H  4  1652  Q 099             401
2119 16 57          CS    299                                                H  4  1656  / 299             401
2120 16 58   TSDUN  BCE   NODUN,0&X3,|                                       H  8  1660  B Z72 0?0 |       401
2121 16 59          BCE                                                      H  1  1668  B                 401
2122 16 60          MN    0&X3                                               H  4  1669  D 0?0             401
2123 16 61          MN                                                       H  1  1673  D                 401
2124 16 62          SAR   X3                                                 H  4  1674  Q 099             401
2125 16 63          BCE   NORAY,0&X3,:                5-8                   H  8  1678  B Z84 0?0 :       402
2126 16 64          FFLIP 0&X3,201,X3,X2,INC,WM                                            MACRO
2127                MN    201                                                H  4  1686  D 201       GEN   402
2128                MN                                                       H  1  1690  D           GEN   402
2129                SAR   X2                                                 H  4  1691  Q 094       GEN   402
2130                SBR   X3, 0&X3                                           H  7  1695  H 099 0?0   GEN   402
2131         )0K053 MCW   0&X3,)0L053#1                                      H  7  1702  M 0?0 K52   GEN   402
2132                SAR   X3                                                 H  4  1709  Q 099       GEN   402
2133                MCW   )0L053, 2&X2                                       H  7  1713  M K52 0!2   GEN   403
2134                SBR   X2                                                 H  4  1720  H 094       GEN   403
2135                BW    )0M053, 1&X3                                       H  8  1724  V X36 0?1 1 GEN   403
2136                B     )0K053                                             H  4  1732  B X02       GEN   403
2137         )0M053 EQU   *&1                                                H     1736              GEN
2138 16 65          C     0&X3                                               H  4  1736  C 0?0             403
2139 16 66          CHAIN 3                                                                MACRO
2140                C                                                        H  1  1740  C           GEN   403
2141                C                                                        H  1  1741  C           GEN   403
2142                C                                                        H  1  1742  C           GEN   404
2143 16 67          SAR   X2                                                 H  4  1743  Q 094             404
2144 16 68          A     RELOC,5&X2                                         H  7  1747  A !81 0!5         404
2145 16 69          MA    ADJST,8&X2                                         H  7  1754  # !84 0!8         404
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2146 16 70           MA    ADJST,14&X2                        H   7  1761  # !84 0J4        404
2147 16 71           MCS   5&X2,218                          H   7  1768  Z 0!5 218        404
2148 16 72           MCW   8&X2,234                          H   7  1775  M 0!8 234        405
2149 16 73           MZ    BLANK,233                         H   7  1782  Y !96 233        405
2150 16 74           SW    220                               H   4  1789  , 220            405
2151 16 75           UNPAK 8&X2,224                                                 MACRO
2152                 S     )0M054#2                          H   4  1793  S K54       GEN  405
2153                 S     )0L054#2                          H   4  1797  S K56       GEN  405
2154                 MZ    8&X2,)0M054-1                     H   7  1801  Y 0!8 K53   GEN  405
2155                 MZ    8&X2-2,)0L054-1                   H   7  1808  Y 0!6 K55   GEN  406
2156          )0J054 BWZ   )0K054, )0L054-1, 2               H   8  1815  V Y34 K55 2 GEN  406
2157                 A     @A0@, )0L054                      H   7  1823  A J68 K56   GEN  406
2158                 B     )0J054                            H   4  1830  B Y15       GEN  406
2159          )0K054 BWZ   )0P054, )0M054-1, 2               H   8  1834  V Y53 K53 2 GEN  406
2160                 A     @?4@, )0M054                      H   7  1842  A J70 K54   GEN  407
2161                 B     )0K054                            H   4  1849  B Y34       GEN  407
2162          )0P054 A     )0L054-1,)0M054                   H   7  1853  A K55 K54   GEN  407
2163                 MCW   8&X2,224                          H   7  1860  M 0!8 224   GEN  407
2164                 MCW   )0M054                            H   4  1867  M K54       GEN  407
2165                 ZA    224                               H   4  1871  ? 224       GEN  407
2166                 MZ    *-4, 224                          H   7  1875  Y Y77 224   GEN  408
2167 16 76           MCW   @-@,219                          H   7  1882  M K57 219        408
2168 16 77           FPACK 5&X2,230,X2                                              MACRO
2169                 INCLD ZONES                                                    MACRO
2170                 MN    5&X2,230                          H   7  1889  D 0!5 230   GEN  408
2171                 MN                                      H   1  1896  D           GEN  408
2172                 MN                                      H   1  1897  D           GEN  408
2173                 SAR   *&4                               H   4  1898  Q Z05       GEN  408
2174                 MCW   0,X2                              H   7  1902  M 000 094   GEN  408
2175                 MCW   @0@                               H   4  1909  M J48       GEN  409
2176                 A     X2                                H   4  1913  A 094       GEN  409
2177                 MZ    ZONES&1&X2,230                    H   7  1917  Y !R9 230   GEN  409
2178                 CW                                      H   1  1924  )           GEN  409
2179                 SBR   *&7                               H   4  1925  H Z35       GEN  409
2180                 MZ    ZONES&X2, 0                       H   7  1929  Y !R8 000   GEN  409
2181 16 78           FORMS                                                          MACRO
2182                 BCV   *&5                               H   5  1936  B Z45 @     GEN  409
2183                 B     *&3                               H   4  1941  B Z47       GEN  410
2184                 CC    1                                 H   2  1945  F 1         GEN  410
2185 16 79           W                                       H   1  1947  2                410
2186 16 80           CS    299                               H   4  1948  / 299            410
2187 16 81           MCM   1&X3                              H   4  1952  P 0?1            410
2188 16 82           SAR   X3                                H   4  1956  Q 099            410
2189 16 83           BCE   EOJ,0&X3,                  BLANK  H   8  1960  B !08 0?0        410
2190 16 84           B     LOOPA                             H   4  1968  B W47            411
2191 16 85   NODUN   MCM   0&X3                              H   4  1972  P 0?0            411
2192 16 86           SBR   X3                                H   4  1976  H 099            411
2193 16 87           B     TSDUN                             H   4  1980  B W60            411
2194 16 88   NORAY   MESSG @NO ARRAYS@,9                                            MACRO
2195         NORAY   CS    332                               H   4  1984  / 332       GEN  411
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2196                CS                                                      H   1  1988  /           GEN    411
2197                MCW   @NO ARRAYS@,9&200                                 H   7  1989  M K66 209   GEN    411
2198                W                                                       H   1  1996  2           GEN    412
2199                BCV   *&5                                               H   5  1997  B !06 @     GEN    412
2200                B     *&3                                               H   4  2002  B !08       GEN    412
2201                CC    1                                                 H   2  2006  F 1         GEN    412
2202 16 89  EOJ     CC    L                                                 H   2  2008  F L               412
2203 16 90          FENDX E,GM,,,,,SYS2,VARBL1                                                    MACRO
2204                BSS   333,E                                             H   5  2010  B 333 E     GEN    412
2205                SBR   TCLEAR,SYS2                                       H   7  2015  H 710 K73   GEN    412
2206                LCA   @VARBL1@,110                                      H   7  2022  L K72 110   GEN    413
2207                B     MONTER                                            H   4  2029  B 700       GEN    413
2208 16 91  MOVE    MCW   0&X2,NXTOP                                        H   7  2033  M 0!0 !52         413
2209 16 92          MCW                                                     H   1  2040  M                 413
2210 16 93          B     INITL                                             H   4  2041  B 891             413
2211 16 94  COUNT   DCW   04280                          CHANGE             H   5  2049                    413
2212 16 95  NXTOP   DSA   4279                           ON                 H   3  2052  27Z               413
2213 16 96          DCW   04617                          REASSEMBLY         H   5  2057                    414
2214 16 97  AFORM   DSA   4616                           OF                 H   3  2060  61W               414
2215 16 98          DCW   02016                          OBJECT             H   5  2065                    414
2216 16 99  LIMIO   DSA   2015                           TIME               H   3  2068  !15               414
2217 17 00          DCW   01697                          FORMAT             H   5  2073                    414
2218 17 01  NOIO    DSA   1696                           PACKAGES           H   3  2076  W96               414
2219 17 02  RELOC   DCW   00000                                             H   5  2081                    414
2220 17 03  ADJST   DSA   000                                               H   3  2084  000               415
2221 17 04  GM      DC    @}@                            G-M                H   1  2085              GMARK  415
2222 17 05  PROD    DCW   #6                                                H   6  2091                    415
2223 17 06          DC    #3                                                H   3  2094                    415
2224 17 07  LGSW    DC    #1                                                H   1  2095                    415
2225 17 08  BLANK   DCW   #01                                               H   1  2096                    415
2226 17 09          ORG   *                                                 H            2097
2227                LTORG *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG   H            2097
2228                DCW   #1                                                H   1  2097              GEN    415
2229        ZONES   DC    9                                                 H   1  2098              GEN    415
2230                DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                 H  31  2129              GEN    416
            *         LTORG*                                                                          GEN
                    DCW   &2                                                H   1  2130              LIT    416
            ACCUMH  DCW   #06                                               H   6  2136              AREA   416
            LINK H  DCW   #03                                               H   3  2139              AREA   417
                    DCW   &1                                                H   1  2140              LIT    417
            BOX   H DCW   #01                                               H   1  2141              AREA   417
                    DCW   @IJKLMN@                                          H   6  2147              LIT    417
                    DCW   @0@                                               H   1  2148              LIT    417
                    DCW   @   @                                             H   3  2151              LIT    417
            HOLD1H  DCW   #03                                               H   3  2154              AREA   417
                    DCW   @IJKLMN@                                          H   6  2160              LIT    418
                    DCW   @A@                                               H   1  2161              LIT    418
                    DCW   @J@                                               H   1  2162              LIT    418
            )0M050  DCW   #02                                               H   2  2164              AREA   418
            )0L050  DCW   #02                                               H   2  2166              AREA   418
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@A0@	H	2	2168		LIT	418
				DCW	@?4@	H	2	2170		LIT	418
				DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	H	36	2206		LIT	419
				DCW	@STORAGE ASSIGNMENT-ARRAYS & EQUATED VARIABLES@	H	45	2251		LIT	421
			)0L053	DCW	#01	H	1	2252		AREA	421
			)0M054	DCW	#02	H	2	2254		AREA	421
			)0L054	DCW	#02	H	2	2256		AREA	421
				DCW	@-@	H	1	2257		LIT	421
				DCW	@NO ARRAYS@	H	9	2266		LIT	422
				DCW	@VARBL1@	H	6	2272		LIT	422
2231	17	10	SYS2	DCW	@}@ SYSTEM AND WORK GROUP MARK	H	1	2273		GMARK	422
2232	17	11		XFR	TSTIO	H			B 838		423

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2233 17 12          JOB   1401 FORTRAN  VARIABLES PHASE ONE
2234 17 13          FBEGN VARBL 1,X1,,X2,R,X3,R,I                                              MACRO
2235                SFX   I                                                                    GEN
2236          110   DCW   @VARBL 1@                                  I   7  0110             GEN    426
2237          X1    EQU   089                                       I      0089             GEN
2238          X2    EQU   094                                       I      0094             GEN
2239          094   DCW   000                                       I   3  0094             GEN    427
2240          096   DC    00                                        I   2  0096             GEN    427
2241          X3    EQU   099                                       I      0099             GEN
2242          099   DCW   000                                       I   3  0099             GEN    427
2243          100   DC    0                                         I   1  0100             GEN    427
2244 17 14          ORG   XBEGIN                                    I            0838
2245 17 15    * REPLACE ARRAY NAMES IN SOURCE PROGRAM WITH ADDRESSES,
2246 17 16    * PROCESS SUBSCRIPTS
2247 17 17    * MARK SIMPLE VARIABLES WITH A DELTA FOR VARBL, PHASE 2
2248 17 18    INITL MCW   083,X2                                    I   7  0838  M 083 094          428
2249 17 19          MCW   X2,DRESS#3                                I   7  0845  M 094 O36          428
2250 17 20          SW    GM                                        I   4  0852  , N55            428
2251 17 21    START BCE   OUT,000&X1,    BLANK                    I   8  0856  B J38 0|0          428
2252 17 22          LCA   000&X1,WORK#10                           I   7  0864  L 0|0 O46          428
2253 17 23          SAR   X1                                       I   4  0871  Q 089            428
2254 17 24          SBR   X3                                       I   4  0875  H 099            429
2255 17 25          LCA   WORK,000&X2                             I   7  0879  L O46 0!0          429
2256 17 26          SBR   X2                                       I   4  0886  H 094            429
2257 17 27          BCE   FMAT,CODE-3,F                           I   8  0890  B M70 O43 F        429
2258 17 28          SW    WORK-3                                    I   4  0898  , O43            429
2259 17 29          MCW   CODE-3,*&8                              I   7  0902  M O43 916          429
2260 17 30          BCE   LIST,@3L5UP61@,0    D-CHAR MODIFIED     I   8  0909  B J68 O53 0        430
2261 17 31          CHAIN 6                                                                    MACRO
2262                BCE                                           I   1  0917  B              GEN    430
2263                BCE                                           I   1  0918  B              GEN    430
2264                BCE                                           I   1  0919  B              GEN    430
2265                BCE                                           I   1  0920  B              GEN    430
2266                BCE                                           I   1  0921  B              GEN    430
2267                BCE                                           I   1  0922  B              GEN    430
2268 17 32          MCW   @N@,SWCHA                               I   7  0923  M O54 956          431
2269 17 33          MCW   @N@,SWCHB                               I   7  0930  M O54 T32          431
2270 17 34    * SEARCH FOR ALPHA CHARACTER WHICH MIGHT BE VARIABLE NAME
2271 17 35    FIND  MCW   000&X1,BOX#1                            I   7  0937  M 0|0 O55          431
2272 17 36          SAR   X1                                       I   4  0944  Q 089            431
2273 17 37          BWZ   FIND,BOX,2     NO ZONE, NUMERICS AND EQUALS I   8  0948  V 937 O55 2        431
2274 17 38    SWCHA NOP   RTPAR                                    I   4  0956  N K12            431
2275 17 39    MDIFY MCW   BOX,*&8                                 I   7  0960  M O55 974          432
2276 17 40          BCE   FIND,@@*-&.%),@,0      D CHAR MODIFIED  I   8  0967  B 937 O63 0        432
2277 17 41          CHAIN 7                                                                    MACRO
2278                BCE                                           I   1  0975  B              GEN    432
2279                BCE                                           I   1  0976  B              GEN    432
2280                BCE                                           I   1  0977  B              GEN    432
2281                BCE                                           I   1  0978  B              GEN    432
2282                BCE                                           I   1  0979  B              GEN    432
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2283                BCE                                            I   1  0980  B           GEN    433
2284                BCE                                            I   1  0981  B           GEN    433
2285 17 42          BCE   CKXPN,BOX,E     MAY BE EXPONENT          I   8  0982  B K99 O55 E       433
2286 17 43          BCE   SW1,BOX,}       GROUP MARK               I   8  0990  B /19 O55 } GMARK 433
2287 17 44          MCW   2&X1,BOX2#1                              I   7  0998  M 0|2 O64         433
2288 17 45          MCW   BOX2,*&8                                 I   7  1005  M O64 |19         433
2289 17 46          BCE   SW1,MRKRS,0                @*&-,#%) AND GM I   8  1012  B /19 N01 0       434
2290 17 47          CHAIN 8                                                                MACRO
2291                BCE                                            I   1  1020  B           GEN    434
2292                BCE                                            I   1  1021  B           GEN    434
2293                BCE                                            I   1  1022  B           GEN    434
2294                BCE                                            I   1  1023  B           GEN    434
2295                BCE                                            I   1  1024  B           GEN    434
2296                BCE                                            I   1  1025  B           GEN    434
2297                BCE                                            I   1  1026  B           GEN    435
2298                BCE                                            I   1  1027  B           GEN    435
2299 17 48          BCE   SW1,CODE-3,D                DO STMT        I   8  1028  B /19 O43 D       435
2300 17 49  VSERR   FMESG 9,VARIABLE SYNTAX,CODE,16                                        MACRO
2301        VSERR   CS    332                                        I   4  1036  / 332       GEN    435
2302                CS                                             I   1  1040  /           GEN    435
2303                SW    FAILSW                                   I   4  1041  , 184       GEN    435
2304                MN    CODE,224&16                              I   7  1045  D O46 240   GEN    435
2305                MN                                             I   1  1052  D           GEN    436
2306                MN                                             I   1  1053  D           GEN    436
2307                MCW   @ERROR 9 - VARIABLE SYNTAX, STATEMENT @   I   4  1054  M P01       GEN    436
2308                W                                              I   1  1058  2           GEN    436
2309                BCV   *&5                                      I   5  1059  B |68 @      GEN    436
2310                B     *&3                                      I   4  1064  B |70        GEN    436
2311                CC    1                                        I   2  1068  F 1         GEN    436
2312 17 50          BW    SYN2R,SYN2S                              I   8  1070  V Z38 N02 1       437
2313 17 51          SBR   X1,1&X1                                  I   7  1078  H 089 0|1         437
2314 17 52          SW    ERRSW                                    I   4  1085  , N04             437
2315 17 53          B     LIMIT                                    I   4  1089  B /71             437
2316 17 54  RTNA    LCA   @0?0@,0&X2                 0,12-0,0    I   7  1093  L P04 0!0         437
2317 17 55          SBR   X2                                       I   4  1100  H 094             437
2318 17 56          SBR   X3,1&X1                                  I   7  1104  H 099 0|1         438
2319 17 57          SBR   X1                                       I   4  1111  H 089             438
2320 17 58          B     BOTM                                     I   4  1115  B U45             438
2321 17 59  SW1     SW    1&X1                                     I   4  1119  , 0|1             438
2322 17 60  *SHIFT ALL BUT VARIABLE
2323 17 61          LCA   00&X3,000&X2        SLIDE ONE EXTRA CHAR I   7  1123  L 0?0 0!0         438
2324 17 62          SBR   X2                 NECESS. IF 1ST CHAR IS ALPHA
                                                                   I   4  1130  H 094             438
2325 17 63          CW    001&X1                                   I   4  1134  ) 0|1             438
2326 17 64          SBR   X3,1&X1                                  I   7  1138  H 099 0|1         439
2327 17 65          SBR   KLOBR&6,2&X1                            I   7  1145  H U74 0|2         439
2328 17 66          MCW   @;@                          11-6-8      I   4  1152  M P05             439
2329 17 67          BCE   NOMO,BOX,}      GROUP MARK               I   8  1156  B K43 O55 } GMARK 439
2330 17 68          ZA    &1,COUNT#2                               I   7  1164  ? P06 P08         439
2331 17 69  *  SCAN TO BOTTOM OF  VARIABLE
2332 17 70  LIMIT  MCW   000&X1,BOX                                 I   7  1171  M 0|0 O55         440
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2333 17 71          SAR   X1                                         I   4  1178  Q 089             440
2334 17 72          MCW   BOX,*&8                                    I   7  1182  M O55 /96         440
2335 17 73          BCE   LOOK,MRKRS,0                @*&-,#%) AND GM I   8  1189  B S16 N01 0       440
2336 17 74          CHAIN 8                                                                 MACRO
2337                BCE                                              I   1  1197  B           GEN   440
2338                BCE                                              I   1  1198  B           GEN   440
2339                BCE                                              I   1  1199  B           GEN   440
2340                BCE                                              I   1  1200  B           GEN   441
2341                BCE                                              I   1  1201  B           GEN   441
2342                BCE                                              I   1  1202  B           GEN   441
2343                BCE                                              I   1  1203  B           GEN   441
2344                BCE                                              I   1  1204  B           GEN   441
2345 17 75          A     &1,COUNT                                   I   7  1205  A P06 P08         441
2346 17 76          B     LIMIT                                      I   4  1212  B /71            441
2347 17 77   LOOK   BW    RTNB,ERVBL                                 I   8  1216  V Z50 O00 1       442
2348 17 78          BW    RTNA,ERRSW                                 I   8  1224  V |93 N04 1       442
2349 17 79          SW    002&X1                                     I   4  1232  , 0|2             442
2350 17 80          SAR   HEX1#3                                    I   4  1236  Q P11             442
2351 17 81   TLU    MCW   DRESS,X1       ADDRESS OF ARRAY TABLE      I   7  1240  M O36 089         442
2352 17 82          BCE   EQUAL,BOX,#    EQUAL                      I   8  1247  B K54 O55 #       442
2353 17 83   *DETERMINE IF VARIABLE IS AN ARRAY NAME
2354 17 84   LOOP   BCE   NOTIN,002&X1,       BLANK                 I   8  1255  B T81 0|2         443
2355 17 85   MCM2   MCM   2&X1                                       I   4  1263  P 0|2             443
2356 17 86          MN                                               I   1  1267  D                 443
2357 17 87          MN                                               I   1  1268  D                 443
2358 17 88          SAR   X1                                         I   4  1269  Q 089             443
2359 17 89          BCE   MCM2,1&X1,|                                I   8  1273  B S63 0|1 |       443
2360 17 90          C     000&X3,00&X1                               I   7  1281  C 0?0 0|0         443
2361 17 91          BU    LOOP                                       I   5  1288  B S55 /           444
2362 17 92          C     000&X1,000&X3                              I   7  1293  C 0|0 0?0         444
2363 17 93          BU    LOOP                                       I   5  1300  B S55 /           444
2364 17 94   * MOVE X1 POINTER TO HI ADDRESS OF VARIABLE
2365 17 95          C     0&X1                                       I   4  1305  C 0|0             444
2366 17 96          CHAIN 3                                                                 MACRO
2367                C                                                I   1  1309  C           GEN   444
2368                C                                                I   1  1310  C           GEN   444
2369                C                                                I   1  1311  C           GEN   444
2370 17 97          SAR   X1                                         I   4  1312  Q 089             445
2371 17 98   *   CHECK TO SEE IF THERE ARE ANY SUBSCRIPTS
2372 17 99          BW    SBRAY,SUBSW                                I   8  1316  V X43 N03 1       445
2373 18 00          BCE   SBSCR,BOX,%    LEFT PAREN                 I   8  1324  B V83 O55 %       445
2374 18 01   SWCHB  NOP   ARRAY                                      I   4  1332  N T58            445
2375 18 02   TUNO   LCA   9&X1,1&X2                                  I   7  1336  L 0|9 0!1        445
2376 18 03          SBR   X2                                         I   4  1343  H 094            445
2377 18 04   RESTO  MCW   HEX1,X1                                    I   7  1347  M P11 089        446
2378 18 05          B     BOTM                                       I   4  1354  B U45            446
2379 18 06   ARRAY  LCA   9&X1,1&X2                                  I   7  1358  L 0|9 0!1        446
2380 18 07          LCA   3&X1                                       I   4  1365  L 0|3            446
2381 18 08          SBR   X2                                         I   4  1369  H 094            446
2382 18 09          CW    4&X2                                       I   4  1373  ) 0!4            446
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2383 18 10          B     RESTO                                      I   4  1377  B T47             446
2384 18 11   NOTIN  MCW   HEX1,X1                                    I   7  1381  M P11 089         447
2385 18 12          BW    LOD2,SUBSW                                 I   8  1388  V X67 N03 1       447
2386 18 13          BCE   RUFN,BOX,%                                I   8  1396  B U87 O55 %       447
2387 18 14          LCA   @ _@,1&X2                  BLANK,DELTA 11-7-8  I   7  1404  L P13 0!1        447
2388 18 15          SBR   X2                                         I   4  1411  H 094             447
2389 18 16   SLIDE  LCA   000&X3,001&X2                             I   7  1415  L 0?0 0!1         448
2390 18 17          SBR   X2                                         I   4  1422  H 094             448
2391 18 18          CW    001&X2                                     I   4  1426  ) 0!1             448
2392 18 19          S     &2,COUNT                                   I   7  1430  S P14 P08         448
2393 18 20          BWZ   LOAD1,COUNT,K      B-ZONE                  I   8  1437  V K80 P08 K       448
2394 18 21   BOTM   CW    001&X1                                     I   4  1445  ) 0|1             448
2395 18 22          SAR   X3                                         I   4  1449  Q 099             448
2396 18 23   BOTM2  CW    1&X2                                       I   4  1453  ) 0!1             449
2397 18 24          CW    FEWSW,ERRSW                                I   7  1457  ) N98 N04         449
2398 18 25          CW    TUSW                                       I   4  1464  ) N99             449
2399 18 26   KLOBR  BCE   FIND,0,;                  11-6-8          I   8  1468  B 937 000 ;       449
2400 18 27          MCW   @$@,X1                                    I   7  1476  M P15 089         449
2401 18 28          B     OUT                                        I   4  1483  B J38             449
2402 18 29   *  IF @SUBSCRIPTED@ VARIABLE NOT FUNCTION THEN ERROR
2403 18 30   RUFN   BCE   SLIDE,1&X1,F                               I   8  1487  B U15 0|1 F       450
2404 18 31          FTMSG 6,UNDEFINED ARRAY,CODE,16                                          MACRO
2405                CS    332                                        I   4  1495  / 332       GEN   450
2406                CS                                               I   1  1499  /           GEN   450
2407                SW    FAILSW                                     I   4  1500  , 184       GEN   450
2408                MN    CODE,224&16                                I   7  1504  D O46 240   GEN   450
2409                MN                                               I   1  1511  D           GEN   450
2410                MN                                               I   1  1512  D           GEN   450
2411                MCW   @ERROR 6 - UNDEFINED ARRAY, STATEMENT @     I   4  1513  M P52       GEN   451
2412                W                                                I   1  1517  2           GEN   451
2413                BCV   *&5                                        I   5  1518  B V27 @     GEN   451
2414                B     *&3                                        I   4  1523  B V29       GEN   451
2415                CC    1                                          I   2  1527  F 1         GEN   451
2416 18 32          LCA   @%000@,1&X2                               I   7  1529  L P56 0!1         451
2417 18 33          SBR   X2                                         I   4  1536  H 094             451
2418 18 34          MZ    VZONE,3&X2                                 I   7  1540  Y P68 0!3         452
2419 18 35   SKLOZ  BCE   FNDLZ,0&X1,)                              I   8  1547  B V71 0|0 )       452
2420 18 36          BCE   NOMO1,0&X1,}                 GM          I   8  1555  B K35 0|0 } GMARK 452
2421 18 37          SBR   X1                                         I   4  1563  H 089             452
2422 18 38          B     SKLOZ                                      I   4  1567  B V47             452
2423 18 39   FNDLZ  MN    0&X1                                       I   4  1571  D 0|0             452
2424 18 40          SAR   X1                                         I   4  1575  Q 089             452
2425 18 41          B     BOTM2                                      I   4  1579  B U53             453
2426 18 42   *  PROCESS SUBSCRIPTS
2427 18 43   SBSCR  ZA    00&X1,ACCUM#6                              I   7  1583  ? 0|0 P62         453
2428 18 44          SAR   X3                                         I   4  1590  Q 099             453
2429 18 45          SW    VBLSW                                      I   4  1594  , P79             453
2430 18 46          ZA    000&X3,ROWS#5                              I   7  1598  ? 0?0 P67         453
2431 18 47          ZA    005&X1,WORDL                               I   7  1605  ? 0|5 N87         453
2432 18 48          S     &1,ACCUM                                   I   7  1612  S P06 P62         454
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2433 18 49          MZ    8&X1,VZONE#1                               I   7  1619  Y 0|8 P68          454
2434 18 50          MCW   HEX1,X1                                   I   7  1626  M P11 089          454
2435 18 51          LCA   @ $@,001&X2                               I   7  1633  L P70 0!1          454
2436 18 52          SBR   X2                                        I   4  1640  H 094              454
2437 18 53          MN    000&X1                                    I   4  1644  D 0|0              454
2438 18 54          SAR   X1                                        I   4  1648  Q 089              455
2439 18 55          SBR   X3                                        I   4  1652  H 099              455
2440 18 56   SPLIT  BWZ   CONST,000&X1,2      NO ZONE               I   8  1656  V Y51 0|0 2        455
2441 18 57   *  PROCESS VARIABLE SUSCRIPTS
2442 18 58          SBR   X1,2&X1                                   I   7  1664  H 089 0|2          455
2443 18 59          LCA   @*1@,000&X1                               I   7  1671  L P72 0|0          455
2444 18 60          B     CONST                                     I   4  1678  B Y51              455
2445 18 61   DELTA  LCA   @ _@,001&X2    11-7-8  DELTA             I   7  1682  L P13 0!1          456
2446 18 62          SBR   X2                                        I   4  1689  H 094              456
2447 18 63   FEED   MCW   000&X1,BOX                                I   7  1693  M 0|0 O55          456
2448 18 64          SAR   X1                                        I   4  1700  Q 089              456
2449 18 65          MCW   BOX,*&8                                   I   7  1704  M O55 X18          456
2450 18 66          BCE   XPAND,@-&),@,0                           I   8  1711  B X26 P76 0        456
2451 18 67          B                                               I   1  1719  B                  456
2452 18 68          B                                               I   1  1720  B                  457
2453 18 69          B                                               I   1  1721  B                  457
2454 18 70          B     FEED                                      I   4  1722  B W93              457
2455 18 71   XPAND  SW    2&X1                                      I   4  1726  , 0|2              457
2456 18 72          SW                                              I   1  1730  ,                  457
2457 18 73          SAR   HEX1                                      I   4  1731  Q P11              457
2458 18 74          SW    SUBSW                                     I   4  1735  , N03              457
2459 18 75          B     TLU                                       I   4  1739  B S40              458
2460 18 76   SBRAY  LCA   9&X1,2&X2                                 I   7  1743  L 0|9 0!2          458
2461 18 77          SBR   X2                                        I   4  1750  H 094              458
2462 18 78          CW    1&X2                                      I   4  1754  ) 0!1              458
2463 18 79          MN                                              I   1  1758  D                  458
2464 18 80          SAR   X2                                        I   4  1759  Q 094              458
2465 18 81          B     LDCOM                                     I   4  1763  B X83              458
2466 18 82   LOD2   LCA   000&X3,001&X2                             I   7  1767  L 0?0 0!1          459
2467 18 83          LCA                                             I   1  1774  L                  459
2468 18 84          SBR   X2                                        I   4  1775  H 094              459
2469 18 85          CW    2&X2                                      I   4  1779  ) 0!2              459
2470 18 86   LDCOM  MCW   HEX1,X1                                   I   7  1783  M P11 089          459
2471 18 87          CW    2&X1                                      I   4  1790  ) 0|2              459
2472 18 88          BCE   LOAD2,003&X2,_      DELTA  11-7-8         I   8  1794  B K65 0!3 _        459
2473 18 89          LCA   @ ,@,1&X2                  BLANK COMMA    I   7  1802  L P78 0!1          460
2474 18 90          SBR   X2                                        I   4  1809  H 094              460
2475 18 91          CW    SUBSW                                     I   4  1813  ) N03              460
2476 18 92          BCE   PUTC,BOX,,          COMMA                 I   8  1817  B M38 O55 ,        460
2477 18 93          BCE   PHEW,BOX,)          RT PAREN              I   8  1825  B Z54 O55 )        460
2478 18 94          MZ    BOX,WORDL                                 I   7  1833  Y O55 N87          460
2479 18 95   COPY   MCW   X1,X3                                     I   7  1840  M 089 099          461
2480 18 96          B     SPLIT                                     I   4  1847  B W56              461
2481 18 97   *FLIP CONSTANT
2482 18 98   CONST  SBR   X3,VERSE-2                                I   7  1851  H 099 N03          461
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2483 18 99   TURN   MCW   000&X1,BOX                              I   7  1858  M 0|0 O55         461
2484 19 00          SAR   X1                                      I   4  1865  Q 089             461
2485 19 01          MCW   BOX,002&X3                              I   7  1869  M O55 0?2         461
2486 19 02          SBR   X3                                      I   4  1876  H 099             462
2487 19 03          BWZ   TURN,000&X1,2       NO ZONE             I   8  1880  V Y58 0|0 2       462
2488 19 04          SBR   X1                                      I   4  1888  H 089             462
2489 19 05          M     WORDL,007&X3        SWITCH C, SINCE WORDL MODIFIED  I   7  1892  @ N87 0?7  462
2490 19 06          BCE   VARBL,001&X1,*      ASTERISK            I   8  1899  B Z92 0|1 *       462
2491 19 07          A     007&X3,ACCUM                            I   7  1907  A 0?7 P62         462
2492 19 08          BCE   PHEW,1&X1,)                             I   8  1914  B Z54 0|1 )       463
2493 19 09          BCE   PUTC,1&X1,,                             I   8  1922  B M38 0|1 ,       463
2494 19 10          SW    SYN2S                                   I   4  1930  , N02             463
2495 19 11          B     VSERR                                   I   4  1934  B |36             463
2496 19 12   SYN2R  CW    SYN2S                                   I   4  1938  ) N02             463
2497 19 13          SW    ERVBL                                   I   4  1942  , O00             463
2498 19 14          B     LIMIT                                   I   4  1946  B /71             463
2499 19 15   RTNB   CW    ERVBL                                   I   4  1950  ) O00             464
2500 19 16   *  END OF PROCESS SUBSCRIPT
2501 19 17   PHEW   NOP   ACCUM-7                                 I   4  1954  N P55             464
2502 19 18          SAR   X3                                      I   4  1958  Q 099             464
2503 19 19          SW    FEWSW                                   I   4  1962  , N98             464
2504 19 20          B     NORML                                   I   4  1966  B !29             464
2505 19 21   LDOLR  LCA   @$@,0&X2                                I   7  1970  L P15 0!0         464
2506 19 22          SBR   X2                                      I   4  1977  H 094             464
2507 19 23          MZ    VZONE,3&X2                              I   7  1981  Y P68 0!3         465
2508 19 24          B     BOTM                                    I   4  1988  B U45             465
2509 19 25   *  PROCESS VARIABLE SUBSCRIPT
2510 19 26   VARBL  CW    1&X1,VBLSW#1                            I   7  1992  ) 0|1 P79         465
2511 19 27          B     NORML                                   I   4  1999  B !29             465
2512 19 28          LCA   @ *@,000&X2         BLANK, ASTERISK     I   7  2003  L P81 0!0         465
2513 19 29          SBR   X2                                      I   4  2010  H 094             465
2514 19 30          CW    001&X2                                  I   4  2014  ) 0!1             465
2515 19 31          MCW   X1,X3                                   I   7  2018  M 089 099         466
2516 19 32          B     DELTA                                   I   4  2025  B W82             466
2517 19 33   NORML  SBR   EXIT&3                                  I   4  2029  H J37             466
2518 19 34   X3AND  EQU   007&X3                                   I      0007 X
2519 19 35   SUBTR  S     &16000,X3AND                            I   7  2033  S P86 0?7         466
2520 19 36          BWZ   SUBTR,X3AND,B    AB ZONE             I   8  2040  V !33 0?7 B       466
2521 19 37   ADD    A     &16000,X3AND                            I   7  2048  A P86 0?7         466
2522 19 38          BWZ   ADD,X3AND,K      B ZONE              I   8  2055  V !48 0?7 K       467
2523 19 39          BW    ALCON,FEWSW                             I   8  2063  V L35 N98 1       467
2524 19 40   GET    SBR   X3,1&X3                                 I   7  2071  H 099 0?1         467
2525 19 41          BCE   GET,002&X3,0     ZERO                I   8  2078  B !71 0?2 0       467
2526 19 42          SBR   X2,1&X2                                I   7  2086  H 094 0!1         467
2527 19 43          LCA   BLNK6#6                                I   4  2093  L P92             468
2528 19 44   TWIST  MCW   002&X3,BOX                              I   7  2097  M 0?2 O55         468
2529 19 45          SAR   X3                                      I   4  2104  Q 099             468
2530 19 46          MCW   BOX,000&X2                             I   7  2108  M O55 0!0         468
2531 19 47          SBR   X2                                      I   4  2115  H 094             468
2532 19 48          BWZ   TWIST,001&X3,2       NO ZONE           I   8  2119  V !97 0?1 2       468
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2533 19 49          MZ    BLANK,1&X2                                 I   7  2127  Y P87 0!1        469
2534 19 50   EXIT   B     00                                         I   4  2134  B 000            469
2535 19 51   OUT    FENDX C,,,,PHSE2P,,ORGVB-1,VARBL TWO                                 MACRO
2536         OUT    BSS   333,C                                     I   5  2138  B 333 C     GEN  469
2537                SBR   INITXT&3,PHSE2P                           I   7  2143  H 796 849   GEN  469
2538                SBR   TCLEAR,ORGVB-1                           I   7  2150  H 710 Q13   GEN  469
2539                LCA   @VARBL TWO@,110                          I   7  2157  L Q01 110   GEN  469
2540                B     MONTER                                   I   4  2164  B 700       GEN  470
2541 19 52   LIST   MCW   @B@,SWCHA                                I   7  2168  M Q02 956        470
2542 19 53          MCW   @B@,SWCHB                                I   7  2175  M Q02 T32        470
2543 19 54          MCW   CODE-3,*&8                              I   7  2182  M O43 J96        470
2544 19 55          BCE   TU,@1356@,0                             I   8  2189  B K04 Q06 0      470
2545 19 56          CHAIN 3                                                               MACRO
2546                BCE                                            I   1  2197  B           GEN  470
2547                BCE                                            I   1  2198  B           GEN  470
2548                BCE                                            I   1  2199  B           GEN  471
2549 19 57          B     FIND                                     I   4  2200  B 937            471
2550 19 58   TU     SW    TUSW                                     I   4  2204  , N99            471
2551 19 59          B     FIND                                     I   4  2208  B 937            471
2552 19 60   RTPAR  BCE   PUTB,BOX,)     RT PAREN                  I   8  2212  B K24 O55 )      471
2553 19 61          B     MDIFY                                    I   4  2220  B 960            471
2554 19 62   PUTB   MCW   @B@,SWCHB                                I   7  2224  M Q02 T32        471
2555 19 63          B     MDIFY                                    I   4  2231  B 960            472
2556 19 64   NOMO1  MN    0&X2                                     I   4  2235  D 0!0            472
2557 19 65          SAR   X2                                       I   4  2239  Q 094            472
2558 19 66   NOMO   LCA   GM,001&X2                                I   7  2243  L N55 0!1        472
2559 19 67          B     START                                    I   4  2250  B 856            472
2560 19 68   EQUAL  MCW   @N@,SWCHB                                I   7  2254  M O54 T32        472
2561 19 69          B     LOOP                                     I   4  2261  B S55            472
2562 19 70   LOAD2  LCA   BLNK2,1&X2                               I   7  2265  L P88 0!1        473
2563 19 71          SBR   X2                                       I   4  2272  H 094            473
2564 19 72          B     LDCOM                                    I   4  2276  B X83            473
2565 19 73   LOAD1  LCA   BLANK,0&X2                               I   7  2280  L P87 0!0        473
2566 19 74          SBR   X2                                       I   4  2287  H 094            473
2567 19 75          CW    001&X2                                   I   4  2291  ) 0!1            473
2568 19 76          B     BOTM                                     I   4  2295  B U45            473
2569 19 77   CKXPN  BCE   SW1,2&X1,#                               I   8  2299  B /19 0|2 #      474
2570 19 78          BCE   SW1,2&X1,@                               I   8  2307  B /19 0|2 @      474
2571 19 79          BWZ   FIND,2&X1,2                              I   8  2315  V 937 0|2 2      474
2572 19 80          BCE   FIND,2&X1,.                              I   8  2323  B 937 0|2 .      474
2573 19 81          B     SW1                                      I   4  2331  B /19            474
2574 19 82   ALCON  MCW   7&X3,HOLD5#5                             I   7  2335  M 0?7 Q11        475
2575 19 83          FPACK HOLD5,WORK3,X3                                                  MACRO
2576                INCLD ZONES                                                           MACRO
2577                MN    HOLD5,WORK3                              I   7  2342  D Q11 N97   GEN  475
2578                MN                                             I   1  2349  D           GEN  475
2579                MN                                             I   1  2350  D           GEN  475
2580                SAR   *&4                                      I   4  2351  Q L58       GEN  475
2581                MCW   0,X3                                     I   7  2355  M 000 099   GEN  475
2582                MCW   @0@                                      I   4  2362  M Q12       GEN  475
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2583                A     X3                                                I   4  2366  A 099       GEN    476
2584                MZ    ZONES&1&X3,WORK3                                  I   7  2370  Y O?3 N97   GEN    476
2585                CW                                                      I   1  2377  )           GEN    476
2586                SBR   *&7                                               I   4  2378  H L88       GEN    476
2587                MZ    ZONES&X3, 0                                       I   7  2382  Y O?2 000   GEN    476
2588 19 84          BCE   *&8,2&X2,,                                        I   8  2389  B M04 0!2 ,       476
2589 19 85          SBR   X2,1&X2                                          I   7  2397  H 094 0!1         476
2590 19 86          LCA   WORK3,1&X2                                       I   7  2404  L N97 0!1         477
2591 19 87          SBR   X2                                                I   4  2411  H 094             477
2592 19 88          CW    1&X2                                              I   4  2415  ) 0!1             477
2593 19 89          MZ    VZONE,2&X2                                        I   7  2419  Y P68 0!2         477
2594 19 90          BW    BOTM,VBLSW                                        I   8  2426  V U45 P79 1       477
2595 19 91          B     LDOLR                                             I   4  2434  B Z70             477
2596 19 92  PUTC    MZ    *-4,WORDL                                         I   7  2438  Y M40 N87         478
2597 19 93          M     ROWS,WORDL&6                                      I   7  2445  @ P67 N93         478
2598 19 94          MCM   WORDL&2,WORDL-4      ROWS*WORDL IN WORDL %2 DIMENS) I   7  2452  P N89 N83         478
2599 19 95          S     WORDL,ACCUM                                       I   7  2459  S N87 P62         478
2600 19 96          B     COPY                                              I   4  2466  B Y40             478
2601 19 97  FMAT    LCA   0&X1,0&X2                                         I   7  2470  L 0|0 0!0         478
2602 19 98          SBR   X2                                                I   4  2477  H 094             479
2603 19 99          C     0&X1                                              I   4  2481  C 0|0             479
2604 20 00          SAR   X1                                                I   4  2485  Q 089             479
2605 20 01          B     START                                             I   4  2489  B 856             479
2606 20 02  MRKRS   DCW   @#,}*@&-%)@                  EQUALS,COMMA,GR MARK I   9  2501                   479
2607 20 03  SYN2S   DC    #1                                                I   1  2502                   479
2608 20 04  SUBSW   DC    #1                                                I   1  2503                   479
2609 20 05  ERRSW   DC    #1                                                I   1  2504                   479
2610 20 06  VERSE   DCW   #1                                                I   1  2505                   479
2611 20 07          DC    #49                                               I  49  2554                   481
2612 20 08  GM      DC    @}@                           G-M                 I   1  2555             GMARK  481
2613 20 09  KERR    DCW   @ERROR @                                          I   6  2561                   481
2614 20 10  KVSTM   DCW   @ VARIABLE, STATEMENT @                          I  21  2582                   481
2615 20 11  WORDL   DCW   #5                                                I   5  2587                   482
2616 20 12          DC    #6                                                I   6  2593                   482
2617 20 13          DC    @|@   RECORD MARK                                 I   1  2594                   482
2618 20 14  WORK3   DCW   #3                                                I   3  2597                   482
2619 20 15  FEWSW   DC    #1                                                I   1  2598                   482
2620 20 16  TUSW    DC    #1                                                I   1  2599                   482
2621 20 17  ERVBL   DC    #1                                                I   1  2600                   482
2622 20 18          ORG   *                                                 I          2601
2623                LTORG *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG   I          2601
2624                DCW   #1                                                I   1  2601             GEN    482
2625        ZONES   DC    9                                                 I   1  2602             GEN    482
2626                DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                 I  31  2633             GEN    483
            *         LTORG*                                                                        GEN
            DRESSI DCW   #03                                                I   3  2636             AREA   483
            WORK I DCW   #10                                                I  10  2646             AREA   484
                   DCW   @3L5UP61@                                          I   7  2653             LIT    484
                   DCW   @N@                                                I   1  2654             LIT    484
            BOX  I DCW   #01                                                I   1  2655             AREA   484
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@@*-&.%),@	I	8	2663		LIT	484
			BOX2 I	DCW	#01	I	1	2664		AREA	484
				DCW	@ERROR 9 - VARIABLE SYNTAX, STATEMENT @	I	37	2701		LIT	485
				DCW	@0?0@	I	3	2704		LIT	486
				DCW	@;@	I	1	2705		LIT	486
				DCW	&1	I	1	2706		LIT	486
			COUNTI	DCW	#02	I	2	2708		AREA	486
			HEX1 I	DCW	#03	I	3	2711		AREA	486
				DCW	@ _@	I	2	2713		LIT	486
				DCW	&2	I	1	2714		LIT	486
				DCW	@$@	I	1	2715		LIT	487
				DCW	@ERROR 6 - UNDEFINED ARRAY, STATEMENT @	I	37	2752		LIT	487
				DCW	@%000@	I	4	2756		LIT	488
			ACCUMI	DCW	#06	I	6	2762		AREA	488
			ROWS I	DCW	#05	I	5	2767		AREA	488
			VZONEI	DCW	#01	I	1	2768		AREA	488
				DCW	@ $@	I	2	2770		LIT	488
				DCW	@*1@	I	2	2772		LIT	488
				DCW	@-&),@	I	4	2776		LIT	488
				DCW	@ ,@	I	2	2778		LIT	489
			VBLSWI	DCW	#01	I	1	2779		AREA	489
				DCW	@ *@	I	2	2781		LIT	489
				DCW	&16000	I	5	2786		LIT	489
			BLNK6I	DCW	#06	I	6	2792		AREA	489
				DCW	@VARBL TWO@	I	9	2801		LIT	489
				DCW	@B@	I	1	2802		LIT	489
				DCW	@1356@	I	4	2806		LIT	490
			HOLD5I	DCW	#05	I	5	2811		AREA	490
				DCW	@0@	I	1	2812		LIT	490
2627	20	19	CODE	EQU	WORK	I		2646			
2628	20	20	BLANK	EQU	BLNK6-5	I		2787			
2629	20	21	BLNK2	EQU	BLNK6-4	I		2788			
2630	20	22		DCW	@}@ SYSTEM GROUP MARK	I	1	2813		GMARK	490
2631	20	23	ORGVB	EQU	*&1	I		2814			
2632	20	24		XFR	INITL	I			B 838		491

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2633 20 25          JOB   1401 FORTRAN  VARIABLES PHASE TWO
2634 20 26    * MOVES THE SOURCE PROGRAM UP TO SAUCE AND COMPUTES PARAMETERS FOR
2635 20 27    * THE RANDOMIZER IN VARBL. PHASE 3
2636 20 28          FBEGN VARBL TWO,X1,R,X2,,X3,R,P                                          MACRO
2637                SFX   P                                                                  GEN
2638          110   DCW   @VARBL TWO@                                    P   9  0110        GEN    494
2639          X1    EQU   089                                           P      0089        GEN
2640          089   DCW   000                                           P   3  0089        GEN    495
2641          091   DC    00                                            P   2  0091        GEN    495
2642          X2    EQU   094                                           P      0094        GEN
2643          X3    EQU   099                                           P      0099        GEN
2644          099   DCW   000                                           P   3  0099        GEN    496
2645          100   DC    0                                             P   1  0100        GEN    496
2646 20 29    SAUCE EQU   SAUCEK                                        P      2700
2647 20 30          ORG   XBEGIN                                        P           0838
2648 20 31    BASE  DCW   #3                                            P   3  0840                497
2649 20 32    MAX   DCW   #4                                            P   4  0844                497
2650 20 33          DC    #1                                            P   1  0845                497
2651 20 34    UPLIM DCW   #3                                            P   3  0848                497
2652 20 35    NXBTM EQU   083                                           P      0083
2653 20 36    PHSE2 MCW   NXBTM,X3                                      P   7  0849  M 083 099     497
2654 20 37          BCE   FQUIT,X1,$                                    P   8  0856  B /97 089 $   497
2655 20 38          SBR   NOMO#3,2&X3                                   P   7  0864  H T42 0?2     497
2656 20 39          MCW   X2,X3                                        P   7  0871  M 094 099     498
2657 20 40    CLR1  CS    000&X3                                        P   4  0878  / 0?0         498
2658 20 41          SBR   X3                                            P   4  0882  H 099         498
2659 20 42          C     X3,&SAUCE-1                                   P   7  0886  C 099 T45     498
2660 20 43          BU    CLR1                                          P   5  0893  B 878 /       498
2661 20 44          SBR   X1,SAUCE-1                                   P   7  0898  H 089 O99     498
2662 20 45    *  SHIFT SOURCE PROGRAM UP TO COMPILER PROGRAM
2663 20 46          MOVUP X2,X1,NOMO,ALL,|                                                   MACRO
2664                MN    0&X1                                          P   4  0905  D 0|0       GEN    498
2665                SAR   X1                                            P   4  0909  Q 089       GEN    499
2666          )0J065 MCM  0&X2                                          P   4  0913  P 0!0       GEN    499
2667                SAR   )0L065&6                                      P   4  0917  Q 939       GEN    499
2668                MCM   0&X2,1&X1                                     P   7  0921  P 0!0 0|1   GEN    499
2669                MN                                                  P   1  0928  D           GEN    499
2670                SBR   X1                                            P   4  0929  H 089       GEN    499
2671          )0L065 SBR  X2,0                                          P   7  0933  H 094 000   GEN    499
2672                BCE   )0J065,0&X1,|                                 P   8  0940  B 913 0|0 | GEN    500
2673                MN    0&X2                                          P   4  0948  D 0!0       GEN    500
2674                CW                                                  P   1  0952  )           GEN    500
2675                SW    0&X1                                          P   4  0953  , 0|0       GEN    500
2676                C     X2,NOMO                                       P   7  0957  C 094 T42   GEN    500
2677                BU    )0J065                                        P   5  0964  B 913 /     GEN    500
2678 20 47          CW    0&X2                                          P   4  0969  ) 0!0               500
2679 20 48          CW                                                  P   1  0973  )                   501
2680 20 49          SBR   BASE,2&X1                                     P   7  0974  H 840 0|2           501
2681 20 50          MN    TWO9,BASE                                     P   7  0981  D T07 840           501
2682 20 51          MN                                                  P   1  0988  D                   501
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2683 20 52          MCW   PARAMA&2,X3                                       P   7  0989  M 688 099          501
2684 20 53          MN    000&X3                                            P   4  0996  D 0?0              501
2685 20 54          SW                                                      P   1  1000  ,                  501
2686 20 55          SAR   NXBTM                                            P   4  1001  Q 083              502
2687 20 56          SBR   X3                                                P   4  1005  H 099              502
2688 20 57    *  CLEAR BALANCE OF CORE
2689 20 58    CLR2  CS    000&X3                                            P   4  1009  / 0?0              502
2690 20 59          SBR   X3                                                P   4  1013  H 099              502
2691 20 60          C     X3,BASE                                           P   7  1017  C 099 840          502
2692 20 61          BU    CLR2                                              P   5  1024  B |09 /            502
2693 20 62          MCW   @<@,0&X3                        12-6-8            P   7  1029  M T46 0?0          502
2694 20 63    *  DIVIDE REST OF CORE FOR TABLES   RATIO 3 TO 7
2695 20 64          MCW   NXBTM,LOC                                         P   7  1036  M 083 T05          503
2696 20 65          B     UNPAK                                             P   4  1043  B S31              503
2697 20 66          MCW   NUM#5,MAX&1                                       P   7  1047  M T51 845          503
2698 20 67          MCW   BASE,LOC                                         P   7  1054  M 840 T05          503
2699 20 68          B     UNPAK                                             P   4  1061  B S31              503
2700 20 69          S     NUM,MAX&1                                         P   7  1065  S T51 845          503
2701 20 70          A     MAX,ACCUM#6                                       P   7  1072  A 844 T57          504
2702 20 71          A     ACCUM                                             P   4  1079  A T57              504
2703 20 72          A     MAX,ACCUM       3*MAX IN ACCUM                    P   7  1083  A 844 T57          504
2704 20 73    *  1/10 OF NXBTM-BASE IN MAX
2705 20 74          A     NUM,ACCUM                                         P   7  1090  A T51 T57          504
2706 20 75          MCW   ACCUM-3,X3                                        P   7  1097  M T54 099          504
2707 20 76          A     X3                                                P   4  1104  A 099              504
2708 20 77          MZ    ZONES&X3,ACCUM-2                                  P   7  1108  Y T?8 T55          505
2709 20 78          MZ    ZONES&1&X3,ACCUM                                  P   7  1115  Y T?9 T57          505
2710 20 79          MCW   ACCUM,X3                                          P   7  1122  M T57 099          505
2711 20 80          SW    002&X3                                            P   4  1129  , 0?2              505
2712 20 81          MCW   @<@      12-6-8                                   P   4  1133  M T46              505
2713 20 82          SBR   UPLIM                                             P   4  1137  H 848              505
2714 20 83          MCW   X1,X2                                             P   7  1141  M 089 094          506
2715 20 84          MN    0&X2                                              P   4  1148  D 0!0              506
2716 20 85          SAR   X1                                                P   4  1152  Q 089              506
2717 20 86          FENDX C,,,WORK5J-4,PHSE3J,WORK5J,SYS2,VARBL TRI                                  MACRO
2718                BSS   333,C                                             P   5  1156  B 333 C     GEN    506
2719                SBR   INITAP&6,WORK5J-4                                 P   7  1161  H 786 849   GEN    506
2720                SBR   BCLEAR                                            P   4  1168  H 833       GEN    506
2721                SBR   INITXT&3,PHSE3J                                   P   7  1172  H 796 857   GEN    506
2722                SBR   TCLEAR,SYS2                                       P   7  1179  H 710 U05   GEN    507
2723                LCA   @VARBL TRI@,110                                   P   7  1186  L T66 110   GEN    507
2724                B     MONTER                                            P   4  1193  B 700       GEN    507
2725 20 87    FQUIT FQUIT                                                                        MACRO
2726          FQUIT CS    332                                               P   4  1197  / 332       GEN    507
2727                CS                                                      P   1  1201  /           GEN    507
2728                CC    1                                                 P   2  1202  F 1         GEN    507
2729                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270         P   7  1204  M U02 270   GEN    507
2730                W                                                       P   1  1211  2           GEN    508
2731                CC    1                                                 P   2  1212  F 1         GEN    508
2732                BCE   *&6,MONTOR,1                                      P   8  1214  B S27 769 1 GEN    508
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2733                RWD   1                                          P  5  1222  U %U1 R     GEN    508
2734                H     *-3                                        P  4  1227  . S27       GEN    508
2735 20 88  UNPAK   SBR   EXIT&3                                     P  4  1231  H T00             508
2736 20 89          MN    LOC,NUM                                    P  7  1235  D T05 T51         508
2737 20 90          MN                                               P  1  1242  D                509
2738 20 91          MN                                               P  1  1243  D                509
2739 20 92          MCW                                              P  1  1244  M                509
2740 20 93          MZ    LOC,TWO9                                   P  7  1245  Y T05 T07         509
2741 20 94          MZ    LOC-2,TWO9-1                               P  7  1252  Y T03 T06         509
2742 20 95          NOP   ZONES-3                                    P  4  1259  N T05             509
2743 20 96          SAR   X3                                         P  4  1263  Q 099             509
2744 20 97  COMP    C     004&X3,TWO9                                P  7  1267  C 0?4 T07         510
2745 20 98          SAR   X3                                         P  4  1274  Q 099             510
2746 20 99          A     &1,NUM-3                                   P  7  1278  A U03 T48         510
2747 21 00          BU    COMP                                       P  5  1285  B S67 /           510
2748 21 01          MZ    BLANK#1,NUM-3                              P  7  1290  Y U04 T48         510
2749 21 02  EXIT    B     000                                        P  4  1297  B 000             510
2750 21 03  LOC     DCW   @0J   @                                    P  5  1305                   510
2751 21 04  TWO9    DCW   @99@                                      P  2  1307                   511
2752 21 05  ZONES   DC    @9@                                        P  1  1308                   511
2753 21 06          DC    @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@          P 31  1339                   511
2754 21 07          LTORG *                                          P        1340
             NOMO P DCW   #03                                        P  3  1342       AREA    511
                    DCW   &SAUCEP-1                                  P  3  1345  O99  ADCON   512
                    DCW   @<@                                        P  1  1346       LIT     512
             NUM  P DCW   #05                                        P  5  1351       AREA    512
             ACCUMP DCW   #06                                        P  6  1357       AREA    512
                    DCW   @VARBL TRI@                                P  9  1366       LIT     512
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     P 36  1402       LIT     513
                    DCW   &1                                         P  1  1403       LIT     513
             BLANKP DCW   #01                                        P  1  1404       AREA    513
2755 21 08          LTORG *                                          P        1405
2756 21 09  SYS2    DCW   @}@                          SYSTEM GROUP MARK P  1  1405       GMARK   513
2757 21 10          XFR   PHSE2                                      P           B 849         515
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2758 21 11           JOB   1401 FORTRAN  VARIABLES  PHASE THREE
2759 21 12           FBEGN VARBL TRI,X1,,X2,,X3,R,J                                          MACRO
2760                 SFX   J                                                                 GEN
2761          110    DCW   @VARBL TRI@                                    J   9  0110        GEN    518
2762          X1     EQU   089                                           J      0089        GEN
2763          X2     EQU   094                                           J      0094        GEN
2764          X3     EQU   099                                           J      0099        GEN
2765          099    DCW   000                                           J   3  0099        GEN    519
2766          100    DC    0                                             J   1  0100        GEN    519
2767 21 13    * DEFINES VARIABLES IN SOURCE PROGRAM
2768 21 14           ORG   XBEGIN                                        J          0838
2769 21 15    BASE   DS    3                                             J      0840
2770 21 16    MAX    DS    4                                             J      0844
2771 21 17    UPLIM  DS    4                                             J      0848
2772 21 18    NXTOP  EQU   086                                           J      0086
2773 21 19    NXBTM  EQU   083                                           J      0083
2774 21 20    WORK5  DCW   #5                                            J   5  0853                 520
2775 21 21    SAVE2  DCW   #3                                            J   3  0856                 520
2776 21 22    PHSE3  MESSG @STORAGE ASSIGNMENT - SIMPLE VARIABLES@,37,L,J                     MACRO
2777          PHSE3  CC    L                                             J   2  0857  F L           GEN    520
2778                 CS    332                                           J   4  0859  / 332        GEN    520
2779                 CS                                                  J   1  0863  /            GEN    520
2780                 MCW   @STORAGE ASSIGNMENT - SIMPLE VARIABLES@,37&200 J   7  0864  M |47 237    GEN    520
2781                 W                                                   J   1  0871  2            GEN    520
2782                 CC    J                                             J   2  0872  F J          GEN    521
2783 21 23           MCW   @ @,SAUCEK-1                BLANK            J   7  0874  M |48 O99     GEN    521
2784 21 24           MCW   X2,SAVE2                                      J   7  0881  M 094 856     GEN    521
2785 21 25           UNPAK NXTOP,WORK5                                                       MACRO
2786                 S     )0M070#2                                      J   4  0888  S |50        GEN    521
2787                 S     )0L070#2                                      J   4  0892  S |52        GEN    521
2788                 MZ    NXTOP,)0M070-1                                J   7  0896  Y 086 |49    GEN    521
2789                 MZ    NXTOP-2,)0L070-1                              J   7  0903  Y 084 |51    GEN    521
2790          )0J070 BWZ   )0K070, )0L070-1, 2                           J   8  0910  V 929 |51 2  GEN    522
2791                 A     @A0@, )0L070                                  J   7  0918  A |54 |52    GEN    522
2792                 B     )0J070                                        J   4  0925  B 910        GEN    522
2793          )0K070 BWZ   )0P070, )0M070-1, 2                           J   8  0929  V 948 |49 2  GEN    522
2794                 A     @?4@, )0M070                                  J   7  0937  A |56 |50    GEN    522
2795                 B     )0K070                                        J   4  0944  B 929        GEN    522
2796          )0P070 A     )0L070-1,)0M070                               J   7  0948  A |51 |50    GEN    523
2797                 MCW   NXTOP,WORK5                                   J   7  0955  M 086 853    GEN    523
2798                 MCW   )0M070                                        J   4  0962  M |50        GEN    523
2799                 ZA    WORK5                                         J   4  0966  ? 853        GEN    523
2800                 MZ    *-4, WORK5                                    J   7  0970  Y 972 853    GEN    523
2801 21 26           FENDX C,,,PHSE3,,PHSE3,SAUCEK-1,VARBL QUAD                              MACRO
2802                 BSS   333,C                                         J   5  0977  B 333 C      GEN    523
2803                 SBR   INITAP&6,PHSE3                                J   7  0982  H 786 857    GEN    524
2804                 SBR   BCLEAR                                       J   4  0989  H 833        GEN    524
2805                 SBR   TCLEAR,SAUCEK-1                              J   7  0993  H 710 O99    GEN    524
2806                 LCA   @VARBL QUAD@,110                             J   7  1000  L |66 110    GEN    524
2807                 B     MONTER                                        J   4  1007  B 700        GEN    524
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2808 21 27           LTORG *                                          J          1011
                     DCW   @STORAGE ASSIGNMENT - SIMPLE VARIABLES@    J  37  1047              LIT   525
                     DCW   @ @                                        J   1  1048              LIT   525
              )0M070 DCW   #02                                        J   2  1050              AREA  526
              )0L070 DCW   #02                                        J   2  1052              AREA  526
                     DCW   @A0@                                       J   2  1054              LIT   526
                     DCW   @?4@                                       J   2  1056              LIT   526
                     DCW   @VARBL QUAD@                               J  10  1066              LIT   526
2809 21 28           DCW   @}@                    SYSTEM GROUP MARK   J   1  1067              GMARK 526
2810 21 29           XFR   PHSE3                                      J          B 857            527
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2811 21 30          JOB   1401 FORTRAN   VARIABLES PHASE FOUR
2812 21 31   110    DCW   @VARBL QUAD@                               J  10  0110                    530
2813 21 32          ORG   PHSE3                                      J          0857                
2814 21 33   BEGIN  MCW   BASE,BUMP&3                                J   7  0857  M 840 /89         531
2815 21 34          MZ    @S@,BUMP&2                                J   7  0864  Y K82 /88         531
2816 21 35          SW    GM                                        J   4  0871  , M93             531
2817 21 36          CW    ISFSW                                     J   4  0875  ) L10             531
2818 21 37   START  BCE   OUT,000&X1,                  BLANK        J   8  0879  B !57 0|0          531
2819 21 38          MCW   000&X1,CODE#4                            J   7  0887  M 0|0 K86          531
2820 21 39          LCA   000&X1,WORK#10                          J   7  0894  L 0|0 K96          532
2821 21 40          SAR   X1                                       J   4  0901  Q 089             532
2822 21 41          SBR   X3                                       J   4  0905  H 099             532
2823 21 42          LCA   WORK,000&X2                             J   7  0909  L K96 0!0          532
2824 21 43          SBR   X2                                       J   4  0916  H 094             532
2825 21 44          BCE   PASS,CODE-3,/             BAD STATEMENT  J   8  0920  B J63 K83 /       532
2826 21 45          BCE   PASS,CODE-3,F                          J   8  0928  B J63 K83 F       533
2827 21 46          MCW   @01@,FNCTR#2                           J   7  0936  M K98 L00          533
2828 21 47   *  DETERMINE IF IN RUN ONE OF RUN TWO
2829 21 48   SWCHE  B     TEST                                     J   4  0943  B W71             533
2830 21 49   FIND2  BCE   SEEK,000&X1,_               DELTA 11-7-8 J   8  0947  B 981 0|0 _       533
2831 21 50          CHAIN 5                                                                MACRO
2832                BCE                                           J   1  0955  B           GEN   533
2833                BCE                                           J   1  0956  B           GEN   533
2834                BCE                                           J   1  0957  B           GEN   533
2835                BCE                                           J   1  0958  B           GEN   534
2836                BCE                                           J   1  0959  B           GEN   534
2837 21 51          BCE   PASS,000&X1,}       GROUP MARK          J   8  0960  B J63 0|0 } GMARK 534
2838 21 52          CHAIN 5                                                                MACRO
2839                BCE                                           J   1  0968  B           GEN   534
2840                BCE                                           J   1  0969  B           GEN   534
2841                BCE                                           J   1  0970  B           GEN   534
2842                BCE                                           J   1  0971  B           GEN   534
2843                BCE                                           J   1  0972  B           GEN   535
2844 21 53          SBR   X1                                       J   4  0973  H 089             535
2845 21 54          B     FIND2                                    J   4  0977  B 947             535
2846 21 55   SEEK   BCE   FOUND,000&X1,_              DELTA 11-7-8 J   8  0981  B 997 0|0 _       535
2847 21 56          SBR   X1                                       J   4  0989  H 089             535
2848 21 57          B     SEEK                                     J   4  0993  B 981             535
2849 21 58   FOUND  SW    001&X1                                   J   4  0997  , 0|1             535
2850 21 59          CW                                 DUMMY       J   1  1001  )                 536
2851 21 60          CW                                 DUMMY       J   1  1002  )                 536
2852 21 61          CW                                 DUMMY       J   1  1003  )                 536
2853 21 62          SAR   X1                                       J   4  1004  Q 089             536
2854 21 63          BCE   COPY,004&X1,}     GROUP MK, FIRST CHAR MAY BE DELTA  J   8  1008  B |31 0|4 } GMARK 536
2855 21 64          LCA   000&X3,000&X2                           J   7  1016  L 0?0 0!0          536
2856 21 65          SBR   X2                                       J   4  1023  H 094             536
2857 21 66          CW    001&X2                                   J   4  1027  ) 0!1             537
2858 21 67   COPY   SBR   X3,2&X1                                  J   7  1031  H 099 0|2         537
2859 21 68   *  SCAN FOR ENDING CHARACTER
2860 21 69   LIMIT  MCW   000&X1,BOX#1                             J   7  1038  M 0|0 L01         537
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
2861 21 70          SAR   X1                                               J  4  1045  Q 089              537
2862 21 71          MCW   BOX,*&8                                          J  7  1049  M L01 |63          537
2863 21 72          BCE   RANDM,@@}#*-&),@,0       AT,12-7-8  ETC        J  8  1056  B |75 L09 0        537
2864 21 73          CHAIN 7                                                                 MACRO
2865                BCE                                                    J  1  1064  B           GEN   537
2866                BCE                                                    J  1  1065  B           GEN   538
2867                BCE                                                    J  1  1066  B           GEN   538
2868                BCE                                                    J  1  1067  B           GEN   538
2869                BCE                                                    J  1  1068  B           GEN   538
2870                BCE                                                    J  1  1069  B           GEN   538
2871                BCE                                                    J  1  1070  B           GEN   538
2872 21 74          B     LIMIT                                            J  4  1071  B |38              538
2873 21 75  RANDM   BCE   SWCHF,BOX,#      EQUAL                          J  8  1075  B Y06 L01 #        539
2874 21 76          BCE   *&5,2&X1,]                  11-5-8  FUNCT STMT   J  8  1083  B |95 0|2 ]      539
2875 21 77          B     *&5                                              J  4  1091  B |99              539
2876 21 78          SW    ISFSW#1                                          J  4  1095  , L10             539
2877 21 79  SWCHA   NOP   BOTM                                           J  4  1099  N J93             539
2878 21 80  *  RANDOMIZING VARIABLE NAME
2879 21 81  MIXUP   SW    002&X1                                           J  4  1103  , 0|2             539
2880 21 82          ZA    000&X3,MOD#4                                     J  7  1107  ? 0?0 L14         539
2881 21 83          A     004&X1,MOD                                       J  7  1114  A 0|4 L14         540
2882 21 84          MZ    @    @,MOD                                       J  7  1121  Y L18 L14         540
2883 21 85          MZ                                                     J  1  1128  Y                 540
2884 21 86          MZ                                                     J  1  1129  Y                 540
2885 21 87          MCW                              3 DIGIT NO. IN MOD    J  1  1130  M                 540
2886 21 88  SUBTR   S     MAX,MOD                                          J  7  1131  S 844 L14         540
2887 21 89          BWZ   SUBTR,MOD,B                                      J  8  1138  V /31 L14 B       540
2888 21 90          A     MAX,MOD                                          J  7  1146  A 844 L14         541
2889 21 91          MZ    @ @,MOD                    BLANK                 J  7  1153  Y L19 L14         541
2890 21 92          MCW   X2,HEX2#8                                        J  7  1160  M 094 L27         541
2891 21 93          MCW                              STORES X1 IN HEX1     J  1  1167  M                 541
2892 21 94          MCW   MOD,X1                                           J  7  1168  M L14 089         541
2893 21 95          A     X1                                               J  4  1175  A 089             541
2894 21 96          A     MOD,X1                                           J  7  1179  A L14 089         542
2895 21 97  *  GET TABLE 1 ADDRESS
2896 21 98  BUMP    NOP   000                                              J  4  1186  N 000             542
2897 21 99          SAR   X1                               TAGGED BY A-BIT J  4  1190  Q 089             542
2898 22 00          MCW   @N@,OVFLW                                       J  7  1194  M L28 Z73         542
2899 22 01  CHAIN   BCE   NEW,000&X1,   BLANK  VARBL NOT YET ENDOUNTERED  J  8  1201  B T02 0|0        542
2900 22 02          BCE   OVFLW,000&X1,<   12-6-8                         J  8  1209  B Z73 0|0 <       542
2901 22 03  *  SEE IF DEFINED ALREADY
2902 22 04          MCW   000&X1,X2                                        J  7  1217  M 0|0 094         543
2903 22 05          SAR   X1                                               J  4  1224  Q 089             543
2904 22 06          C     000&X3,000&X2                                    J  7  1228  C 0?0 0!0         543
2905 22 07          BU    CHAIN                                            J  5  1235  B S01 /           543
2906 22 08          C     000&X2,000&X3                                    J  7  1240  C 0!0 0?0         543
2907 22 09          SAR   SWCHC&3                                          J  4  1247  Q S59             543
2908 22 10          BU    CHAIN                                            J  5  1251  B S01 /           543
2909 22 11  SWCHC   MN    0                                                J  4  1256  D 000             544
2910 22 12          SAR   SEND&3                                           J  4  1260  Q S75             544
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2911 22 13   RESTR  MCW   HEX2,X2                                           J   7  1264  M L27 094          544
2912 22 14          MCW                                                    J   1  1271  M                 544
2913 22 15   SEND   LCA   000,000&X2                                       J   7  1272  L 000 0!0          544
2914 22 16          SBR   X2                                               J   4  1279  H 094             544
2915 22 17          CW    001&X2                                           J   4  1283  ) 0!1             544
2916 22 18          SBR   X3,1&X1                                         J   7  1287  H 099 0|1          545
2917 22 19          SBR   X1                                               J   4  1294  H 089             545
2918 22 20   GOBAK  B     FIND1     OPERAND SET TO FIND2 FOR RUN2           J   4  1298  B X23             545
2919 22 21   NEW    MCW   NXBTM,X2                                         J   7  1302  M 083 094         545
2920 22 22          MCW   NXBTM,000&X1                                     J   7  1309  M 083 0|0         545
2921 22 23          MCW   000&X3,000&X2                                    J   7  1316  M 0?0 0!0         545
2922 22 24          SBR   X2                                               J   4  1323  H 094             546
2923 22 25   *  CHECK TO SEE IF THERE IS ROOM FOR ADDRESS
2924 22 26          BCE   FULL,000&X2,<                    12-6-8          J   8  1327  B K11 0!0 <       546
2925 22 27          CHAIN 4                                                                MACRO
2926                BCE                                                    J   1  1335  B           GEN   546
2927                BCE                                                    J   1  1336  B           GEN   546
2928                BCE                                                    J   1  1337  B           GEN   546
2929                BCE                                                    J   1  1338  B           GEN   546
2930 22 28          SW    000&X3                                           J   4  1339  , 0?0             546
2931 22 29          MCW   000&X3,*&8                                       J   7  1343  M 0?0 T57         547
2932 22 30          BCE   FIXED,@IJKLMN@,0                                J   8  1350  B !31 L34 0       547
2933 22 31          CHAIN 5                                                                MACRO
2934                BCE                                                    J   1  1358  B           GEN   547
2935                BCE                                                    J   1  1359  B           GEN   547
2936                BCE                                                    J   1  1360  B           GEN   547
2937                BCE                                                    J   1  1361  B           GEN   547
2938                BCE                                                    J   1  1362  B           GEN   547
2939 22 32          MZ    @A@,VZONE#1                                      J   7  1363  Y L35 L36         548
2940 22 33          BW    FUNST,ISFSW                                      J   8  1370  V W49 L10 1       548
2941 22 34          A     PARAMA&6,WORK5                                   J   7  1378  A 692 853         548
2942 22 35   PACK   C     WORK5,&16000                                     J   7  1385  C 853 L41         548
2943 22 36          BH    PACK2                                            J   5  1392  B U25 U           548
2944 22 37          BW    PACK2,LGSW                                       J   8  1397  V U25 K48 1       549
2945 22 38          CS    332                                              J   4  1405  / 332             549
2946 22 39          CS                                                     J   1  1409  /                 549
2947 22 40          MLC   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270      J   7  1410  M L77 270         549
2948 22 41          W                                                      J   1  1417  2                 549
2949 22 42          SW    FAILSW,LGSW                                      J   7  1418  , 184 K48         549
2950 22 43   PACK2  MCW   WORK5,HOLD5#5                                    J   7  1425  M 853 L82         549
2951 22 44          MCW   X3,HOLD8#8                                       J   7  1432  M 099 L90         550
2952 22 45          MCW                                                    J   1  1439  M                 550
2953 22 46          FPACK HOLD5,NXTOP,X2                                                   MACRO
2954                INCLD ZONES                                                            MACRO
2955                MN    HOLD5,NXTOP                                      J   7  1440  D L82 086    GEN   550
2956                MN                                                     J   1  1447  D           GEN   550
2957                MN                                                     J   1  1448  D           GEN   550
2958                SAR   *&4                                              J   4  1449  Q U56        GEN   550
2959                MCW   0,X2                                             J   7  1453  M 000 094    GEN   550
2960                MCW   @0@                                              J   4  1460  M L91        GEN   551
```

```
 SEQ PG LIN  LABEL   OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2961                A      X2                                       J  4  1464  A 094       GEN    551
2962                MZ     ZONES&1&X2,NXTOP                         J  7  1468  Y KN1 086   GEN    551
2963                CW                                              J  1  1475  )           GEN    551
2964                SBR    *&7                                      J  4  1476  H U86       GEN    551
2965                MZ     ZONES&X2, 0                              J  7  1480  Y KN0 000   GEN    551
2966 22 47          MCW    NXTOP,ADRSS#3                            J  7  1487  M 086 L94   GEN    551
2967 22 48  RTN2    CW     0&X3                                     J  4  1494  ) 0?0       GEN    552
2968 22 49          CS     299                                      J  4  1498  / 299       GEN    552
2969 22 50          FFLIP  0&X3,201,X3,X2,INC,WM                                           MACRO
2970                MN     201                                      J  4  1502  D 201       GEN    552
2971                MN                                              J  1  1506  D           GEN    552
2972                SAR    X2                                       J  4  1507  Q 094       GEN    552
2973                SBR    X3, 0&X3                                 J  7  1511  H 099 0?0   GEN    552
2974         )0K073 MCW    0&X3,)0L073#1                            J  7  1518  M 0?0 L95   GEN    552
2975                SAR    X3                                       J  4  1525  Q 099       GEN    553
2976                MCW    )0L073, 2&X2                             J  7  1529  M L95 0!2   GEN    553
2977                SBR    X2                                       J  4  1536  H 094       GEN    553
2978                BW     )0M073, 1&X3                             J  8  1540  V V52 0?1 1 GEN    553
2979                B      )0K073                                   J  4  1548  B V18       GEN    553
2980         )0M073 EQU    *&1                                      J     1552              GEN
2981 22 51          MCW    HOLD8,X3                                 J  7  1552  M L90 099   GEN    553
2982 22 52          MCW                                             J  1  1559  M           GEN    553
2983 22 53          MCW    NXTOP,227                                J  7  1560  M 086 227   GEN    554
2984 22 54          MCS    WORK5,219                                J  7  1567  Z 853 219   GEN    554
2985 22 55          BW     SWIX2,ISFSW                              J  8  1574  V V94 L10 1 GEN    554
2986 22 56          W                                               J  1  1582  2           GEN    554
2987 22 57          FORMS                                                                  MACRO
2988                BCV    *&5                                      J  5  1583  B V92 @     GEN    554
2989                B      *&3                                      J  4  1588  B V94       GEN    554
2990                CC     1                                        J  2  1592  F 1         GEN    554
2991 22 58  SWIX2   SW     1&X2                                     J  4  1594  , 0!1       GEN    555
2992 22 59          LCA    GM                                       J  4  1598  L M93       GEN    555
2993 22 60          SBR    SEND&3                                   J  4  1602  H S75       GEN    555
2994 22 61          LCA    ADRSS                                    J  4  1606  L L94       GEN    555
2995 22 62          SBR    NXBTM                                    J  4  1610  H 083       GEN    555
2996 22 63          SBR    X2                                       J  4  1614  H 094       GEN    555
2997 22 64          BCE    *&5,CODE-3,D                             J  8  1618  B W30 K83 D GEN    555
2998 22 65          B      *&5                                      J  4  1626  B W34       GEN    556
2999 22 66          CW     4&X2                                     J  4  1630  ) 0!4       GEN    556
3000 22 67          MZ     VZONE,2&X2                               J  7  1634  Y L36 0!2   GEN    556
3001 22 68          CW     ISFSW                                    J  4  1641  ) L10       GEN    556
3002 22 69          B      RESTR                                    J  4  1645  B S64       GEN    556
3003 22 70  FUNST   MCW    FNCTR,ADRSS                              J  7  1649  M L00 L94   GEN    556
3004 22 71          MCW    @]@                          11-5-8      J  4  1656  M L96       GEN    556
3005 22 72          A      &1,FNCTR                                 J  7  1660  A L97 L00   GEN    557
3006 22 73          B      RTN2                                     J  4  1667  B U94       GEN    557
3007 22 74  TEST    FBCEQ  INPUT,CODE-3,1,5,L                                              MACRO
3008        TEST    BCE    INPUT, CODE-3, 1                         J  8  1671  B X63 K83 1 GEN    557
3009                BCE    INPUT, CODE-3, 5                         J  8  1679  B X63 K83 5 GEN    557
3010                BCE    INPUT, CODE-3, L                         J  8  1687  B X63 K83 L GEN    557
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
3011 22 75           MCW   @B@,SWCHA                                       J  7  1695  M L98 |99          558
3012 22 76           MCW   @N@,SWCHB                                       J  7  1702  M L28 X31          558
3013 22 77           MCW   @N@,SWCHF                                       J  7  1709  M L28 Y06          558
3014 22 78           MCW   @N@,SWCHG                                       J  7  1716  M L28 X39          558
3015 22 79   FIND1   BCE   FOUND,000&X1,_              DELTA   11-7-8      J  8  1723  B 997 0|0 _        558
3016 22 80   SWCHB   NOP   RTPAR,000&X1,)             RT PAREN             J  8  1731  N X95 0|0 )        559
3017 22 81   SWCHG   NOP   DOLR1,000&X1,$   DOLLAR, A-OPERAND ALSO MODIFIED J  8  1739  N Z95 0|0 $        559
3018 22 82   DONE    BCE   PASS,000&X1,}              GROUP MARK           J  8  1747  B J63 0|0 } GMARK  559
3019 22 83           SBR   X1                                              J  4  1755  H 089              559
3020 22 84           B     FIND1                                           J  4  1759  B X23              559
3021 22 85   INPUT   MCW   @N@,SWCHA                                       J  7  1763  M L28 |99          559
3022 22 86           MCW   @B@,SWCHB                                       J  7  1770  M L98 X31          560
3023 22 87           MCW   @M@,SWCHF                                       J  7  1777  M L99 Y06          560
3024 22 88           MCW   @B@,SWCHG                                       J  7  1784  M L98 X39          560
3025 22 89           B     FIND1                                           J  4  1791  B X23              560
3026 22 90   RTPAR   MCW   @N@,SWCHA                                       J  7  1795  M L28 |99          560
3027 22 91           B     DONE                                            J  4  1802  B X47              560
3028 22 92   SWCHF   NOP   @B@,SWCHB                                       J  7  1806  N L98 X31          561
3029 22 93           MCW   @B@,SWCHA                                       J  7  1813  M L98 |99          561
3030 22 94           B     MIXUP                                           J  4  1820  B /03              561
3031 22 95   UNDEF   CS    299                                             J  4  1824  / 299              561
3032 22 96           SW    FAILSW                                          J  4  1828  , 184              561
3033 22 97           MCW   @ERROR 10 - UNDEFINED VARIABLE @,230           J  7  1832  M M29 230          561
3034 22 98           FFLIP 0&X3,231,X3,X1,INC,WM                                                MACRO
3035                 MN    231                                             J  4  1839  D 231        GEN   561
3036                 MN                                                    J  1  1843  D            GEN   562
3037                 SAR   X1                                              J  4  1844  Q 089        GEN   562
3038                 SBR   X3, 0&X3                                        J  7  1848  H 099 0?0     GEN   562
3039         )0K076  MCW   0&X3,)0L076#1                                   J  7  1855  M 0?0 M30     GEN   562
3040                 SAR   X3                                              J  4  1862  Q 099        GEN   562
3041                 MCW   )0L076, 2&X1                                    J  7  1866  M M30 0|2     GEN   562
3042                 SBR   X1                                              J  4  1873  H 089        GEN   562
3043                 BW    )0M076, 1&X3                                    J  8  1877  V Y89 0?1 1   GEN   563
3044                 B     )0K076                                          J  4  1885  B Y55        GEN   563
3045         )0M076  EQU   *&1                                            J     1889                GEN
3046 22 99           MN    CODE,255                                        J  7  1889  D K86 255          563
3047 23 00           MN                                                    J  1  1896  D                 563
3048 23 01           MN                                                    J  1  1897  D                 563
3049 23 02           MCW   @STATEMENT @                                    J  4  1898  M M40              563
3050 23 03           W                                                     J  1  1902  2                 563
3051 23 04           FORMS                                                                      MACRO
3052                 BCV   *&5                                             J  5  1903  B Z12 @      GEN   564
3053                 B     *&3                                             J  4  1908  B Z14        GEN   564
3054                 CC    1                                               J  2  1912  F 1          GEN   564
3055 23 05           SBR   SEND&3,ZEROZ                                    J  7  1914  H S75 K47          564
3056 23 06           BWZ   CKFIX,231,K                                     J  8  1921  V Z40 231 K        564
3057 23 07   ZNA     MZ    @A@,ZEROZ-1                                     J  7  1929  Y L35 K46          564
3058 23 08           B     RESTR                                           J  4  1936  B S64              564
3059 23 09   CKFIX   SW    231                                             J  4  1940  , 231              565
3060 23 10           MCW   231,*&8                                         J  7  1944  M 231 Z58          565
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3061 23 11          BCE   ZNA,@OPQR@,       INITIALIZED     J   8  1951  B Z29 M44        565
3062 23 12          CHAIN 3                                                       MACRO
3063                BCE                                     J   1  1959  B           GEN   565
3064                BCE                                     J   1  1960  B           GEN   565
3065                BCE                                     J   1  1961  B           GEN   565
3066 23 13          MZ    @K@,ZEROZ-1                       J   7  1962  Y M45 K46       565
3067 23 14          B     RESTR                             J   4  1969  B S64          566
3068 23 15  OVFLW   NOP   FULL                              J   4  1973  N K11          566
3069 23 16          MCW   @B@,OVFLW                         J   7  1977  M L98 Z73      566
3070 23 17          MCW   UPLIM,X1                          J   7  1984  M 848 089      566
3071 23 18          B     CHAIN                             J   4  1991  B S01          566
3072 23 19  DOLR1   SBR   SWCHG&3,DOLR2                     J   7  1995  H X42 !13      566
3073 23 20          MCW   @B@,SWCHA                         J   7  2002  M L98 |99      567
3074 23 21          B     DONE                              J   4  2009  B X47          567
3075 23 22  DOLR2   SBR   SWCHG&3,DOLR1                     J   7  2013  H X42 Z95      567
3076 23 23          MCW   @N@,SWCHA                         J   7  2020  M L28 |99      567
3077 23 24          B     DONE                              J   4  2027  B X47          567
3078 23 25  FIXED   MZ    @J@,VZONE                         J   7  2031  Y M46 L36      567
3079 23 26          BW    FUNST,ISFSW                       J   8  2038  V W49 L10 1    568
3080 23 27          A     PARAMA&4,WORK5                    J   7  2046  A 690 853      568
3081 23 28          B     PACK                              J   4  2053  B T85          568
3082 23 29  OUT     MLC   SAVE2,X1                          J   7  2057  M 856 089      568
3083 23 30          CS    0&X2                              J   4  2064  / 0!0          568
3084 23 31          CS                                      J   1  2068  /              568
3085 23 32          SBR   TCLEAR,SYS4                       J   7  2069  H 710 M99      568
3086 23 33  SWCHD   NOP   DUN                               J   4  2076  N J47          569
3087 23 34          SW    GM                                J   4  2080  , M93          569
3088 23 35          MCW   @B@,SWCHD                        J   7  2084  M L98 !76      569
3089 23 36          MCW   @)@,SWCHC                        J   7  2091  M M47 S56      569
3090 23 37          MCW   @N@,SWCHE                        J   7  2098  M L28 943      569
3091 23 38          MCW   @N@,SWCHA                        J   7  2105  M L28 |99      569
3092 23 39          SBR   CHAIN&3,UNDEF                   J   7  2112  H S04 Y24      570
3093 23 40          SBR   GOBAK&3,FIND2                   J   7  2119  H T01 947      570
3094 23 41          CS    0&X2                            J   4  2126  / 0!0          570
3095 23 42          SBR   X2,1&X1                         J   7  2130  H 094 0|1       570
3096 23 43          SBR   SAVE2                           J   4  2137  H 856          570
3097 23 44          CC    J                               J   2  2141  F J            570
3098 23 45          B     START                           J   4  2143  B 879          570
3099 23 46  DUN     BSS   333,C                           J   5  2147  B 333 C        571
3100 23 47          MCW   @VARBLQUIN@,110                 J   7  2152  M M56 110      571
3101 34 48          B     MONTOR                          J   4  2159  B 769          571
3102 23 49  PASS    MVDWN X3,X2                                                   MACRO
3103        PASS    LCA   0&X3,0&X2                       J   7  2163  L 0?0 0!0  GEN   571
3104                SAR   X3                              J   4  2170  Q 099      GEN   571
3105                C     0&X2                            J   4  2174  C 0!0      GEN   571
3106                SAR   X2                              J   4  2178  Q 094      GEN   571
3107 23 50          MCW   X3,X1                          J   7  2182  M 099 089      572
3108 23 51          B     START                           J   4  2189  B 879          572
3109 23 52  BOTM    SBR   X1,1&X1                         J   7  2193  H 089 0|1       572
3110 23 53          SBR   X3,1&X3                         J   7  2200  H 099 0?1       572
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3111 23 54           B     FIND1                                              J   4  2207  B X23             572
3112 23 55   FULL    FQUIT                                                                  MACRO
3113         FULL    CS    332                                                J   4  2211  / 332       GEN   572
3114                 CS                                                       J   1  2215  /           GEN   572
3115                 CC    1                                                  J   2  2216  F 1         GEN   573
3116                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270         J   7  2218  M M92 270   GEN   573
3117                 W                                                        J   1  2225  2           GEN   573
3118                 CC    1                                                  J   2  2226  F 1         GEN   573
3119                 BCE   *&6,MONTOR,1                                       J   8  2228  B K41 769 1 GEN   573
3120                 RWD   1                                                  J   5  2236  U %U1 R     GEN   573
3121                 H     *-3                                                J   4  2241  . K41       GEN   573
3122 23 56   ZEROZ   DCW   @000@                                            J   3  2247                      574
3123 23 57   LGSW    DC    #1                                                 J   1  2248                      574
3124 23 58           ORG   *                                                  J              2249
3125                 LTORG *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG   J              2249
3126                 DCW   #1                                                 J   1  2249              GEN   574
3127         ZONES   DC    9                                                  J   1  2250              GEN   574
3128                 DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  J  31  2281              GEN   574
             *         LTORG*                                                                           GEN
                     DCW   @S@                                                J   1  2282              LIT   574
             CODE J  DCW   #04                                                J   4  2286              AREA  575
             WORK J  DCW   #10                                                J  10  2296              AREA  575
                     DCW   @01@                                               J   2  2298              LIT   575
             FNCTRJ  DCW   #02                                                J   2  2300              AREA  575
             BOX  J  DCW   #01                                                J   1  2301              AREA  575
                     DCW   @@}#*-&),@                                         J   8  2309              LIT   575
             ISFSWJ  DCW   #01                                                J   1  2310              AREA  575
             MOD  J  DCW   #04                                                J   4  2314              AREA  576
                     DCW   @    @                                             J   4  2318              LIT   576
                     DCW   @ @                                                J   1  2319              LIT   576
             HEX2 J  DCW   #08                                                J   8  2327              AREA  576
                     DCW   @N@                                                J   1  2328              LIT   576
                     DCW   @IJKLMN@                                           J   6  2334              LIT   576
                     DCW   @A@                                                J   1  2335              LIT   576
             VZONEJ  DCW   #01                                                J   1  2336              AREA  577
                     DCW   &16000                                             J   5  2341              LIT   577
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@             J  36  2377              LIT   578
             HOLD5J  DCW   #05                                                J   5  2382              AREA  579
             HOLD8J  DCW   #08                                                J   8  2390              AREA  579
                     DCW   @0@                                                J   1  2391              LIT   579
             ADRSSJ  DCW   #03                                                J   3  2394              AREA  579
             )0L073  DCW   #01                                                J   1  2395              AREA  579
                     DCW   @]@                                                J   1  2396              LIT   579
                     DCW   &1                                                 J   1  2397              LIT   579
                     DCW   @B@                                                J   1  2398              LIT   580
                     DCW   @M@                                                J   1  2399              LIT   580
                     DCW   @ERROR 10 - UNDEFINED VARIABLE @                   J  30  2429              LIT   580
             )0L076  DCW   #01                                                J   1  2430              AREA  580
                     DCW   @STATEMENT @                                       J  10  2440              LIT   581
                     DCW   @OPQR@                                             J   4  2444              LIT   581
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@K@	J	1	2445		LIT	581
				DCW	@J@	J	1	2446		LIT	581
				DCW	@)@	J	1	2447		LIT	581
				DCW	@VARBLQUIN@	J	9	2456		LIT	581
				DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	J	36	2492		LIT	582
3129	23	59	GM	DC	@}@ G-M	J	1	2493		GMARK	582
3130	23	60		DC	@ @ SPACE FOR FANCY SCAN	J	5	2498			583
3131	23	61	SYS4	DCW	@}@ WORK AND SYSTEM GROUP MARK	J	1	2499		GMARK	583
3132	23	62		XFR	BEGIN	J			B 857		584

```
 SEQ PG LIN  LABEL   OP     OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3133 23 63           JOB    1401 FORTRAN   VARIABLES PHASE FIVE
3134 23 64    110    DCW    @VARBL QUIN@                                       J  10  0110                    587
3135 23 65           ORG    PHSE3                                              J          0857
3136 23 66    CKREF  CC     J                                                  J   2  0857  F J             588
3137 23 67           MCW    X1,KEEP2#3                                         J   7  0859  M 089 |79       588
3138 23 68           MCW    PARAMA&2,X2                                        J   7  0866  M 688 094       588
3139 23 69    SCAN   BCE    ISGM,0&X2,}                    12-7-8              J   8  0873  B 945 0!0 } GMARK 588
3140 23 70           SBR    X2                                                 J   4  0881  H 094           588
3141 23 71           C      X2,NXBTM                                           J   7  0885  C 094 083       588
3142 23 72           BU     SCAN                                               J   5  0892  B 873 /         589
3143 23 73           MCW    KEEP2,X1                                           J   7  0897  M |79 089       589
3144 23 74           FENDX  D,,,XBEGIN,XBEGIN,XBEGIN,SAUCEK-2,CONST ONE                                 MACRO
3145                 BSS    333,D                                              J   5  0904  B 333 D   GEN   589
3146                 SBR    INITAP&6,XBEGIN                                    J   7  0909  H 786 838 GEN   589
3147                 SBR    BCLEAR                                             J   4  0916  H 833     GEN   589
3148                 SBR    INITXT&3,XBEGIN                                    J   7  0920  H 796 838 GEN   589
3149                 SBR    TCLEAR,SAUCEK-2                                    J   7  0927  H 710 O98 GEN   590
3150                 LCA    @CONST ONE@,110                                    J   7  0934  L |88 110 GEN   590
3151                 B      MONTER                                             J   4  0941  B 700     GEN   590
3152 23 75    ISGM   BW     UNREF,0&X2                                         J   8  0945  V 965 0!0 1     590
3153 23 76           MN     0&X2                                               J   4  0953  D 0!0           590
3154 23 77           SBR    X2                                                 J   4  0957  H 094           590
3155 23 78           B      SCAN                                               J   4  0961  B 873           590
3156 23 79    UNREF  CS     299                                                J   4  0965  / 299           591
3157 23 80           MCW    @ERROR 11 - UNREFERENCED VARIABLE @,233            J   7  0969  M /21 233       591
3158 23 81           MCW    X2,X3                                              J   7  0976  M 094 099       591
3159 23 82    NOPR   NOP    1&X3                                               J   4  0983  N 0?1           591
3160 23 83           SAR    X3                                                 J   4  0987  Q 099           591
3161 23 84           BW     FLIP,2&X3                                          J   8  0991  V |03 0?2 1     591
3162 23 85           B      NOPR                                               J   4  0999  B 983           591
3163 23 86    FLIP   FFLIP  1&X3,234,X3,X1,INCL,WM                                                  MACRO
3164          FLIP   MN     234                                                J   4  1003  D 234     GEN   592
3165                 MN                                                        J   1  1007  D         GEN   592
3166                 SAR    X1                                                 J   4  1008  Q 089     GEN   592
3167                 SBR    X3, 1&X3                                           J   7  1012  H 099 0?1 GEN   592
3168          )0K081 MCW    0&X3,)0L081#1                                      J   7  1019  M 0?0 /22 GEN   592
3169                 SAR    X3                                                 J   4  1026  Q 099     GEN   592
3170                 MCW    )0L081, 2&X1                                       J   7  1030  M /22 0|2 GEN   592
3171                 SBR    X1                                                 J   4  1037  H 089     GEN   593
3172                 BW     )0M081, 1&X3                                       J   8  1041  V |53 0?1 1 GEN   593
3173                 B      )0K081                                             J   4  1049  B |19     GEN   593
3174          )0M081 EQU    *&1                                                J      1053                GEN
3175 23 87           W                                                         J   1  1053  2               593
3176 23 88           FORMS                                                                              MACRO
3177                 BCV    *&5                                                J   5  1054  B |63 @   GEN   593
3178                 B      *&3                                                J   4  1059  B |65     GEN   593
3179                 CC     1                                                  J   2  1063  F 1       GEN   593
3180 23 89           MN     0&X2                                               J   4  1065  D 0!0           594
3181 23 90           SAR    X2                                                 J   4  1069  Q 094           594
3182 23 91           B      SCAN                                               J   4  1073  B 873           594
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

3183 23 92           LTORG *                                       J          1077
             KEEP2J  DCW   #03                                     J  3  1079             AREA  594
                     DCW   @CONST ONE@                             J  9  1088             LIT   594
                     DCW   @ERROR 11 - UNREFERENCED VARIABLE @     J 33  1121             LIT   595
             )0L081  DCW   #01                                     J  1  1122             AREA  595
3184 23 93           DCW   @}@                    SYSTEM GROUP MARK J  1  1123             GMARK 595
3185 23 94           XFR   CKREF                                   J          B 857               596
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

3186 23 95          JOB   1401 FORTRAN   CONSTANT PHASE ONE
3187 23 96          FBEGN CONST ONE,X1,,X2,R,X3,R,K                                          MACRO
3188                SFX   K                                                                  GEN
3189          110   DCW   @CONST ONE@                             K   9  0110             GEN    599
3190          X1    EQU   089                                     K      0089             GEN
3191          X2    EQU   094                                     K      0094             GEN
3192          094   DCW   000                                     K   3  0094             GEN    600
3193          096   DC    00                                      K   2  0096             GEN    600
3194          X3    EQU   099                                     K      0099             GEN
3195          099   DCW   000                                     K   3  0099             GEN    600
3196          100   DC    0                                       K   1  0100             GEN    600
3197 23 97          ORG   XBEGIN                                  K          0838
3198 23 98    TRACK EQU   200                                     K      0200
3199 23 99    NXBTM EQU   083                                     K      0083
3200 24 00    INITL CS    TRACK&99                                K   4  0838  / 299             601
3201 24 01          SW    GM                                      K   4  0842  , L49             601
3202 24 02          SW    TRACK                                   K   4  0846  , 200             601
3203 24 03          MCW   PARAMA&2,X2                            K   7  0850  M 688 094          601
3204 24 04          MN    000&X2                                  K   4  0857  D 0!0             601
3205 24 05          MN                                            K   1  0861  D                 601
3206 24 06          SAR   X2                                      K   4  0862  Q 094             601
3207 24 07          SBR   NXBTM                                   K   4  0866  H 083             602
3208 24 08          LCA   GM, 1&X2                               K   7  0870  L L49 0!1         602
3209 24 09    START BCE   OUT,000&X1,    BLANK                   K   8  0877  B J53 0|0         602
3210 24 10          MCW   000&X1,CODE#4                           K   7  0885  M 0|0 L53         602
3211 24 11          LCA   000&X1,WORK#10                         K   7  0892  L 0|0 L63         602
3212 24 12          SAR   X1                                      K   4  0899  Q 089             602
3213 24 13          SBR   HEX3#3                                  K   4  0903  H L66             603
3214 24 14          SBR   KILL#3,0&X2                           K   7  0907  H L69 0!0         603
3215 24 15          LCA   WORK,000&X2                           K   7  0914  L L63 0!0         603
3216 24 16          SBR   X2                                      K   4  0921  H 094             603
3217 24 17          MCW   CODE-3,*&8                            K   7  0925  M L50 939         603
3218 24 18          BCE   TRYIT,@UPL3165DER@,0                   K   8  0932  B 972 L79 0       603
3219 24 19          CHAIN 9                                                                  MACRO
3220                BCE                                           K   1  0940  B             GEN    603
3221                BCE                                           K   1  0941  B             GEN    604
3222                BCE                                           K   1  0942  B             GEN    604
3223                BCE                                           K   1  0943  B             GEN    604
3224                BCE                                           K   1  0944  B             GEN    604
3225                BCE                                           K   1  0945  B             GEN    604
3226                BCE                                           K   1  0946  B             GEN    604
3227                BCE                                           K   1  0947  B             GEN    604
3228                BCE                                           K   1  0948  B             GEN    605
3229 24 20          MVDWN X1,X2                                                              MACRO
3230                LCA   0&X1,0&X2                               K   7  0949  L 0|0 0!0      GEN    605
3231                SAR   X1                                      K   4  0956  Q 089          GEN    605
3232                C     0&X2                                    K   4  0960  C 0!0          GEN    605
3233                SAR   X2                                      K   4  0964  Q 094          GEN    605
3234 24 21          B     START                                   K   4  0968  B 877             605
3235 24 22    TRYIT SBR   X3,TABLE-4                             K   7  0972  H 099 L07         605
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
3236 24 23          MCW   CODE-3,SCAN&7                               K   7  0979  M L50 993          606
3237 24 24   SCAN   BCE   SETUP,004&X3,0      D-CHAR MODIFIED         K   8  0986  B |02 0?4 0        606
3238 24 25          SBR   X3                                          K   4  0994  H 099              606
3239 24 26          B     SCAN                                        K   4  0998  B 986              606
3240 24 27   SETUP  MCW   006&X3,CNTRL#2                             K   7  1002  M 0?6 L81          606
3241 24 28          MCW   CNTRL-1,TEST2&7                           K   7  1009  M L80 |38          606
3242 24 29   TEST1  BCE   GUTS,CNTRL,2                              K   8  1016  B |67 L81 2        607
3243 24 30          A     @1@,CNTRL                                   K   7  1024  A L82 L81          607
3244 24 31   TEST2  BCE   BUMP1,0&X1,0                              K   8  1031  B |55 0|0 0        607
3245 24 32          BCE   GUTS,0&X1,}                 GM            K   8  1039  B |67 0|0 } GMARK  607
3246 24 33          SBR   X1                                          K   4  1047  H 089              607
3247 24 34          B     TEST2                                       K   4  1051  B |31              607
3248 24 35   BUMP1  MN    0&X1                                        K   4  1055  D 0|0              608
3249 24 36          SAR   X1                                          K   4  1059  Q 089              608
3250 24 37          B     TEST1                                       K   4  1063  B |16              608
3251 24 38   GUTS   BWZ   MAYBE,000&X1,3  NUMBER,EQUAL SIGN,WORD MK  K   8  1067  V |91 0|0 3        608
3252 24 39          SBR   X1                                          K   4  1075  H 089              608
3253 24 40          BCE   SUBSC,1&X1,$                               K   8  1079  B /76 0|1 $        608
3254 24 41          B     GUTS                                        K   4  1087  B |67              608
3255 24 42   MAYBE  BCE   PASS,000&X1,}      12-7-8                  K   8  1091  B J95 0|0 } GMARK  609
3256 24 43          SBR   X1                                          K   4  1099  H 089              609
3257 24 44          BCE   GUTS,001&X1,#                              K   8  1103  B |67 0|1 #        609
3258 24 45          BCE   GUTS,1&X1,@                                K   8  1111  B |67 0|1 @        609
3259 24 46          MCW   002&X1,BOX&1                              K   7  1119  M 0|2 L48          609
3260 24 47          MCW                                             K   1  1126  M                  609
3261 24 48          MCW                                             K   1  1127  M                  609
3262 24 49          SAR   X1                                          K   4  1128  Q 089              610
3263 24 50          MCW   BOX&1,*&8                                 K   7  1132  M L48 /46          610
3264 24 51          BCE   RUCON,@)}@.#%$,*-&@,0       RT PAREN,GROUP MARK K   8  1139  B S16 L93 0        610
3265 24 52          CHAIN 10                                                                  MACRO
3266                BCE                                             K   1  1147  B                  GEN    610
3267                BCE                                             K   1  1148  B                  GEN    610
3268                BCE                                             K   1  1149  B                  GEN    610
3269                BCE                                             K   1  1150  B                  GEN    610
3270                BCE                                             K   1  1151  B                  GEN    611
3271                BCE                                             K   1  1152  B                  GEN    611
3272                BCE                                             K   1  1153  B                  GEN    611
3273                BCE                                             K   1  1154  B                  GEN    611
3274                BCE                                             K   1  1155  B                  GEN    611
3275                BCE                                             K   1  1156  B                  GEN    611
3276 24 53          BCE   PASS,1&X1,}                 GM            K   8  1157  B J95 0|1 } GMARK  611
3277 24 54   BMPX1  SBR   X1,1&X1                                    K   7  1165  H 089 0|1          612
3278 24 55          B     GUTS                                        K   4  1172  B |67              612
3279 24 56   SUBSC  NOP   SUB2                                        K   4  1176  N /98              612
3280 24 57          MCW   @B@,SUBSC                                  K   7  1180  M L94 /76          612
3281 24 58          MCW   BLANK,SUBSW&4                              K   7  1187  M N04 !42          612
3282 24 59          B     GUTS                                        K   4  1194  B |67              612
3283 24 60   SUB2   MCW   @N@,SUBSC                                  K   7  1198  M L95 /76          613
3284 24 61          MCW   @/@,SUBSW&4                                K   7  1205  M L96 !42          613
3285 24 62          B     GUTS                                        K   4  1212  B |67              613
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
3286 24 63   RUCON  BCE   BAKUP,3&X1,.                                    K   8  1216  B K32 0|3 .       613
3287 24 64          MCW   BOX-1,*&8                                       K   7  1224  M L46 S38         613
3288 24 65          BCE   BMPX1,@?ABCDEFGHI!JKLMNOPQR@,0      &ZERO,- ZERO K   8  1231  B /65 M16 0       614
3289 24 66          CHAIN 19                                                                MACRO
3290                BCE                                                   K   1  1239  B           GEN   614
3291                BCE                                                   K   1  1240  B           GEN   614
3292                BCE                                                   K   1  1241  B           GEN   614
3293                BCE                                                   K   1  1242  B           GEN   614
3294                BCE                                                   K   1  1243  B           GEN   614
3295                BCE                                                   K   1  1244  B           GEN   614
3296                BCE                                                   K   1  1245  B           GEN   615
3297                BCE                                                   K   1  1246  B           GEN   615
3298                BCE                                                   K   1  1247  B           GEN   615
3299                BCE                                                   K   1  1248  B           GEN   615
3300                BCE                                                   K   1  1249  B           GEN   615
3301                BCE                                                   K   1  1250  B           GEN   615
3302                BCE                                                   K   1  1251  B           GEN   615
3303                BCE                                                   K   1  1252  B           GEN   616
3304                BCE                                                   K   1  1253  B           GEN   616
3305                BCE                                                   K   1  1254  B           GEN   616
3306                BCE                                                   K   1  1255  B           GEN   616
3307                BCE                                                   K   1  1256  B           GEN   616
3308                BCE                                                   K   1  1257  B           GEN   616
3309 24 67          BCE   CKIF,3&X1,)                                     K   8  1258  B J83 0|3 )       616
3310 24 68   SET    SW    003&X1                                          K   4  1266  , 0|3             617
3311 24 69          MCW   HEX3,X3                                         K   7  1270  M L66 099         617
3312 24 70          LCA   000&X3,000&X2                                   K   7  1277  L 0?0 0!0         617
3313 24 71          SBR   X2                                              K   4  1284  H 094             617
3314 24 72          MCW   @<@,3&X1                          12-6-8       K   7  1288  M M17 0|3         617
3315 24 73          SBR   KLOBR&6,3&X1                                    K   7  1295  H J17 0|3         617
3316 24 74          CW    001&X2                                          K   4  1302  ) 0!1             618
3317 24 75          LCA   @_@,000&X2          11-7-8                    K   7  1306  L M18 0!0         618
3318 24 76          SBR   X2                                              K   4  1313  H 094             618
3319 24 77          CW    001&X2                                          K   4  1317  ) 0!1             618
3320 24 78          CW    ODDSW                                           K   4  1321  ) N44             618
3321 24 79          S     XPONT#2                                         K   4  1325  S M20             618
3322 24 80          S     COUNT#3                                         K   4  1329  S M23             618
3323 24 81          S     TOTAL                                           K   4  1333  S M28             619
3324 24 82          MCW   @,@,STODD                                       K   7  1337  M M24 K64         619
3325 24 83          MCW   @N@,SWCHX                                       K   7  1344  M L95 T90         619
3326 24 84          MCW   @B@,SWCHZ                                       K   7  1351  M L94 U04         619
3327 24 85          SBR   SWCHA&3,A                                       K   7  1358  H K75 L41         619
3328 24 86          SBR   SWCHS&3,S                                       K   7  1365  H K46 L42         619
3329 24 87          SBR   X1,2&X1                                         K   7  1372  H 089 0|2         620
3330 24 88   NORML  MCW   000&X1,BOX                                      K   7  1379  M 0|0 L47         620
3331 24 89          SAR   X1                                              K   4  1386  Q 089             620
3332 24 90   SWCHX  NOP   &1,XPONT                                        K   7  1390  N M25 M20         620
3333 24 91          A     &1,TOTAL#3                                      K   7  1397  A M25 M28         620
3334 24 92   SWCHZ  BCE   NORML,BOX,0     PASSES BY LEADING ZEROS        K   8  1404  B T79 L47 0       621
3335 24 93          BCE   SWCHS,BOX,.                                     K   8  1412  B K43 L47 .       621
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
3336 24 94          BCE   SWCHA,SWCHZ,B      BRANCHES ON FIRST SIGNIF CHAR  K  8  1420  B K72 U04 B       621
3337 24 95          A     &1,COUNT                                        K  7  1428  A M25 M23         621
3338 24 96   TEST   BCE   CNLFT,BOX,#                                     K  8  1435  B X20 L47 #       621
3339 24 97          BCE   *&9,BOX,@                                       K  8  1443  B U59 L47 @       622
3340 24 98          BWZ   NORML,BOX,2    NO ZONE                        K  8  1451  V T79 L47 2       622
3341 24 99   CR     C     SWCHA&3,NOPAD                                   K  7  1459  C K75 L45         622
3342 25 00   *  DECIMAL POINT SENDS THE ADDRESS OF NOP TO SWCHA&3
3343 25 01   *  CANNOT USE ADDRESS CONSTANT
3344 25 02          BU    FIXED                                           K  5  1466  B Z31 /           622
3345 25 03          BWZ   MARK,XPONT,B                                    K  8  1471  V U86 M20 B       622
3346 25 04          A     &1,XPONT                                        K  7  1479  A M25 M20         623
3347 25 05   MARK   SW    002&X1                                          K  4  1486  , 0|2             623
3348 25 06          BCE   ODDBL,2&X1,.                                   K  8  1490  B Y22 0|2 .       623
3349 25 07   CKTAL  BCE   TAIL,BOX,E                                      K  8  1498  B Y37 L47 E       623
3350 25 08   FLOAT  C     TOTAL,&01                                       K  7  1506  C M28 M30         623
3351 25 09          NOP   SYNTX                                           K  4  1513  N X84            623
3352 25 10          NOP                                                   K  1  1517  N                623
3353 25 11          C     COUNT,&000                                      K  7  1518  C M23 M33         624
3354 25 12          BU    RTLFT                                           K  5  1525  B V49 /           624
3355 25 13   LDZER  LCA   @?0?@,0&X2          12-0,0,12-0                K  7  1530  L M36 0!0         624
3356 24 14          SBR   X2                                             K  4  1537  H 094            624
3357 25 15          CW    001&X2                                          K  4  1541  ) 0!1            624
3358 25 16          B     BOTM2                                           K  4  1545  B J00            624
3359 25 17   RTLFT  MCW   X1,HEX1#3                                       K  7  1549  M 089 M39         624
3360 25 18          BW    *&8,ODDSW                                       K  8  1556  V V71 N44 1       625
3361 25 19          LCA   000&X3,001&X3                                   K  7  1564  L 0?0 0?1         625
3362 25 20          MCW   RIGHT#3,X1                                     K  7  1571  M M42 089         625
3363 25 21          MCW   PARAMA&6,PRESZ#2                                K  7  1578  M 692 M44         625
3364 25 22          A     &2,PRESZ                                        K  7  1585  A M45 M44         625
3365 25 23          SBR   X3,TRACK-2                                     K  7  1592  H 099 198         626
3366 25 24          SW    TRACK                                           K  4  1599  , 200            626
3367 25 25   TWIST  MCW   000&X1,BOX                                      K  7  1603  M 0|0 L47         626
3368 25 26          SAR   X1                                              K  4  1610  Q 089            626
3369 25 27          MCW   BOX,002&X3                                      K  7  1614  M L47 0?2         626
3370 25 28          SBR   X3                                              K  4  1621  H 099            626
3371 25 29          BWZ   PHEW,001&X1,1       WORD MARK                  K  8  1625  V W52 0|1 1       627
3372 25 30          S     &1,PRESZ                                        K  7  1633  S M25 M44         627
3373 25 31          C     PRESZ,&00                                       K  7  1640  C M44 M47         627
3374 25 32          BU    TWIST                                           K  5  1647  B W03 /           627
3375 25 33   PHEW   SBR   X3,1&X3                                        K  7  1652  H 099 0?1         627
3376 25 34   PHEW1  BCE   *&5,0&X3,0                                     K  8  1659  B W71 0?0 0       628
3377 25 35          B     XEUNT                                           K  4  1667  B W83            628
3378 25 36          MN    0&X3                                            K  4  1671  D 0?0            628
3379 25 37          SAR   X3                                              K  4  1675  Q 099            628
3380 25 38          B     PHEW1                                           K  4  1679  B W59            628
3381 25 39   XEUNT  MN    0&X3                                            K  4  1683  D 0?0            628
3382 25 40          SAR   X3                                              K  4  1687  Q 099            628
3383 25 41          MCW   XPONT,3&X3                                      K  7  1691  M M20 0?3         629
3384 25 42          MZ    @A@,1&X3                                        K  7  1698  Y M48 0?1         629
3385 25 43          LCA   003&X3,000&X2                                   K  7  1705  L 0?3 0!0         629
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3386 25 44          SBR    X2                                         K   4  1712  H 094              629
3387 25 45          B      BOTM                                       K   4  1716  B !89              629
3388 25 46   CNLFT  CS     332                                        K   4  1720  / 332              629
3389 25 47          CS                                                K   1  1724  /                  629
3390 25 48          SW     FAILSW                                     K   4  1725  , 184              630
3391 25 49          MN     CODE,256                                   K   7  1729  D L53 256          630
3392 25 50          CHAIN  2                                                        MACRO
3393                MN                                                K   1  1736  D           GEN    630
3394                MN                                                K   1  1737  D           GEN    630
3395 25 51          MCW    @EQUAL SIGN, STATEMENT @                   K   4  1738  M M70              630
3396 25 52          MCW    @ERROR 41 - CONSTANT LEFT SIDE OF @        K   4  1742  M N03              630
3397 25 53          W                                                 K   1  1746  2                  630
3398 25 54          FORMS                                                           MACRO
3399                BCV    *&5                                        K   5  1747  B X56 @     GEN    631
3400                B      *&3                                        K   4  1752  B X58       GEN    631
3401                CC     1                                          K   2  1756  F 1         GEN    631
3402 25 55          MCW    KILL,X2                                    K   7  1758  M L69 094          631
3403 25 56          MCW    BLANK#1,0&X2                               K   7  1765  M N04 0!0          631
3404 25 57          C      0&X1                                       K   4  1772  C 0|0              631
3405 25 58          SAR    X1                                         K   4  1776  Q 089              631
3406 25 59          B      START                                      K   4  1780  B 877              632
3407 25 60   SYNTX  FTMSG  44,CONSTANT SYNTAX,CODE,17                                MACRO
3408         SYNTX  CS     332                                        K   4  1784  / 332       GEN    632
3409                CS                                                K   1  1788  /           GEN    632
3410                SW     FAILSW                                     K   4  1789  , 184       GEN    632
3411                MN     CODE,224&17                                K   7  1793  D L53 241   GEN    632
3412                MN                                                K   1  1800  D           GEN    632
3413                MN                                                K   1  1801  D           GEN    632
3414                MCW    @ERROR 44 - CONSTANT SYNTAX, STATEMENT @   K   4  1802  M N42       GEN    633
3415                W                                                 K   1  1806  2           GEN    633
3416                BCV    *&5                                        K   5  1807  B Y16 @     GEN    633
3417                B      *&3                                        K   4  1812  B Y18       GEN    633
3418                CC     1                                          K   2  1816  F 1         GEN    633
3419 25 61          B      LDZER                                      K   4  1818  B V30              633
3420 25 62   ODDBL  MCW    @0@,2&X1                                   K   7  1822  M N43 0|2          633
3421 25 63          SW     ODDSW#1                                    K   4  1829  , N44              634
3422 25 64          B      CKTAL                                      K   4  1833  B U98              634
3423 25 65   TAIL   ZA     &0,BUMP#2                                  K   7  1837  ? N45 N47          634
3424 25 66          BWZ    FLIP,000&X1,2       NO ZONE                K   8  1844  V Y63 0|0 2        634
3425 25 67          MZ     000&X1,BUMP                                K   7  1852  Y 0|0 N47          634
3426 25 68   *                              ZONE RESPECTIVELY
3427 25 69          SAR    X1                                         K   4  1859  Q 089              634
3428 25 70   FLIP   MN     000&X1                                     K   4  1863  D 0|0              634
3429 25 71          SAR    X1                                         K   4  1867  Q 089              635
3430 25 72          C      0&X1,@Z@                                   K   7  1871  C 0|0 N48          635
3431 25 73          BL     UNITS                NUMERIC, TWO DIGIT EXPON  K   5  1878  B Y94 T            635
3432 25 74          MN     001&X1,BUMP                                K   7  1883  D 0|1 N47          635
3433 25 75          B      BUMPR                                      K   4  1890  B Z12              635
3434 25 76   UNITS  MN     001&X1,BUMP-1                              K   7  1894  D 0|1 N46          635
3435 25 77          MN     000&X1,BUMP                                K   7  1901  D 0|0 N47          636
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3436 25 78           SAR   X1                                                K  4  1908  Q 089              636
3437 25 79    BUMPR  A     BUMP,XPONT                                        K  7  1912  A N47 M20          636
3438 25 80           MN    0&X1                                              K  4  1919  D 0|0              636
3439 25 81           SAR   X1                                                K  4  1923  Q 089              636
3440 25 82           B     FLOAT                                             K  4  1927  B V06              636
3441 25 83    FIXED  C     COUNT,&000                                        K  7  1931  C M23 M33          636
3442 25 84           BU    LFTRT                                             K  5  1938  B Z62 /            637
3443 25 85           LCA   @ 0@,000&X2      BLANK, ZERO                     K  7  1943  L N50 0!0          637
3444 25 86           SBR   X2                                                K  4  1950  H 094              637
3445 25 87           CW    001&X2                                            K  4  1954  ) 0!1              637
3446 25 88           B     BOTM2                                             K  4  1958  B J00              637
3447 25 89    LFTRT  MCW   X1,HEX1                                           K  7  1962  M 089 M39          637
3448 25 90           MCW   RIGHT,X3                                         K  7  1969  M M42 099          637
3449 25 91           SW    0&X3                                              K  4  1976  , 0?0              638
3450 25 92           SBR   X3,TRACK&99                                       K  7  1980  H 099 299          638
3451 25 93           MCW   PARAMA&4,PRESZ                                    K  7  1987  M 690 M44          638
3452 25 94    TURN   MCW   002&X1,BOX                                        K  7  1994  M 0|2 L47          638
3453 25 95           SAR   X1                                                K  4  2001  Q 089              638
3454 25 96           MCW   BOX,000&X3                                        K  7  2005  M L47 0?0          638
3455 25 97           SBR   X3                                                K  4  2012  H 099              639
3456 25 98           BWZ   WOW,001&X1,1       WORD MARK                      K  8  2016  V !43 0|1 1        639
3457 25 99           S     &1,PRESZ                                          K  7  2024  S M25 M44          639
3458 26 00           C     PRESZ,&00                                         K  7  2031  C M44 M47          639
3459 26 01    SUBSW  BU    TURN                                              K  5  2038  B Z94 /            639
3460 26 02    WOW    SW    001&X3                                            K  4  2043  , 0?1              639
3461 26 03           LCA   TRACK&99,000&X2                                   K  7  2047  L 299 0!0          640
3462 26 04           SBR   X2                                                K  4  2054  H 094              640
3463 26 05           CW    001&X3                                            K  4  2058  ) 0?1              640
3464 26 06           C     COUNT,&001                                        K  7  2062  C M23 N53          640
3465 26 07           BU    BOTM                                              K  5  2069  B !89 /            640
3466 26 08           CW    001&X2                                            K  4  2074  ) 0!1              640
3467 26 09           LCA   @ @,000&X2     BLANK                           K  7  2078  L N54 0!0          640
3468 26 10           SBR   X2                                                K  4  2085  H 094              641
3469 26 11    BOTM   CW    001&X2                                            K  4  2089  ) 0!1              641
3470 26 12           MCW   HEX1,X1                                          K  7  2093  M M39 089          641
3471 26 13    BOTM2  SBR   X1,1&X1                                           K  7  2100  H 089 0|1          641
3472 26 14           SBR   HEX3                                             K  4  2107  H L66              641
3473 26 15    KLOBR  BCE   GUTS,0,<                        12-6-8            K  8  2111  B |67 000 <        641
3474 26 16           FQUIT                                                                 MACRO
3475                 CS    332                                               K  4  2119  / 332       GEN    641
3476                 CS                                                      K  1  2123  /           GEN    642
3477                 CC    1                                                 K  2  2124  F 1         GEN    642
3478                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270        K  7  2126  M N90 270   GEN    642
3479                 W                                                       K  1  2133  2           GEN    642
3480                 CC    1                                                 K  2  2134  F 1         GEN    642
3481                 BCE   *&6,MONTOR,1                                      K  8  2136  B J49 769 1 GEN    642
3482                 RWD   1                                                 K  5  2144  U %U1 R     GEN    642
3483                 H     *-3                                               K  4  2149  . J49       GEN    643
3484 26 17    OUT    FENDX C,GM,,,PHSE2O,,SYS1,CONST TWO                                  MACRO
3485          OUT    BSS   333,C                                             K  5  2153  B 333 C     GEN    643
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3486                SBR   INITXT&3,PHSE2O                           K   7  2158  H 796 849   GEN    643
3487                SBR   TCLEAR,SYS1                               K   7  2165  H 710 O01   GEN    643
3488                LCA   @CONST TWO@,110                          K   7  2172  L N99 110   GEN    643
3489                B     MONTER                                    K   4  2179  B 700       GEN    643
3490 26 18  CKIF    BCE   PASS,CODE-3,E                             K   8  2183  B J95 L50 E        644
3491 26 19          B     SET                                       K   4  2191  B S66              644
3492 26 20  PASS    MCW   HEX3,X3                                   K   7  2195  M L66 099          644
3493 26 21          MVDWN X3,X2                                                                MACRO
3494                LCA   0&X3,0&X2                                 K   7  2202  L 0?0 0!0   GEN    644
3495                SAR   X3                                        K   4  2209  Q 099       GEN    644
3496                C     0&X2                                      K   4  2213  C 0!0       GEN    644
3497                SAR   X2                                        K   4  2217  Q 094       GEN    644
3498 26 22          MCW   X3,X1                                    K   7  2221  M 099 089          645
3499 26 23          B     START                                     K   4  2228  B 877              645
3500 26 24  BAKUP   SBR   X1,1&X1                                   K   7  2232  H 089 0|1          645
3501 26 25          B     SET                                       K   4  2239  B S66              645
3502 26 26  SWCHS   MCW   @S@,SWCHX                                 K   7  2243  M O00 T90          645
3503 26 27          MCW   NOPAD,SWCHA&3                            K   7  2250  M L45 K75          645
3504 26 28          MCW   X1,X3                                    K   7  2257  M 089 099          646
3505 26 29  STODD   SW    ODDSW                                     K   4  2264  , N44              646
3506 26 30          B     NORML                                     K   4  2268  B T79              646
3507 26 31  SWCHA   MCW   @A@,SWCHX                                 K   7  2272  M M48 T90          646
3508 26 32          MCW   NOPAD,SWCHS&3                            K   7  2279  M L45 K46          646
3509 26 33          MCW   @N@,SWCHZ                                 K   7  2286  M L95 U04          646
3510 26 34          SBR   RIGHT,1&X1                               K   7  2293  H M42 0|1          647
3511 26 35          MCW   @N@,STODD                                K   7  2300  M L95 K64          647
3512 26 36          B     TEST                                      K   4  2307  B U35              647
3513 26 37  TABLE   EQU   *&1                                       K      2311
3514 26 38          DCW   @R 2E 2D#1L,15,0U,1P,16,01,13,1@         K  30  2340                     648
3515 26 39  A       DCW   @A@                                       K   1  2341                     648
3516 26 40  S       DCW   @S@                                       K   1  2342                     648
3517 26 41  NOPAD   DCW   &@N@                                      K   3  2345  L95                648
3518 26 42          DCW   @ @         BLANK                         K   1  2346                     648
3519 26 43  BOX     DCW   @ @      BLANK                            K   1  2347                     648
3520 26 44          DCW   @ @     BLANK                             K   1  2348                     648
3521 26 45  GM      DC    @}@                          GROUP MARK   K   1  2349             GMARK  648
3522 26 46          LTORG *                                         K            2350
             CODE K DCW   #04                                       K   4  2353             AREA   649
             WORK K DCW   #10                                       K  10  2363             AREA   649
             HEX3 K DCW   #03                                       K   3  2366             AREA   649
             KILL K DCW   #03                                       K   3  2369             AREA   649
                    DCW   @UPL3165DER@                              K  10  2379             LIT    649
             CNTRLK DCW   #02                                       K   2  2381             AREA   649
                    DCW   @1@                                       K   1  2382             LIT    649
                    DCW   @)}@.#%$,*-&@                             K  11  2393             LIT    650
                    DCW   @B@                                       K   1  2394             LIT    650
                    DCW   @N@                                       K   1  2395             LIT    650
                    DCW   @/@                                       K   1  2396             LIT    650
                    DCW   @?ABCDEFGHI!JKLMNOPQR@                    K  20  2416             LIT    650
                    DCW   @<@                                       K   1  2417             LIT    650
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@_@	K	1	2418		LIT	650
			XPONTK	DCW	#02	K	2	2420		AREA	651
			COUNTK	DCW	#03	K	3	2423		AREA	651
				DCW	@,@	K	1	2424		LIT	651
				DCW	&1	K	1	2425		LIT	651
			TOTALK	DCW	#03	K	3	2428		AREA	651
				DCW	&01	K	2	2430		LIT	651
				DCW	&000	K	3	2433		LIT	651
				DCW	@?0?@	K	3	2436		LIT	652
			HEX1 K	DCW	#03	K	3	2439		AREA	652
			RIGHTK	DCW	#03	K	3	2442		AREA	652
			PRESZK	DCW	#02	K	2	2444		AREA	652
				DCW	&2	K	1	2445		LIT	652
				DCW	&00	K	2	2447		LIT	652
				DCW	@A@	K	1	2448		LIT	652
				DCW	@EQUAL SIGN, STATEMENT @	K	22	2470		LIT	653
				DCW	@ERROR 41 - CONSTANT LEFT SIDE OF @	K	33	2503		LIT	654
			BLANKK	DCW	#01	K	1	2504		AREA	654
				DCW	@ERROR 44 - CONSTANT SYNTAX, STATEMENT @	K	38	2542		LIT	655
				DCW	@0@	K	1	2543		LIT	655
			ODDSWK	DCW	#01	K	1	2544		AREA	656
				DCW	&0	K	1	2545		LIT	656
			BUMP K	DCW	#02	K	2	2547		AREA	656
				DCW	@Z@	K	1	2548		LIT	656
				DCW	@ 0@	K	2	2550		LIT	656
				DCW	&001	K	3	2553		LIT	656
				DCW	@ @	K	1	2554		LIT	656
				DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	K	36	2590		LIT	657
				DCW	@CONST TWO@	K	9	2599		LIT	658
				DCW	@S@	K	1	2600		LIT	658
3523	26	47	SYS1	DCW	@}@ SYSTEM GROUP MARK	K	1	2601		GMARK	658
3524	26	48		ORG	*&X00	K			2700		
3525	26	49	SAUCE	EQU	*&1	K		2700			
3526	26	50		XFR	INITL	K			B 838		659

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3527 26 51          JOB   1401 FORTRAN  CONSTANT PHASE TWO
3528 26 52          FBEGN CONST TWO,X1,R,X2,,X3,R,O                                          MACRO
3529                SFX   O                                                                  GEN
3530          110   DCW   @CONST TWO@                               O   9  0110             GEN    662
3531          X1    EQU   089                                       O      0089             GEN
3532          089   DCW   000                                       O   3  0089             GEN    663
3533          091   DC    00                                        O   2  0091             GEN    663
3534          X2    EQU   094                                       O      0094             GEN
3535          X3    EQU   099                                       O      0099             GEN
3536          099   DCW   000                                       O   3  0099             GEN    664
3537          100   DC    0                                         O   1  0100             GEN    664
3538 26 53          ORG   XBEGIN                                    O            0838
3539 26 54    NXBTM EQU   083                                       O      0083
3540 26 55    NOMO  EQU   PARAMA&2                                   O      0688
3541 26 56    BASE  DCW   #3                                        O   3  0840                    665
3542 26 57    MAX   DCW   #4                                        O   4  0844                    665
3543 26 58          DC    #1                                        O   1  0845                    665
3544 26 59    UPLIM DCW   #3                                        O   3  0848                    665
3545 26 60    PHSE2 MCW   X2, X3                                    O   7  0849  M 094 099         665
3546 26 61          SW    GM2                                       O   4  0856  , T33            665
3547 26 62    CLR1  CS    000&X3                                    O   4  0860  / 0?0            665
3548 26 63          SBR   X3                                        O   4  0864  H 099            665
3549 26 64          C     X3,&SAUCE-1                               O   7  0868  C 099 T68        666
3550 26 65          BU    CLR1                                      O   5  0875  B 860 /          666
3551 26 66          SBR   X1,SAUCE-1                                O   7  0880  H 089 N99        666
3552 26 67    *  SHIFT SOURCE PROGRAM UP TO COMPILER PROGRAM
3553 26 68          MOVUP X2,X1,NOMO,ALL,|                                                   MACRO
3554                MN    0&X1                                      O   4  0887  D 0|0            GEN    666
3555                SAR   X1                                        O   4  0891  Q 089            GEN    666
3556          )0J091 MCM  0&X2                                      O   4  0895  P 0!0            GEN    666
3557                SAR   )0L091&6                                  O   4  0899  Q 921            GEN    666
3558                MCM   0&X2,1&X1                                 O   7  0903  P 0!0 0|1        GEN    667
3559                MN                                            O   1  0910  D                GEN    667
3560                SBR   X1                                        O   4  0911  H 089            GEN    667
3561          )0L091 SBR  X2,0                                      O   7  0915  H 094 000        GEN    667
3562                BCE   )0J091,0&X1,|                           O   8  0922  B 895 0|0 |      GEN    667
3563                MN    0&X2                                      O   4  0930  D 0!0            GEN    667
3564                CW                                            O   1  0934  )                GEN    667
3565                SW    0&X1                                      O   4  0935  , 0|0            GEN    668
3566                C     X2,NOMO                                   O   7  0939  C 094 688        GEN    668
3567                BU    )0J091                                    O   5  0946  B 895 /          GEN    668
3568 26 69          CW    0&X2                                      O   4  0951  ) 0!0                   668
3569 26 70          CW                                            O   1  0955  )                       668
3570 26 71          SBR   BASE,1&X1                                O   7  0956  H 840 0|1               668
3571 26 72          MN    TWO9,BASE                                 O   7  0963  D T32 840              668
3572 26 73          MN                                            O   1  0970  D                      669
3573 26 74          MCW   NXBTM,X3                                 O   7  0971  M 083 099              669
3574 26 75    *  CLEAR BALANCE OF CORE
3575 26 76    CLR2  CS    000&X3                                    O   4  0978  / 0?0                  669
3576 26 77          SBR   X3                                        O   4  0982  H 099                  669
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3577 26 78          C     X3,BASE                                    O   7  0986  C 099 840          669
3578 26 79          BU    CLR2                                       O   5  0993  B 978 /            669
3579 26 80          MCW   @<@,0&X3                    12-6-8       O   7  0998  M T69 0?0          669
3580 26 81    *  DIVIDE REST OF CORE FOR TABLES   RATIO 3 TO 7
3581 26 82          MCW   NXBTM,LOC                                  O   7  1005  M 083 T30          670
3582 26 83          B     UNPAK                                      O   4  1012  B S56              670
3583 26 84          MCW   NUM#5,MAX&1                               O   7  1016  M T74 845          670
3584 26 85          MCW   BASE,LOC                                   O   7  1023  M 840 T30          670
3585 26 86          B     UNPAK                                      O   4  1030  B S56              670
3586 26 87          S     NUM,MAX&1                                  O   7  1034  S T74 845          670
3587 26 88          A     MAX,ACCUM#6                                O   7  1041  A 844 T80          671
3588 26 89          A     ACCUM                                      O   4  1048  A T80              671
3589 26 90          A     MAX,ACCUM       3*MAX IN ACCUM             O   7  1052  A 844 T80          671
3590 26 91    * 1/10 OF NXBTM-BASE IN MAX
3591 26 92          A     NUM,ACCUM                                  O   7  1059  A T74 T80          671
3592 26 93          MCW   ACCUM-3,X3                                 O   7  1066  M T77 099          671
3593 26 94          A     X3                                         O   4  1073  A 099              671
3594 26 95          MZ    ZON19&X3,ACCUM-2                           O   7  1077  Y TC4 T78          672
3595 26 96          MZ    ZON19&1&X3,ACCUM                           O   7  1084  Y TC5 T80          672
3596 26 97          MCW   ACCUM,X3                                   O   7  1091  M T80 099          672
3597 26 98          SW    002&X3                                     O   4  1098  , 0?2              672
3598 26 99          MCW   @<@      12-6-8                            O   4  1102  M T69              672
3599 27 00          SBR   UPLIM                                      O   4  1106  H 848              672
3600 27 01          MCW   X1,X2                                      O   7  1110  M 089 094          673
3601 27 02          MN    0&X2                                       O   4  1117  D 0!0              673
3602 27 03          SAR   X1                                         O   4  1121  Q 089              673
3603 27 04          MCW   NXBTM,X3                                   O   7  1125  M 083 099          673
3604 27 05          LCA   GM2,1&X3                                   O   7  1132  L T33 0?1          673
3605 27 06          CS    299                                        O   4  1139  / 299              673
3606 27 07          MCW   PARAMA&6,X3                                O   7  1143  M 692 099          674
3607 27 08          MCW   @0@                                        O   4  1150  M T81              674
3608 27 09          SW    200                                        O   4  1154  , 200              674
3609 27 10          MCW   NXBTM,LDFLT&6                              O   7  1158  M 083 /71          674
3610 27 11   LDFLT  LCA   199&X3,0                                   O   7  1165  L 1I9 000          674
3611 27 12          SBR   NXBTM                                      O   4  1172  H 083              674
3612 27 13          SBR   LODX&6                                     O   4  1176  H /94              674
3613 27 14          MN    PARAMA&4,X3                                O   7  1180  D 690 099          675
3614 27 15          MN                                               O   1  1187  D                  675
3615 27 16   LODX   LCA   199&X3,0                                   O   7  1188  L 1I9 000          675
3616 27 17          SBR   X3                                         O   4  1195  H 099              675
3617 27 18          SBR   ONEADR                                     O   4  1199  H 142              675
3618 27 19          LCA   @1@,0&X3                                   O   7  1203  L T82 0?0          675
3619 27 20          SBR   XEXPON                                     O   4  1210  H 157              675
3620 27 21          LCA   @A0?@              0,12-0                  O   4  1214  L T85              676
3621 27 22          SBR   NXBTM                                      O   4  1218  H 083              676
3622 27 23          FENDX C,GM2,,PHSE2,,PHSE2,SYS2,CONST TRI                                  MACRO
3623                BSS   333,C                                      O   5  1222  B 333 C     GEN    676
3624                SBR   INITAP&6,PHSE2                             O   7  1227  H 786 849   GEN    676
3625                SBR   BCLEAR                                     O   4  1234  H 833       GEN    676
3626                SBR   TCLEAR,SYS2                                O   7  1238  H 710 T97   GEN    676
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3627                 LCA   @CONST TRI@,110                           O   7  1245  L T94 110   GEN    676
3628                 B     MONTER                                    O   4  1252  B 700       GEN    677
3629 27 24   UNPAK   SBR   EXIT&3                                    O   4  1256  H T25             677
3630 27 25           MN    LOC,NUM                                   O   7  1260  D T30 T74         677
3631 27 26           MN                                              O   1  1267  D                 677
3632 27 27           MN                                              O   1  1268  D                 677
3633 27 28           MCW                                             O   1  1269  M                 677
3634 27 29           MZ    LOC,TWO9                                  O   7  1270  Y T30 T32         677
3635 27 30           MZ    LOC-2,TWO9-1                              O   7  1277  Y T28 T31         678
3636 27 31           NOP   ZON19-3                                   O   4  1284  N T31             678
3637 27 32           SAR   X3                                        O   4  1288  Q 099             678
3638 27 33   COMP    C     004&X3,TWO9                               O   7  1292  C 0?4 T32         678
3639 27 34           SAR   X3                                        O   4  1299  Q 099             678
3640 27 35           A     &1,NUM-3                                  O   7  1303  A T95 T71         678
3641 27 36           BU    COMP                                      O   5  1310  B S92 /           678
3642 27 37           MZ    @ @,NUM-3                                 O   7  1315  Y T96 T71         679
3643 27 38   EXIT    B     000                                       O   4  1322  B 000             679
3644 27 39   LOC     DCW   @0J   @                                   O   5  1330                    679
3645 27 40   TWO9    DCW   @99@                                     O   2  1332                    679
3646 27 41   GM2     DC    @}@                                       O   1  1333            GMARK  679
3647 27 42   ZON19   DC    @9@                                       O   1  1334                    679
3648 27 43           DC    @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@         O  31  1365                    680
3649 27 44           LTORG *                                         O          1366
                     DCW   &SAUCEO-1                                 O   3  1368  N99         ADCON  680
                     DCW   @<@                                       O   1  1369              LIT    680
             NUM  O  DCW   #05                                       O   5  1374              AREA   681
             ACCUMO  DCW   #06                                       O   6  1380              AREA   681
                     DCW   @0@                                       O   1  1381              LIT    681
                     DCW   @1@                                       O   1  1382              LIT    681
                     DCW   @A0?@                                     O   3  1385              LIT    681
                     DCW   @CONST TRI@                               O   9  1394              LIT    681
                     DCW   &1                                        O   1  1395              LIT    681
                     DCW   @ @                                       O   1  1396              LIT    682
3650 27 45   SYS2    DCW   @}@                    SYSTEM GROUP MARK  O   1  1397              GMARK  682
3651 27 46           XFR   PHSE2                                     O          B 849                   683
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
3652 27 47           JOB   1401 FORTRAN  CONSTANT PHASE THREE
3653 27 48   110     DCW   @CONST TRI@                               O   9  0110                    686
3654 27 49           ORG   PHSE2                                     O          0849
3655 27 50   * DEFINES NORMALIZED CONSTANTS IN SAUCE
3656 27 51   *              CALCULATING AMOUNT BY WHICH OBJECT TIME ADDRESSES OF
3657 27 52   *              CONSTANTS, FORMATS, AND LISTS MUST BE REDUCED
3658 27 53   *              (VIA MA INSTRUCTIONS)  BECAUSE OF ARRAY STORAGE
3659 27 54   *              PLUSDF IS USED IN PHASES 24,26&50
3660 27 55   *              MACFLS IS USED IN PHASES 20,24,25,26,&50
3661 27 56   PHSE3   UNPAK PARAMA&2,WK5                                                          MACRO
3662         PHSE3   S     )0M093#2                                  O   4  0849  S !48        GEN    687
3663                 S     )0L093#2                                  O   4  0853  S !50        GEN    687
3664                 MZ    PARAMA&2,)0M093-1                         O   7  0857  Y 688 !47    GEN    687
3665                 MZ    PARAMA&2-2,)0L093-1                       O   7  0864  Y 686 !49    GEN    687
3666         )0J093  BWZ   )0K093, )0L093-1, 2                       O   8  0871  V 890 !49 2  GEN    687
3667                 A     @A0@, )0L093                              O   7  0879  A !52 !50    GEN    687
3668                 B     )0J093                                    O   4  0886  B 871        GEN    688
3669         )0K093  BWZ   )0P093, )0M093-1, 2                       O   8  0890  V 909 !47 2  GEN    688
3670                 A     @?4@, )0M093                              O   7  0898  A !54 !48    GEN    688
3671                 B     )0K093                                    O   4  0905  B 890        GEN    688
3672         )0P093  A     )0L093-1,)0M093                           O   7  0909  A !49 !48    GEN    688
3673                 MCW   PARAMA&2,WK5                              O   7  0916  M 688 !71    GEN    688
3674                 MCW   )0M093                                    O   4  0923  M !48        GEN    689
3675                 ZA    WK5                                       O   4  0927  ? !71        GEN    689
3676                 MZ    *-4, WK5                                  O   7  0931  Y 933 !71    GEN    689
3677 27 57           MCW   X2,SAVX2#3          SAVE X2              O   7  0938  M 094 !57           689
3678 27 58           UNPAK CONLST,CNLS5                                                        MACRO
3679                 S     )0M094#2                                  O   4  0945  S !59        GEN    689
3680                 S     )0L094#2                                  O   4  0949  S !61        GEN    689
3681                 MZ    CONLST,)0M094-1                           O   7  0953  Y 194 !58    GEN    689
3682                 MZ    CONLST-2,)0L094-1                         O   7  0960  Y 192 !60    GEN    690
3683         )0J094  BWZ   )0K094, )0L094-1, 2                       O   8  0967  V 986 !60 2  GEN    690
3684                 A     @A0@, )0L094                              O   7  0975  A !52 !61    GEN    690
3685                 B     )0J094                                    O   4  0982  B 967        GEN    690
3686         )0K094  BWZ   )0P094, )0M094-1, 2                       O   8  0986  V |05 !58 2  GEN    690
3687                 A     @?4@, )0M094                              O   7  0994  A !54 !59    GEN    691
3688                 B     )0K094                                    O   4  1001  B 986        GEN    691
3689         )0P094  A     )0L094-1,)0M094                           O   7  1005  A !60 !59    GEN    691
3690                 MCW   CONLST,CNLS5                              O   7  1012  M 194 !66    GEN    691
3691                 MCW   )0M094                                    O   4  1019  M !59        GEN    691
3692                 ZA    CNLS5                                     O   4  1023  ? !66        GEN    691
3693                 MZ    *-4, CNLS5                                O   7  1027  Y |29 !66    GEN    692
3694 27 59           S     CNLS5#5,WK5#5                             O   7  1034  S !66 !71          692
3695 27 60           C     @0000?@,WK5              PLUS ZERO        O   7  1041  C !76 !71          692
3696 27 61           BE    RSX2                                      O   5  1048  B /61 S            692
3697 27 62           FPACK WK5,PLUSDF,X2                                                       MACRO
3698                 INCLD ZONES                                                               MACRO
3699                 MN    WK5,PLUSDF                                O   7  1053  D !71 160    GEN    692
3700                 MN                                              O   1  1060  D           GEN    692
3701                 MN                                              O   1  1061  D           GEN    692
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE   CARD
3702                SAR    *&4                                      O  4  1062  Q |69       GEN    693
3703                MCW    0,X2                                     O  7  1066  M 000 094  GEN    693
3704                MCW    @0@                                      O  4  1073  M !77       GEN    693
3705                A      X2                                       O  4  1077  A 094       GEN    693
3706                MZ     ZONES&1&X2,PLUSDF                        O  7  1081  Y !J6 160  GEN    693
3707                CW                                              O  1  1088  )           GEN    693
3708                SBR    *&7                                      O  4  1089  H |99       GEN    693
3709                MZ     ZONES&X2, 0                              O  7  1093  Y !J5 000  GEN    694
3710 27 63          MCW    @16000@,MCFL5#5                          O  7  1100  M !82 !87       694
3711 27 64          S      WK5,MCFL5                                O  7  1107  S !71 !87       694
3712 27 65          FPACK  MCFL5,MACFLS,X2                                                MACRO
3713                INCLD  ZONES                                                          MACRO
3714                MN     MCFL5,MACFLS                             O  7  1114  D !87 163  GEN    694
3715                MN                                              O  1  1121  D           GEN    694
3716                MN                                              O  1  1122  D           GEN    694
3717                SAR    *&4                                      O  4  1123  Q /30       GEN    694
3718                MCW    0,X2                                     O  7  1127  M 000 094  GEN    695
3719                MCW    @0@                                      O  4  1134  M !77       GEN    695
3720                A      X2                                       O  4  1138  A 094       GEN    695
3721                MZ     ZONES&1&X2,MACFLS                        O  7  1142  Y !J6 163  GEN    695
3722                CW                                              O  1  1149  )           GEN    695
3723                SBR    *&7                                      O  4  1150  H /60       GEN    695
3724                MZ     ZONES&X2, 0                              O  7  1154  Y !J5 000  GEN    695
3725 27 66   RSX2   MCW    SAVX2,X2          RESTORE X2             O  7  1161  M !57 094       696
3726 27 67          MA     MACFLS,ONEADR                            O  7  1168  # 163 142       696
3727 27 68          MA     MACFLS,XEXPON                            O  7  1175  # 163 157       696
3728 27 69          MCW    BASE,BUMP&3                              O  7  1182  M 840 U82       696
3729 27 70          MZ     @S@,BUMP&2                               O  7  1189  Y !88 U81       696
3730 27 71          MCW    X2,HEX1#3                                O  7  1196  M 094 !91       697
3731 27 72          MCW    @ @,SAUCE-1    BLANK, MAY NOT BE NECESSARY O  7  1203  M !92 N99       697
3732 27 73   START  BCE    OUT,000&X1,    BLANK                    O  8  1210  B X76 0|0       697
3733 27 74          MCW    000&X1,CODE#4                            O  7  1218  M 0|0 !96       697
3734 27 75          LCA    000&X1,WORK#10                           O  7  1225  L 0|0 J06       697
3735 27 76          SAR    X1                                       O  4  1232  Q 089           698
3736 27 77          SBR    X3                                       O  4  1236  H 099           698
3737 27 78          LCA    WORK,000&X2                              O  7  1240  L J06 0!0       698
3738 27 79          SBR    X2                                       O  4  1247  H 094           698
3739 27 80          BCE    PASS,CODE-3,/                            O  8  1251  B X46 !93 /     698
3740 27 81   FIND   BCE    SEEK,000&X1,_     DELTA   11-7-8         O  8  1259  B S93 0|0 _     698
3741 27 82          CHAIN  5                                                              MACRO
3742                BCE                                             O  1  1267  B           GEN    698
3743                BCE                                             O  1  1268  B           GEN    699
3744                BCE                                             O  1  1269  B           GEN    699
3745                BCE                                             O  1  1270  B           GEN    699
3746                BCE                                             O  1  1271  B           GEN    699
3747 27 83          BCE    PASS,000&X1,}     GROUP MARK             O  8  1272  B X46 0|0 }  GMARK  699
3748 27 84          CHAIN  5                                                              MACRO
3749                BCE                                             O  1  1280  B           GEN    699
3750                BCE                                             O  1  1281  B           GEN    699
3751                BCE                                             O  1  1282  B           GEN    700
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3752                BCE                                                    O   1  1283  B           GEN    700
3753                BCE                                                    O   1  1284  B           GEN    700
3754 27 85          SBR   X1                                               O   4  1285  H 089             700
3755 27 86          B     FIND                                             O   4  1289  B S59            700
3756 27 87  SEEK    BCE   FOUND,000&X1,_      DELTA   11-7-8               O   8  1293  B T09 0|0 _      700
3757 27 88          SBR   X1                                               O   4  1301  H 089            700
3758 27 89          B     SEEK                                             O   4  1305  B S93            701
3759 27 90  FOUND   SW    001&X1                                           O   4  1309  , 0|1            701
3760 27 91          CW                                                     O   1  1313  )                701
3761 27 92          CW                                                     O   1  1314  )                701
3762 27 93          CW                                                     O   1  1315  )                701
3763 27 94          SAR   X1                                               O   4  1316  Q 089            701
3764 27 95          BCE   COPY, 004&X1,}      GROUP MK, FIRST CHAR MAY BE DLTA O   8  1320  B T43 0|4 } GMARK  701
3765 27 96          LCA   000&X3,000&X2                                     O   7  1328  L 0?0 0!0        702
3766 27 97          SBR   X2                                               O   4  1335  H 094            702
3767 27 98          CW    001&X2                                           O   4  1339  ) 0!1            702
3768 27 99  COPY    SBR   X3,2&X1                                          O   7  1343  H 099 0|2        702
3769 28 00  LIMIT   MCW   000&X1,BOX#1                                     O   7  1350  M 0|0 J07        702
3770 28 01          SAR   X1                                               O   4  1357  Q 089            702
3771 28 02          MCW   BOX,*&8                                         O   7  1361  M J07 T75        703
3772 28 03          BCE   RANDM,@#}@*-&)$,@,0            EQUAL, GM       O   8  1368  B T88 J16 0      703
3773 28 04          CHAIN 8                                                                MACRO
3774                BCE                                                    O   1  1376  B           GEN    703
3775                BCE                                                    O   1  1377  B           GEN    703
3776                BCE                                                    O   1  1378  B           GEN    703
3777                BCE                                                    O   1  1379  B           GEN    703
3778                BCE                                                    O   1  1380  B           GEN    703
3779                BCE                                                    O   1  1381  B           GEN    704
3780                BCE                                                    O   1  1382  B           GEN    704
3781                BCE                                                    O   1  1383  B           GEN    704
3782 28 05          B     LIMIT                                            O   4  1384  B T50            704
3783 28 06  RANDM   SW    002&X1                                           O   4  1388  , 0|2            704
3784 28 07          ZA    000&X3,MOD#4                                     O   7  1392  ? 0?0 J20        704
3785 28 08          A     004&X1,MOD                                       O   7  1399  A 0|4 J20        704
3786 28 09          BCE   SQUOZ,002&X1,        BLANK, 1 CHAR FIXED PT. NUM O   8  1406  B X04 0|2        705
3787 28 10  STRIP   MZ    @    @,MOD                                       O   7  1414  Y J24 J20        705
3788 28 11          MZ                                                     O   1  1421  Y                705
3789 28 12          MZ                                                     O   1  1422  Y                705
3790 28 13          MCW             3 DIGIT NO. IN MOD                     O   1  1423  M                705
3791 28 14  SUBTR   S     MAX,MOD                                          O   7  1424  S 844 J20        705
3792 28 15          BWZ   SUBTR,MOD,B                                      O   8  1431  V U24 J20 B      705
3793 28 16          A     MAX,MOD                                          O   7  1439  A 844 J20        706
3794 28 17          MZ    @ @,MOD        BLANK                             O   7  1446  Y !92 J20        706
3795 28 18          MCW   X2,HEX2#8                                        O   7  1453  M 094 J32        706
3796 28 19          MCW                   STORES X1                        O   1  1460  M                706
3797 28 20          MCW   MOD,X1                                          O   7  1461  M J20 089        706
3798 28 21          A     X1                                               O   4  1468  A 089            706
3799 28 22          A     MOD,X1                                           O   7  1472  A J20 089        707
3800 28 23  BUMP    NOP   000       BASE & 3*MOD IN X1, TABLE 1 ENTRY ADDRESS O   4  1479  N 000            707
3801 28 24          SAR   X1                                               O   4  1483  Q 089            707
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3802 28 25          MCW   @N@,OVFLW                                        O   7  1487  M J33 W71          707
3803 28 26   CHAIN   BCE   NEW,000&X1,    BLANK, CONST NOT YET ENCOUNTERED  O   8  1494  B W26 0|0          707
3804 28 27          BCE   OVFLW,000&X1,<      12-6-8                       O   8  1502  B W71 0|0 <        707
3805 28 28          MCW   000&X1,X2                                        O   7  1510  M 0|0 094          708
3806 28 29          SAR   X1                                               O   4  1517  Q 089              708
3807 28 30          C     000&X3,000&X2                                    O   7  1521  C 0?0 0!0          708
3808 28 31          BU    CHAIN                                            O   5  1528  B U94 /            708
3809 28 32          C     000&X2,000&X3                                    O   7  1533  C 0!0 0?0          708
3810 28 33          BU    CHAIN                                            O   5  1540  B U94 /            708
3811 28 34   RESTR  MCW   X2,TEMP#3                                        O   7  1545  M 094 J36          709
3812 28 35          MCW   TEMP,TEMP2    COMPUTE CORRECT CONSTANT ADDRS. BEFORE O   7  1552  M J36 J39          709
3813 28 36          MA    MACFLS,TEMP   PUTTING THEM IN ARITHMETIC STRINGS.  O   7  1559  # 163 J36          709
3814 28 37          MCW   HEX2,X2                                          O   7  1566  M J32 094          709
3815 28 38          MCW                                                    O   1  1573  M                  709
3816 28 39          LCA   TEMP,0&X2                                        O   7  1574  L J36 0!0          709
3817 28 40          SBR   X2                                               O   4  1581  H 094              710
3818 28 41          CW    001&X2                                           O   4  1585  ) 0!1              710
3819 28 42          MCW   TEMP2#3,*&7                                      O   7  1589  M J39 W02          710
3820 28 43          BWZ   FIXED,0,2                                       O   8  1596  V W93 000 2        710
3821 28 44          MZ    @ @,002&X2                    BLANK              O   7  1604  Y !92 0!2          710
3822 28 45   BOTM   SBR   X1,1&X1                                         O   7  1611  H 089 0|1          710
3823 28 46          SBR   X3                                               O   4  1618  H 099              711
3824 28 47          B     FIND                                             O   4  1622  B S59              711
3825 28 48   NEW    MCW   NXBTM,X2                                        O   7  1626  M 083 094          711
3826 28 49          MCW   NXBTM,000&X1                                     O   7  1633  M 083 0|0          711
3827 28 50          MCW   000&X3,000&X2                                    O   7  1640  M 0?0 0!0          711
3828 28 51          SBR   X1                                               O   4  1647  H 089              711
3829 28 52          SBR   NXBTM                                            O   4  1651  H 083              711
3830 28 53          BCE   FULL,000&X1,<      12-6-8                        O   8  1655  B X12 0|0 <        712
3831 28 54          SW    001&X1                                           O   4  1663  , 0|1              712
3832 28 55          B     RESTR                                            O   4  1667  B V45              712
3833 28 56   OVFLW  NOP   FULL                                             O   4  1671  N X12              712
3834 28 57          MCW   @S@,OVFLW                                        O   7  1675  M !88 W71          712
3835 28 58          MCW   UPLIM,X1                                         O   7  1682  M 848 089          712
3836 28 59          B     CHAIN                                            O   4  1689  B U94              712
3837 28 60   FIXED  MZ    *-6,2&X2                                         O   7  1693  Y W93 0!2          713
3838 28 61          B     BOTM                                             O   4  1700  B W11              713
3839 28 62   SQUOZ  SW    003&X1                                           O   4  1704  , 0|3              713
3840 28 63          B     STRIP                                            O   4  1708  B U14              713
3841 28 64   FULL   FQUIT                                                                                  MACRO
3842         FULL   CS    332                                              O   4  1712  / 332              GEN   713
3843                CS                                                     O   1  1716  /                  GEN   713
3844                CC    1                                                O   2  1717  F 1                GEN   713
3845                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270        O   7  1719  M J75 270          GEN   714
3846                W                                                      O   1  1726  2                  GEN   714
3847                CC    1                                                O   2  1727  F 1                GEN   714
3848                BCE   *&6,MONTOR,1                                     O   8  1729  B X42 769 1         GEN   714
3849                RWD   1                                                O   5  1737  U %U1 R            GEN   714
3850                H     *-3                                              O   4  1742  . X42              GEN   714
3851 28 65   PASS   MVDWN X3,X2                                                                           MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3852         PASS   LCA   0&X3,0&X2                                        O   7  1746  L 0?0 0!0   GEN    714
3853                SAR   X3                                               O   4  1753  Q 099       GEN    715
3854                C     0&X2                                             O   4  1757  C 0!0       GEN    715
3855                SAR   X2                                               O   4  1761  Q 094       GEN    715
3856 28 66          MCW   X3,X1                                            O   7  1765  M 099 089          715
3857 28 67          B     START                                            O   4  1772  B S10              715
3858 28 68   OUT    MCW   HEX1,X1                                          O   7  1776  M !91 089          715
3859 28 69          CS    332                                              O   4  1783  / 332              715
3860 28 70          CS                                                     O   1  1787  /                  716
3861 28 71          MCW   @CONSTANTS LOCATED FROM @,223                    O   7  1788  M J98 223          716
3862 28 72          UNPAK NXBTM,WK51                                                                MACRO
3863                S     )0M099#2                                         O   4  1795  S K00       GEN    716
3864                S     )0L099#2                                         O   4  1799  S K02       GEN    716
3865                MZ    NXBTM,)0M099-1                                   O   7  1803  Y 083 J99   GEN    716
3866                MZ    NXBTM-2,)0L099-1                                 O   7  1810  Y 081 K01   GEN    716
3867         )0J099 BWZ   )0K099, )0L099-1, 2                              O   8  1817  V Y36 K01 2 GEN    716
3868                A     @A0@, )0L099                                     O   7  1825  A !52 K02   GEN    717
3869                B     )0J099                                           O   4  1832  B Y17       GEN    717
3870         )0K099 BWZ   )0P099, )0M099-1, 2                              O   8  1836  V Y55 J99 2 GEN    717
3871                A     @?4@, )0M099                                     O   7  1844  A !54 K00   GEN    717
3872                B     )0K099                                           O   4  1851  B Y36       GEN    717
3873         )0P099 A     )0L099-1,)0M099                                  O   7  1855  A K01 K00   GEN    717
3874                MCW   NXBTM,WK51                                       O   7  1862  M 083 K08   GEN    718
3875                MCW   )0M099                                          O   4  1869  M K00       GEN    718
3876                ZA    WK51                                             O   4  1873  ? K08       GEN    718
3877                MZ    *-4, WK51                                        O   7  1877  Y Y79 K08   GEN    718
3878 28 73          S     WK5,WK51                                         O   7  1884  S !71 K08          718
3879 28 74          MZ    @ @,WK51            REMOVE SIGN                  O   7  1891  Y !92 K08          718
3880 28 75          A     &1,WK51#5                                        O   7  1898  A K03 K08          719
3881 28 76          MCW   NXBTM,X3                                         O   7  1905  M 083 099          719
3882 28 77          MA    MACFLS,X3                                        O   7  1912  # 163 099          719
3883 28 78          SBR   X3,1&X3                                          O   7  1919  H 099 0?1          719
3884 28 79          MCW   CONLST,247                                       O   7  1926  M 194 247          719
3885 28 80          MCW   @-@                                              O   4  1933  M K09              719
3886 28 81          MCW   X3                                               O   4  1937  M 099              720
3887 28 82          MCW   @   @                                            O   4  1941  M K12              720
3888 28 83          MCW   CNLS5                                            O   4  1945  M !66              720
3889 28 84          MCW   @ TO @                                           O   4  1949  M K16              720
3890 28 85          MCW   WK51                                             O   4  1953  M K08              720
3891 28 86          CC    J                                                O   2  1957  F J                720
3892 28 87          W                                                      O   1  1959  2                  720
3893 28 88          CC    J                                                O   2  1960  F J                721
3894 28 89          FORMS                                                                           MACRO
3895                BCV   *&5                                              O   5  1962  B Z71 @     GEN    721
3896                B     *&3                                              O   4  1967  B Z73       GEN    721
3897                CC    1                                                O   2  1971  F 1         GEN    721
3898 28 90          FENDX D,,,XBEGIN,XBEGIN,XBEGIN,SAUCE-2,SUBSCR                                   MACRO
3899                BSS   333,D                                            O   5  1973  B 333 D     GEN    721
3900                SBR   INITAP&6,XBEGIN                                  O   7  1978  H 786 838   GEN    721
3901                SBR   BCLEAR                                          O   4  1985  H 833       GEN    721
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3902                SBR   INITXT&3,XBEGIN                                    O   7  1989  H 796 838   GEN    722
3903                SBR   TCLEAR,SAUCE-2                                     O   7  1996  H 710 N98   GEN    722
3904                LCA   @SUBSCR@,110                                      O   7  2003  L K22 110   GEN    722
3905                B     MONTER                                            O   4  2010  B 700      GEN    722
3906 28 91          ORG   *                                                 O             2014
3907                LTORG *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG   O             2014
3908                DCW   #1                                                O   1  2014               GEN    722
3909          ZONES DC    9                                                 O   1  2015               GEN    722
3910                DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  O  31  2046               GEN    723
              *        LTORG*                                                                          GEN
              )0M093 DCW   #02                                               O   2  2048               AREA   723
              )0L093 DCW   #02                                               O   2  2050               AREA   723
                     DCW   @A0@                                              O   2  2052               LIT    723
                     DCW   @?4@                                              O   2  2054               LIT    723
              SAVX2O DCW   #03                                               O   3  2057               AREA   724
              )0M094 DCW   #02                                               O   2  2059               AREA   724
              )0L094 DCW   #02                                               O   2  2061               AREA   724
              CNLS5O DCW   #05                                               O   5  2066               AREA   724
              WK5  O DCW   #05                                               O   5  2071               AREA   724
                     DCW   @0000?@                                           O   5  2076               LIT    724
                     DCW   @0@                                               O   1  2077               LIT    724
                     DCW   @16000@                                           O   5  2082               LIT    725
              MCFL5O DCW   #05                                               O   5  2087               AREA   725
                     DCW   @S@                                               O   1  2088               LIT    725
              HEX1 O DCW   #03                                               O   3  2091               AREA   725
                     DCW   @ @                                               O   1  2092               LIT    725
              CODE O DCW   #04                                               O   4  2096               AREA   725
              WORK O DCW   #10                                               O  10  2106               AREA   725
              BOX  O DCW   #01                                               O   1  2107               AREA   726
                     DCW   @#}@*-&)$,@                                       O   9  2116               LIT    726
              MOD  O DCW   #04                                               O   4  2120               AREA   726
                     DCW   @    @                                            O   4  2124               LIT    726
              HEX2 O DCW   #08                                               O   8  2132               AREA   726
                     DCW   @N@                                               O   1  2133               LIT    726
              TEMP O DCW   #03                                               O   3  2136               AREA   726
              TEMP2O DCW   #03                                               O   3  2139               AREA   727
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@            O  36  2175               LIT    727
                     DCW   @CONSTANTS LOCATED FROM @                         O  23  2198               LIT    728
              )0M099 DCW   #02                                               O   2  2200               AREA   728
              )0L099 DCW   #02                                               O   2  2202               AREA   728
                     DCW   &1                                                O   1  2203               LIT    728
              WK51 O DCW   #05                                               O   5  2208               AREA   728
                     DCW   @-@                                               O   1  2209               LIT    728
                     DCW   @   @                                             O   3  2212               LIT    728
                     DCW   @ TO @                                            O   4  2216               LIT    729
                     DCW   @SUBSCR@                                          O   6  2222               LIT    729
3911 28 92           DCW   @}@                          SYSTEM GROUP MARK    O   1  2223               GMARK  729
3912 28 93           ORG   TAMAXT&X00                                        O             2600
3913 28 94    SAUCE  EQU   *&1                                               O        2600
3914 28 95           XFR   PHSE3                                             O             B 849              730
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

3915 28 96          JOB   1401 FORTRAN  SUBSCRIPTS PHASE
3916 28 97          FBEGN SUBSCR,X1,,X2,,X3,R,W                                          MACRO
3917                SFX   W                                                              GEN
3918          110   DCW   @SUBSCR@                                        W   6  0110             GEN    733
3919          X1    EQU   089                                            W      0089             GEN
3920          X2    EQU   094                                            W      0094             GEN
3921          X3    EQU   099                                            W      0099             GEN
3922          099   DCW   000                                            W   3  0099             GEN    734
3923          100   DC    0                                              W   1  0100             GEN    734
3924 28 98          ORG   XBEGIN                                         W            0838
3925 28 99    *  SQUEEZE ADDRESSES BETWEEN $ SIGNS TOGETHER, ERROR CHECK
3926 29 00    INITL CS    0&X2                                           W   4  0838  / 0!0              735
3927 29 01          CS                                                   W   1  0842  /                  735
3928 29 02          SBR   X2,1&X1                                        W   7  0843  H 094 0|1          735
3929 29 03          SBR   HEX1#3                                        W   4  0850  H /94             735
3930 29 04    START BCE   OUT,000&X1,      BLANK                        W   8  0854  B /39 0|0          735
3931 29 05          MCW   000&X1,CODE#4                                  W   7  0862  M 0|0 /98          735
3932 29 06          B     SLIDE          X2 INITIALLY GREATER THAN X1    W   4  0869  B |64             735
3933 29 07          BCE   PASS,CODE-3,/                                  W   8  0873  B /31 /95 /        736
3934 29 08          BCE   PASS,CODE-3,F                                  W   8  0881  B /31 /95 F        736
3935 29 09    FIND  BCE   SEEK,000&X1,$                                  W   8  0889  B 923 0|0 $        736
3936 29 10          CHAIN 5                                                              MACRO
3937                BCE                                                  W   1  0897  B                GEN    736
3938                BCE                                                  W   1  0898  B                GEN    736
3939                BCE                                                  W   1  0899  B                GEN    736
3940                BCE                                                  W   1  0900  B                GEN    736
3941                BCE                                                  W   1  0901  B                GEN    737
3942 29 11          BWZ   FNISH,000&X1,1      WORD MK                    W   8  0902  V /24 0|0 1       737
3943 29 12          CHAIN 5                                                              MACRO
3944                BWZ                                                  W   1  0910  V                GEN    737
3945                BWZ                                                  W   1  0911  V                GEN    737
3946                BWZ                                                  W   1  0912  V                GEN    737
3947                BWZ                                                  W   1  0913  V                GEN    737
3948                BWZ                                                  W   1  0914  V                GEN    737
3949 29 13          SBR   X1                                             W   4  0915  H 089             738
3950 29 14          B     FIND                                           W   4  0919  B 889             738
3951 29 15    SEEK  BCE   FOUND,000&X1,$                                 W   8  0923  B 939 0|0 $       738
3952 29 16          SBR   X1                                             W   4  0931  H 089             738
3953 29 17          B     SEEK                                           W   4  0935  B 923             738
3954 29 18    FOUND SW    000&X1                                         W   4  0939  , 0|0             738
3955 29 19          B     SEND                                           W   4  0943  B /69             738
3956 29 20          MN    000&X1                                         W   4  0947  D 0|0             739
3957 29 21          SAR   X1                                             W   4  0951  Q 089             739
3958 29 22          B     DROP4                                          W   4  0955  B |98             739
3959 29 23    SQUOZ SW    2&X1                                           W   4  0959  , 0|2             739
3960 29 24          B     SEND                                           W   4  0963  B /69             739
3961 29 25          B     DROP4                                          W   4  0967  B |98             739
3962 29 26          BWZ   CPAR,3&X1,S                                    W   8  0971  V |21 0|3 S       739
3963 29 27          BWZ   CPAR,3&X1,K                                    W   8  0979  V |21 0|3 K       740
3964 29 28          FTMSG 12,FLOATING POINT SUBSCRIPT,CODE,26                            MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
3965                CS    332                                               W  4  0987  / 332       GEN    740
3966                CS                                                      W  1  0991  /           GEN    740
3967                SW    FAILSW                                            W  4  0992  , 184       GEN    740
3968                MN    CODE,224&26                                       W  7  0996  D /98 250   GEN    740
3969                MN                                                      W  1  1003  D           GEN    740
3970                MN                                                      W  1  1004  D           GEN    740
3971                MCW   @ERROR 12 - FLOATING POINT SUBSCRIPT, STATEMENT @  W  4  1005  M S45       GEN    741
3972                W                                                       W  1  1009  2           GEN    741
3973                BCV   *&5                                               W  5  1010  B |19 @     GEN    741
3974                B     *&3                                               W  4  1015  B |21       GEN    741
3975                CC    1                                                 W  2  1019  F 1         GEN    741
3976 29 29  CPAR    SW    2&X1                                              W  4  1021  , 0|2               741
3977 29 30          B     SEND                                              W  4  1025  B /69               741
3978 29 31          B     DROP4                                             W  4  1029  B |98               742
3979 29 32          C     001&X1,@$@                                        W  7  1033  C 0|1 S46           742
3980 29 33          BU    SQUOZ                                             W  5  1040  B 959 /            742
3981 29 34          SW    001&X1                                            W  4  1045  , 0|1               742
3982 29 35          B     SEND                                              W  4  1049  B /69               742
3983 29 36          MCW   X1,X3                                             W  7  1053  M 089 099           742
3984 29 37          B     FIND                                              W  4  1060  B 889               742
3985 29 38  SLIDE   SBR   EXSLD&3                                           W  4  1064  H |97               743
3986 29 39          MVDWN X1,X2                                                                 MACRO
3987                LCA   0&X1,0&X2                                         W  7  1068  L 0|0 0!0   GEN    743
3988                SAR   X1                                                W  4  1075  Q 089       GEN    743
3989                C     0&X2                                              W  4  1079  C 0!0       GEN    743
3990                SAR   X2                                                W  4  1083  Q 094       GEN    743
3991 29 40          MCW   X1,X3                                             W  7  1087  M 089 099           743
3992 29 41  EXSLD   B     000                                               W  4  1094  B 000               743
3993 29 42  DROP4   SBR   EXDRP&3                                           W  4  1098  H /23               744
3994 29 43          MCW   X1,X3                                             W  7  1102  M 089 099           744
3995 29 44          MN    0&X1                                              W  4  1109  D 0|0               744
3996 29 45          CHAIN 3                                                                     MACRO
3997                MN                                                      W  1  1113  D           GEN    744
3998                MN                                                      W  1  1114  D           GEN    744
3999                MN                                                      W  1  1115  D           GEN    744
4000 29 46          SBR   X1                                                W  4  1116  H 089               744
4001 29 47  EXDRP   B     000                                               W  4  1120  B 000               745
4002 29 48  FNISH   MCW   X3,X1                                             W  7  1124  M 099 089           745
4003 29 49  PASS    B     SLIDE                                             W  4  1131  B |64               745
4004 29 50          B     START                                             W  4  1135  B 854               745
4005 29 51  OUT     MCW   HEX1,X1                                           W  7  1139  M /94 089           745
4006 29 52          FENDX C,,,,,,SYS1,STNUM ONE                                                 MACRO
4007                BSS   333,C                                             W  5  1146  B 333 C     GEN    745
4008                SBR   TCLEAR,SYS1                                       W  7  1151  H 710 S56   GEN    745
4009                LCA   @STNUM ONE@,110                                   W  7  1158  L S55 110   GEN    746
4010                B     MONTER                                            W  4  1165  B 700       GEN    746
4011 29 53  SEND    SBR   EXSND&3                                           W  4  1169  H /91               746
4012 29 54          LCA   000&X3,000&X2                                     W  7  1173  L 0?0 0!0           746
4013 29 55          SBR   X2                                                W  4  1180  H 094               746
4014 29 56          CW    001&X2                                            W  4  1184  ) 0!1               746
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
4015 29 57   EXSND  B     000                                                W   4  1188  B 000             746
4016 29 58          LTORG *                                                  W          1192
             HEX1 W DCW   #03                                                W   3  1194              AREA  747
             CODE W DCW   #04                                                W   4  1198              AREA  747
                    DCW   @ERROR 12 - FLOATING POINT SUBSCRIPT, STATEMENT @   W  47  1245              LIT   749
                    DCW   @$@                                                W   1  1246              LIT   749
                    DCW   @STNUM ONE@                                        W   9  1255              LIT   749
4017 29 59   SYS1   DCW   @}@                          SYSTEM GROUP MARK     W   1  1256              GMARK 749
4018 29 60          XFR   INITL                                              W          B 838             750
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4019 29 61          JOB   1401 FORTRAN   STATEMENT NUMBER PHASE ONE
4020 29 62          FBEGN STNUM ONE,X1,,X2,,X3,R,M                                              MACRO
4021                SFX   M                                                                     GEN
4022          110   DCW   @STNUM ONE@                               M   9  0110              GEN    753
4023          X1    EQU   089                                       M      0089              GEN
4024          X2    EQU   094                                       M      0094              GEN
4025          X3    EQU   099                                       M      0099              GEN
4026          099   DCW   000                                       M   3  0099              GEN    754
4027          100   DC    0                                         M   1  0100              GEN    754
4028 29 63          ORG   XBEGIN                                    M            0838
4029 29 64    NXBTM EQU   083                                       M      0083
4030 29 65    INITL CS    0&X2                                      M   4  0838  / 0!0               755
4031 29 66          MCW   NXBTM,X2                                  M   7  0842  M 083 094           755
4032 29 67          SW    GM              FROM THE BOTTOM           M   4  0849  , Y83               755
4033 29 68          LCA   GM,000&X2                                 M   7  0853  L Y83 0!0           755
4034 29 69          SBR   X2                                        M   4  0860  H 094               755
4035 29 70    START BCE   OUT,000&X1,       BLANK                  M   8  0864  B Y52 0|0           755
4036 29 71          LCA   000&X1,WORK1#10                           M   7  0872  L 0|0 Z62           756
4037 29 72          SAR   X1                                        M   4  0879  Q 089               756
4038 29 73          CW    001&X1                                    M   4  0883  ) 0|1               756
4039 29 74          SW    WORK1-3                                   M   4  0887  , Z59               756
4040 29 75          LCA   WORK1,000&X2                             M   7  0891  L Z62 0!0           756
4041 29 76          SBR   X2                                        M   4  0898  H 094               756
4042 29 77          CW    001&X2                                    M   4  0902  ) 0!1               756
4043 29 78          BWZ   LABEL,WORK1-4,2       NO ZONE            M   8  0906  V |03 Z58 2         757
4044 29 79    TOP   LCA   GM,000&X2                                 M   7  0914  L Y83 0!0           757
4045 29 80          SBR   X2                                        M   4  0921  H 094               757
4046 29 81          MCW   WORK1-3,TEST&7                           M   7  0925  M Z59 939           757
4047 29 82    TEST  BCE   WORRY,@WT65UPLDEGK@,0                     M   8  0932  B |26 Z73 0         757
4048 29 83          CHAIN 10                                                                    MACRO
4049                BCE                                           M   1  0940  B                  GEN    757
4050                BCE                                           M   1  0941  B                  GEN    757
4051                BCE                                           M   1  0942  B                  GEN    758
4052                BCE                                           M   1  0943  B                  GEN    758
4053                BCE                                           M   1  0944  B                  GEN    758
4054                BCE                                           M   1  0945  B                  GEN    758
4055                BCE                                           M   1  0946  B                  GEN    758
4056                BCE                                           M   1  0947  B                  GEN    758
4057                BCE                                           M   1  0948  B                  GEN    758
4058                BCE                                           M   1  0949  B                  GEN    759
4059 29 84          BCE   KILL,WORK1-3,/                           M   8  0950  B 981 Z59 /         759
4060 29 85    BOTM  MVDWN X1,X2                                                                   MACRO
4061          BOTM  LCA   0&X1,0&X2                                 M   7  0958  L 0|0 0!0           GEN    759
4062                SAR   X1                                        M   4  0965  Q 089               GEN    759
4063                C     0&X2                                      M   4  0969  C 0!0               GEN    759
4064                SAR   X2                                        M   4  0973  Q 094               GEN    759
4065 29 86          B     START                                     M   4  0977  B 864                     759
4066 29 87    KILL  C     0&X1                                      M   4  0981  C 0|0                     760
4067 29 88          SAR   X1                                        M   4  0985  Q 089                     760
4068 29 89          MCM   4&X2                                      M   4  0989  P 0!4                     760
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4069 29 90           MN                                          M   1  0993  D                  760
4070 29 91           MN                                          M   1  0994  D                  760
4071 29 92           SAR   X2                                    M   4  0995  Q 094              760
4072 29 93           B     START                                 M   4  0999  B 864              760
4073 29 94   LABEL   LCA   WORK1-4,STATE#6                       M   7  1003  L Z58 Z79          761
4074 29 95           SBR   X3                                    M   4  1010  H 099              761
4075 29 96           SW    002&X3                                M   4  1014  , 0?2              761
4076 29 97           B     ALPHA                                 M   4  1018  B V63              761
4077 29 98           B     TOP                                   M   4  1022  B 914              761
4078 29 99   WORRY   B     IFEXP,WORK1-3,E                       M   8  1026  B T62 Z59 E        761
4079 30 00           BCE   DO,WORK1-3,D                          M   8  1034  B S76 Z59 D        761
4080 30 01           BCE   INOUT,WORK1-3,5                       M   8  1042  B /30 Z59 5        762
4081 30 02           BCE   INOUT,WORK1-3,6                       M   8  1050  B /30 Z59 6        762
4082 30 03           BCE   PUTE,WORK1-3,T                        M   8  1058  B |90 Z59 T        762
4083 30 04           BCE   SENSE,WORK1-3,W                      M   8  1066  B /93 Z59 W        762
4084 30 05           BCE   SENSE,WORK1-3,K                      M   8  1074  B /93 Z59 K        763
4085 30 06           B     GRAB1                                 M   4  1082  B U73              763
4086 30 07           B     BOTM                                  M   4  1086  B 958              763
4087 30 08   PUTE    B     GRAB1                                 M   4  1090  B U73              763
4088 30 09           BCE   OVER,000&X1,)        RT PAREN         M   8  1094  B /18 0|0 )        763
4089 30 10           BCE   SYNER,0&X1,}                  GM      M   8  1102  B X55 0|0 } GMARK  763
4090 30 11           SBR   X1                                    M   4  1110  H 089              764
4091 30 12           B     PUTE                                  M   4  1114  B |90              764
4092 30 13   OVER    MN    000&X1                                M   4  1118  D 0|0              764
4093 30 14           SAR   X1                                    M   4  1122  Q 089              764
4094 30 15           B     BOTM                                  M   4  1126  B 958              764
4095 30 16   INOUT   MCW   X1,LOAD&3                            M   7  1130  M 089 /77          764
4096 30 17   FIND    BCE   TPNAM,000&X1,,       COMMA            M   8  1137  B /61 0|0 ,        764
4097 30 18           BCE   SYNER,0&X1,}                  GM      M   8  1145  B X55 0|0 } GMARK  765
4098 30 19           SBR   X1                                    M   4  1153  H 089              765
4099 30 20           B     FIND                                  M   4  1157  B /37              765
4100 30 21   TPNAM   SW    001&X1                                M   4  1161  , 0|1              765
4101 30 22           MN                                          M   1  1165  D                  765
4102 30 23           SAR   X1                                    M   4  1166  Q 089              765
4103 30 24           B     GRAB1                                 M   4  1170  B U73              765
4104 30 25   LOAD    LCA   000,000&X2                           M   7  1174  L 000 0!0          766
4105 30 26           SBR   X2                                    M   4  1181  H 094              766
4106 30 27           CW    001&X2                                M   4  1185  ) 0!1              766
4107 30 28           B     BOTM                                  M   4  1189  B 958              766
4108 30 29   SENSE   MCW   X1,LOAD&3                            M   7  1193  M 089 /77          766
4109 30 30   FIND2   BCE   WITCH,000&X1,)       RT PAREN         M   8  1200  B S24 0|0 )        766
4110 30 31           BCE   SYNER,0&X1,}                  GM      M   8  1208  B X55 0|0 } GMARK  767
4111 30 32           SBR   X1                                    M   4  1216  H 089              767
4112 30 33           B     FIND2                                 M   4  1220  B S00              767
4113 30 34   WITCH   SW    001&X1                                M   4  1224  , 0|1              767
4114 30 35           MN                                          M   1  1228  D                  767
4115 30 36           SAR   X1                                    M   4  1229  Q 089              767
4116 30 37           B     GRAB1                                 M   4  1233  B U73              767
4117 30 38           MN    000&X1                                M   4  1237  D 0|0              768
4118 30 39           SAR   X1                                    M   4  1241  Q 089              768
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4119 30 40          BCE   SYNER,0&X1,}                  GM        M  8  1245  B X55 0|0 } GMARK  768
4120 30 41          B     GRAB1                                   M  4  1253  B U73              768
4121 30 42  COMMA   LCA   @,@,000&X2                             M  7  1257  L Z80 0!0          768
4122 30 43          SBR   X2                                      M  4  1264  H 094              768
4123 30 44          CW    001&X2                                  M  4  1268  ) 0!1              768
4124 30 45          B     LOAD                                    M  4  1272  B /74              769
4125 30 46  DO      MCW   X1,X3                                   M  7  1276  M 089 099          769
4126 30 47  VARBL  BCE   BACK2,0&X3,#                           M  8  1283  B S99 0?0 #        769
4127 30 48          SBR   X3                                      M  4  1291  H 099              769
4128 30 49          B     VARBL                                   M  4  1295  B S83              769
4129 30 50  BACK2  MCW   3&X3,SVZN#1                            M  7  1299  M 0?3 Z81          769
4130 30 51          MCW   @,@,3&X3                              M  7  1306  M Z80 0?3          770
4131 30 52          SBR   HEX3#3,3&X3                          M  7  1313  H Z84 0?3          770
4132 30 53          B     GRAB1                                   M  4  1320  B U73              770
4133 30 54          C     HEX3,X1                                 M  7  1324  C Z84 089          770
4134 30 55          BU    SYNER                                   M  5  1331  B X55 /            770
4135 30 56          MCW   SVZN,0&X1                             M  7  1336  M Z81 0|0          770
4136 30 57          LCA   @,@,000&X2                            M  7  1343  L Z80 0!0          771
4137 30 58          SBR   X2                                      M  4  1350  H 094              771
4138 30 59          CW    001&X2                                  M  4  1354  ) 0!1              771
4139 30 60          B     BOTM                                    M  4  1358  B 958              771
4140 30 61  IFEXP   MCW   X1,LOAD&3                             M  7  1362  M 089 /77          771
4141 30 62  RTPAR  BCE   NOZO,000&X1,)                         M  8  1369  B T93 0|0 )        771
4142 30 63          BCE   SYNER,0&X1,}                  GM        M  8  1377  B X55 0|0 } GMARK  772
4143 30 64          SBR   X1                                      M  4  1385  H 089              772
4144 30 65          B     RTPAR                                   M  4  1389  B T69              772
4145 30 66  NOZO   MN    000&X1                                  M  4  1393  D 0|0              772
4146 30 67          SAR   X1                                      M  4  1397  Q 089              772
4147 30 68          BWZ   YEAH,000&X1,2        NO ZONE           M  8  1401  V U13 0|0 2       772
4148 30 69          B     RTPAR                                   M  4  1409  B T69              772
4149 30 70  YEAH   BCE   RTPAR,0&X1,@                           M  8  1413  B T69 0|0 @       773
4150 30 71          SW    1&X1                                    M  4  1421  , 0|1              773
4151 30 72          B     GRAB1                                   M  4  1425  B U73              773
4152 30 73          MN    000&X1                                  M  4  1429  D 0|0              773
4153 30 74          SAR   X1                                      M  4  1433  Q 089              773
4154 30 75          BCE   SYNER,0&X1,}                  GM        M  8  1437  B X55 0|0 } GMARK  773
4155 30 76          B     GRAB1                                   M  4  1445  B U73              773
4156 30 77          MN    000&X1                                  M  4  1449  D 0|0              774
4157 30 78          SAR   X1                                      M  4  1453  Q 089              774
4158 30 79          BCE   SYNER,0&X1,}                  GM        M  8  1457  B X55 0|0 } GMARK  774
4159 30 80          B     GRAB1                                   M  4  1465  B U73              774
4160 30 81          B     COMMA                                   M  4  1469  B S57              774
4161 30 82  GRAB1  SBR   EXIT2&3                                 M  4  1473  H V62              774
4162 30 83          MCW   X1,TAKE&3                               M  7  1477  M 089 V47         774
4163 30 84          BWZ   LOOP,000&X1,2        NO ZONE           M  8  1484  V U96 0|0 2       775
4164 30 85          B     BADST                                   M  4  1492  B Y01              775
4165 30 86  LOOP   MN    000&X1                                  M  4  1496  D 0|0              775
4166 30 87          SAR   X1                                      M  4  1500  Q 089              775
4167 30 88          BWZ   LOOP,000&X1,2         NO ZONE          M  8  1504  V U96 0|0 2       775
4168 30 89          FBCEQ SETWM,0&X1,,,},)              COMMA,GM                       MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4169                BCE   SETWM, 0&X1, ,                          M   8  1512  B V40 0|0 , GEN    775
4170                BCE   SETWM, 0&X1, }                          M   8  1520  B V40 0|0 } GEN    776
4171                BCE   SETWM, 0&X1, )                          M   8  1528  B V40 0|0 ) GEN    776
4172 30 90          B     BADST                                   M   4  1536  B Y01             776
4173 30 91  SETWM   SW    1&X1                                    M   4  1540  , 0|1             776
4174 30 92  TAKE    LCA   000,STATE                               M   7  1544  L 000 Z79         776
4175 30 93          CW    001&X1                                  M   4  1551  ) 0|1             776
4176 30 94          B     ALPHA                                   M   4  1555  B V63             776
4177 30 95  EXIT2   B     000                                     M   4  1559  B 000             777
4178 30 96  ALPHA   SBR   EXIT1&3                                 M   4  1563  H X54             777
4179 30 97          LCA   SIX0,PLACE                              M   7  1567  L Z52 Y90         777
4180 30 98          C     SIX0,STATE                              M   7  1574  C Z52 Z79         777
4181 30 99          BU    NORM                                    M   5  1581  B V90 /           777
4182 31 00          B     SET3                                    M   4  1586  B W24             777
4183 31 01  NORM    SBR   X3,STATE&1                              M   7  1590  H 099 Z80         777
4184 31 02  ZERO    MN    000&X3                                  M   4  1597  D 0?0             778
4185 31 03          SAR   X3                                      M   4  1601  Q 099             778
4186 31 04          BCE   ZERO,000&X3,0                           M   8  1605  B V97 0?0 0       778
4187 31 05          MCW   000&X3,PLACE                           M   7  1613  M 0?0 Y90         778
4188 31 06          MCW   @1@                                     M   4  1620  M Z85             778
4189 31 07  SET3    SW    PLACE-1                                 M   4  1624  , Y89             778
4190 31 08          CW                                            M   1  1628  )                 778
4191 31 09          SW                                            M   1  1629  ,                 779
4192 31 10          CW                                            M   1  1630  )                 779
4193 31 11          SW                                            M   1  1631  ,                 779
4194 31 12          S     @50050@,PLACE                           M   7  1632  S Z89 Y90         779
4195 31 13          S                                             M   1  1639  S                 779
4196 31 14          BWZ   TRY2,PLACE,K        B-BIT               M   8  1640  V W55 Y90 K       779
4197 31 15          A     @1@,PLACE-5                             M   7  1648  A Z85 Y85         779
4198 31 16  TRY2    BWZ   STRIP,PLACE-2,K     B-BIT               M   8  1655  V W70 Y88 K       780
4199 31 17          A     @2@,PLACE-5                             M   7  1663  A Z90 Y85         780
4200 31 18  STRIP   MZ    @Z Z Z @,PLACE      SET UP FOR GENER    M   7  1670  Y Z96 Y90         780
4201 31 19          CHAIN 5                                                                 MACRO
4202                MZ                                            M   1  1677  Y                 GEN    780
4203                MZ                                            M   1  1678  Y                 GEN    780
4204                MZ                                            M   1  1679  Y                 GEN    780
4205                MZ                                            M   1  1680  Y                 GEN    780
4206                MZ                                            M   1  1681  Y                 GEN    781
4207 31 20          MCW   X1,HEX1                                 M   7  1682  M 089 Y94         781
4208 31 21          MCW   &TABLE-49,X1                           M   7  1689  M Z99 089         781
4209 31 22          MCW   &PLACE,X3                              M   7  1696  M !02 099         781
4210 31 23  COOL    MCW   000&X3,GENER&3                         M   7  1703  M 0?0 X17         781
4211 31 24          SAR   X3                                      M   4  1710  Q 099             781
4212 31 25  GENER   MCW   000,BOX    MODIFIED AND INDEXED BY X1   M   7  1714  M 000 Y91         782
4213 31 26          LCA   BOX,000&X2                              M   7  1721  L Y91 0!0         782
4214 31 27          SBR   X2                                      M   4  1728  H 094             782
4215 31 28          CW    001&X2                                  M   4  1732  ) 0!1             782
4216 31 29          BWZ   COOL,000&X3,2  NO ZONE                 M   8  1736  V X03 0?0 2       782
4217 31 30          MCW   HEX1,X1                                 M   7  1744  M Y94 089         782
4218 31 31  EXIT1   B     000                                     M   4  1751  B 000             783
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4219 31 32   SYNER  FTMSG 13,STATEMENT NUMBER SYNTAX,WORK1,25                                                MACRO
4220         SYNER  CS    332                                                      M  4  1755  / 332        GEN    783
4221                CS                                                            M  1  1759  /            GEN    783
4222                SW    FAILSW                                                   M  4  1760  , 184        GEN    783
4223                MN    WORK1,224&25                                             M  7  1764  D Z62 249    GEN    783
4224                MN                                                            M  1  1771  D            GEN    783
4225                MN                                                            M  1  1772  D            GEN    783
4226                MCW   @ERROR 13 - STATEMENT NUMBER SYNTAX, STATEMENT @        M  4  1773  M !48        GEN    784
4227                W                                                             M  1  1777  2            GEN    784
4228                BCV   *&5                                                     M  5  1778  B X87 @      GEN    784
4229                B     *&3                                                     M  4  1783  B X89        GEN    784
4230                CC    1                                                       M  2  1787  F 1          GEN    784
4231 31 33          BW    PMOV,BADSW                                              M  8  1789  V Y09 Y95 1          784
4232 31 34          B     ERR                                                     M  4  1797  B Y30               784
4233 31 35   BADST  SW    BADSW                                                   M  4  1801  , Y95               785
4234 31 36          B     SYNER                                                   M  4  1805  B X55               785
4235 31 37   PMOV   MCM   1&X2                                                    M  4  1809  P 0!1               785
4236 31 38          MN                                                            M  1  1813  D                   785
4237 31 39          SAR   X2                                                      M  4  1814  Q 094               785
4238 31 40          BCE   PMOV,0&X2,|                                            M  8  1818  B Y09 0!0 |          785
4239 31 41          CW    BADSW                                                   M  4  1826  ) Y95               785
4240 31 42   ERR    MCM   4&X2                                                    M  4  1830  P 0!4               786
4241 31 43          MN                                                            M  1  1834  D                   786
4242 31 44          MN                                                            M  1  1835  D                   786
4243 31 45          SAR   X2                                                      M  4  1836  Q 094               786
4244 31 46          C     0&X1                                                    M  4  1840  C 0|0               786
4245 31 47          SAR   X1                                                      M  4  1844  Q 089               786
4246 31 48          B     START                                                   M  4  1848  B 864               786
4247 31 49   OUT    FENDX C,,,,TAMROF,,TAMR1T,TAMROF ONE                                                  MACRO
4248         OUT    BSS   333,C                                                   M  5  1852  B 333 C      GEN    787
4249                SBR   INITXT&3,TAMROF                                         M  7  1857  H 796 980    GEN    787
4250                SBR   TCLEAR,TAMR1T                                          M  7  1864  H 710 V99    GEN    787
4251                LCA   @TAMROF ONE@,110                                       M  7  1871  L !58 110    GEN    787
4252                B     MONTER                                                  M  4  1878  B 700        GEN    787
4253 31 50          DCW   @ @                                                    M  1  1882                     787
4254 31 51   GM     DC    @}@                                G-M                 M  1  1883                GMARK  787
4255 31 52          DC    @.@                                                     M  1  1884                     787
4256 31 53   PLACE  DCW   @      @                                               M  6  1890                     787
4257 31 54   BOX    DCW   @ @                                                    M  1  1891                     788
4258 31 55   HEX1   DCW   @   @                                                  M  3  1894                     788
4259 31 56   BADSW  DC    #1                                                      M  1  1895                     788
4260 31 57   TABLE  DC    @.")&$*-%#@?ABCDEFGHI!JKLMNOPQR_/STUVWXYZ0123456789@   M 50  1945                     790
4261 31 58          DC    @.@                                                     M  1  1946                     790
4262 31 59   SIX0   DCW   @000000@                                               M  6  1952                     790
4263 31 60   *             & IS 12-0 PUNCH, - 11-0 PUNCH   .,0-7-8  R,11-7-8
4264 31 61   *             NO COMMA, RECORD MARK, OR GROUP MARK IN TABLE
4265 31 62          LTORG *                                                       M           1953
             WORK1M DCW   #10                                                    M 10  1962                AREA   790
                    DCW   @WT65UPLDEGK@                                         M 11  1973                LIT    790
             STATEM DCW   #06                                                   M  6  1979                AREA   791
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
                    DCW   @,@                                               M   1  1980              LIT    791
              SVZN M DCW   #01                                              M   1  1981              AREA   791
              HEX3 M DCW   #03                                              M   3  1984              AREA   791
                    DCW   @1@                                               M   1  1985              LIT    791
                    DCW   @5050@                                            M   4  1989              LIT    791
                    DCW   @2@                                               M   1  1990              LIT    791
                    DCW   @Z Z Z @                                          M   6  1996              LIT    792
                    DCW   &TABLEM-49                                        M   3  1999  Y96         ADCON  792
                    DCW   &PLACEM                                           M   3  2002  Y90         ADCON  792
                    DCW   @ERROR 13 - STATEMENT NUMBER SYNTAX, STATEMENT @  M  46  2048              LIT    794
                    DCW   @TAMROF ONE@                                      M  10  2058              LIT    794
4266 31 63          DCW   @}@                          SYSTEM GROUP MARK    M   1  2059              GMARK  794
4267 31 64          XFR   INITL                                             M          B 838             795
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
4268 31 65          JOB   1401 FORTRAN  TAMROF PHASE ONE  FORMAT SPECS
4269 31 66          FBEGN TAMROF ONE,X1,R,X2,,X3,R,T,XXX                                          MACRO
4270                SFX   T                                                                     GEN
4271          XXX   EQU   0                                           T      0000               GEN
4272          110   DCW   @TAMROF ONE@                                T  10  0110               GEN    798
4273          X1    EQU   089                                         T      0089               GEN
4274          089   DCW   000                                         T   3  0089               GEN    799
4275          091   DC    00                                          T   2  0091               GEN    799
4276          X2    EQU   094                                         T      0094               GEN
4277          X3    EQU   099                                         T      0099               GEN
4278          099   DCW   000                                         T   3  0099               GEN    800
4279          100   DC    0                                           T   1  0100               GEN    800
4280 31 67    *
4281 31 68    NXBTM EQU   83                                          T      0083
4282 31 69    *
4283 31 70          ORG   XBEGIN                                     T            0838
4284 31 71    KLOBR FQUIT                                                                       MACRO
4285          KLOBR CS    332                                       T   4  0838  / 332        GEN    801
4286                CS                                              T   1  0842  /            GEN    801
4287                CC    1                                         T   2  0843  F 1          GEN    801
4288                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270 T   7  0845  M 963 270    GEN    801
4289                W                                               T   1  0852  2            GEN    801
4290                CC    1                                         T   2  0853  F 1          GEN    801
4291                BCE   *&6,MONTOR,1                              T   8  0855  B 868 769 1  GEN    801
4292                RWD   1                                         T   5  0863  U %U1 R       GEN    802
4293                H     *-3                                       T   4  0868  . 868        GEN    802
4294 31 72    CKBIT DCW   @;@   11-6-8                              T   1  0872                      802
4295 31 73    HEX3  DCW   #3                                        T   3  0875                      802
4296 31 74    CODE  DCW   #4                                        T   4  0879                      802
4297 31 75    *                                   ERROR MESSAGE ROUTINE
4298 31 76    *
4299 31 77    ERROR EQU   206                                       T      0206
4300 31 78    PRNTN EQU   250                                       T      0250
4301 31 79    *
4302 31 80    GETST SBR   GSTXT&3                                   T   4  0880  H 927              802
4303 31 81          FORMS                                                                       MACRO
4304                BCV   *&5                                       T   5  0884  B 893 @      GEN    802
4305                B     *&3                                       T   4  0889  B 895        GEN    803
4306                CC    1                                         T   2  0893  F 1          GEN    803
4307 31 82          CS    332                                       T   4  0895  / 332              803
4308 31 83          CS                                              T   1  0899  /                  803
4309 31 84          SW    FAILSW                                    T   4  0900  , 184              803
4310 31 85          MN    CODE,PRNTN                                T   7  0904  D 879 250          803
4311 31 86          CHAIN 2                                                                   MACRO
4312                MN                                              T   1  0911  D            GEN    803
4313                MN                                              T   1  0912  D            GEN    804
4314 31 87          MCW   @STATEMENT  @                             T   4  0913  M 974              804
4315 31 88          MCW   @ERROR@, ERROR-1                          T   7  0917  M 979 205          804
4316 31 89    GSTXT B     XXX                                       T   4  0924  B 000              804
4317 31 90    *
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4318 31 91          LTORG *                                          T          0928
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     T  36  0963            LIT   805
                    DCW   @STATEMENT  @                              T  11  0974            LIT   806
                    DCW   @ERROR@                                    T   5  0979            LIT   806
4319 31 92    *
4320 31 93    TAMROF CS    1&X2                                      T   4  0980  / 0!1              806
4321 31 94           SBR   X1                                       T   4  0984  H 089              806
4322 31 95           SW    GM1                                      T   4  0988  , V03              806
4323 31 96    CLR    CS    0&X1                                     T   4  0992  / 0|0              806
4324 31 97           SBR   X1                                       T   4  0996  H 089              806
4325 31 98           C     X1, &TAMR1                               T   7  1000  C 089 U36          807
4326 31 99           BU    CLR                                      T   5  1007  B 992 /            807
4327 32 00           LCA   GM1, TAMAX&1                            T   7  1012  L V03 O01          807
4328 32 01           SBR   X1, TAMAX&2                            T   7  1019  H 089 O02          807
4329 32 02           SBR   X2, 2&X2                                T   7  1026  H 094 0!2          807
4330 32 03           MCW   @.@, 96                                 T   7  1033  M U37 096          808
4331 32 04           SW    IOSW#1                                   T   4  1040  , U38              808
4332 32 05    CHKND  MCW   NXBTM, X3                                T   7  1044  M 083 099          808
4333 32 06           SBR   X3, 1&X3                                T   7  1051  H 099 0?1          808
4334 32 07           C     X3,X2                                    T   7  1058  C 099 094          808
4335 32 08           BE    FINI                                     T   5  1065  B S16 S            808
4336 32 09           CW    DBLSW#1                                  T   4  1070  ) U39              809
4337 32 10           MN    0&X2                                     T   4  1074  D 0!0              809
4338 32 11           SAR   X3                                       T   4  1078  Q 099              809
4339 32 12           MCW   CKBIT                                    T   4  1082  M 872              809
4340 32 13    MVUP2  MOVUP X2,X1,,,|                                                MACRO
4341          MVUP2  MN    0&X1                                     T   4  1086  D 0|0        GEN   809
4342                 SAR   X1                                       T   4  1090  Q 089        GEN   809
4343          )0J114 MCM   0&X2                                     T   4  1094  P 0!0        GEN   809
4344                 SAR   )0L114&6                                 T   4  1098  Q /20        GEN   810
4345                 MCM   0&X2,1&X1                                T   7  1102  P 0!0 0|1    GEN   810
4346                 MN                                             T   1  1109  D            GEN   810
4347                 SBR   X1                                       T   4  1110  H 089        GEN   810
4348          )0L114 SBR   X2,0                                     T   7  1114  H 094 000    GEN   810
4349                 BCE   )0J114,0&X1,|                            T   8  1121  B |94 0|0 |  GEN   810
4350                 MN    0&X2                                     T   4  1129  D 0!0        GEN   810
4351                 CW                                             T   1  1133  )            GEN   811
4352                 SW    0&X1                                     T   4  1134  , 0|0        GEN   811
4353                 SBR   X1, 1&X1                                 T   7  1138  H 089 0|1    GEN   811
4354 32 14           BW    BOTH,DBLSW                               T   8  1145  V /61 U39 1        811
4355 32 15           SW    DBLSW                                    T   4  1153  , U39              811
4356 32 16           B     MVUP2                                    T   4  1157  B |86              811
4357 32 17    BOTH   MN    0&X1                                     T   4  1161  D 0|0              811
4358 32 18           MN                                             T   1  1165  D                  812
4359 32 19           SAR   X3                                       T   4  1166  Q 099              812
4360 32 20           SBR   MKFMT&6                                 T   4  1170  H T97              812
4361 32 21           MCW   0&X3, CODE                               T   7  1174  M 0?0 879          812
4362 32 22           SAR   X3                                       T   4  1181  Q 099              812
4363 32 23           B     CKFMT, CODE-3, F                         T   8  1185  B T15 876 F        812
4364 32 24           MCW   CODE-3, *&8                              T   7  1193  M 876 S07          812
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
4365 32 25          BCE   YESIO, @56ULP@, X                                  T  8  1200  B S91 U44 X        813
4366 32 26          CHAIN 4                                                                 MACRO
4367                BCE                                                      T  1  1208  B           GEN   813
4368                BCE                                                      T  1  1209  B           GEN   813
4369                BCE                                                      T  1  1210  B           GEN   813
4370                BCE                                                      T  1  1211  B           GEN   813
4371 32 27          B     CHKND                                              T  4  1212  B |44             813
4372 32 28   FINI   MN    0&X1                                               T  4  1216  D 0|0             813
4373 32 29          MN                                                       T  1  1220  D                 814
4374 32 30          SAR   X1                                                 T  4  1221  Q 089             814
4375 32 31          MCW   LSTIO, X2                                          T  7  1225  M U57 094          814
4376 32 32          MCW   NXBTM, X3                                         T  7  1232  M 083 099          814
4377 32 33          MCW   @ @, 0&X3                                         T  7  1239  M U45 0?0          814
4378 32 34          MCW   0&X3                                               T  4  1246  M 0?0              814
4379 32 35          MCW   CKBIT, 0&X3                                       T  7  1250  M 872 0?0          814
4380 32 36          FENDX C,GM1,,TAMROF,,TAMROF,TAMAX,TAMROF 2                              MACRO
4381                BSS   333,C                                              T  5  1257  B 333 C    GEN   815
4382                SBR   INITAP&6,TAMROF                                    T  7  1262  H 786 980  GEN   815
4383                SBR   BCLEAR                                             T  4  1269  H 833      GEN   815
4384                SBR   TCLEAR,TAMAX                                       T  7  1273  H 710 O00  GEN   815
4385                LCA   @TAMROF 2@,110                                     T  7  1280  L U53 110  GEN   815
4386                B     MONTER                                             T  4  1287  B 700      GEN   815
4387 32 37   *
4388 32 38   YESIO  MZ    @A@, 3&X3                                          T  7  1291  Y U54 0?3          816
4389 32 39          CW    IOSW                                               T  4  1298  ) U38             816
4390 32 40          MN    0&X1                                               T  4  1302  D 0|0             816
4391 32 41          MN                                                       T  1  1306  D                 816
4392 32 42          SAR   LSTIO#3                                           T  4  1307  Q U57             816
4393 32 43          B     CHKND                                              T  4  1311  B |44             816
4394 32 44   *
4395 32 45   CKFMT  MCW   @ @, 96                                           T  7  1315  M U45 096          816
4396 32 46          BW    UNREF, IOSW                                        T  8  1322  V T61 U38 1       817
4397 32 47          BCE   UNREF, 0&X3,}       GMWM                         T  8  1330  B T61 0?0 } GMARK  817
4398 32 48          MCW   0&X3, FBOX#3                                       T  7  1338  M 0?0 U60         817
4399 32 49          MCW   LSTIO, X3                                         T  7  1345  M U57 099          817
4400 32 50   RUIO   BWZ   IOTYP, 0&X3, B                                    T  8  1352  V U02 0?0 B       817
4401 32 51          BWZ                                                      T  1  1360  V                 817
4402 32 52   UNREF  FTMSG 14,UNREFERENCED FORMAT,CODE,21,NOFAIL                              MACRO
4403         UNREF  CS    332                                                T  4  1361  / 332        GEN   818
4404                CS                                                       T  1  1365  /            GEN   818
4405                MN    CODE,224&21                                        T  7  1366  D 879 245    GEN   818
4406                MN                                                       T  1  1373  D            GEN   818
4407                MN                                                       T  1  1374  D            GEN   818
4408                MCW   @ERROR 14 - UNREFERENCED FORMAT, STATEMENT @       T  4  1375  M V02        GEN   818
4409                W                                                        T  1  1379  2            GEN   818
4410                BCV   *&5                                                T  5  1380  B T89 @      GEN   819
4411                B     *&3                                                T  4  1385  B T91        GEN   819
4412                CC    1                                                  T  2  1389  F 1          GEN   819
4413 32 53   MKFMT  MZ    @A@, XXX                                           T  7  1391  Y U54 000          819
4414 32 54          B     CHKND                                              T  4  1398  B |44             819
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

4415 32 55   IOTYP  C     0&X3                                             T   4  1402  C 0?0              819
4416 32 56          SAR   X3                                               T   4  1406  Q 099              819
4417 32 57          C     0&X3, FBOX                                       T   7  1410  C 0?0 U60          820
4418 32 58          BE    CHKND                                            T   5  1417  B |44 S           820
4419 32 59          C     0&X3                                             T   4  1422  C 0?0              820
4420 32 60          SAR   X3                                               T   4  1426  Q 099              820
4421 32 61          B     RUIO                                             T   4  1430  B T52              820
4422 32 62   *
4423 32 63          LTORG *                                                T            1434
                    DCW   &TAMR1T                                          T   3  1436  V99         ADCON  820
                    DCW   @.@                                              T   1  1437               LIT    820
             IOSW T DCW   #01                                              T   1  1438               AREA   821
             DBLSWT DCW   #01                                              T   1  1439               AREA   821
                    DCW   @56ULP@                                          T   5  1444               LIT    821
                    DCW   @ @                                              T   1  1445               LIT    821
                    DCW   @TAMROF 2@                                       T   8  1453               LIT    821
                    DCW   @A@                                              T   1  1454               LIT    821
             LSTIOT DCW   #03                                              T   3  1457               AREA   821
             FBOX T DCW   #03                                              T   3  1460               AREA   822
                    DCW   @ERROR 14 - UNREFERENCED FORMAT, STATEMENT @     T  42  1502               LIT    824
4424 32 64   GM1    DCW   @}@                              SYSTEM AND WORK GM T   1  1503               GMARK  824
4425 32 65          ORG   *&X00                                             T            1600
4426 32 66   TAMR1  EQU   *                                                 T       1599
4427 32 67          XFR   TAMROF                                           T            B 980              825
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
4428 32 68          JOB    1401 FORTRAN   TAMROF TWO
4429 32 69   110    DCW    @TAMROF 2@                                         T   8  0110                    828
4430 32 70   *
4431 32 71   XL2    EQU    X2                                                 T      0094
4432 32 72   XL3    EQU    X3                                                 T      0099
4433 32 73          ORG    TAMROF                                             T            0980
4434 32 74   *
4435 32 75   PHSE2  BCE    END2, 96, .                                        T   8  0980  B |21 096 .         829
4436 32 76          MCW    X2, IOBGN&6                                        T   7  0988  M 094 J47          829
4437 32 77   RETRN  SBR    X2, 2&X1                                           T   7  0995  H 094 0|2          829
4438 32 78          LCA    @ @                                                T   4  1002  L M08            829
4439 32 79          MCW    0&X1, CODE                                         T   7  1006  M 0|0 879         829
4440 32 80          BCE    MOR, CODE-3, F                                     T   8  1013  B |62 876 F       830
4441 32 81   END2   FENDX  C,GM2,,XBEGIN,PHSE1X,XBEGIN,SYS2,LISTR1                                  MACRO
4442        END2   BSS    333,C                                              T   5  1021  B 333 C     GEN   830
4443               SBR    INITAP&6,XBEGIN                                    T   7  1026  H 786 838   GEN   830
4444               SBR    BCLEAR                                             T   4  1033  H 833       GEN   830
4445               SBR    INITXT&3,PHSE1X                                    T   7  1037  H 796 845   GEN   830
4446               SBR    TCLEAR,SYS2                                        T   7  1044  H 710 N99   GEN   830
4447               LCA    @LISTR1@,110                                       T   7  1051  L M14 110   GEN   831
4448               B      MONTER                                             T   4  1058  B 700       GEN   831
4449 32 82   MOR    C      0&X1                                               T   4  1062  C 0|0           831
4450 32 83          SAR    X1                                                 T   4  1066  Q 089           831
4451 32 84          SBR    COMPL&6                                            T   4  1070  H /21           831
4452 32 85          MCW    4&X1, FMTNO#3                                      T   7  1074  M 0|4 M17       831
4453 32 86          SW     SW1#1                                              T   4  1081  , M18           831
4454 32 87          CW     PARSW#1                                            T   4  1085  ) M19           832
4455 32 88          ZA     &1, NCTR                                           T   7  1089  ? M20 M26       832
4456 32 89          BCE    ERSIG, 0&X1, )     Q. FIRST CHAR RIGHT PAREN       T   8  1096  B S58 0|0 )     832
4457 32 90          MCW    X2,SCNBX#3                                         T   7  1104  M 094 M23       832
4458 32 91          B      BGIN                                               T   4  1111  B V10           832
4459 32 92   *
4460 32 93   COMPL  SBR    X1, XXX                                            T   7  1115  H 089 000       832
4461 32 94   SETN   ZA     &1, NCTR#3                                         T   7  1122  ? M20 M26       833
4462 32 95   COMRT  BCE    RTPAR,0&X1, )                                      T   8  1129  B V41 0|0 )     833
4463 32 96          SBR    COMPL&6                                            T   4  1137  H /21           833
4464 32 97          BCE    LFPAR, 0&X1,%                                      T   8  1141  B U98 0|0 %     833
4465 32 98          FBCEQ  ARIT, 0&X1,I,F,E                                                   MACRO
4466               BCE    ARIT, 0&X1, I                                      T   8  1149  B W64 0|0 I GEN   833
4467               BCE    ARIT, 0&X1, F                                      T   8  1157  B W64 0|0 F GEN   834
4468               BCE    ARIT, 0&X1, E                                      T   8  1165  B W64 0|0 E GEN   834
4469 32 99          BCE    ARIT,0&X1,A                                        T   8  1173  B W64 0|0 A     834
4470 33 00          FBCEQ  PGET, 0&X1, &,-                                                    MACRO
4471               BCE    PGET, 0&X1, &                                      T   8  1181  B U24 0|0 & GEN   834
4472               BCE    PGET, 0&X1, -                                      T   8  1189  B U24 0|0 - GEN   835
4473 33 01          BCE    SLASH,0&X1,@                                       T   8  1197  B W36 0|0 @     835
4474 33 02          C      0&X1, @Z@                                          T   7  1205  C 0|0 M27       835
4475 33 03          BL     MV2N                                               T   5  1212  B Z04 T         835
4476 33 04          BL     PUTN                                               T   5  1217  B Z98 T         835
4477 33 05          BW     ERSIG, SW1                                         T   8  1222  V S58 M18 1     836
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4478 33 06          BCE   HNOT, 0&X1, H                              T   8  1230  B T06 0|0 H        836
4479 33 07          SBR   X1                                         T   4  1238  H 089             836
4480 33 08          BCE   XNOT, 1&X1, X                              T   8  1242  B S81 0|1 X        836
4481 33 09          BCE   PNOT, 1&X1, P                              T   8  1250  B U79 0|1 P        836
4482 33 10   *
4483 33 11   ERSIG  B     GETST                                      T   4  1258  B 880             837
4484 33 12          MCW   @15 - FORMAT SYNTAX@,ERROR&17             T   7  1262  M M45 223          837
4485 33 13   ERRWT  W                                                T   1  1269  2                837
4486 33 14          MZ    @A@,CODE                                   T   7  1270  Y M46 879         837
4487 33 15          B     FINIS                                      T   4  1277  B !42            837
4488 33 16   *
4489 33 17   XNOT   SW    8&X2                                       T   4  1281  , 0!8            837
4490 33 18          SBR   X2                                         T   4  1285  H 094            837
4491 33 19          LCA   KX                                         T   4  1289  L L83            838
4492 33 20          MN    NCTR, 0&X2                                 T   7  1293  D M26 0!0         838
4493 33 21          MN                                               T   1  1300  D                838
4494 33 22          MN                                               T   1  1301  D                838
4495 33 23          B     MKND                                       T   4  1302  B Y35            838
4496 33 24   *
4497 33 25   HNOT   SW    5&X2                                       T   4  1306  , 0!5            838
4498 33 26          CW                                               T   1  1310  )                838
4499 33 27          SBR   X2                                         T   4  1311  H 094            839
4500 33 28          LCA   KH, 1&X2                                   T   7  1315  L L76 0!1         839
4501 33 29          S     &1, NCTR                                   T   7  1322  S M20 M26         839
4502 33 30          BM    ERSIG, NCTR                                T   8  1329  V S58 M26 K       839
4503 33 31          MN    0&X1                                       T   4  1337  D 0|0            839
4504 33 32          SAR   X1                                         T   4  1341  Q 089            839
4505 33 33   FLIP   MN    0&X1, 2&X2                                 T   7  1345  D 0|0 0!2         840
4506 33 34          SBR   X2                                         T   4  1352  H 094            840
4507 33 35          MZ    0&X1, 1&X2                                 T   7  1356  Y 0|0 0!1         840
4508 33 36          SAR   X1                                         T   4  1363  Q 089            840
4509 33 37          SBR   COMPL&6                                    T   4  1367  H /21            840
4510 33 38          CW    2&X2                                       T   4  1371  ) 0!2            840
4511 33 39          S     &1, NCTR                                   T   7  1375  S M20 M26         840
4512 33 40          BCE   HLERR,0&X1,}          GM                  T   8  1382  B U09 0|0 } GMARK  841
4513 33 41          BWZ   FLIP, NCTR, B                             T   8  1390  V T45 M26 B       841
4514 33 42   BX2B2  SBR   X2,1&X2                                    T   7  1398  H 094 0!1         841
4515 33 43          B     MKND                                       T   4  1405  B Y35            841
4516 33 44   HLERR  B     GETST                                      T   4  1409  B 880            841
4517 33 45          MCW   @45 - HOLLERITH COUNT@,ERROR &25          T   7  1413  M M66 231         841
4518 33 46          W     BX2B2                                      T   4  1420  2 T98            842
4519 33 47   *
4520 33 48   PGET   MZ    0&X1, NCTR                                 T   7  1424  Y 0|0 M26         842
4521 33 49          SAR   X1                                         T   4  1431  Q 089            842
4522 33 50          B     MV2N                                       T   4  1435  B Z04            842
4523 33 51          C     X3,@020@                                   T   7  1439  C 099 M69         842
4524 33 52          BL    ERSIG                                      T   5  1446  B S58 T          842
4525 33 53          MN    X3, NCTR                                   T   7  1451  D 099 M26         842
4526 33 54          MN                                               T   1  1458  D                843
4527 33 55          C     0&X1, @P@                                  T   7  1459  C 0|0 M70         843
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4528 33 56           SAR   COMPL&6                                    T  4  1466  Q /21              843
4529 33 57           SBR   X1                                         T  4  1470  H 089              843
4530 33 58           BU    ERSIG                                      T  5  1474  B S58 /            843
4531 33 59    *
4532 33 60    PNOT   SBR   X2, 7&X2                                   T  7  1479  H 094 0!7          843
4533 33 61           LCA   NCTR                                       T  4  1486  L M26              843
4534 33 62           LCA   KP                                         T  4  1490  L M07              844
4535 33 63           B     MKND                                       T  4  1494  B Y35              844
4536 33 64    *
4537 33 65    LFPAR  BW    PARER, PARSW                               T  8  1498  V V69 M19 1        844
4538 33 66           SW    PARSW                                      T  4  1506  , M19              844
4539 33 67    BGIN   SW    8&X2                                       T  4  1510  , 0!8              844
4540 33 68           SBR   X2                                         T  4  1514  H 094              844
4541 33 69           CW    URFSW                                      T  4  1518  ) N50              844
4542 33 70           LCA   NCTR,0&X2                                 T  7  1522  L M26 0!0          845
4543 33 71           LCA   KLEFT                                      T  4  1529  L L87             845
4544 33 72    SET1   SW    SW1                                        T  4  1533  , M18             845
4545 33 73           B     COMPL                                      T  4  1537  B /15              845
4546 33 74    *
4547 33 75    RTPAR  MN    0&X1                                       T  4  1541  D 0|0              845
4548 33 76           SAR   COMPL&6                                    T  4  1545  Q /21              845
4549 33 77           SBR   *&7                                        T  4  1549  H V59              845
4550 33 78           BCE   EOSTM, XXX, }     GMWM                    T  8  1553  B W12 000 } GMARK  846
4551 33 79           BW    PAROK, PARSW                               T  8  1561  V V84 M19 1        846
4552 33 80    PARER  B     GETST                                      T  4  1569  B 880             846
4553 33 81           MCW   @16 - PARENTHESIS ERROR@,ERROR&22          T  7  1573  M M92 228         846
4554 33 82           B     ERRWT                                      T  4  1580  B S69             846
4555 33 83    *
4556 33 84    PAROK  CW    PARSW                                      T  4  1584  ) M19             846
4557 33 85           SW    5&X2                                       T  4  1588  , 0!5             846
4558 33 86           SBR   X2                                         T  4  1592  H 094              847
4559 33 87           LCA   KRITE                                     T  4  1596  L L91              847
4560 33 88           MN    0&X1                                       T  4  1600  D 0|0              847
4561 33 89           SAR   X1                                         T  4  1604  Q 089              847
4562 33 90           B     MKND                                       T  4  1608  B Y35              847
4563 33 91    *
4564 33 92    EOSTM  CW    5&X2                                       T  4  1612  ) 0!5             847
4565 33 93           SBR   X2                                         T  4  1616  H 094              847
4566 33 94           LCA   KEOJ                                      T  4  1620  L M03              848
4567 33 95           BW    PARER, PARSW                               T  8  1624  V V69 M19 1        848
4568 33 96           B     FINIS                                      T  4  1632  B !42             848
4569 33 97    *
4570 33 98    SLASH  BW    *&5,SW1                                    T  8  1636  V W48 M18 1        848
4571 33 99           B     ERSIG                                      T  4  1644  B S58             848
4572 34 00           SW    5&X2                                       T  4  1648  , 0!5             848
4573 34 01           SBR   X2                                         T  4  1652  H 094              848
4574 34 02           LCA   KLINE                                     T  4  1656  L L95              849
4575 34 03           B     COMPL                                      T  4  1660  B /15              849
4576 34 04    *
4577 34 05    ARIT   SW    5&X2                                       T  4  1664  , 0!5             849
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4578 34 06          LCA    KARIT                      T   4  1668  L L99             849
4579 34 07   MVRPT   LCA    NCTR,8&X2                  T   7  1672  L M26 0!8         849
4580 34 08          MCW    0&X1                       T   4  1679  M 0|0             849
4581 34 09          SAR    X1                         T   4  1683  Q 089             849
4582 34 10          B      MV2N                       T   4  1687  B Z04             850
4583 34 11          ZA     XL3, WCTR#3                T   7  1691  ? 099 M95         850
4584 34 12          SW     IEXIT&4                    T   4  1698  , Y12             850
4585 34 13          BCE    CLRI, 5&X2, F              T   8  1702  B X33 0!5 F       850
4586 33 14          FBCEQ  NOSUB, 5&X2, I, A                                 MACRO
4587                BCE    NOSUB, 5&X2, I             T   8  1710  B X72 0!5 I GEN   850
4588                BCE    NOSUB, 5&X2, A             T   8  1718  B X72 0!5 A GEN   850
4589 33 15          S      &4, WCTR                   T   7  1726  S M96 M95         851
4590 33 16   CLRI    CW     IEXIT&4                    T   4  1733  ) Y12             851
4591 34 17          C      0&X1, @.@                  T   7  1737  C 0|0 M97         851
4592 34 18          SAR    X1                         T   4  1744  Q 089             851
4593 34 19          BU     ERSIG                      T   5  1748  B S58 /           851
4594 34 20          B      MV2N                       T   4  1753  B Z04             851
4595 34 21          S      XL3, WCTR                  T   7  1757  S 099 M95         851
4596 34 22          BM     EINPT,WCTR                 T   8  1764  V Y70 M95 K       852
4597 34 23   NOSUB   BCE    *&8, 5&X2, F               T   8  1772  B X87 0!5 F       852
4598 34 24          A      &4, X3                     T   7  1780  A M96 099         852
4599 34 25   HERE    SBR    X2,11&X2                   T   7  1787  H 094 0J1         852
4600 34 26          MZ     *-4,WCTR                   T   7  1794  Y X96 M95         852
4601 34 27          LCA    WCTR,0&X2                  T   7  1801  L M95 0!0         853
4602 34 28   IEXIT   BCE    CKZRO, *-7, C              T   8  1808  B Y27 Y08 C       853
4603 34 29          SBR    XL2, 3&X2                  T   7  1816  H 094 0!3         853
4604 34 30          LCA    XL3                        T   4  1823  L 099             853
4605 34 31   CKZRO   BM     ERSIG,WCTR                 T   8  1827  V S58 M95 K      853
4606 34 32   MKND    SW     SW1                        T   4  1835  , M18            853
4607 34 33   LK4CM   C      0&X1,@,@                   T   7  1839  C 0|0 M98         854
4608 34 34          SAR    COMPL&6                    T   4  1846  Q /21             854
4609 34 35          SBR    X1                         T   4  1850  H 089             854
4610 34 36          BE     LK4CM                      T   5  1854  B Y39 S           854
4611 34 37          SBR    X1,1&X1                    T   7  1859  H 089 0|1         854
4612 34 38          B      SETN                       T   4  1866  B /22            854
4613 34 39   EINPT   A      XL3,WCTR                   T   7  1870  A 099 M95         854
4614 34 40          A      @4@,WCTR                   T   7  1877  A M99 M95         855
4615 34 41          MN     WCTR,XL3                   T   7  1884  D M95 099         855
4616 34 42          MN                                T   1  1891  D                855
4617 34 43          MN                                T   1  1892  D                855
4618 34 44          MCW    @000@,WCTR                 T   7  1893  M N02 M95         855
4619 34 45          B      HERE                       T   4  1900  B X87            855
4620 34 46   *
4621 34 47   MV2N    SBR    MV2XT&3                    T   4  1904  H Z97            855
4622 34 48          S      XL3&1                      T   4  1908  S 100            856
4623 34 49          C      0&X1, @0@                  T   7  1912  C 0|0 N03         856
4624 34 50          BH     ERSIG                      T   5  1919  B S58 U          856
4625 34 51   MVDIG   MN     0&X1, XL3                  T   7  1924  D 0|0 099        856
4626 34 52          SAR    X1                         T   4  1931  Q 089            856
4627 34 53          C      0&X1, @0@                  T   7  1935  C 0|0 N03         856
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4628 34 54          BH    CHKN                                       T   5  1942  B Z77 U           856
4629 34 55          C     XL3,@133@                                  T   7  1947  C 099 N06         857
4630 34 56          BL    ERSIG                                      T   5  1954  B S58 T           857
4631 34 57          MN    XL3-1, XL3-2                               T   7  1959  D 098 097         857
4632 34 58          MN    XL3, XL3-1                                 T   7  1966  D 099 098         857
4633 34 59          B     MVDIG                                      T   4  1973  B Z24             857
4634 34 60   *
4635 34 61   CHKN   C     @134@, XL3                                 T   7  1977  C N09 099         857
4636 34 62          BH    ERSIG                                      T   5  1984  B S58 U           858
4637 34 63          BE    ERSIG                                      T   5  1989  B S58 S           858
4638 34 64   MV2XT  B     XXX                                        T   4  1994  B 000             858
4639 34 65   *
4640         *TESTE    BCE  EINPT, 5&X2, E
4641         *         B    ERSIG
4642 34 66   *
4643 34 67   PUTN   ZA    XL3, NCTR                                  T   7  1998  ? 099 M26         858
4644 34 68          SW    BCEQ&7                                     T   4  2005  , !30             858
4645 34 69          MCW   0&X1, BCEQ&7                               T   7  2009  M 0|0 !30         858
4646 34 70          CW    BCEQ&7, SW1                                T   7  2016  ) !30 M18         858
4647 34 71   BCEQ   BCE   COMRT, @PAXHIFE%@, X                       T   8  2023  B /29 N17 X       859
4648 34 72          CHAIN 7                                                                 MACRO
4649                BCE                                              T   1  2031  B           GEN  859
4650                BCE                                              T   1  2032  B           GEN  859
4651                BCE                                              T   1  2033  B           GEN  859
4652                BCE                                              T   1  2034  B           GEN  859
4653                BCE                                              T   1  2035  B           GEN  859
4654                BCE                                              T   1  2036  B           GEN  859
4655                BCE                                              T   1  2037  B           GEN  860
4656 34 73          B     ERSIG                                      T   4  2038  B S58            860
4657 34 74   *
4658 34 75   FINIS  MCW   NXBTM, X3                                  T   7  2042  M 083 099        860
4659 34 76          BWZ   SETX2, CODE, B                            T   8  2049  V K60 879 B      860
4660 34 77          C     0&X3,CKBIT                                 T   7  2057  C 0?0 872        860
4661 34 78          BU    KLOBR                                      T   5  2064  B 838 /          860
4662 34 79   MVDWN  LCA   0&X2,0&X3                                  T   7  2069  L 0!0 0?0        860
4663 34 80          SAR   X2                                         T   4  2076  Q 094            861
4664 34 81          C     0&X3                                       T   4  2080  C 0?0            861
4665 34 82          SAR   X3                                         T   4  2084  Q 099            861
4666 34 83          CW    1&X2                                       T   4  2088  ) 0!1            861
4667 34 84          C     X2,SCNBX                                   T   7  2092  C 094 M23        861
4668 34 85          BU    MVDWN                                      T   5  2099  B !69 /          861
4669 34 86          SBR   HEX3, 0&X3                                 T   7  2104  H 875 0?0        861
4670 34 87          CW    0&X2                                       T   4  2111  ) 0!0            862
4671 34 88          CW                                               T   1  2115  )               862
4672 34 89          MCW                                              T   1  2116  M               862
4673 34 90          SAR   X2                                         T   4  2117  Q 094            862
4674 34 91          CW    1&X2                                       T   4  2121  ) 0!1            862
4675 34 92          BW    MV2GM,URFSW                                T   8  2125  V K48 N50 1      862
4676 34 93          BCE   MV2GM,IOBGN&5,              BLANK         T   8  2133  B K48 J46        862
4677 34 94   IOBGN  SBR   X2, XXX                                    T   7  2141  H 094 000        863
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
4678 34 95           CW    REFSW#1                                          T   4  2148  ) N18              863
4679 34 96           SBR   MVADR&6, 1&X3                                  T   7  2152  H L46 0?1           863
4680 34 97   REPLS   MN    0&X2                                            T   4  2159  D 0!0              863
4681 34 98           CHAIN 2                                                                MACRO
4682                 MN                                                    T   1  2163  D           GEN    863
4683                 MN                                                    T   1  2164  D           GEN    863
4684 34 99           SAR   X3                                              T   4  2165  Q 099              863
4685 35 00           MN    0&X3, *&15                                      T   7  2169  D 0?0 J90          864
4686 35 01           MZ    0&X3, *&8                                       T   7  2176  Y 0?0 J90          864
4687 35 02           BCE   IOWK, @56ULP@, X                                T   8  2183  B K97 N23 X        864
4688 35 03           CHAIN 4                                                                MACRO
4689                 BCE                                                   T   1  2191  B           GEN    864
4690                 BCE                                                   T   1  2192  B           GEN    864
4691                 BCE                                                   T   1  2193  B           GEN    864
4692                 BCE                                                   T   1  2194  B           GEN    864
4693 35 04           BW    NDRPL, REFSW                                    T   8  2195  V K19 N18 1        865
4694 35 05           B     GETST                                           T   4  2203  B 880              865
4695 35 06           MCW   @17 - DOUBLY DEFINED FORMAT@,ERROR&26           T   7  2207  M N49 232          865
4696 35 07           W                                                     T   1  2214  2                  865
4697 35 08           B     FBAD                                            T   4  2215  B K75              865
4698 35 09   NDRPL   MCW   HEX3, X3                                        T   7  2219  M 875 099          865
4699 35 10           BWZ   FBAD, CODE, B                                   T   8  2226  V K75 879 B        865
4700 35 11   FOKAY   MCW   X3, NXBTM                                       T   7  2234  M 099 083          866
4701 35 12           MCW   CKBIT, 0&X3                                    T   7  2241  M 872 0?0          866
4702 35 13   MV2GM   C     0&X1                                            T   4  2248  C 0|0              866
4703 35 14           SAR   X1                                              T   4  2252  Q 089              866
4704 35 15           B     RETRN                                           T   4  2256  B 995              866
4705 35 16   SETX2   MCW   X2, X3                                          T   7  2260  M 094 099          866
4706 35 17           SW    URFSW#1                                         T   4  2267  , N50              866
4707 35 18           B     MVDWN                                           T   4  2271  B !69              867
4708 35 19   FBAD    MCW   NXBTM, X3                                       T   7  2275  M 083 099          867
4709 35 20           LCA   @.@,0&X3                                        T   7  2282  L M97 0?0          867
4710 35 21           SBR   X3                                              T   4  2289  H 099              867
4711 35 22           B     FOKAY                                           T   4  2293  B K34              867
4712 35 23   IOWK    C     0&X3                                            T   4  2297  C 0?0              867
4713 35 24           SAR   X2                                              T   4  2301  Q 094              867
4714 35 25           BWZ   *&5, 2&X3, B                                   T   8  2305  V L17 0?2 B        868
4715 35 26           B     NOSWT                                           T   4  2313  B L61              868
4716 35 27           C     0&X2, FMTNO                                     T   7  2317  C 0!0 M17          868
4717 35 28           BU    NOSWT                                           T   5  2324  B L61 /            868
4718 35 29           SW    REFSW                                           T   4  2329  , N18              868
4719 35 30           MA    MACFLS,MVADR&6                                  T   7  2333  # 163 L46          868
4720 35 31   MVADR   SBR   0&X2, XXX                                       T   7  2340  H 0!0 000          869
4721 35 32           MZ    @ @, 2&X3                                       T   7  2347  Y M08 0?2          869
4722 35 33           MA    PLUSDF,MVADR&6                                  T   7  2354  # 160 L46          869
4723 35 34   NOSWT   C     0&X2                                            T   4  2361  C 0!0              869
4724 35 35           SAR   X2                                              T   4  2365  Q 094              869
4725 35 36           B     REPLS                                           T   4  2369  B J59              869
4726 35 37   *
4727 35 38   KH      DCW   @BL28@  HOLLR  CHANGE IF OBJ FORMAT REASSEMBLED  T   4  2376                    869
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
4728 35 39   KX     DCW   @H0990&0@                                          T   7  2383                      870
4729 35 40   KLEFT  DCW   @BJ52@  OPENR  CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2387                      870
4730 35 41   KRITE  DCW   @BJ85@  CLSPR  CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2391                      870
4731 35 42   KLINE  DCW   @BK08@  NDLIN  CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2395                      870
4732 35 43   KARIT  DCW   @BL85@  GETW   CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2399                      870
4733 35 44   KEOJ   DCW   @BK23@  EOJ1   CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2403                      870
4734 35 45   KP     DCW   @BL10@  SCALE  CHANGE IF OBJ FORMAT REASSEMBLED    T   4  2407                      870
4735 35 46          LTORG *                                                  T          2408
                    DCW   @ @                                               T   1  2408             LIT      871
                    DCW   @LISTR1@                                          T   6  2414             LIT      871
             FMTNOT DCW   #03                                               T   3  2417             AREA     871
             SW1  T DCW   #01                                               T   1  2418             AREA     871
             PARSWT DCW   #01                                               T   1  2419             AREA     871
                    DCW   &1                                                T   1  2420             LIT      871
             SCNBXT DCW   #03                                               T   3  2423             AREA     871
             NCTR T DCW   #03                                               T   3  2426             AREA     872
                    DCW   @Z@                                               T   1  2427             LIT      872
                    DCW   @15 - FORMAT SYNTAX@                              T  18  2445             LIT      872
                    DCW   @A@                                               T   1  2446             LIT      872
                    DCW   @45 - HOLLERITH COUNT@                            T  20  2466             LIT      873
                    DCW   @020@                                             T   3  2469             LIT      873
                    DCW   @P@                                               T   1  2470             LIT      873
                    DCW   @16 - PARENTHESIS ERROR@                          T  22  2492             LIT      874
             WCTR T DCW   #03                                               T   3  2495             AREA     874
                    DCW   &4                                                T   1  2496             LIT      874
                    DCW   @.@                                               T   1  2497             LIT      874
                    DCW   @,@                                               T   1  2498             LIT      874
                    DCW   @4@                                               T   1  2499             LIT      874
                    DCW   @000@                                             T   3  2502             LIT      874
                    DCW   @0@                                               T   1  2503             LIT      875
                    DCW   @133@                                             T   3  2506             LIT      875
                    DCW   @134@                                             T   3  2509             LIT      875
                    DCW   @PAXHIFE%@                                        T   8  2517             LIT      875
             REFSWT DCW   #01                                               T   1  2518             AREA     875
                    DCW   @56ULP@                                           T   5  2523             LIT      875
                    DCW   @17 - DOUBLY DEFINED FORMAT@                      T  26  2549             LIT      876
             URFSWT DCW   #01                                               T   1  2550             AREA     876
4736 35 47          ORG   *&X00                                            T          2600
4737 35 48          ORG   *-1                                              T          2599
4738 35 49   SYS2   DCW   @}@                          SYSTEM GROUP MARK    T   1  2599             GMARK    877
4739 35 50   TAMAX  DCW   #1                                                T   1  2600                      877
4740 35 51          XFR   PHSE2                                            T          B 980                    878
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4741 35 52          JOB   1401 FORTRAN  LISTS PHASE ONE
4742 35 53          FBEGN LISTR1,X1,,X2,R,X3,R,X                                        MACRO
4743                SFX   X                                                           GEN
4744          110   DCW   @LISTR1@                                  X   6  0110       GEN    881
4745          X1    EQU   089                                       X      0089       GEN
4746          X2    EQU   094                                       X      0094       GEN
4747          094   DCW   000                                       X   3  0094       GEN    882
4748          096   DC    00                                        X   2  0096       GEN    882
4749          X3    EQU   099                                       X      0099       GEN
4750          099   DCW   000                                       X   3  0099       GEN    882
4751          100   DC    0                                         X   1  0100       GEN    882
4752 35 54    NXBTM EQU   083                                       X      0083
4753 35 55    *  CHECKS FOR DUPLICATE LISTS
4754 35 56          ORG   XBEGIN                                    X          0838
4755 35 57    CODE  DCW   #4                                        X   4  0841                 883
4756 35 58    ABOTM DCW   #3                                        X   3  0844                 883
4757 35 59    PHSE1 MCW   X1,ABOTM                                  X   7  0845  M 089 844       883
4758 35 60          MCW   NXBTM,X2                                  X   7  0852  M 083 094       883
4759 35 61          LCA   @.@,0&X2                                  X   7  0859  L S13 0!0       883
4760 35 62          CW    0&X2                                      X   4  0866  ) 0!0          883
4761 35 63          SBR   NXBTM                                     X   4  0870  H 083          883
4762 35 64          SBR   PERIOD,0&X2                               X   7  0874  H 154 0!0       884
4763 35 65          MA    MACFLS,PERIOD                             X   7  0881  # 163 154       884
4764 35 66    START BCE   DUN,000&X1,      BLANK                   X   8  0888  B /68 0|0       884
4765 35 67          MCW   000&X1,CODE                               X   7  0896  M 0|0 841       884
4766 35 68          MCW   X1,ALTER&6                                X   7  0903  M 089 /63       884
4767 35 69          MCW   CODE-3,*&8                               X   7  0910  M 838 924       885
4768 35 70          BCE   LIST,@5613LUP@,0                         X   8  0917  B 935 S20 0     885
4769 35 71          CHAIN 6                                                             MACRO
4770                BCE                                           X   1  0925  B              GEN    885
4771                BCE                                           X   1  0926  B              GEN    885
4772                BCE                                           X   1  0927  B              GEN    885
4773                BCE                                           X   1  0928  B              GEN    885
4774                BCE                                           X   1  0929  B              GEN    885
4775                BCE                                           X   1  0930  B              GEN    886
4776 35 72          B     DUN                                     X   4  0931  B /68                 886
4777 35 73    LIST  C     000&X1                                  X   4  0935  C 0|0                 886
4778 35 74          SAR   X1                                      X   4  0939  Q 089                 886
4779 35 75          B     COMMA                                   X   4  0943  B |88                 886
4780 35 76          CW    XDOINI                                  X   4  0947  ) 114                 886
4781 35 77          BCE   NEXT1,PARAMA&10,L                       X   8  0951  B 963 696 L           886
4782 35 78          CW    XOBLST                                  X   4  0959  ) 115                 887
4783 35 79    NEXT1 SW    000&X1                                  X   4  0963  , 0|0                 887
4784 35 80          SAR   X1                                      X   4  0967  Q 089                 887
4785 35 81          MCW   ABOTM,X3                                X   7  0971  M 844 099           887
4786 35 82    RUDUP C     0&X3                                    X   4  0978  C 0?0                 887
4787 35 83          C                                             X   1  0982  C                    887
4788 35 84          SAR   X3                                      X   4  0983  Q 099                 887
4789 35 85          BCE   RUDUP,1&X3,}                  GM         X   8  0987  B 978 0?1 } GMARK    888
4790 35 86          C     X1,X3                                   X   7  0995  C 089 099           888
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
4791 35 87          BU    COMP                                       X   5  1002  B |19 /            888
4792 35 88   PASS   C     000&X1                                     X   4  1007  C 0|0              888
4793 35 89          SAR   X1                                        X   4  1011  Q 089              888
4794 35 90          B     START                                      X   4  1015  B 888              888
4795 35 91   COMP   C     000&X1,000&X3                              X   7  1019  C 0|0 0?0          888
4796 35 92          BU    RESET                                      X   5  1026  B |68 /            889
4797 35 93          C     000&X3,000&X1                              X   7  1031  C 0?0 0|0          889
4798 35 94          BU    RESET                                      X   5  1038  B |68 /            889
4799 35 95          BWZ   WRONG,0&X1,1                               X   8  1043  V /16 0|0 1        889
4800 35 96          BWZ                                              X   1  1051  V                 889
4801 35 97          BWZ                                              X   1  1052  V                 889
4802 35 98          LCA   X3,000&X1                                  X   7  1053  L 099 0|0          889
4803 35 99          SBR   X1                                         X   4  1060  H 089              890
4804 36 00          B     PASS                                       X   4  1064  B |07              890
4805 36 01   RESET  C     000&X3                                     X   4  1068  C 0?0              890
4806 36 02          SAR   X3                                         X   4  1072  Q 099              890
4807 36 03          BCE   RUDUP,1&X3,}                    GM        X   8  1076  B 978 0?1 } GMARK  890
4808 36 04          B     RESET                                      X   4  1084  B |68              890
4809 36 05   COMMA  SBR   EXCMA&3                                    X   4  1088  H /03              890
4810 36 06   CKNG   BW    PASS,0&X1                                  X   8  1092  V |07 0|0 1        891
4811 36 07   EXCMA  BCE   000,000&X1,,                               X   8  1100  B 000 0|0 ,        891
4812 36 08          SBR   X1                                         X   4  1108  H 089              891
4813 36 09          B     CKNG                                       X   4  1112  B |92              891
4814 36 10   WRONG  FTMSG 18,LIST SYNTAX,CODE,13                                                MACRO
4815        WRONG  CS    332                                        X   4  1116  / 332        GEN   891
4816               CS                                               X   1  1120  /            GEN   891
4817               SW    FAILSW                                     X   4  1121  , 184        GEN   891
4818               MN    CODE,224&13                                X   7  1125  D 841 237    GEN   892
4819               MN                                               X   1  1132  D            GEN   892
4820               MN                                               X   1  1133  D            GEN   892
4821               MCW   @ERROR 18 - LIST SYNTAX, STATEMENT @       X   4  1134  M S54        GEN   892
4822               W                                                X   1  1138  2            GEN   892
4823               BCV   *&5                                        X   5  1139  B /48 @      GEN   892
4824               B     *&3                                        X   4  1144  B /50        GEN   892
4825               CC    1                                          X   2  1148  F 1          GEN   893
4826 36 11         MCW   @/@,CODE-3                                 X   7  1150  M S55 838          893
4827 36 12   ALTER  MCW   CODE,000                                   X   7  1157  M 841 000          893
4828 36 13          B     PASS                                       X   4  1164  B |07              893
4829 36 14   DUN    SW    000&X1                                     X   4  1168  , 0|0              893
4830 36 15          MCW   ABOTM,X1                                  X   7  1172  M 844 089          893
4831 36 16          FENDX C,,,PHSE1,,PHSE1,SYS1,LISTR TWO                                    MACRO
4832               BSS   333,C                                      X   5  1179  B 333 C      GEN   893
4833               SBR   INITAP&6,PHSE1                             X   7  1184  H 786 845    GEN   894
4834               SBR   BCLEAR                                     X   4  1191  H 833        GEN   894
4835               SBR   TCLEAR,SYS1                                X   7  1195  H 710 S65    GEN   894
4836               LCA   @LISTR TWO@,110                            X   7  1202  L S64 110    GEN   894
4837               B     MONTER                                     X   4  1209  B 700        GEN   894
4838 36 17         LTORG *                                          X           1213
                   DCW   @.@                                        X   1  1213              LIT   894
                   DCW   @5613LUP@                                  X   7  1220              LIT   894
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

                    DCW   @ERROR 18 - LIST SYNTAX, STATEMENT @       X  34  1254              LIT   895
                    DCW   @/@                                        X   1  1255              LIT   895
                    DCW   @LISTR TWO@                                X   9  1264              LIT   896
4839 36 18  SYS1    DCW   @}@                   SYSTEM GROUP MARK    X   1  1265              GMARK 896
4840 36 19          XFR   PHSE1                                      X             B 845              897
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

4841 36 20          JOB   1401 FORTRAN  LISTS PHASE TWO
4842 36 21   *  REORDERS, SQUEEZES, ERROR CHECKS, AND STORES LIST
4843 36 22   110    DCW   @LISTR TWO@                                 X   9  0110                    900
4844 36 23          ORG   PHSE1                                       X          0845
4845 36 24   PHSE2  MCW   NXBTM,X2                                    X   7  0845  M 083 094          901
4846 36 25   GO     BWZ   OUT,000&X1,1                               X   8  0852  V Z88 0|0 1        901
4847 36 26          MCW   X2,HEX2#3                                  X   7  0860  M 094 !53          901
4848 36 27          MCW   000&X1,CODE                                X   7  0867  M 0|0 841          901
4849 36 28          MCW   X1,EMASQ&6                                 X   7  0874  M 089 Z69          901
4850 36 29          C     000&X1                                     X   4  0881  C 0|0              902
4851 36 30          SAR   X1                                         X   4  0885  Q 089              902
4852 36 31          SBR   X3                                         X   4  0889  H 099              902
4853 36 32   SLIP   C     0&X3                                       X   4  0893  C 0?0              902
4854 36 33          SAR   X3                                         X   4  0897  Q 099              902
4855 36 34          BCE   *&5,1&X3,}         GM                     X   8  0901  B 913 0?1 } GMARK   902
4856 36 35          B     SLIP                                       X   4  0909  B 893              902
4857 36 36          SBR   NXGUY&6,0&X3                               X   7  0913  H Z83 0?0          903
4858 36 37          C     000&X1                                     X   4  0920  C 0|0              903
4859 36 38          C                                                X   1  0924  C                  903
4860 36 39          SAR   HEX1#3                                     X   4  0925  Q !56              903
4861 36 40          BCE   HEX1X,0&X1,,                               X   8  0929  B 947 0|0 ,        903
4862 36 41          CHAIN 6                                                                  MACRO
4863                BCE                                              X   1  0937  B                  GEN  903
4864                BCE                                              X   1  0938  B                  GEN  903
4865                BCE                                              X   1  0939  B                  GEN  904
4866                BCE                                              X   1  0940  B                  GEN  904
4867                BCE                                              X   1  0941  B                  GEN  904
4868                BCE                                              X   1  0942  B                  GEN  904
4869 36 42          B     CKTYP                                      X   4  0943  B Y22              904
4870 36 43   HEX1X  MCW   HEX1,X1                                     X   7  0947  M !56 089          904
4871 36 44          BCE   NEW,001&X1,}     GROUP MK                 X   8  0954  B 989 0|1 } GMARK  904
4872 36 45          MCW   003&X1,X3        DUPLICATES WERE CHAINED  X   7  0962  M 0|3 099          905
4873 36 46          BWZ   ERROR,001&X3,1     DUPLICATE WAS BAD STATEMENT  X   8  0969  V Z22 0?1 1  905
4874 36 47          LCA   001&X3,004&X1                               X   7  0977  L 0?1 0|4          905
4875 36 48          CW                                               X   1  0984  )                  905
4876 36 49          B     NXGUY                                      X   4  0985  B Z77              905
4877 36 50   NEW    BCE   CKLST,2&X3,,     ALLOW LAST CHAR OF COMMA  X   8  0989  B X98 0?2 ,        905
4878 36 51          SBR   X3                                         X   4  0997  H 099              905
4879 36 52   SNDPT  LCA   @.@,000&X2                                 X   7  1001  L !57 0!0          906
4880 36 53          SBR   X2                                         X   4  1008  H 094              906
4881 36 54          CW    001&X2                                     X   4  1012  ) 0!1              906
4882 36 55          S     COUNT#1                                    X   4  1016  S !58              906
4883 36 56   MAIN   SBR   X3,001&X3                                  X   7  1020  H 099 0?1          906
4884 36 57          BCE   RTPAR,000&X3,)                             X   8  1027  B S72 0?0 )        906
4885 36 58          BCE   DOLLR,000&X3,$                             X   8  1035  B X37 0?0 $        907
4886 36 59          B     RUADR                                      X   4  1043  B Y42              907
4887 36 60          LCA   ADRSS,000&X2                               X   7  1047  L J45 0!0          907
4888 36 61          SBR   X2                                         X   4  1054  H 094              907
4889 36 62          BCE   CKWMK,0&X3,,                               X   8  1058  B S60 0?0 ,        907
4890 36 63          BCE   LFPAR,0&X3,%                               X   8  1066  B U67 0?0 %        907
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4891 36 64          B     RUADR                                    X  4  1074  B Y42              908
4892 36 65          LCA   ADRSS,000&X2                             X  7  1078  L J45 0!0          908
4893 36 66          LCA   @,@                                      X  4  1085  L !59              908
4894 36 67          SBR   X2                                       X  4  1089  H 094              908
4895 36 68          CW    5&X2                                     X  4  1093  ) 0!5              908
4896 36 69          CW    001&X2                                   X  4  1097  ) 0!1              908
4897 36 70          MZ    3&X2,SVZN#1                              X  7  1101  Y 0!3 !60          908
4898 36 71          MCW   X1,SV1#3                                 X  7  1108  M 089 !63          909
4899 36 72          ZA    PARAMA&4,HOLD5                           X  7  1115  ? 690 !68          909
4900 36 73          BWZ   DUN2,3&X2,K                             X  8  1122  V /37 0!3 K        909
4901 36 74          MCW   PARAMA&6,HOLD5#5                        X  7  1130  M 692 !68          909
4902 36 75  DUN2    S     &16000,HOLD5                             X  7  1137  S !73 !68          909
4903 36 76          FPACK HOLD5,HOLD3,X1                                                 MACRO
4904                INCLD ZONES                                                          MACRO
4905                MN    HOLD5,HOLD3                              X  7  1144  D !68 !77   GEN    910
4906                MN                                             X  1  1151  D           GEN    910
4907                MN                                             X  1  1152  D           GEN    910
4908                SAR   *&4                                      X  4  1153  Q /60        GEN    910
4909                MCW   0,X1                                     X  7  1157  M 000 089   GEN    910
4910                MCW   @0@                                      X  4  1164  M !74        GEN    910
4911                A     X1                                       X  4  1168  A 089        GEN    910
4912                MZ    ZONES&1&X1,HOLD3                         X  7  1172  Y !S0 !77   GEN    911
4913                CW                                             X  1  1179  )           GEN    911
4914                SBR   *&7                                      X  4  1180  H /90        GEN    911
4915                MZ    ZONES&X1, 0                              X  7  1184  Y !/9 000   GEN    911
4916 36 77          MCW   HOLD3#3,X1                               X  7  1191  M !77 089          911
4917 36 78          MCW   4&X2,SBR4&6                              X  7  1198  M 0!4 S18          911
4918 36 79          MZ    *-6,SBR4&5                               X  7  1205  Y S05 S17          912
4919 36 80  SBR4    SBR   4&X2,0                                   X  7  1212  H 0!4 000          912
4920 36 81          MZ    SVZN,3&X2                                X  7  1219  Y !60 0!3          912
4921 36 82          MCW   SV1,X1                                   X  7  1226  M !63 089          912
4922 36 83          MZ    *-4,6&X2                                 X  7  1233  Y S35 0!6          912
4923 36 84  CKLFP   BCE   LFPAR,0&X3,%                            X  8  1240  B U67 0?0 %        913
4924 36 85  CKCOM   C     000&X3,@,@                               X  7  1248  C 0?0 !59          913
4925 36 86          BU    ERROR                                    X  5  1255  B Z22 /            913
4926 36 87  CKWMK   BWZ   FNLIZ,000&X3,1      WORD MK              X  8  1260  V W97 0?0 1        913
4927 36 88          B     MAIN                                     X  4  1268  B |20             913
4928 36 89  RTPAR   BCE   SETUP,COUNT,?      PLUS ZERO            X  8  1272  B W34 !58 ?        914
4929 36 90  PUTS    MCW   X1,SAVE1#3                              X  7  1280  M 089 !80          914
4930 36 91          LCA   @.@,000&X1                             X  7  1287  L !57 0|0          914
4931 36 92          SBR   X1                                       X  4  1294  H 089              914
4932 36 93          A     &1,COUNT                                 X  7  1298  A !81 !58          914
4933 36 94          BCE   ERROR,COUNT,D     ALLOW FOR NEST THREE DEEP X  8  1305  B Z22 !58 D      915
4934 36 95          B     PUTMI                                    X  4  1313  B W52              915
4935 36 96          C     000&X3,@,@                               X  7  1317  C 0?0 !59          915
4936 36 97          BU    ERROR                                    X  5  1324  B Z22 /            915
4937 36 98          B     PUTMI                                    X  4  1329  B W52              915
4938 36 99          BCE   PUTMI,000&X3,,                           X  8  1333  B W52 0?0 ,        915
4939 37 00          C     000&X3,@#@                               X  7  1341  C 0?0 !82          916
4940 37 01          BU    ERROR                                    X  5  1348  B Z22 /            916
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4941 37 02          B     PUTMI                                    X   4  1353  B W52             916
4942 37 03          SBR   000&X1,001&X2                           X   7  1357  H 0|0 0!1         916
4943 37 04          CW    000&X1                                   X   4  1364  ) 0|0             916
4944 37 05          CW                                             X   1  1368  )                 916
4945 37 06          SW                                             X   1  1369  ,                 916
4946 37 07          SAR   X1                                       X   4  1370  Q 089             917
4947 37 08          MCW   X3,HEX3#3                                X   7  1374  M 099 !85         917
4948 37 09          MN    000&X3                                   X   4  1381  D 0?0             917
4949 37 10          SAR   X3                                       X   4  1385  Q 099             917
4950 37 11  LOOPY   BCE   INNER,002&X3,%     LFPAR                X   8  1389  B U21 0?2 %       917
4951 37 12          BCE   OUTER,002&X3,)       RTPAR              X   8  1397  B U40 0?2 )       917
4952 37 13          BWZ   ERROR,002&X3,1                          X   8  1405  V Z22 0?2 1       918
4953 37 14          SBR   X3                                       X   4  1413  H 099             918
4954 37 15          B     LOOPY                                    X   4  1417  B T89             918
4955 37 16  INNER   LCA   @)@,000&X2                              X   7  1421  L !86 0!0         918
4956 37 17          SBR   X2                                       X   4  1428  H 094             918
4957 37 18          CW    001&X2                                   X   4  1432  ) 0!1             918
4958 37 19          B     RESTR                                    X   4  1436  B U56             918
4959 37 20  OUTER   LCA   @#   @,000&X2    3 BLANKS               X   7  1440  L !90 0!0         919
4960 37 21          SBR   X2                                       X   4  1447  H 094             919
4961 37 22          SW    002&X2                                   X   4  1451  , 0!2             919
4962 37 23          CW                                             X   1  1455  )                 919
4963 37 24  RESTR   MCW   HEX3,X3                                  X   7  1456  M !85 099         919
4964 37 25          B     CKCOM                                    X   4  1463  B S48             919
4965 37 26  LFPAR   S     &1,COUNT                                 X   7  1467  S !81 !58         919
4966 37 27          BWZ   ERROR,COUNT,K                            X   8  1474  V Z22 !58 K       920
4967 37 28          MA    MACFLS,3&X1                              X   7  1482  # 163 0|3         920
4968 37 29          LCA   003&X1,000&X2                           X   7  1489  L 0|3 0!0         920
4969 37 30          LCA   6&X1                                     X   4  1496  L 0|6             920
4970 37 31          SBR   X2                                       X   4  1500  H 094             920
4971 37 32          BCE   M3IS1,013&X1,.                          X   8  1504  B W19 0/3 .       920
4972 37 33          LCA   015&X1,000&X2                           X   7  1512  L 0/5 0!0         921
4973 37 34          SBR   X2                                       X   4  1519  H 094             921
4974 37 35  SNDM2   LCA   012&X1,000&X2                           X   7  1523  L 0/2 0!0         921
4975 37 36          LCA                                            X   1  1530  L                 921
4976 37 37          LCA   @%@                                      X   4  1531  L !91             921
4977 37 38          SBR   X2                                       X   4  1535  H 094             921
4978 37 39          CW    001&X2                                   X   4  1539  ) 0!1             921
4979 37 40  SWTCH   NOP   SWOFF                                    X   4  1543  N W08             922
4980 37 41          MCW   003&X1,X1                                X   7  1547  M 0|3 089         922
4981 37 42          MN    000&X1                                   X   4  1554  D 0|0             922
4982 37 43          SAR   X1                                       X   4  1558  Q 089             922
4983 37 44          MA    PLUSDF,X1                                X   7  1562  # 160 089         922
4984 37 45          MA    MACFLS,X2                                X   7  1569  # 163 094         922
4985 37 46          SBR   0&X1,1&X2                               X   7  1576  H 0|0 0!1         923
4986 37 47          MA    PLUSDF,X2                                X   7  1583  # 160 094         923
4987 37 48  BUMP    SBR   X3,001&X3                               X   7  1590  H 099 0?1         923
4988 37 49          MCW   SAVE1,X1                                X   7  1597  M !80 089         923
4989 37 50          B     CKLFP                                    X   4  1604  B S40             923
4990 37 51  SWOFF   MCW   @N@,SWTCH                               X   7  1608  M !92 V43         923
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
4991 37 52          B     BUMP                                     X   4  1615  B V90             924
4992 37 53   M3IS1  LCA   ADONE,000&X2      OBJ TIME ADDR OF FIX PT ONE  X   7  1619  L 142 0!0         924
4993 37 54          SBR   X2                                       X   4  1626  H 094             924
4994 37 55          B     SNDM2                                    X   4  1630  B V23             924
4995 37 56   SETUP  SBR   X1,SPACE#48                              X   7  1634  H 089 J40          924
4996 37 57          MCW   @B@,SWTCH                                X   7  1641  M J41 V43         924
4997 37 58          B     PUTS                                     X   4  1648  B S80             924
4998 37 59   PUTMI  SBR   EXPMI&3                                  X   4  1652  H W96             925
4999 37 60          SBR   X3,001&X3                                X   7  1656  H 099 0?1         925
5000 37 61          B     RUADR                                    X   4  1663  B Y42             925
5001 37 62          LCA   ADRSS,000&X1                            X   7  1667  L J45 0|0         925
5002 37 63          SBR   X1                                       X   4  1674  H 089             925
5003 37 64          MZ    *-4,2&X1                                 X   7  1678  Y W80 0|2         925
5004 37 65          BWZ   ERROR,000&X3,1                          X   8  1685  V Z22 0?0 1       926
5005 37 66   EXPMI  B     000                                      X   4  1693  B 000             926
5006 37 67   FNLIZ  C     COUNT,@?@           PLUS ZERO            X   7  1697  C !58 J42         926
5007 37 68          BU    ERROR                                    X   5  1704  B Z22 /           926
5008 37 69          CW    000&X3                                   X   4  1709  ) 0?0             926
5009 37 70          CW                                             X   1  1713  )                 926
5010 37 71          SW                                             X   1  1714  ,                 926
5011 37 72          SAR   X3                                       X   4  1715  Q 099             927
5012 37 73          SBR   003&X3,001&X2                            X   7  1719  H 0?3 0!1         927
5013 37 74          MA    MACFLS,3&X3                              X   7  1726  # 163 0?3         927
5014 37 75          B     NXGUY                                    X   4  1733  B Z77             927
5015 37 76   DOLLR  SW    0&X3                                     X   4  1737  , 0?0             927
5016 37 77          SAR   X3                                       X   4  1741  Q 099             927
5017 37 78          SBR   CW&3,1&X3                                X   7  1745  H X93 0?1         927
5018 37 79   LOOP   BCE   NDOLR,2&X3,$                            X   8  1752  B X68 0?2 $       928
5019 37 80          SBR   X3                                       X   4  1760  H 099             928
5020 37 81          B     LOOP                                     X   4  1764  B X52             928
5021 37 82   NDOLR  LCA   2&X3,0&X2                               X   7  1768  L 0?2 0!0         928
5022 37 83          SBR   X2                                       X   4  1775  H 094             928
5023 37 84          CW    1&X2                                     X   4  1779  ) 0!1             928
5024 37 85          SBR   X3,3&X3                                 X   7  1783  H 099 0?3         928
5025 37 86   CW     CW    0                                        X   4  1790  ) 000             929
5026 37 87          B     CKLFP                                    X   4  1794  B S40             929
5027 37 88   CKLST  BWZ   RMVCM,2&X3,1                            X   8  1798  V Y17 0?2 1       929
5028 37 89          SBR   X3,2&X3                                  X   7  1806  H 099 0?2         929
5029 37 90          B     SNDPT                                    X   4  1813  B |01             929
5030 37 91   RMVCM  SW    3&X3                                     X   4  1817  , 0?3             929
5031 37 92          CW                                             X   1  1821  )                 929
5032 37 93   CKTYP  FBCEQ ERROR,CODE-3,1,3                                                  MACRO
5033        CKTYP  BCE   ERROR, CODE-3, 1                         X   8  1822  B Z22 838 1 GEN   930
5034               BCE   ERROR, CODE-3, 3                         X   8  1830  B Z22 838 3 GEN   930
5035 37 94          B     EMASQ                                    X   4  1838  B Z63             930
5036 37 95   RUADR  SBR   EXRUA&3                                  X   4  1842  H Y96             930
5037 37 96          MN    002&X3,EXRUK&7                           X   7  1846  D 0?2 Z08         930
5038 37 97          B     RUOK                                     X   4  1853  B Y97             930
5039 37 98          MN    001&X3,EXRUK&7                           X   7  1857  D 0?1 Z08         931
5040 37 99          B     RUOK                                     X   4  1864  B Y97             931
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5041 38 00           MN     000&X3,EXRUK&7                                     X  7  1868  D 0?0 Z08          931
5042 38 01           B      RUOK                                               X  4  1875  B Y97              931
5043 38 02           MCW    002&X3,ADRSS#3                                     X  7  1879  M 0?2 J45          931
5044 38 03           SBR    X3,003&X3                                          X  7  1886  H 099 0?3          931
5045 38 04    EXRUA  B      000                                                X  4  1893  B 000              932
5046 38 05    RUOK   SBR    EXRUK&3                                            X  4  1897  H Z04              932
5047 38 06    EXRUK  BCE    000,@0123456789@,0                                 X  8  1901  B 000 J55 0        932
5048 38 07           CHAIN  9                                                                MACRO
5049                 BCE                                                       X  1  1909  B                GEN  932
5050                 BCE                                                       X  1  1910  B                GEN  932
5051                 BCE                                                       X  1  1911  B                GEN  932
5052                 BCE                                                       X  1  1912  B                GEN  932
5053                 BCE                                                       X  1  1913  B                GEN  933
5054                 BCE                                                       X  1  1914  B                GEN  933
5055                 BCE                                                       X  1  1915  B                GEN  933
5056                 BCE                                                       X  1  1916  B                GEN  933
5057                 BCE                                                       X  1  1917  B                GEN  933
5058 38 08           B      ERROR                                              X  4  1918  B Z22              933
5059 38 09    ERROR  FTMSG  47,BAD LIST,CODE,10                                                MACRO
5060          ERROR  CS     332                                                X  4  1922  / 332           GEN  933
5061                 CS                                                        X  1  1926  /                GEN  934
5062                 SW     FAILSW                                             X  4  1927  , 184           GEN  934
5063                 MN     CODE,224&10                                        X  7  1931  D 841 234        GEN  934
5064                 MN                                                        X  1  1938  D                GEN  934
5065                 MN                                                        X  1  1939  D                GEN  934
5066                 MCW    @ERROR 47 - BAD LIST, STATEMENT @                  X  4  1940  M J86           GEN  934
5067                 W                                                         X  1  1944  2                GEN  934
5068                 BCV    *&5                                                X  5  1945  B Z54 @         GEN  935
5069                 B      *&3                                                X  4  1950  B Z56           GEN  935
5070                 CC     1                                                  X  2  1954  F 1             GEN  935
5071 38 10           MCW    @/@,CODE-3                                         X  7  1956  M J87 838        935
5072 38 11    EMASQ  MCW    CODE,000                                           X  7  1963  M 841 000        935
5073 38 12           MCW    HEX2,X2                                            X  7  1970  M !53 094        935
5074 38 13    NXGUY  SBR    X1,0                                               X  7  1977  H 089 000        935
5075 38 14           B      GO                                                 X  4  1984  B 852            936
5076 38 15    OUT    MCW    ABOTM,X1                                           X  7  1988  M 844 089        936
5077 38 16           FENDX  C,,,,,,SYS2,LISTR TRI                                           MACRO
5078                 BSS    333,C                                              X  5  1995  B 333 C         GEN  936
5079                 SBR    TCLEAR,SYS2                                        X  7  2000  H 710 J97       GEN  936
5080                 LCA    @LISTR TRI@,110                                    X  7  2007  L J96 110       GEN  936
5081                 B      MONTER                                             X  4  2014  B 700           GEN  936
5082 38 17           ORG    *                                                  X           2018
5083                 LTORG  *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG    X           2018
5084                 DCW    #1                                                 X  1  2018                GEN  936
5085          ZONES  DC     9                                                  X  1  2019                GEN  936
5086                 DCW    @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  X 31  2050                GEN  937
              *         LTORG*                                                                            GEN
              HEX2 X DCW    #03                                                X  3  2053                AREA 937
              HEX1 X DCW    #03                                                X  3  2056                AREA 937
                     DCW    @.@                                                X  1  2057                LIT  937
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

            COUNTX DCW   #01                                       X   1  2058              AREA   937
                   DCW   @,@                                       X   1  2059              LIT    938
            SVZN X DCW   #01                                       X   1  2060              AREA   938
            SV1  X DCW   #03                                       X   3  2063              AREA   938
            HOLD5X DCW   #05                                       X   5  2068              AREA   938
                   DCW   &16000                                    X   5  2073              LIT    938
                   DCW   @0@                                       X   1  2074              LIT    938
            HOLD3X DCW   #03                                       X   3  2077              AREA   938
            SAVE1X DCW   #03                                       X   3  2080              AREA   939
                   DCW   &1                                        X   1  2081              LIT    939
                   DCW   @#@                                       X   1  2082              LIT    939
            HEX3 X DCW   #03                                       X   3  2085              AREA   939
                   DCW   @)@                                       X   1  2086              LIT    939
                   DCW   @#   @                                    X   4  2090              LIT    939
                   DCW   @%@                                       X   1  2091              LIT    939
                   DCW   @N@                                       X   1  2092              LIT    940
            SPACEX DCW   #48                                       X  48  2140              AREA   942
                   DCW   @B@                                       X   1  2141              LIT    942
                   DCW   @?@                                       X   1  2142              LIT    942
            ADRSSX DCW   #03                                       X   3  2145              AREA   942
                   DCW   @0123456789@                              X  10  2155              LIT    942
                   DCW   @ERROR 47 - BAD LIST, STATEMENT @         X  31  2186              LIT    943
                   DCW   @/@                                       X   1  2187              LIT    943
                   DCW   @LISTR TRI@                               X   9  2196              LIT    944
5087 38 18  SYS2   DCW   @}@                    SYSTEM GROUP MARK  X   1  2197              GMARK  944
5088 38 19  ADONE  EQU   ONEADR                                    X      0142
5089 38 20         XFR   PHSE2                                     X             B 845              945
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

5090 38 21          JOB   1401 FORTRAN   LISTS PHASE THREE
5091 38 22   110    DCW   @LISTR TRI@                                     X   9  0110                    948
5092 38 23   *    MOVES DOWN PROGRAM
5093 38 24          ORG   PHSE2                                           X          0845
5094 38 25   PHSE3  MCW   X2,NXBTM                                        X   7  0845  M 094 083          949
5095 38 26          SW    GM                                              X   4  0852  , |11            949
5096 38 27          LCA   GM,0&X2                                         X   7  0856  L |11 0!0          949
5097 38 28          SBR   X2                                              X   4  0863  H 094            949
5098 38 29   BEGIN  BWZ   NOLST,000&X1,1                                  X   8  0867  V 918 0|0 1       949
5099 38 30          B     SLIDE                                           X   4  0875  B 942            949
5100 38 31          B     SLIDE                                           X   4  0879  B 942            949
5101 38 32          BCE   BEGIN,1&X2,}                  GM                X   8  0883  B 867 0!1 } GMARK  950
5102 38 33          CW    001&X2                                          X   4  0891  ) 0!1            950
5103 38 34          C     0&X1                                            X   4  0895  C 0|0            950
5104 38 35          SAR   X1                                              X   4  0899  Q 089            950
5105 38 36          SBR   X1,001&X1                                       X   7  0903  H 089 0|1         950
5106 38 37          B     SLIDE                                           X   4  0910  B 942            950
5107 38 38          B     BEGIN                                           X   4  0914  B 867            950
5108 38 39   NOLST  CW    000&X1                                          X   4  0918  ) 0|0            951
5109 38 40   RUDUN  BCE   EXPH3,000&X1,         BLANK                    X   8  0922  B 969 0|0         951
5110 38 41          B     SLIDE                                           X   4  0930  B 942            951
5111 38 42          B     SLIDE                                           X   4  0934  B 942            951
5112 38 43          B     RUDUN                                           X   4  0938  B 922            951
5113 38 44   SLIDE  SBR   EXSLD&3                                         X   4  0942  H 968            951
5114 38 45          MVDWN X1,X2                                                                 MACRO
5115                LCA   0&X1,0&X2                                       X   7  0946  L 0|0 0!0   GEN    951
5116                SAR   X1                                              X   4  0953  Q 089       GEN    952
5117                C     0&X2                                            X   4  0957  C 0!0       GEN    952
5118                SAR   X2                                              X   4  0961  Q 094       GEN    952
5119 38 46   EXSLD  B     000                                             X   4  0965  B 000            952
5120 38 47   EXPH3  FENDX D,,,XBEGIN,PHSE2N,XBEGIN,SYS3,STNUM2                                    MACRO
5121         EXPH3  BSS   333,D                                           X   5  0969  B 333 D     GEN    952
5122                SBR   INITAP&6,XBEGIN                                 X   7  0974  H 786 838   GEN    952
5123                SBR   BCLEAR                                          X   4  0981  H 833       GEN    952
5124                SBR   INITXT&3,PHSE2N                                 X   7  0985  H 796 937   GEN    953
5125                SBR   TCLEAR,SYS3                                     X   7  0992  H 710 |18   GEN    953
5126                LCA   @STNUM2@,110                                    X   7  0999  L |17 110   GEN    953
5127                B     MONTER                                          X   4  1006  B 700       GEN    953
5128 38 48          DCW   @ @       BLANK                                 X   1  1010                    953
5129 38 49   GM     DC    @}@                           GROUP MARK        X   1  1011                GMARK  953
5130 38 50          LTORG *                                               X           1012
                    DCW   @STNUM2@                                        X   6  1017                LIT    953
5131 38 51   SYS3   DCW   @}@                           SYSTEM GROUP MARK X   1  1018                GMARK  953
5132 38 52          XFR   PHSE3                                           X          B 845                   954
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5133 38 53          JOB   1401 FORTRAN  STATEMENT NUMBER DEFINER TWO
5134 38 54          FBEGN STNUM TWO,X1,,X2,,X3,R,N                                              MACRO
5135                SFX   N                                                                     GEN
5136          110   DCW   @STNUM TWO@                               N   9  0110              GEN    957
5137          X1    EQU   089                                       N      0089              GEN
5138          X2    EQU   094                                       N      0094              GEN
5139          X3    EQU   099                                       N      0099              GEN
5140          099   DCW   000                                       N   3  0099              GEN    958
5141          100   DC    0                                         N   1  0100              GEN    958
5142 38 55          ORG   XBEGIN                                    N            0838
5143 38 56    BASE  DCW   #3                                        N   3  0840                     959
5144 38 57    MAX   DCW   #4                                        N   4  0844                     959
5145 38 58          DC    #2                                        N   2  0846                     959
5146 38 59    UPLIM DCW   #3                                        N   3  0849                     959
5147 38 60    NOMO  DCW   #3                                        N   3  0852                     959
5148 38 61    MVUP  SBR   EXMVP&3                                   N   4  0853  H 936              959
5149 38 62          MOVUP X2,X1,NOMO,ALL,|                                                      MACRO
5150                MN    0&X1                                      N   4  0857  D 0|0        GEN    959
5151                SAR   X1                                        N   4  0861  Q 089        GEN    959
5152          )0J131 MCM  0&X2                                      N   4  0865  P 0!0        GEN    960
5153                SAR   )0L131&6                                  N   4  0869  Q 891        GEN    960
5154                MCM   0&X2,1&X1                                 N   7  0873  P 0!0 0|1    GEN    960
5155                MN                                            N   1  0880  D            GEN    960
5156                SBR   X1                                        N   4  0881  H 089        GEN    960
5157          )0L131 SBR  X2,0                                      N   7  0885  H 094 000    GEN    960
5158                BCE   )0J131,0&X1,|                           N   8  0892  B 865 0|0 |  GEN    960
5159                MN    0&X2                                      N   4  0900  D 0!0        GEN    961
5160                CW                                            N   1  0904  )            GEN    961
5161                SW    0&X1                                      N   4  0905  , 0|0        GEN    961
5162                C     X2,NOMO                                   N   7  0909  C 094 852    GEN    961
5163                BU    )0J131                                    N   5  0916  B 865 /      GEN    961
5164 38 63          MN    000&X1                                    N   4  0921  D 0|0               961
5165 38 64          SAR   X1                                        N   4  0925  Q 089               961
5166 38 65          SBR   X2                                        N   4  0929  H 094               962
5167 38 66    EXMVP B     000                                       N   4  0933  B 000               962
5168 38 67    NXBTM EQU   083                                       N      0083
5169 38 68    PHSE2 MCW   NXBTM,X3                                  N   7  0937  M 083 099           962
5170 38 69          SBR   NOMO,1&X3                                 N   7  0944  H 852 0?1           962
5171 38 70          MCW   X2,X3                                     N   7  0951  M 094 099           962
5172 38 71    CLR1  CS    000&X3                                    N   4  0958  / 0?0               962
5173 38 72          SBR   X3                                        N   4  0962  H 099               962
5174 38 73          C     X3,&SAUCE-1                               N   7  0966  C 099 T10           963
5175 38 74          BU    CLR1                                      N   5  0973  B 958 /             963
5176 38 75          SBR   X1,SAUCE-1                               N   7  0978  H 089 A99           963
5177 38 76    *  SHIFT SOURCE PROGRAM UP TO COMPILER PROGRAM
5178 38 77          B     MVUP                                      N   4  0985  B 853               963
5179 38 78          SBR   BASE,5&X1                                N   7  0989  H 840 0|5           963
5180 38 79          MN    TWO9,BASE                                 N   7  0996  D S75 840           963
5181 38 80          MN                                            N   1  1003  D                   963
5182 38 81          MCW   NXBTM,X3                                 N   7  1004  M 083 099           964
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5183 38 82   *  CLEAR BALANCE OF CORE
5184 38 83   CLR2   CS    000&X3                                            N   4  1011  / 0?0             964
5185 38 84          SBR   X3                                                N   4  1015  H 099             964
5186 38 85          C     X3,BASE                                           N   7  1019  C 099 840         964
5187 38 86          BU    CLR2                                              N   5  1026  B |11 /           964
5188 38 87          MCW   @<@,0&X3                    12-6-8               N   7  1031  M T11 0?0         964
5189 38 88   *  DIVIDE REST OF CORE FOR TABLES   RATIO 3 TO 7
5190 38 89          MCW   NXBTM,LOC                                         N   7  1038  M 083 S73         965
5191 38 90          B     UNPAK                                             N   4  1045  B S00             965
5192 38 91          MCW   NUM#5,MAX&2                                       N   7  1049  M T16 846         965
5193 38 92          MCW   BASE,LOC                                          N   7  1056  M 840 S73         965
5194 38 93          B     UNPAK                                             N   4  1063  B S00             965
5195 38 94          S     NUM,MAX&2                                         N   7  1067  S T16 846         965
5196 38 95          A     MAX&2                                             N   4  1074  A 846             966
5197 38 96          A     MAX&2                                             N   4  1078  A 846             966
5198 38 97          A     MAX&2                                             N   4  1082  A 846             966
5199 38 98          A     MAX&2                                             N   4  1086  A 846             966
5200 38 99          A     MAX,ACCUM#6                                       N   7  1090  A 844 T22         966
5201 39 00          A     ACCUM                                             N   4  1097  A T22             966
5202 39 01          A     MAX,ACCUM        3*MAX IN ACCUM                   N   7  1101  A 844 T22         966
5203 39 02          A     NUM,ACCUM                                         N   7  1108  A T16 T22         967
5204 39 03          MCW   ACCUM-3,X3                                        N   7  1115  M T19 099         967
5205 39 04          A     X3                                                N   4  1122  A 099             967
5206 39 05          MZ    ZONES&X3,ACCUM-2                                  N   7  1126  Y SG6 T20         967
5207 39 06          MZ    ZONES&1&X3,ACCUM                                  N   7  1133  Y SG7 T22         967
5208 39 07          MCW   ACCUM,X3                                          N   7  1140  M T22 099         967
5209 39 08          SW    002&X3                                            N   4  1147  , 0?2             968
5210 39 09          MCW   @<@       12-6-8                                  N   4  1151  M T11             968
5211 39 10          SBR   UPLIM                                             N   4  1155  H 849             968
5212 39 11          FENDX C,,,PHSE2,PHSE3,PHSE2,SAUCE-1,STNUM TRI                                          MACRO
5213                BSS   333,C                                             N   5  1159  B 333 C     GEN   968
5214                SBR   INITAP&6,PHSE2                                    N   7  1164  H 786 937   GEN   968
5215                SBR   BCLEAR                                            N   4  1171  H 833       GEN   968
5216                SBR   INITXT&3,PHSE3                                    N   7  1175  H 796 /87   GEN   968
5217                SBR   TCLEAR,SAUCE-1                                   N   7  1182  H 710 A99   GEN   969
5218                LCA   @STNUM TRI@,110                                  N   7  1189  L T31 110   GEN   969
5219                B     MONTER                                            N   4  1196  B 700       GEN   969
5220 39 12   UNPAK  SBR   EXIT&3                                           N   4  1200  H S68             969
5221 39 13          MN    LOC,NUM                                           N   7  1204  D S73 T16         969
5222 39 14          MN                                                      N   1  1211  D                 969
5223 39 15          MN                                                      N   1  1212  D                 969
5224 39 16          MCW                                                     N   1  1213  M                 970
5225 39 17          MZ    LOC,TWO9                                          N   7  1214  Y S73 S75         970
5226 39 18          MZ    LOC-2,TWO9-1                                      N   7  1221  Y S71 S74         970
5227 39 19          SBR   X3,ZONES-3                                        N   7  1228  H 099 S73         970
5228 39 20   COMP   C     004&X3,TWO9                                       N   7  1235  C 0?4 S75         970
5229 39 21          SAR   X3                                                N   4  1242  Q 099             970
5230 39 22          A     &1,NUM-3                                          N   7  1246  A T32 T13         971
5231 39 23          BU    COMP                                              N   5  1253  B S35 /           971
5232 39 24          MZ    @ @,NUM-3                                         N   7  1258  Y T33 T13         971
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5233 39 25   EXIT    B     0                                          N   4  1265  B 000             971
5234 39 26   LOC     DCW   @0J   @                                    N   5  1273                    971
5235 39 27   TWO9    DCW   @99@                                       N   2  1275                    971
5236 39 28   ZONES   DC    @9@                                        N   1  1276                    971
5237 39 29           DC    @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@          N  31  1307                    972
5238 39 30           LTORG *                                          N          1308
                     DCW   &SAUCEN-1                                  N   3  1310  A99         ADCON 972
                     DCW   @<@                                        N   1  1311              LIT   972
             NUM  N  DCW   #05                                        N   5  1316              AREA  973
             ACCUMN  DCW   #06                                        N   6  1322              AREA  973
                     DCW   @STNUM TRI@                                N   9  1331              LIT   973
                     DCW   &1                                         N   1  1332              LIT   973
                     DCW   @ @                                        N   1  1333              LIT   973
5239 39 31           DCW   @}@                        SYSTEM GROUP MARK N   1  1334              GMARK 973
5240 39 32           XFR   PHSE2                                      N          B 937             974
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5241 39 33          JOB   1401 FORTRAN  STATEMENT NUMBER PHASE THREE
5242 39 34   110    DCW   @STNUM TRI@                                       N   9  0110                    977
5243 39 35          ORG   PHSE2                                             N          0937
5244 39 36   SLIDE  SBR   EXSLD&3                                          N   4  0937  H 963             978
5245 39 37          MVDWN X1,X2                                                                 MACRO
5246                LCA   0&X1,0&X2                                        N   7  0941  L 0|0 0!0   GEN   978
5247                SAR   X1                                              N   4  0948  Q 089       GEN   978
5248                C     0&X2                                            N   4  0952  C 0!0       GEN   978
5249                SAR   X2                                              N   4  0956  Q 094       GEN   978
5250 39 38   EXSLD  B     000                                             N   4  0960  B 000             978
5251 39 39   RANDM  SBR   EXRDM&3                                         N   4  0964  H |47             978
5252 39 40          MCW   000&X1,ALPH                                     N   7  0968  M 0|0 |51         979
5253 39 41          SAR   HEX1                                            N   4  0975  Q |54             979
5254 39 42          MN    ALPH,MOD                                        N   7  0979  D |51 |58         979
5255 39 43          CHAIN 3     BLANK IN ALPH-3 IMPLIES 3 DIGIT NO. IN MOD                              MACRO
5256                MN                                                    N   1  0986  D           GEN   979
5257                MN                                                    N   1  0987  D           GEN   979
5258                MN                                                    N   1  0988  D           GEN   979
5259 39 44   SUBTR  S     MAX,MOD                                         N   7  0989  S 844 |58         979
5260 39 45          BWZ   SUBTR,MOD,B                                     N   8  0996  V 989 |58 B       980
5261 39 46          A     MAX,MOD                                         N   7  1004  A 844 |58         980
5262 39 47          MZ    *-4,MOD                                         N   7  1011  Y |13 |58         980
5263 39 48          MCW   MOD,X1                                          N   7  1018  M |58 089         980
5264 39 49          A     X1                                              N   4  1025  A 089             980
5265 39 50          A     MOD,X1                                          N   7  1029  A |58 089         981
5266 39 51   BUMP   NOP   000       INITIALIZED BY PHSE3                  N   4  1036  N 000             981
5267 39 52          SAR   X1                                              N   4  1040  Q 089             981
5268 39 53   EXRDM  B     000                                             N   4  1044  B 000             981
5269 39 54          DCW   #1                                              N   1  1048                    981
5270 39 55   ALPH   DCW   #3                                              N   3  1051                    981
5271 39 56   HEX1   DCW   #3                                              N   3  1054                    981
5272 39 57   MOD    DCW   #4                                              N   4  1058                    982
5273 39 58   CODE   DCW   #4                                              N   4  1062                    982
5274 39 59   NEXT   DCW   #3                                              N   3  1065                    982
5275 39 60   FULL   FQUIT                                                                               MACRO
5276        FULL   CS    332                                             N   4  1066  / 332       GEN   982
5277                CS                                                    N   1  1070  /           GEN   982
5278                CC    1                                               N   2  1071  F 1         GEN   982
5279                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270      N   7  1073  M /79 270   GEN   982
5280                W                                                     N   1  1080  2           GEN   983
5281                CC    1                                               N   2  1081  F 1         GEN   983
5282                BCE   *&6,MONTOR,1                                    N   8  1083  B |96 769 1  GEN   983
5283                RWD   1                                               N   5  1091  U %U1 R     GEN   983
5284                H     *-3                                             N   4  1096  . |96       GEN   983
5285 39 61   OUT    MCW   SAVE1,X1                                        N   7  1100  M /43 089         983
5286 39 62          FENDX C,,,PHSE3,,PHSE3,SYS3,STNUM 4                                         MACRO
5287                BSS   333,C                                           N   5  1107  B 333 C     GEN   983
5288                SBR   INITAP&6,PHSE3                                  N   7  1112  H 786 /87   GEN   984
5289                SBR   BCLEAR                                          N   4  1119  H 833       GEN   984
5290                SBR   TCLEAR,SYS3                                     N   7  1123  H 710 W89   GEN   984
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5291                LCA   @STNUM 4@,110                             N   7  1130  L /86 110   GEN    984
5292                B     MONTER                                    N   4  1137  B 700       GEN    984
5293 39 63  SAVE1   DCW   #3                                        N   3  1143              984
5294 39 64          LTORG *                                         N          1144
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@    N  36  1179              LIT    985
                    DCW   @STNUM 4@                                 N   7  1186              LIT    986
5295 39 65  PHSE3   MCW   NXBTM,NEXT                                N   7  1187  M 083 |65          986
5296 39 66          MCW   NXBTM,ADTBLL                             N   7  1194  M 083 145         986
5297 39 67          MCW   BASE,BUMP&3                              N   7  1201  M 840 |39          986
5298 39 68          MZ    @S@,BUMP&2                                N   7  1208  Y W67 |38          986
5299 39 69          SBR   NOMO,2&X2                                N   7  1215  H 852 0!2          987
5300 39 70          MCW   X1,SAVE1                                 N   7  1222  M 089 /43          987
5301 39 71  RUCGT   MCW   000&X1,CODE                               N   7  1229  M 0|0 |62          987
5302 39 72          BCE   CGOTO,CODE-3,T                           N   8  1236  B T67 |59 T        987
5303 39 73          MCW   @B@,SWCH                                 N   7  1244  M W68 V83          987
5304 39 74          MCW   NEXT,NXBTM                               N   7  1251  M |65 083         988
5305 39 75          C     X1,X2                                     N   7  1258  C 089 094          988
5306 39 76          BE    *&5                                       N   5  1265  B S74 S            988
5307 39 77          B     MVUP                                      N   4  1270  B 853             988
5308 39 78  NORML   BCE   OUT,000&X1,     BLANK                    N   8  1274  B /00 0|0          988
5309 39 79          MCW   000&X1,CODE                               N   7  1282  M 0|0 |62          988
5310 39 80          B     SLIDE                                     N   4  1289  B 937             989
5311 39 81          MCW   CODE-3,*&8                                N   7  1293  M |59 T07          989
5312 39 82          BCE   WORRY,@WTDEGK@,0                         N   8  1300  B T21 W74 0        989
5313 39 83          CHAIN 5                                                                MACRO
5314                BCE                                             N   1  1308  B           GEN    989
5315                BCE                                             N   1  1309  B           GEN    989
5316                BCE                                             N   1  1310  B           GEN    989
5317                BCE                                             N   1  1311  B           GEN    989
5318                BCE                                             N   1  1312  B           GEN    990
5319 39 84  BTMNL   B     SLIDE                                     N   4  1313  B 937             990
5320 39 85          B     NORML                                     N   4  1317  B S74             990
5321 39 86  WORRY   B     RANDM                                     N   4  1321  B 964             990
5322 39 87          B     CHAIN                                     N   4  1325  B V33             990
5323 39 88          MCW   X3,000&X2                                N   7  1329  M 099 0!0          990
5324 39 89          SBR   X2                                        N   4  1336  H 094             990
5325 39 90          MCW   HEX1,X1                                   N   7  1340  M |54 089         991
5326 39 91          BCE   BTMNL,000&X1,}        GROUP MK            N   8  1347  B T13 0|0 } GMARK  991
5327 39 92          BCE   BTMNL,000&X1,,                            N   8  1355  B T13 0|0 ,       991
5328 39 93          B     WORRY                                     N   4  1363  B T21             991
5329 39 94  CGOTO   C     0&X1                                      N   4  1367  C 0|0             991
5330 39 95          MN                                              N   1  1371  D                 991
5331 39 96          SAR   X3                                        N   4  1372  Q 099             991
5332 39 97          S     COUNT#3                                   N   4  1376  S W77             992
5333 39 98  RTLFT   MN    000&X3                                    N   4  1380  D 0?0             992
5334 39 99          MN                                              N   1  1384  D                 992
5335 40 00          MN                                              N   1  1385  D                 992
5336 40 01          SAR   X3                                        N   4  1386  Q 099             992
5337 40 02          A     @1@,COUNT                                 N   7  1390  A W78 W77         992
5338 40 03          BCE   FORK,001&X3,,                             N   8  1397  B U09 0?1 ,       992
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
5339 40 04          B     RTLFT                                            N   4  1405  B T80             993
5340 40 05   FORK   S     &11,COUNT                                        N   7  1409  S W80 W77         993
5341 40 06          BWZ   BIG,COUNT,B     PLUS                           N   8  1416  V U36 W77 B       993
5342 40 07          B     SLIDE                                            N   4  1424  B 937             993
5343 40 08   BTMCG  B     SLIDE                                            N   4  1428  B 937             993
5344 40 09          B     RUCGT                                            N   4  1432  B S29             993
5345 40 10   BIG    MN    000&X1                                           N   4  1436  D 0|0             993
5346 40 11          MN                                                     N   1  1440  D                 994
5347 40 12          MN                                                     N   1  1441  D                 994
5348 40 13          MCW   @H@                                              N   4  1442  M W81             994
5349 40 14          B     SLIDE                                            N   4  1446  B 937             994
5350 40 15          MCW   X3,HEX3#3                                        N   7  1450  M 099 W84         994
5351 40 16          MN    000&X3                                           N   4  1457  D 0?0             994
5352 40 17          MN                                                     N   1  1461  D                 994
5353 40 18          SAR   X1                                               N   4  1462  Q 089             995
5354 40 19          A     &9,COUNT                                         N   7  1466  A W85 W77         995
5355 40 20   LOOP   SBR   X1,6&X1                                         N   7  1473  H 089 0|6         995
5356 40 21          B     RANDM                                            N   4  1480  B 964             995
5357 40 22          B     CHAIN                                            N   4  1484  B V33             995
5358 40 23          MCW   HEX1,X1                                          N   7  1488  M |54 089         995
5359 40 24          BCE   HEADR,004&X1,}        GROUP MK                   N   8  1495  B V07 0|4 } GMARK 996
5360 40 25          B     LOOP                                             N   4  1503  B U73             996
5361 40 26   HEADR  MCW   NEXT,000&X2                                      N   7  1507  M |65 0!0         996
5362 40 27          MCW   COUNT                                            N   4  1514  M W77             996
5363 40 28          SBR   X2                                               N   4  1518  H 094             996
5364 40 29          MCW   HEX3,X1                                          N   7  1522  M W84 089         996
5365 40 30          B     BTMCG                                            N   4  1529  B U28             996
5366 40 31   CHAIN  SBR   EXCHN&3                                          N   4  1533  H W44             997
5367 40 32          MCW   @N@,OVFLW                                        N   7  1537  M W86 W45         997
5368 40 33   AGAIN  MCW   000&X1,X3                                        N   7  1544  M 0|0 099         997
5369 40 34          SAR   X1                                               N   4  1551  Q 089             997
5370 40 35          BCE   NEW,003&X1,      BLANK                         N   8  1555  B W06 0|3         997
5371 40 36          BCE   OVFLW,003&X1,<     12-6-8   ALTER STNUM PHSE 1  N   8  1563  B W45 0|3 <       997
5372 40 37          C     000&X3,ALPH                                      N   7  1571  C 0?0 |51         998
5373 40 38          BU    AGAIN                                            N   5  1578  B V44 /           998
5374 40 39   SWCH   NOP   EXCHN                                           N   4  1583  N W41             998
5375 40 40          MCW   NEXT,000&X3                                      N   7  1587  M |65 0?0         998
5376 40 41          SBR   X3                                               N   4  1594  H 099             998
5377 40 42          MZ    @ A@,002&X3     BLANK                          N   7  1598  Y W88 0?2         998
5378 40 43          CW      DUMMY ON A-OPER, EFFECTIVE ON B-OPER           N   1  1605  )                 998
5379 40 44   NEW    LCA   NEXT,003&X1                                      N   7  1606  L |65 0|3         999
5380 40 45          MCW   NEXT,X3                                          N   7  1613  M |65 099         999
5381 40 46          BCE   FULL,000&X3,<      12-6-8                        N   8  1620  B |66 0?0 <       999
5382 40 47          B                                                      N   1  1628  B                 999
5383 40 48          B                                                      N   1  1629  B                 999
5384 40 49          LCA   ALPH,000&X3                                      N   7  1630  L |51 0?0         999
5385 40 50          SBR   NEXT                                             N   4  1637  H |65             999
5386 40 51   EXCHN  B     000                                              N   4  1641  B 000            1000
5387 40 52   OVFLW  NOP   FULL                                             N   4  1645  N |66            1000
5388 40 53          MCW   @B@,OVFLW                                        N   7  1649  M W68 W45        1000
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
5389 40 54          MCW   UPLIM,X1                                N   7  1656  M 849 089         1000
5390 40 55          B     AGAIN                                   N   4  1663  B V44             1000
5391 40 56          LTORG *                                       N             1667
                    DCW   @S@                                     N   1  1667             LIT   1000
                    DCW   @B@                                     N   1  1668             LIT   1000
                    DCW   @WTDEGK@                                N   6  1674             LIT   1001
             COUNTN DCW   #03                                     N   3  1677             AREA  1001
                    DCW   @1@                                     N   1  1678             LIT   1001
                    DCW   &11                                     N   2  1680             LIT   1001
                    DCW   @H@                                     N   1  1681             LIT   1001
             HEX3 N DCW   #03                                     N   3  1684             AREA  1001
                    DCW   &9                                      N   1  1685             LIT   1001
                    DCW   @N@                                     N   1  1686             LIT   1002
                    DCW   @ A@                                    N   2  1688             LIT   1002
5392 40 57   SYS3   DCW   @}@                  SYSTEM GROUP MARK  N   1  1689             GMARK 1002
5393 40 58          ORG   NDRITH&X00                              N             3200
5394 40 59          ORG   *-5                                     N             3195
5395 40 60          DCW   #5                                      N   5  3199                   1003
5396 40 61   SAUCE  EQU   *&1                                     N      3200
5397 40 62          XFR   PHSE3                                   N            B /87             1004
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
5398 40 63          JOB   1401 FORTRAN   STATEMENT NUMBER PHASE FOUR
5399 40 64   110    DCW   @STNUM FOR@                                             N   9  0110                    1007
5400 40 65          ORG   PHSE3                                                   N          1187
5401 40 66   PHSE4  LCA   @ @,000&X2      BLANK                                  N   7  1187  L W25 0!0         1008
5402 40 67          SW    GM                                                      N   4  1194  , X25             1008
5403 40 68          MCW   X1,X2                                                  N   7  1198  M 089 094         1008
5404 40 69   START  BCE   OUT1,0&X1,                    BLANK                     N   8  1205  B U84 0|0         1008
5405 40 70          MCW   000&X1,CODE                                            N   7  1213  M 0|0 |62         1008
5406 40 71          SAR   X1                                                      N   4  1220  Q 089             1008
5407 40 72          BCE   NONUM,000&X1,}     GROUP  MK                          N   8  1224  B V69 0|0 } GMARK 1009
5408 40 73          B     RANDM                                                   N   4  1232  B 964             1009
5409 40 74          MCW   @N@,WRAP                                              N   7  1236  M W26 T90         1009
5410 40 75   NOTHR  MCW   000&X1,X3                                              N   7  1243  M 0|0 099         1009
5411 40 76          SAR   X1                                                      N   4  1250  Q 089             1009
5412 40 77          BWZ   NOTYT,001&X1,1       WORD MK                          N   8  1254  V S94 0|1 1       1009
5413 40 78          BCE   WRAP,003&X1,<        12-6-8                           N   8  1262  B T90 0|3 <       1010
5414 40 79          BCE   UNREF,1&X1,                   BLANK                     N   8  1270  B U12 0|1         1010
5415 40 80          C     003&X1,ALPH                                             N   7  1278  C 0|3 |51         1010
5416 40 81          BU    NOTHR                                                   N   5  1285  B S43 /           1010
5417 40 82          B     MULTY                                                   N   4  1290  B U46             1010
5418 40 83   NOTYT  C     000&X3,ALPH                                             N   7  1294  C 0?0 |51         1010
5419 40 84          BU    NOTHR                                                   N   5  1301  B S43 /           1011
5420 40 85          MZ    CODE-1,ZONE#1                                           N   7  1306  Y |61 W27         1011
5421 40 86          MZ    *-4,CODE-1                                              N   7  1313  Y T15 |61         1011
5422 40 87          MCW   CODE,000&X3                                           N   7  1320  M |62 0?0         1011
5423 40 88          SBR   X3                                                      N   4  1327  H 099             1011
5424 40 89          CW    001&X3                                                  N   4  1331  ) 0?1             1011
5425 40 90          MCW   003&X1,CODE                                            N   7  1335  M 0|3 |62         1012
5426 40 91          MZ    ZONE,CODE-1                                           N   7  1342  Y W27 |61         1012
5427 40 92          MCW   ALPH,003&X1                                           N   7  1349  M |51 0|3         1012
5428 40 93          CW    001&X1                                                  N   4  1356  ) 0|1             1012
5429 40 94   HEX2X  MCW   HEX1,X1                                               N   7  1360  M |54 089         1012
5430 40 95   BOTM   SBR   X1,4&X1                                               N   7  1367  H 089 0|4         1012
5431 40 96          MCW   CODE                                                    N   4  1374  M |62             1013
5432 40 97          B     SLIDE                                                   N   4  1378  B 937             1013
5433 40 98          B     SLIDE                                                   N   4  1382  B 937             1013
5434 40 99          B     START                                                   N   4  1386  B S05             1013
5435 41 00   WRAP   NOP   UNREF                                                  N   4  1390  N U12             1013
5436 41 01          MCW   @B@,WRAP                                              N   7  1394  M W28 T90         1013
5437 41 02          MCW   UPLIM,X1                                              N   7  1401  M 849 089         1013
5438 41 03          B     NOTHR                                                   N   4  1408  B S43             1014
5439 41 04   UNREF  FTMSG 19,UNREFERENCED STMT NUMBER,CODE,26,NOFAIL                                    MACRO
5440         UNREF  CS    332                                                     N   4  1412  / 332       GEN   1014
5441                CS                                                           N   1  1416  /           GEN   1014
5442                MN    CODE,224&26                                            N   7  1417  D |62 250   GEN   1014
5443                MN                                                           N   1  1424  D           GEN   1014
5444                MN                                                           N   1  1425  D           GEN   1014
5445                MCW   @ERROR 19 - UNREFERENCED STMT NUMBER, STATEMENT @       N   4  1426  M W75       GEN   1014
5446                W                                                            N   1  1430  2           GEN   1015
5447                BCV   *&5                                                    N   5  1431  B U40 @     GEN   1015
```

```
 SEQ PG LIN  LABEL    OP     OPERANDS                                                SFX CT  LOCN  INSTRUCTION  TYPE   CARD
5448                 B      *&3                                                      N   4  1436  B U42        GEN    1015
5449                 CC     1                                                        N   2  1440  F 1          GEN    1015
5450 41 05           B      PRNUM                                                    N   4  1442  B V62        GEN    1015
5451 41 06   MULTY   FTMSG  20,DOUBLY DEFINED STMT,CODE,21                                                    MACRO
5452         MULTY   CS     332                                                      N   4  1446  / 332        GEN    1015
5453                 CS                                                              N   1  1450  /            GEN    1015
5454                 SW     FAILSW                                                   N   4  1451  , 184        GEN    1016
5455                 MN     CODE,224&21                                              N   7  1455  D |62 245    GEN    1016
5456                 MN                                                              N   1  1462  D            GEN    1016
5457                 MN                                                              N   1  1463  D            GEN    1016
5458                 MCW    @ERROR 20 - DOUBLY DEFINED STMT, STATEMENT @             N   4  1464  M X17        GEN    1016
5459                 W                                                               N   1  1468  2            GEN    1016
5460                 BCV    *&5                                                      N   5  1469  B U78 @      GEN    1016
5461                 B      *&3                                                      N   4  1474  B U80        GEN    1017
5462                 CC     1                                                        N   2  1478  F 1          GEN    1017
5463 41 07           B      HEX2X                                                    N   4  1480  B T60                1017
5464 41 08   OUT1    MCW    NEXT,X3                                                  N   7  1484  M |65 099          1017
5465 41 09           LCA    GM,0&X3                                                  N   7  1491  L X25 0?0          1017
5466 41 10           SBR    X3                                                       N   4  1498  H 099              1017
5467 41 11           SBR    BSAUCE                                                   N   4  1502  H 148              1017
5468 41 12           CS     0&X2                                                     N   4  1506  / 0!0              1018
5469 41 13           MCW    SAVE1,X1                                                 N   7  1510  M /43 089          1018
5470 41 14           SW     0&X2                                                     N   4  1517  , 0!0              1018
5471 41 15           FENDX  C,GM,,XBEGIN,XBEGIN,XBEGIN,SYS4,STNUM 5                                             MACRO
5472                 BSS    333,C                                                    N   5  1521  B 333 C      GEN    1018
5473                 SBR    INITAP&6,XBEGIN                                          N   7  1526  H 786 838    GEN    1018
5474                 SBR    BCLEAR                                                   N   4  1533  H 833        GEN    1018
5475                 SBR    INITXT&3,XBEGIN                                          N   7  1537  H 796 838    GEN    1018
5476                 SBR    TCLEAR,SYS4                                              N   7  1544  H 710 X26    GEN    1019
5477                 LCA    @STNUM 5@,110                                            N   7  1551  L X24 110    GEN    1019
5478                 B      MONTER                                                   N   4  1558  B 700        GEN    1019
5479 41 16   PRNUM   MCW    HEX1,X1                                                  N   7  1562  M |54 089          1019
5480 41 17   NONUM   BCE    PSUDO,CODE-3,D                                           N   8  1569  B V81 |59 D        1019
5481 41 18           B      BOTM                                                     N   4  1577  B T67              1019
5482 41 19   PSUDO   MCW    NEXT,X3                                                  N   7  1581  M |65 099          1020
5483 41 20           MCW    CODE,000&X3                                              N   7  1588  M |62 0?0          1020
5484 41 21           SBR    X3                                                       N   4  1595  H 099              1020
5485 41 22           BCE    FULL,000&X3,<     12-6-8                                 N   8  1599  B |66 0?0 <        1020
5486 41 23           MCW    NEXT,CODE                                                N   7  1607  M |65 |62          1020
5487 41 24           SBR    NEXT,1&X3                                                N   7  1614  H |65 0?1          1021
5488 41 25           B      BOTM                                                     N   4  1621  B T67              1021
5489 41 26           LTORG  *                                                        N            1625
                     DCW    @ @                                                      N   1  1625           LIT    1021
                     DCW    @N@                                                      N   1  1626           LIT    1021
             ZONE N  DCW    #01                                                      N   1  1627           AREA   1021
                     DCW    @B@                                                      N   1  1628           LIT    1021
                     DCW    @ERROR 19 - UNREFERENCED STMT NUMBER, STATEMENT @        N  47  1675           LIT    1023
                     DCW    @ERROR 20 - DOUBLY DEFINED STMT, STATEMENT @             N  42  1717           LIT    1025
                     DCW    @STNUM 5@                                                N   7  1724           LIT    1025
5490 41 27   GM      DC     @}@               GM                                     N   1  1725           GMARK  1025
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
5491 41 28   SYS4   DCW   @}@                  SYSTEM GROUP MARK  N   1  1726              GMARK 1025
5492 41 29          XFR   PHSE4                                  N             B /87             1026
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5493 41 30          JOB   1401 FORTRAN   STATEMENT NUMBER PHASE FIVE
5494 41 31          FBEGN STNUM 5,X1,,X2,R,X3,,L                                          MACRO
5495                SFX   L                                                             GEN
5496          110   DCW   @STNUM 5@                                 L   7  0110        GEN   1029
5497          X1    EQU   089                                      L      0089        GEN
5498          X2    EQU   094                                      L      0094        GEN
5499          094   DCW   000                                      L   3  0094        GEN   1030
5500          096   DC    00                                       L   2  0096        GEN   1030
5501          X3    EQU   099                                      L      0099        GEN
5502 41 32          ORG   XBEGIN                                   L           0838
5503 41 33    INITL MCW   X3,HEX3#3                               L   7  0838  M 099 S76     1031
5504 41 34          MCW   X1,HEX1#3                               L   7  0845  M 089 S79     1031
5505 41 35          C     0&X3                                     L   4  0852  C 0?0         1031
5506 41 36          SAR   X3                                       L   4  0856  Q 099         1031
5507 41 37          CW    1&X3                                     L   4  0860  ) 0?1         1031
5508 41 38          MCW   ADTBL,X2                                L   7  0864  M 145 094     1031
5509 41 39          C     000&X2                                   L   4  0871  C 0!0         1031
5510 41 40          SAR   X2                                       L   4  0875  Q 094         1032
5511 41 41          C     X2,HEX3                                  L   7  0879  C 094 S76     1032
5512 41 42          BE    OUT                                      L   5  0886  B S37 S       1032
5513 41 43          MCW   ADTBL,CGBTM#3                            L   7  0891  M 145 S82     1032
5514 41 44    START BWZ   OUT,000&X1,1                            L   8  0898  V S37 0|0 1   1032
5515 41 45          MCW   000&X1,CODE#4                           L   7  0906  M 0|0 S86     1032
5516 41 46          C     000&X1                                   L   4  0913  C 0|0         1033
5517 41 47          SAR   X1                                       L   4  0917  Q 089         1033
5518 41 48          MCW   @   @,COUNT#3                           L   7  0921  M S89 S92     1033
5519 41 49          BCE   WORRY,CODE-3,H                          L   8  0928  B 968 S83 H   1033
5520 41 50          MCW   CODE-3,*&8                             L   7  0936  M S83 950     1033
5521 41 51          BCE   RUBAD,@TWEDGK@,0        CHECK          L   8  0943  B /78 S98 0   1033
5522 41 52          CHAIN 5                                                             MACRO
5523                BCE                                          L   1  0951  B           GEN   1033
5524                BCE                                          L   1  0952  B           GEN   1034
5525                BCE                                          L   1  0953  B           GEN   1034
5526                BCE                                          L   1  0954  B           GEN   1034
5527                BCE                                          L   1  0955  B           GEN   1034
5528 41 53    SKIP  C     000&X1                                   L   4  0956  C 0|0         1034
5529 41 54          SAR   X1                                       L   4  0960  Q 089         1034
5530 41 55          B     START                                    L   4  0964  B 898         1034
5531 41 56    WORRY MCW   CGBTM,X3                                L   7  0968  M S82 099     1035
5532 41 57    CKEXT C     000&X1,X3                                L   7  0975  C 0|0 099     1035
5533 41 58          BE    THRU                                     L   5  0982  B |45 S       1035
5534 41 59          MN    000&X3                                   L   4  0987  D 0?0         1035
5535 41 60          MN                                             L   1  0991  D             1035
5536 41 61          MN                                             L   1  0992  D             1035
5537 41 62          SAR   X3                                       L   4  0993  Q 099         1035
5538 41 63          SBR   X2                                       L   4  0997  H 094         1036
5539 41 64    CHAIN BWZ   ADD1,001&X2,1                           L   8  1001  V /67 0!1 1   1036
5540 41 65          BWZ   CKEXT,002&X2,2                          L   8  1009  V 975 0!2 2   1036
5541 41 66          MCW   003&X2,X2                               L   7  1017  M 0!3 094     1036
5542 41 67          MZ    @ @,X2-1          BLANK                L   7  1024  Y S99 093     1036
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5543 41 68          MN    000&X2                                             L   4  1031  D 0!0             1036
5544 41 69          MN                                                       L   1  1035  D                 1036
5545 41 70          MN                                                       L   1  1036  D                 1037
5546 41 71          SAR   X2                                                 L   4  1037  Q 094             1037
5547 41 72          B     CHAIN                                              L   4  1041  B |01             1037
5548 41 73  THRU    MCW   X3,CGBTM                                          L   7  1045  M 099 S82         1037
5549 41 74  DUN     BCE   SKIP,COUNT,      BLANK                           L   8  1052  B 956 S92         1037
5550 41 75          BWZ   *&5,CODE,2                                        L   8  1060  V |72 S86 2       1037
5551 41 76          B     ZONE                                               L   4  1068  B |80             1037
5552 41 77          BWZ   PRINT,CODE-2,2                                    L   8  1072  V |94 S84 2       1038
5553 41 78  ZONE    MCW   CODE,X3                                          L   7  1080  M S86 099         1038
5554 41 79          MCW   000&X3,CODE                                      L   7  1087  M 0?0 S86         1038
5555 41 80  PRINT   CS    299                                              L   4  1094  / 299             1038
5556 41 81          SW    FAILSW                                           L   4  1098  , 184             1038
5557 41 82          MCW   @ERROR 21 -@,210                                 L   7  1102  M T09 210         1038
5558 41 83          MCW   @UNDEFINED STATEMENT NUMBERS, STATEMENT@,253     L   7  1109  M T47 253         1039
5559 41 84          MN    CODE,257                                         L   7  1116  D S86 257         1039
5560 41 85          MN                                                     L   1  1123  D                 1039
5561 41 86          MN                                                     L   1  1124  D                 1039
5562 41 87          MCS   COUNT,214                                        L   7  1125  Z S92 214         1039
5563 41 88          C     COUNT,@001@                                      L   7  1132  C S92 T50         1039
5564 41 89          BU    *&8                                              L   5  1139  B /51 /           1039
5565 41 90          MCW   @, @,243                                         L   7  1144  M T52 243         1040
5566 41 91          W                                                      L   1  1151  2                 1040
5567 41 92          FORMS                                                                 MACRO
5568                BCV   *&5                                              L   5  1152  B /61 @     GEN   1040
5569                B     *&3                                              L   4  1157  B /63       GEN   1040
5570                CC    1                                                L   2  1161  F 1         GEN   1040
5571 41 93          B     SKIP                                             L   4  1163  B 956            1040
5572 41 94  ADD1    A     @1@,COUNT                                        L   7  1167  A T53 S92         1040
5573 41 95          B     CKEXT                                            L   4  1174  B 975            1041
5574 41 96  RUBAD   BWZ   DUN,000&X1,1                                     L   8  1178  V |52 0|0 1       1041
5575 41 97          BCE   DUN,000&X1,,                                     L   8  1186  B |52 0|0 ,       1041
5576 41 98          MCW   000&X1,X3                                        L   7  1194  M 0|0 099         1041
5577 41 99          SAR   X1                                               L   4  1201  Q 089             1041
5578 42 00          MN    000&X3                                           L   4  1205  D 0?0             1041
5579 42 01          MN                                                     L   1  1209  D                 1041
5580 42 02          SAR   X3                                               L   4  1210  Q 099             1042
5581 42 03          BWZ   PLUS1,000&X3,1                                   L   8  1214  V S26 0?0 1       1042
5582 42 04          B     RUBAD                                            L   4  1222  B /78            1042
5583 42 05  PLUS1   A     @1@,COUNT                                        L   7  1226  A T53 S92         1042
5584 42 06          B     RUBAD                                            L   4  1233  B /78            1042
5585 42 07  OUT     MCW   HEX1,X1                                          L   7  1237  M S79 089         1042
5586 42 08          MCW   HEX3,X3                                          L   7  1244  M S76 099         1043
5587 42 09          FENDX E,,,,,,SYS5,I/O ONE                                                 MACRO
5588                BSS   333,E                                            L   5  1251  B 333 E     GEN   1043
5589                SBR   TCLEAR,SYS5                                      L   7  1256  H 710 T61   GEN   1043
5590                LCA   @I/O ONE@,110                                    L   7  1263  L T60 110   GEN   1043
5591                B     MONTER                                           L   4  1270  B 700       GEN   1043
5592 42 10          LTORG *                                                L             1274
```

SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
			HEX3 L	DCW	#03		L	3	1276		AREA	1043
			HEX1 L	DCW	#03		L	3	1279		AREA	1043
			CGBTML	DCW	#03		L	3	1282		AREA	1044
			CODE L	DCW	#04		L	4	1286		AREA	1044
				DCW	@ @		L	3	1289		LIT	1044
			COUNTL	DCW	#03		L	3	1292		AREA	1044
				DCW	@TWEDGK@		L	6	1298		LIT	1044
				DCW	@ @		L	1	1299		LIT	1044
				DCW	@ERROR 21 -@		L	10	1309		LIT	1044
				DCW	@UNDEFINED STATEMENT NUMBERS, STATEMENT@		L	38	1347		LIT	1045
				DCW	@001@		L	3	1350		LIT	1046
				DCW	@, @		L	2	1352		LIT	1046
				DCW	@1@		L	1	1353		LIT	1046
				DCW	@I/O ONE@		L	7	1360		LIT	1046
5593	42	11	SYS5	DCW	@}@	SYSTEM GROUP MARK	L	1	1361		GMARK	1046
5594	42	12		XFR	INITL		L			B 838		1047

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

5595 42 13          JOB   1401 FORTRAN  INPUT/OUTPUT PHASE ONE
5596 42 14          FBEGN I/O ONE,X1,,X2,R,X3,,9                                                MACRO
5597                SFX   9                                                                     GEN
5598          110   DCW   @I/O ONE@                                 9   7  0110               GEN   1050
5599          X1    EQU   089                                       9      0089               GEN
5600          X2    EQU   094                                       9      0094               GEN
5601          094   DCW   000                                       9   3  0094               GEN   1051
5602          096   DC    00                                        9   2  0096               GEN   1051
5603          X3    EQU   099                                       9      0099               GEN
5604 42 15          ORG   XBEGIN                                    9             0838
5605 42 16    BEGIN SW    GM1                                       9   4  0838  , W27              1052
5606 42 17    START BCE   OUT2,0&X1,                      BLANK     9   8  0842  B 886 0|0          1052
5607 42 18          LCA   0&X1,CODE#5                               9   7  0850  L 0|0 W49          1052
5608 42 19          CW    XTPSW                                     9   4  0857  ) X57              1052
5609 42 20          SW    CODE-3                                    9   4  0861  , W46              1052
5610 42 21          MCW   CODE-3,*&8                               9   7  0865  M W46 879          1052
5611 42 22          BCE   IOTYP,@1356LPU@,0                         9   8  0872  B |12 W56 0        1053
5612 42 23          CHAIN 6                                                                     MACRO
5613                BCE                                             9   1  0880  B                GEN   1053
5614                BCE                                             9   1  0881  B                GEN   1053
5615                BCE                                             9   1  0882  B                GEN   1053
5616                BCE                                             9   1  0883  B                GEN   1053
5617                BCE                                             9   1  0884  B                GEN   1053
5618                BCE                                             9   1  0885  B                GEN   1053
5619 42 24    OUT2  SBR   X1,1&X1                                   9   7  0886  H 089 0|1          1054
5620 42 25          MZ    X3,ALL9                                   9   7  0893  Y 099 W16          1054
5621 42 26          MZ                                              9   1  0900  Y                  1054
5622 42 27          MCW                                             9   1  0901  M                  1054
5623 42 28          MZ    X1,ALL91                                  9   7  0902  Y 089 W19          1054
5624 42 29          MZ                                              9   1  0909  Y                  1054
5625 42 30          MCW                                             9   1  0910  M                  1054
5626 42 31          C     ALL9,ALL91                                9   7  0911  C W16 W19          1055
5627 42 32          BE    SNGL                                      9   5  0918  B 943 S            1055
5628 42 33    CLR   CS    0&X3                                      9   4  0923  / 0?0              1055
5629 42 34          SBR   CLR&3                                     9   4  0927  H 926              1055
5630 42 35          C     CLR&3,ALL91                               9   7  0931  C 926 W19          1055
5631 42 36          BU    CLR                                       9   5  0938  B 923 /            1055
5632 42 37    SNGL  MCW   ALL91,X2                                  9   7  0943  M W19 094          1055
5633 42 38    BACK3 C     X2,X1                                     9   7  0950  C 094 089          1056
5634 42 39          BE    OUT3                                      9   5  0957  B 981 S            1056
5635 42 40          LCA   BLANK,0&X2                               9   7  0962  L X11 0!0          1056
5636 42 41          CW    0&X2                                      9   4  0969  ) 0!0              1056
5637 42 42          SAR   X2                                        9   4  0973  Q 094              1056
5638 42 43          B     BACK3                                     9   4  0977  B 950              1056
5639 42 44    OUT3  MN    0&X1                                      9   4  0981  D 0|0              1056
5640 42 45          SAR   X1                                        9   4  0985  Q 089              1057
5641 42 46          FENDX C,GM1,,,,,SYS1,ARITH ONE                                              MACRO
5642                BSS   333,C                                     9   5  0989  B 333 C            1057
5643                SBR   TCLEAR,SYS1                               9   7  0994  H 710 X58          1057
5644                LCA   @ARITH ONE@,110                           9   7  1001  L W65 110          1057
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5645                B     MONTER                             9  4  1008  B 700       GEN   1057
5646 42 47  IOTYP   SW    CODE-2                             9  4  1012  , W47       GEN   1057
5647 42 48          MCW   @<@,2&X1                 12-6-8    9  7  1016  M W66 0|2       1057
5648 42 49          SBR   KLOBR&6,2&X1                       9  7  1023  H T55 0|2       1058
5649 42 50          C     0&X1                               9  4  1030  C 0|0           1058
5650 42 51          SAR   X1                                 9  4  1034  Q 089           1058
5651 42 52          LCA   CODE,0&X3                          9  7  1038  L W49 0?0       1058
5652 42 53          LCA   GM1                                9  4  1045  L W27           1058
5653 42 54          SBR   X3                                 9  4  1049  H 099           1058
5654 42 55          CW    2&X3                               9  4  1053  ) 0?2           1058
5655 42 56          BWZ   NOFMT,CODE-1,B                     9  8  1057  V U39 W48 B     1059
5656 42 57          FBCEQ DOLST,CODE-3,1,3                                 MACRO
5657                BCE   DOLST, CODE-3, 1                   9  8  1065  B /16 W46 1 GEN 1059
5658                BCE   DOLST, CODE-3, 3                   9  8  1073  B /16 W46 3 GEN 1059
5659 42 58          FBCEQ DOSPC,CODE-3,L,P,U                               MACRO
5660                BCE   DOSPC, CODE-3, L                   9  8  1081  B V32 W46 L GEN 1059
5661                BCE   DOSPC, CODE-3, P                   9  8  1089  B V32 W46 P GEN 1060
5662                BCE   DOSPC, CODE-3, U                   9  8  1097  B V32 W46 U GEN 1060
5663 42 59          MCW   0&X1,SPEC                          9  7  1105  M 0|0 W44       1060
5664 42 60          SAR   X1                                 9  4  1112  Q 089           1060
5665 42 61  DOLST   MCW   0&X1,TUNO                          9  7  1116  M 0|0 W38       1060
5666 42 62          SAR   X1                                 9  4  1123  Q 089           1060
5667 42 63          MCW   0&X1,TUNO-3                       9  7  1127  M 0|0 W35       1061
5668 42 64          BCE   ACTL,TUNO-4,}             GM       9  8  1134  B T91 W34 } GMARK 1061
5669 42 65          BCE   ACTL,TUNO-1,}             GM       9  8  1142  B T91 W37 } GMARK 1061
5670 42 66          MN    @1@,TAPE                           9  7  1150  D W67 X10       1061
5671 42 67          BCE   OTHR2,TUNO-3,}            GM       9  8  1157  B U28 W35 } GMARK 1061
5672 42 68  XXX     MCW   0&X1,LIST                          9  7  1165  M 0|0 W41       1062
5673 42 69          SAR   X1                                 9  4  1172  Q 089           1062
5674 42 70  RETRN   LCA   LIST,0&X3                          9  7  1176  L W41 0?0       1062
5675 42 71          SBR   X3                                 9  4  1183  H 099           1062
5676 42 72          LCA   SPEC,0&X3                          9  7  1187  L W44 0?0       1062
5677 42 73          SBR   X3                                 9  4  1194  H 099           1062
5678 42 74          LCA   TAPE,0&X3                          9  7  1198  L X10 0?0       1063
5679 42 75          LCA   BRANCH                             9  4  1205  L W31           1063
5680 42 76          SBR   X3                                 9  4  1209  H 099           1063
5681 42 77          FBCEQ TLGM,CODE-3,L,P,U,1                              MACRO
5682                BCE   TLGM, CODE-3, L                   9  8  1213  B S82 W46 L GEN 1063
5683                BCE   TLGM, CODE-3, P                   9  8  1221  B S82 W46 P GEN 1063
5684                BCE   TLGM, CODE-3, U                   9  8  1229  B S82 W46 U GEN 1063
5685                BCE   TLGM, CODE-3, 1                   9  8  1237  B S82 W46 1 GEN 1064
5686 42 78          MZ    @S@,5&X3                           9  7  1245  Y W68 0?5       1064
5687 42 79          BCE   TLGM,CODE-3,3                      9  8  1252  B S82 W46 3     1064
5688 42 80          MZ    @K@,5&X3                           9  7  1260  Y W69 0?5       1064
5689 42 81          BCE   TLGM,CODE-3,5                      9  8  1267  B S82 W46 5     1064
5690 42 82          MZ    @B@,5&X3                           9  7  1275  Y W70 0?5       1065
5691 42 83  TLGM    BW    LGM,XTPSW                          9  8  1282  V T30 X57 1     1065
5692 42 84          BWZ   LGM,TUNO-1,2                       9  8  1290  V T30 W37 2     1065
5693 42 85          MCW   TUNO,MASK1-3                      9  7  1298  M W38 W23       1065
5694 42 86          MZ    BLANK,MASK1-4                      9  7  1305  Y X11 W22       1065
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
5695 42 87           LCA   MASK1,0&X3                                   9  7  1312  L W26 0?0         1066
5696 42 88           SBR   X3                                           9  4  1319  H 099             1066
5697 42 89           MCW   BLNK#3,TUNO                                  9  7  1323  M W73 W38         1066
5698 42 90   LGM     LCA   GM1,0&X3                                     9  7  1330  L W27 0?0         1066
5699 42 91           SBR   X3                                           9  4  1337  H 099             1066
5700 42 92           C     0&X1                                         9  4  1341  C 0|0             1066
5701 42 93           SAR   X1                                           9  4  1345  Q 089             1066
5702 42 94   KLOBR   BCE   START,0,<                  12-6-8            9  8  1349  B 842 000 <       1067
5703 42 95           FQUIT                                                           MACRO
5704                 CS    332                                          9  4  1357  / 332       GEN   1067
5705                 CS                                                 9  1  1361  /           GEN   1067
5706                 CC    1                                            9  2  1362  F 1         GEN   1067
5707                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   9  7  1364  M X09 270   GEN   1067
5708                 W                                                  9  1  1371  2           GEN   1067
5709                 CC    1                                            9  2  1372  F 1         GEN   1067
5710                 BCE   *&6,MONTOR,1                                 9  8  1374  B T87 769 1 GEN   1068
5711                 RWD   1                                            9  5  1382  U %U1 R     GEN   1068
5712                 H     *-3                                          9  4  1387  . T87       GEN   1068
5713 42 96   ACTL    MN    TUNO,TAPE#1                                  9  7  1391  D W38 X10         1068
5714 42 97           SW    XTPSW                                        9  4  1398  , X57             1068
5715 42 98           BCE   OTHER,TUNO-1,}              GM               9  8  1402  B U21 W37 } GMARK 1068
5716 42 99           SBR   X1,2&X1                                      9  7  1410  H 089 0|2         1069
5717 43 00           B     XXX                                          9  4  1417  B /65             1069
5718 43 01   OTHER   SBR   X1,1&X1                                      9  7  1421  H 089 0|1         1069
5719 43 02   OTHR2   MCW   PERIOD,LIST                                  9  7  1428  M 154 W41         1069
5720 43 03           B     RETRN                                        9  4  1435  B /76             1069
5721 43 04   NOFMT   MZ    BLANK#1,3&X3                                 9  7  1439  Y X11 0?3         1069
5722 43 05           MCW   4&X3,ADR#3                                   9  7  1446  M 0?4 X14         1070
5723 43 06           BWZ   *&5,ADR,2                                    9  8  1453  V U65 X14 2       1070
5724 43 07           B     GTADR                                        9  4  1461  B U73             1070
5725 43 08           BWZ   ERR,ADR-2,2                                 9  8  1465  V U87 X12 2       1070
5726 43 09   GTADR   MCW   ADR,*&4                                     9  7  1473  M X14 U83         1070
5727 43 10           MCW   0,ADR                                        9  7  1480  M 000 X14         1071
5728 43 11   ERR     FTMSG 22,UNDEFINED FORMAT,ADR,18                                MACRO
5729         ERR     CS    332                                          9  4  1487  / 332       GEN   1071
5730                 CS                                                 9  1  1491  /           GEN   1071
5731                 SW    FAILSW                                       9  4  1492  , 184       GEN   1071
5732                 MN    ADR,224&18                                   9  7  1496  D X14 242   GEN   1071
5733                 MN                                                 9  1  1503  D           GEN   1071
5734                 MN                                                 9  1  1504  D           GEN   1071
5735                 MCW   @ERROR 22 - UNDEFINED FORMAT, STATEMENT @     9  4  1505  M X53       GEN   1072
5736                 W                                                  9  1  1509  2           GEN   1072
5737                 BCV   *&5                                          9  5  1510  B V19 @     GEN   1072
5738                 B     *&3                                          9  4  1515  B V21       GEN   1072
5739                 CC    1                                            9  2  1519  F 1         GEN   1072
5740 43 12           MZ    *-4,CODE-1                                   9  7  1521  Y V23 W48         1072
5741 43 13           B     DOLST                                        9  4  1528  B /16             1072
5742 43 14   DOSPC   MCW   0&X1,SPEC                                    9  7  1532  M 0|0 W44         1073
5743 43 15           SAR   X1                                           9  4  1539  Q 089             1073
5744 43 16           MCW   PERIOD,LIST                                  9  7  1543  M 154 W41         1073
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5745 43 17           BCE   HERE,0&X1,}                GM             9  8  1550  B V69 0|0 } GMARK 1073
5746 43 18           MCW   0&X1,LIST                                 9  7  1558  M 0|0 W41         1073
5747 43 19           SAR   X1                                        9  4  1565  Q 089             1073
5748 43 20   HERE    MCW   @&@,TAPE                                  9  7  1569  M X54 X10         1074
5749 43 21           BCE   SETP,CODE-3,L                             9  8  1576  B W06 W46 L       1074
5750 43 22           MCW   @-@,TAPE                                  9  7  1584  M X55 X10         1074
5751 43 23           BCE   SETP,CODE-3,U                             9  8  1591  B W06 W46 U       1074
5752 43 24           MCW   @*@,TAPE                                  9  7  1599  M X56 X10         1074
5753 43 25   SETP    SW    XTPSW#1                                   9  4  1606  , X57             1075
5754 43 26           B     RETRN                                     9  4  1610  B /76             1075
5755 43 27   ALL9    DCW   999                                       9  3  1616                    1075
5756 43 28   ALL91   DCW   999                                       9  3  1619                    1075
5757 43 29   MASK1   DCW   @DXXX0?5@          PLUS ZERO            9  7  1626                    1075
5758 43 30   GM1     DC    @}@            GROUP MARK                9  1  1627            GMARK   1075
5759 43 31   BRANCH  DCW   @BW97@          CHANGE ON REASSM OF OBJ FORMAT 9  4  1631            1075
5760 43 32           DCW   #4                                        9  4  1635                    1075
5761 43 33   TUNO    DCW   #3                                        9  3  1638                    1076
5762 43 34   LIST    DCW   000                                       9  3  1641                    1076
5763 43 35   SPEC    DCW   000                                       9  3  1644                    1076
5764 43 36           LTORG *                                         9           1645
             CODE 9  DCW   #05                                       9  5  1649            AREA    1076
                     DCW   @1356LPU@                                 9  7  1656            LIT     1076
                     DCW   @ARITH ONE@                               9  9  1665            LIT     1076
                     DCW   @<@                                       9  1  1666            LIT     1076
                     DCW   @1@                                       9  1  1667            LIT     1077
                     DCW   @S@                                       9  1  1668            LIT     1077
                     DCW   @K@                                       9  1  1669            LIT     1077
                     DCW   @B@                                       9  1  1670            LIT     1077
             BLNK 9  DCW   #03                                       9  3  1673            AREA    1077
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@    9 36  1709            LIT     1078
             TAPE 9  DCW   #01                                       9  1  1710            AREA    1078
             BLANK9  DCW   #01                                       9  1  1711            AREA    1078
             ADR  9  DCW   #03                                       9  3  1714            AREA    1079
                     DCW   @ERROR 22 - UNDEFINED FORMAT, STATEMENT @ 9 39  1753            LIT     1080
                     DCW   @&@                                       9  1  1754            LIT     1081
                     DCW   @-@                                       9  1  1755            LIT     1081
                     DCW   @*@                                       9  1  1756            LIT     1081
             XTPSW9  DCW   #01                                       9  1  1757            AREA    1081
5765 43 37   SYS1    DCW   @}@                    SYSTEM GROUP MARK  9  1  1758            GMARK   1081
5766 43 38           XFR   BEGIN                                     9           B 838               1082
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

5767 43 39          JOB   ARITH PHASE ONE
5768 43 40          FBEGN ARITH 1, X1,,X2,R,X3,,<       12-6-8 SUFFIX                    MACRO
5769                SFX   <                                                              GEN
5770          110   DCW   @ARITH 1@                                  <   7  0110        GEN   1085
5771          X1    EQU   089                                       <      0089        GEN
5772          X2    EQU   094                                       <      0094        GEN
5773          094   DCW   000                                       <   3  0094        GEN   1086
5774          096   DC    00                                        <   2  0096        GEN   1086
5775          X3    EQU   099                                       <      0099        GEN
5776 43 41          ORG   XBEGIN                                    <            0838
5777 43 42    *
5778 43 43    * ARITH PHASE ONE ERROR CHECKING ALGORITHM
5779 43 44    *
5780 43 45    *                    PREVIOUS CHARACTER
5781 43 46    *
5782 43 47    *               OPND  &*/.    -  GM   F%   #  %   )   NEG
5783 43 48    *
5784 43 49    *          &     OK    DD    DD  LS  KL   KL  KL  OK   DD
5785 43 50    *      C   -     OK    DD    DD  LS  NG   NG  NG  OK   DD
5786 43 51    *    C H   */    OK    DD    DD  LS  SY   SY  SY  OK   DD
5787 43 52    *    U A   #     OK    A2    A2  LS  A2   A2  A2  A2   A2
5788 43 53    *    R R   %     SY    OK    OK  LS  OK   OK  OK  SY   OK
5789 43 54    *    R A   )     OK    SY    SY  LS  A2   SY  A2  OK   SY
5790 43 55    *    E C   GM    OK    SY    SY  LS  A2   SY  SY  OK   SY
5791 43 56    *    N T   .     OK    DD    DD  LS  SY   SY  SY  OK   DD
5792 43 57    *    T E   NEG   --    --    --  LS  OK   OK  OK  --   DD
5793 43 58    *      R   F%    SY    OK    OK  LS  OK   OK  OK  SY   OK
5794 43 59    *          OPRND --    OK    OK  LS  OK   OK  OK  SY   OK
5795 43 60    *
5796 43 61    *  OK-  VALID
5797 43 62    *  DD-  DOUBLE OPERATORS
5798 43 63    *  SY-  SYNTAX ERROR
5799 43 64    *  A2-  ERROR NOTED IN ARITH PHASE TWO
5800 43 65    *  LS-  LEFT SIDE INVALID
5801 43 66    *  NG-  GENERATE NEGATE FUNCTION
5802 43 67    *  ---  SYNTACTICALLY INADMISSIBLE
5803 43 68    *  KL-  DELETE UNARY PLUS OPERATOR
5804 43 69    *
5805 43 70    *
5806 43 71    START SBR   NOMO,2&X3                                 <   7  0838  H M53 0?2        1087
5807 43 72          SW    GM1                                       <   4  0845  , J60            1087
5808 43 73          MCW   0&X1,CODE                                 <   7  0849  M 0|0 M47        1087
5809 43 74          FBCEQ DOCOD,CODE-3,R,E                                                MACRO
5810                BCE   DOCOD, CODE-3, R                          <   8  0856  B 943 M44 R GEN   1087
5811                BCE   DOCOD, CODE-3, E                          <   8  0864  B 943 M44 E GEN   1087
5812 43 75          MCW   @.@,X2                                    <   7  0872  M M43 094        1088
5813 43 76          B     FENDX                                     <   4  0879  B 920            1088
5814 43 77    NUSTM MCW   0&X1,CODE#4                               <   7  0883  M 0|0 M47        1088
5815 43 78          SBR   KILL#3,0&X3                               <   7  0890  H M50 0?0        1088
5816 43 79          FBCEQ DOCOD,CODE-3,R,E                                                MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
5817                BCE   DOCOD, CODE-3, R                   <  8  0897  B 943 M44 R GEN   1088
5818                BCE   DOCOD, CODE-3, E                   <  8  0905  B 943 M44 E GEN   1089
5819 43 80          MCW   NOMO#3,X2                          <  7  0913  M M53 094       1089
5820 43 81  FENDX   FENDX C,,,,,,SYSGM,ARITH TWO                                 MACRO
5821        FENDX   BSS   333,C                              <  5  0920  B 333 C     GEN   1089
5822                SBR   TCLEAR,SYSGM                       <  7  0925  H 710 P68   GEN   1089
5823                LCA   @ARITH TWO@,110                    <  7  0932  L M62 110   GEN   1089
5824                B     MONTER                             <  4  0939  B 700       GEN   1089
5825 43 82  DOCOD  MVDWN X1,X3                                                    MACRO
5826        DOCOD   LCA   0&X1,0&X3                          <  7  0943  L 0|0 0?0    GEN   1090
5827                SAR   X1                                 <  4  0950  Q 089       GEN   1090
5828                C     0&X3                               <  4  0954  C 0?0       GEN   1090
5829                SAR   X3                                 <  4  0958  Q 099       GEN   1090
5830 43 83          BWZ   *&5, CODE,2                       <  8  0962  V 974 M47 2     1090
5831 43 84          B     INDIR                              <  4  0970  B 982         1090
5832 43 85          BWZ   MAIN,CODE-2,2                     <  8  0974  V 998 M45 2     1090
5833 43 86  INDIR   MCW   CODE,X2                           <  7  0982  M M47 094       1091
5834 43 87          MN    0&X2,CODE                          <  7  0989  D 0!0 M47       1091
5835 43 88          MN                                       <  1  0996  D               1091
5836 43 89          MN                                       <  1  0997  D               1091
5837 43 90  MAIN    C     0&X1                               <  4  0998  C 0|0           1091
5838 43 91          SAR   NEXT#3                           <  4  1002  Q M65           1091
5839 43 92          BCE   ARTYP,CODE-3,R                     <  8  1006  B |85 M44 R     1091
5840 43 93          C     0&X1,BLK10#10                      <  7  1014  C 0|0 M75       1092
5841 43 94          SAR   X1                                 <  4  1021  Q 089         1092
5842 43 95          SW    1&X1                               <  4  1025  , 0|1         1092
5843 43 96          LCA   10&X1,0&X3                         <  7  1029  L 0/0 0?0       1092
5844 43 97          SAR   X1                                 <  4  1036  Q 089         1092
5845 43 98          C     0&X3                               <  4  1040  C 0?0         1092
5846 43 99          SAR   X3                                 <  4  1044  Q 099         1092
5847 44 00          CW    1&X1,1&X3                          <  7  1048  ) 0|1 0?1     1093
5848 44 01          LCA   GM1                                <  4  1055  L J60         1093
5849 44 02          LCA   @#<99@              12-6-8       <  4  1059  L M79         1093
5850 44 03          SBR   X3                                 <  4  1063  H 099         1093
5851 44 04          CW    1&X3,5&X3                          <  7  1067  ) 0?1 0?5     1093
5852 44 05          SBR   LAST,0&X1                        <  7  1074  H M82 0|0       1093
5853 44 06          B     LOOP3                              <  4  1081  B /43         1093
5854 44 07  ARTYP   SBR   X2,1&X1                           <  7  1085  H 094 0|1       1094
5855 44 08          BCE   CDINT,0&X1,#                      <  8  1092  B !01 0|0 #     1094
5856 44 09          SBR   LAST#3,0&X1                      <  7  1100  H M82 0|0       1094
5857 44 10  EQSCN   BCE   GOTEQ,0&X1,#                      <  8  1107  B /31 0|0 #     1094
5858 44 11          BCE   CDINT,0&X1,}        G-M          <  8  1115  B !01 0|0 } GMARK 1094
5859 44 12          SBR   X1                                 <  4  1123  H 089         1095
5860 44 13          B     EQSCN                              <  4  1127  B /07         1095
5861 44 14  GOTEQ   B     MESUR                              <  4  1131  B !53         1095
5862 44 15  LOOP1   MN    0&X1                               <  4  1135  D 0|0         1095
5863 44 16          SAR   X1                                 <  4  1139  Q 089         1095
5864 44 17  LOOP3   SBR   X2,1&X1                           <  7  1143  H 094 0|1       1095
5865 44 18          SBR   FUNBX#3                          <  4  1150  H M85         1095
5866 44 19  LOOP2   MN    0&X1,TST1&7                        <  7  1154  D 0|0 /79      1096
```

SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5867	44	20		MZ	0&X1,TST1&7		<	7	1161	Y 0|0 /79		1096
5868	44	21		SAR	X1		<	4	1168	Q 089		1096
5869	44	22	TST1	BCE	GOTOP,@&-@*#%)}@,0	G-M	<	8	1172	B /91 M93 0		1096
5870	44	23		CHAIN	7						MACRO	
5871				BCE			<	1	1180	B	GEN	1096
5872				BCE			<	1	1181	B	GEN	1096
5873				BCE			<	1	1182	B	GEN	1096
5874				BCE			<	1	1183	B	GEN	1097
5875				BCE			<	1	1184	B	GEN	1097
5876				BCE			<	1	1185	B	GEN	1097
5877				BCE			<	1	1186	B	GEN	1097
5878	44	24		B	LOOP2		<	4	1187	B /54		1097
5879	44	25	GOTOP	SBR	X1,1&X1		<	7	1191	H 089 0|1		1097
5880	44	26		BCE	CKNG,0&X1,-		<	8	1198	B V98 0|0 -		1097
5881	44	27		BCE	CKFUN,0&X1,%		<	8	1206	B W41 0|0 %		1098
5882	44	28		BCE	CKXP,0&X1,*		<	8	1214	B U31 0|0 *		1098
5883	44	29		BCE	PLUS,0&X1,&		<	8	1222	B V44 0|0 &		1098
5884	44	30		BCE	DIV,0&X1,@		<	8	1230	B U46 0|0 @		1098
5885	44	31		BCE	LOOP1,0&X1,#		<	8	1238	B /35 0|0 #		1099
5886	44	32		BCE	CLOSE,0&X1,)		<	8	1246	B T39 0|0)		1099
5887	44	33		MN	1&X1,CKGM&7	ERGO GROUP MARK	<	7	1254	D 0|1 S75		1099
5888	44	34		MZ	1&X1,CKGM&7		<	7	1261	Y 0|1 S75		1099
5889	44	35	CKGM	BCE	SYNER,@&-*@.#,@,0		<	8	1268	B J22 N00 0		1099
5890	44	36		CHAIN	6						MACRO	
5891				BCE			<	1	1276	B	GEN	1099
5892				BCE			<	1	1277	B	GEN	1100
5893				BCE			<	1	1278	B	GEN	1100
5894				BCE			<	1	1279	B	GEN	1100
5895				BCE			<	1	1280	B	GEN	1100
5896				BCE			<	1	1281	B	GEN	1100
5897	44	37		BCE	EOSTM,1&X1,		<	8	1282	B T10 0|1		1100
5898	44	38		BCE	EOSTM,1&X1,%		<	8	1290	B T10 0|1 %		1100
5899	44	39		BCE	EOSTM,1&X1,)		<	8	1298	B T10 0|1)		1101
5900	44	40		B	MESUR		<	4	1306	B !53		1101
5901	44	41	EOSTM	MCW	LAST,X2		<	7	1310	M M82 094		1101
5902	44	42		LCA	0&X2,0&X3		<	7	1317	L 0!0 0?0		1101
5903	44	43		SBR	X3		<	4	1324	H 099		1101
5904	44	44		MCW	NEXT,X1		<	7	1328	M M65 089		1101
5905	44	45		B	NUSTM		<	4	1335	B 883		1102
5906	44	46	CLOSE	MLC	0&X1,BOX#2		<	7	1339	M 0|0 N02		1102
5907	44	47		MLC	BOX-1,*&8		<	7	1346	M N01 T60		1102
5908	44	48		BCE	CLZOK,@&*@-})@,0	G-M,)	<	8	1353	B T78 N08 0		1102
5909	44	49		CHAIN	5						MACRO	
5910				BCE			<	1	1361	B	GEN	1102
5911				BCE			<	1	1362	B	GEN	1102
5912				BCE			<	1	1363	B	GEN	1102
5913				BCE			<	1	1364	B	GEN	1103
5914				BCE			<	1	1365	B	GEN	1103
5915	44	50		BCE	CLZOK,BOX-1,#		<	8	1366	B T78 N01 #		1103
5916	44	51		B	SYNER		<	4	1374	B J22		1103

```
 SEQ PG LIN  LABEL  OP     OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5917 44 52   CLZOK  MN     1&X1,CLSCK&7               <   7  1378  D 0|1 T99        1103
5918 44 53          MZ     1&X1,CLSCK&7               <   7  1385  Y 0|1 T99        1103
5919 44 54   CLSCK  BCE    SYNER,@&-*.@ %,@,0         <   8  1392  B J22 N16 0      1103
5920 44 55          CHAIN  7                                                MACRO
5921                BCE                               <   1  1400  B          GEN   1104
5922                BCE                               <   1  1401  B          GEN   1104
5923                BCE                               <   1  1402  B          GEN   1104
5924                BCE                               <   1  1403  B          GEN   1104
5925                BCE                               <   1  1404  B          GEN   1104
5926                BCE                               <   1  1405  B          GEN   1104
5927                BCE                               <   1  1406  B          GEN   1104
5928 44 56          BCE    LOOP1,1&X1,#               <   8  1407  B /35 0|1 #      1105
5929 44 57          BCE    LOOP1,1&X1,)               <   8  1415  B /35 0|1 )      1105
5930 44 58          B      MESUR                      <   4  1423  B !53            1105
5931 44 59          B      LOOP1                      <   4  1427  B /35            1105
5932 44 60   CKXP   MCW    0&X1,BOX2#2                <   7  1431  M 0|0 N18        1105
5933 44 61          BCE    ISXP,BOX2-1,*              <   8  1438  B V13 N17 *      1105
5934 44 62   DIV    FBCEQ  SYNER,1&X1,#,%                                  MACRO
5935         DIV    BCE    SYNER, 1&X1, #             <   8  1446  B J22 0|1 # GEN   1106
5936                BCE    SYNER, 1&X1, %             <   8  1454  B J22 0|1 % GEN   1106
5937 44 63          BCE    SYNER,1&X1,                <   8  1462  B J22 0|1        1106
5938 44 64   DIV2   MN     1&X1,DIVCK&7               <   7  1470  D 0|1 U91        1106
5939 44 65          MZ     1&X1,DIVCK&7               <   7  1477  Y 0|1 U91        1106
5940 44 66   DIVCK  BCE    DBLOP,@&-@*.,@,0           <   8  1484  B J61 N24 0      1107
5941 44 67          CHAIN  5                                                MACRO
5942                BCE                               <   1  1492  B          GEN   1107
5943                BCE                               <   1  1493  B          GEN   1107
5944                BCE                               <   1  1494  B          GEN   1107
5945                BCE                               <   1  1495  B          GEN   1107
5946                BCE                               <   1  1496  B          GEN   1107
5947 44 68          BCE    LOOP1,1&X1,)               <   8  1497  B /35 0|1 )      1107
5948 44 69          B      MESUR                      <   4  1505  B !53            1108
5949 44 70          B      LOOP1                      <   4  1509  B /35            1108
5950 44 71   ISXP   MN     0&X1                       <   4  1513  D 0|0            1108
5951 44 72          MN                                <   1  1517  D              1108
5952 44 73          SAR    X1                         <   4  1518  Q 089          1108
5953 44 74          MCW    @.@,2&X1                   <   7  1522  M M43 0|2       1108
5954 44 75          LCA    0&X1                       <   4  1529  L 0|0          1108
5955 44 76          SBR    X1,2&X1                    <   7  1533  H 089 0|2       1109
5956 44 77          B      DIV                        <   4  1540  B U46          1109
5957 44 78   PLUS   FBCEQ  SQUOZ,1&X1,#,%                                  MACRO
5958         PLUS   BCE    SQUOZ, 1&X1, #             <   8  1544  B V72 0|1 # GEN   1109
5959                BCE    SQUOZ, 1&X1, %             <   8  1552  B V72 0|1 % GEN   1109
5960 44 79          BCE    SQUOZ,1&X1,                <   8  1560  B V72 0|1        1109
5961 44 80          B      DIV2                       <   4  1568  B U70          1109
5962 44 81   SQUOZ  MN     0&X1                       <   4  1572  D 0|0          1110
5963 44 82          SAR    X1                         <   4  1576  Q 089          1110
5964 44 83          LCA    0&X1,1&X1                  <   7  1580  L 0|0 0|1       1110
5965 44 84          SBR    X1,1&X1                    <   7  1587  H 089 0|1       1110
5966 44 85          B      LOOP3                      <   4  1594  B /43          1110
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
5967 44 86   CKNG   FBCEQ  NEGAT,1&X1,#,%                                                    MACRO
5968         CKNG   BCE    NEGAT, 1&X1, #                            <   8  1598  B W26 0|1 # GEN   1110
5969                BCE    NEGAT, 1&X1, %                            <   8  1606  B W26 0|1 % GEN   1111
5970 44 87          BCE    NEGAT,1&X1,                               <   8  1614  B W26 0|1       1111
5971 44 88          B      DIV2                                      <   4  1622  B U70           1111
5972 44 89   NEGAT  MCW    @,@,0&X1                                  <   7  1626  M N25 0|0       1111
5973 44 90          CW     XNEGTF                                    <   4  1633  ) 123           1111
5974 44 91          B      LOOP1                                     <   4  1637  B /35           1111
5975 44 92   CKFUN  BCE    ISFUN,1&X1,F                              <   8  1641  B W83 0|1 F     1112
5976 44 93          MN     1&X1,OPNCK&7                              <   7  1649  D 0|1 W70       1112
5977 44 94          MZ     1&X1,OPNCK&7                              <   7  1656  Y 0|1 W70       1112
5978 44 95   OPNCK  BCE    LOOP1,@&-*@ #%,.@,0                       <   8  1663  B /35 N34 0     1112
5979 44 96          CHAIN  8                                                          MACRO
5980                BCE                                              <   1  1671  B             GEN   1112
5981                BCE                                              <   1  1672  B             GEN   1112
5982                BCE                                              <   1  1673  B             GEN   1112
5983                BCE                                              <   1  1674  B             GEN   1113
5984                BCE                                              <   1  1675  B             GEN   1113
5985                BCE                                              <   1  1676  B             GEN   1113
5986                BCE                                              <   1  1677  B             GEN   1113
5987                BCE                                              <   1  1678  B             GEN   1113
5988 44 97          B      SYNER                                     <   4  1679  B J22          GEN   1113
5989 44 98   ISFUN  MCW    X2,HEX2#3                                 <   7  1683  M 094 N37      GEN   1113
5990 44 99          MCW    FUNBX,X2                                  <   7  1690  M M85 094      GEN   1114
5991 45 00          MN     0&X2                                      <   4  1697  D 0!0          GEN   1114
5992 45 01          SAR    X2                                        <   4  1701  Q 094          GEN   1114
5993 45 02          SW     0&X1                                      <   4  1705  , 0|0          GEN   1114
5994 45 03          SBR    FUNBX,2&X1                                <   7  1709  H M85 0|2      GEN   1114
5995 45 04          C      FUNBX,X2                                  <   7  1716  C M85 094      GEN   1114
5996 45 05          BE     SYNER                                     <   5  1723  B J22 S        GEN   1114
5997 45 06          SBR    FUNBX,3&X1                                <   7  1728  H M85 0|3      GEN   1115
5998 45 07          C      FUNBX,X2                                  <   7  1735  C M85 094      GEN   1115
5999 45 08          BE     SYNER                                     <   5  1742  B J22 S        GEN   1115
6000 45 09          MCW    X3,HEX3#3                                 <   7  1747  M 099 N40      GEN   1115
6001 45 10          MCW    X1,HEX1#3                                 <   7  1754  M 089 N43      GEN   1115
6002 45 11          SBR    X1,XSINFU                                 <   7  1761  H 089 118      GEN   1116
6003 45 12          SBR    X3,FTBL1-1                                <   7  1768  H 099 M41      GEN   1116
6004 45 13   FSCAN  BCE    NOFUN,0&X3,*                              <   8  1775  B Y18 0?0 *     GEN   1116
6005 45 14          SBR    X3                                        <   4  1783  H 099          GEN   1116
6006 45 15          C      0&X3,0&X2                                 <   7  1787  C 0?0 0!0      GEN   1116
6007 45 16          BE     GOTFN                                     <   5  1794  B Y83 S        GEN   1116
6008 45 17          C      0&X3                                      <   4  1799  C 0?0          GEN   1117
6009 45 18          SAR    X3                                        <   4  1803  Q 099          GEN   1117
6010 45 19          SBR    X1,1&X1                                   <   7  1807  H 089 0|1      GEN   1117
6011 45 20          B      FSCAN                                     <   4  1814  B X75          GEN   1117
6012 45 21   NOFUN  FTMSG  29,UNDEFINED FUNCTION NAME,CODE,25                                  MACRO
6013         NOFUN  CS     332                                       <   4  1818  / 332         GEN   1117
6014                CS                                               <   1  1822  /             GEN   1117
6015                SW     FAILSW                                    <   4  1823  , 184         GEN   1117
6016                MN     CODE,224&25                               <   7  1827  D M47 249     GEN   1118
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6017				MN		<	1	1834	D	GEN	1118
6018				MN		<	1	1835	D	GEN	1118
6019				MCW	@ERROR 29 - UNDEFINED FUNCTION NAME, STATEMENT @	<	4	1836	M N89	GEN	1118
6020				W		<	1	1840	2	GEN	1118
6021				BCV	*&5	<	5	1841	B Y50 @	GEN	1118
6022				B	*&3	<	4	1846	B Y52	GEN	1118
6023				CC	1	<	2	1850	F 1	GEN	1119
6024	45	22		B	ZONCH	<	4	1852	B !35		1119
6025	45	23	COMFN	CW	XCOMF1	<	4	1856	) 117		1119
6026	45	24		B	MOV	<	4	1860	B Z26		1119
6027	45	25	COSIN	CW	XSINFU	<	4	1864	) 118		1119
6028	45	26		B	COMFN	<	4	1868	B Y56		1119
6029	45	27	ABSVL	CW	XABSVA,XNEGTF	<	7	1872	) 122 123		1119
6030	45	28		B	MOV	<	4	1879	B Z26		1120
6031	45	29	GOTFN	SW	1&X3	<	4	1883	, 0?1		1120
6032	45	30		BCE	COSIN,1&X3,C	<	8	1887	B Y64 0?1 C		1120
6033	45	31		BCE	ABSVL,1&X3,A	<	8	1895	B Y72 0?1 A		1120
6034	45	32		CW	0&X1	<	4	1903	) 0|0		1120
6035	45	33		MCW	1&X3,*&8	<	7	1907	M 0?1 Z21		1120
6036	45	34		BCE	COMFN,@SGECT@,0	<	8	1914	B Y56 N94 0		1121
6037	45	35		CHAIN	4					MACRO	
6038				BCE		<	1	1922	B	GEN	1121
6039				BCE		<	1	1923	B	GEN	1121
6040				BCE		<	1	1924	B	GEN	1121
6041				BCE		<	1	1925	B	GEN	1121
6042	45	36	MOV	BCE	KEEPX,0&X2,X	<	8	1926	B Z89 0!0 X		1121
6043	45	37		MCW	1&X3,0&X2	<	7	1934	M 0?1 0!0		1121
6044	45	38		MCW	BLNK1#1	<	4	1941	M N95		1122
6045	45	39		SBR	X2	<	4	1945	H 094		1122
6046	45	40		MCW	HEX3,X3	<	7	1949	M N40 099		1122
6047	45	41		MCW	HEX1,X1	<	7	1956	M N43 089		1122
6048	45	42		CW	0&X1	<	4	1963	) 0|0		1122
6049	45	43		SAR	X1	<	4	1967	Q 089		1122
6050	45	44		LCA	0&X1,0&X2	<	7	1971	L 0|0 0!0		1122
6051	45	45		SBR	X1,0&X2	<	7	1978	H 089 0!0		1123
6052	45	46		B	LOOP3	<	4	1985	B /43		1123
6053	45	47	KEEPX	MN	0&X2	<	4	1989	D 0!0		1123
6054	45	48		SAR	X2	<	4	1993	Q 094		1123
6055	45	49		B	MOV&8	<	4	1997	B Z34		1123
6056	45	50	CDINT	FTMSG	23,CODING UNINTELLIGIBLE,CODE,23					MACRO	
6057			CDINT	CS	332	<	4	2001	/ 332	GEN	1123
6058				CS		<	1	2005	/	GEN	1123
6059				SW	FAILSW	<	4	2006	, 184	GEN	1124
6060				MN	CODE,224&23	<	7	2010	D M47 247	GEN	1124
6061				MN		<	1	2017	D	GEN	1124
6062				MN		<	1	2018	D	GEN	1124
6063				MCW	@ERROR 23 - CODING UNINTELLIGIBLE, STATEMENT @	<	4	2019	M O39	GEN	1124
6064				W		<	1	2023	2	GEN	1124
6065				BCV	*&5	<	5	2024	B !33 @	GEN	1124
6066				B	*&3	<	4	2029	B !35	GEN	1125

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
6067                  CC    1                                                  <  2  2033  F 1         GEN   1125
6068 45 51   ZONCH   MCW   KILL,X3                                           <  7  2035  M M50 099       1125
6069 45 52           MCW   NEXT,X1                                          <  7  2042  M M65 089       1125
6070 45 53           B     NUSTM                                            <  4  2049  B 883           1125
6071 45 54   MESUR   SBR   MESXT&3                                          <  4  2053  H !82           1125
6072 45 55           BCE   SUBSC,1&X1,$                                     <  8  2057  B J99 0|1 $      1125
6073 45 56           SBR   MESBX#3,4&X1                                     <  7  2065  H O42 0|4       1126
6074 45 57   MESCM   C     MESBX,X2                                         <  7  2072  C O42 094       1126
6075 45 58   MESXT   BE    0                                                <  5  2079  B 000 S         1126
6076 45 59           FTMSG 25,LEFT SIDE INVALID,CODE,19                                                MACRO
6077                  CS    332                                              <  4  2084  / 332         GEN   1126
6078                  CS                                                     <  1  2088  /             GEN   1126
6079                  SW    FAILSW                                           <  4  2089  , 184         GEN   1126
6080                  MN    CODE,224&19                                      <  7  2093  D M47 243     GEN   1126
6081                  MN                                                     <  1  2100  D             GEN   1127
6082                  MN                                                     <  1  2101  D             GEN   1127
6083                  MCW   @ERROR 25 - LEFT SIDE INVALID, STATEMENT @       <  4  2102  M O82         GEN   1127
6084                  W                                                      <  1  2106  2             GEN   1127
6085                  BCV   *&5                                              <  5  2107  B J16 @       GEN   1127
6086                  B     *&3                                              <  4  2112  B J18         GEN   1127
6087                  CC    1                                                <  2  2116  F 1           GEN   1127
6088 45 60           B     ZONCH                                            <  4  2118  B !35           1128
6089 45 61   SYNER    FTMSG 27,ARITHMETIC SYNTAX ERROR,CODE,25                                          MACRO
6090         SYNER    CS    332                                              <  4  2122  / 332         GEN   1128
6091                  CS                                                     <  1  2126  /             GEN   1128
6092                  SW    FAILSW                                           <  4  2127  , 184         GEN   1128
6093                  MN    CODE,224&25                                      <  7  2131  D M47 249     GEN   1128
6094                  MN                                                     <  1  2138  D             GEN   1128
6095                  MN                                                     <  1  2139  D             GEN   1128
6096                  MCW   @ERROR 27 - ARITHMETIC SYNTAX ERROR, STATEMENT @ <  4  2140  M P28         GEN   1129
6097                  W                                                      <  1  2144  2             GEN   1129
6098                  BCV   *&5                                              <  5  2145  B J54 @       GEN   1129
6099                  B     *&3                                              <  4  2150  B J56         GEN   1129
6100                  CC    1                                                <  2  2154  F 1           GEN   1129
6101 45 62           B     ZONCH                                            <  4  2156  B !35           1129
6102 45 63   GM1     DC    @}@        G-M                                   <  1  2160                GMARK 1129
6103 45 64   DBLOP   FTMSG 31,DOUBLE OPERATORS,CODE,18                                                 MACRO
6104         DBLOP   CS    332                                              <  4  2161  / 332         GEN   1129
6105                  CS                                                     <  1  2165  /             GEN   1130
6106                  SW    FAILSW                                           <  4  2166  , 184         GEN   1130
6107                  MN    CODE,224&18                                      <  7  2170  D M47 242     GEN   1130
6108                  MN                                                     <  1  2177  D             GEN   1130
6109                  MN                                                     <  1  2178  D             GEN   1130
6110                  MCW   @ERROR 31 - DOUBLE OPERATORS, STATEMENT @        <  4  2179  M P67         GEN   1130
6111                  W                                                      <  1  2183  2             GEN   1130
6112                  BCV   *&5                                              <  5  2184  B J93 @       GEN   1131
6113                  B     *&3                                              <  4  2189  B J95         GEN   1131
6114                  CC    1                                                <  2  2193  F 1           GEN   1131
6115 45 65           B     ZONCH                                            <  4  2195  B !35           1131
6116 45 66   SUBSC   SBR   MESBX,12&X1                                      <  7  2199  H O42 0/2         1131
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
6117 45 67           BCE   MESCM,11&X1,$                            <  8  2206  B !72 0/1 $       1131
6118 45 68           SBR   MESBX,18&X1                              <  7  2214  H O42 0/8         1131
6119 45 69           B     MESCM                                    <  4  2221  B !72             1132
6120 45 70    *
6121 45 71    *              TABLE OF FORTRAN FUNCTIONS
6122 45 72    *
6123 45 73           DCW   @*@             SIGNALS END OF TABLE    <  1  2225                    1132
6124 45 74    *
6125 45 75           DCW   @   %FSOCC@                              <  9  2234                    1132
6126 45 76           DCW   @  %FSBAXA@                              <  9  2243                    1132
6127 45 77           DCW   @ %FKNILXI@                              <  9  2252                    1132
6128 45 78    *                           USER FUNCTIONS
6129 45 79           DCW   @        H@    USER FN 12               <  9  2261                    1133
6130 45 80           DCW   @        D@    USER FN 11               <  9  2270                    1133
6131 45 81           DCW   @        M@    USER FN 10               <  9  2279                    1133
6132 45 82           DCW   @        L@    USER FN  9               <  9  2288                    1133
6133 45 83           DCW   @        K@    USER FN  8               <  9  2297                    1134
6134 45 84           DCW   @        J@    USER FN  7               <  9  2306                    1134
6135 45 85           DCW   @        Z@    USER FN  6               <  9  2315                    1134
6136 45 86           DCW   @        Y@    USER FN  5               <  9  2324                    1134
6137 45 87           DCW   @        W@    USER FN  4               <  9  2333                    1135
6138 45 88           DCW   @        P@    USER FN  3               <  9  2342                    1135
6139 45 89           DCW   @        U@    USER FN  2               <  9  2351                    1135
6140 45 90           DCW   @        R@    USER FN  1               <  9  2360                    1135
6141 45 91           DCW   @  %FTRQSQ@                              <  9  2369                    1136
6142 45 92           DCW   @ %FTAOLFF@                              <  9  2378                    1136
6143 45 93           DCW   @  %FXIFXX@                              <  9  2387                    1136
6144 45 94           DCW   #9                                       <  9  2396                    1136
6145 45 95           DCW   @   %FSBAA@                              <  9  2405                    1137
6146 45 96           DCW   @  %FNATAT@                              <  9  2414                    1137
6147 45 97           DCW   @   %FPXEE@                              <  9  2423                    1137
6148 45 98           DCW   @   %FGOLG@                              <  9  2432                    1137
6149 45 99           DCW   @   %FNISS@                              <  9  2441                    1137
6150 46 00    FTBL1  DCW   #1                                       <  1  2442                    1138
6151 46 01           LTORG *                                        <           2443
                     DCW   @.@                                      <  1  2443          LIT       1138
              CODE < DCW   #04                                      <  4  2447          AREA      1138
              KILL < DCW   #03                                      <  3  2450          AREA      1138
              NOMO < DCW   #03                                      <  3  2453          AREA      1138
                     DCW   @ARITH TWO@                              <  9  2462          LIT       1138
              NEXT < DCW   #03                                      <  3  2465          AREA      1139
              BLK10< DCW   #10                                      < 10  2475          AREA      1139
                     DCW   @#<99@                                   <  4  2479          LIT       1139
              LAST < DCW   #03                                      <  3  2482          AREA      1139
              FUNBX< DCW   #03                                      <  3  2485          AREA      1139
                     DCW   @&-@*#%)}@                               <  8  2493          LIT       1139
                     DCW   @&-*@.#,@                                <  7  2500          LIT       1139
              BOX  < DCW   #02                                      <  2  2502          AREA      1140
                     DCW   @&*@-})@                                 <  6  2508          LIT       1140
                     DCW   @&-*.@ %,@                               <  8  2516          LIT       1140
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
			BOX2 <	DCW	#02	<	2	2518		AREA	1140
				DCW	@&-@*.,@	<	6	2524		LIT	1140
				DCW	@,@	<	1	2525		LIT	1140
				DCW	@&-*@ #%,.@	<	9	2534		LIT	1140
			HEX2 <	DCW	#03	<	3	2537		AREA	1141
			HEX3 <	DCW	#03	<	3	2540		AREA	1141
			HEX1 <	DCW	#03	<	3	2543		AREA	1141
				DCW	@ERROR 29 - UNDEFINED FUNCTION NAME, STATEMENT @	<	46	2589		LIT	1143
				DCW	@SGECT@	<	5	2594		LIT	1143
			BLNK1<	DCW	#01	<	1	2595		AREA	1143
				DCW	@ERROR 23 - CODING UNINTELLIGIBLE, STATEMENT @	<	44	2639		LIT	1145
			MESBX<	DCW	#03	<	3	2642		AREA	1145
				DCW	@ERROR 25 - LEFT SIDE INVALID, STATEMENT @	<	40	2682		LIT	1147
				DCW	@ERROR 27 - ARITHMETIC SYNTAX ERROR, STATEMENT @	<	46	2728		LIT	1149
				DCW	@ERROR 31 - DOUBLE OPERATORS, STATEMENT @	<	39	2767		LIT	1150
6152	46	02	SYSGM	DCW	@}@ SYSTEM GROUP MARK	<	1	2768		GMARK	1151
6153	46	03		XFR	START	<			B 838		1152

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
6154 46 04          JOB   ARITH PHASE TWO
6155 46 05          FBEGN ARITH 2,X1,,X2,,X3,,0                                              MACRO
6156                SFX   0                                                                  GEN
6157          110   DCW   @ARITH 2@                           0   7  0110                    GEN   1155
6158          X1    EQU   089                                 0      0089                    GEN
6159          X2    EQU   094                                 0      0094                    GEN
6160          X3    EQU   099                                 0      0099                    GEN
6161 46 06          ORG   XBEGIN                              0            0838
6162 46 07   INITL  BCE   OUT,X2,.                           0   8  0838  B N47 094 .             1156
6163 46 08          SW    GM                                  0   4  0846  , N73                   1156
6164 46 09          MCW   X2,NOMO#3                         0   7  0850  M 094 P45               1156
6165 46 10          SBR   X3,2&X3                           0   7  0857  H 099 0?2               1156
6166 46 11          SBR   X1,2&X1                           0   7  0864  H 089 0|2               1156
6167 46 12          MCW   X1,X2                            0   7  0871  M 089 094               1157
6168 46 13   CLR1   MN    X2,TAIL#2                         0   7  0878  D 094 P47               1157
6169 46 14          MN                                      0   1  0885  D                       1157
6170 46 15          C     TAIL,@00@                         0   7  0886  C P47 P49               1157
6171 46 16          BE    STO                               0   5  0893  B 913 S                 1157
6172 46 17          CW    0&X2                              0   4  0898  ) 0!0                   1157
6173 46 18          SBR   X2,1&X2                          0   7  0902  H 094 0!1               1157
6174 46 19          B     CLR1                              0   4  0909  B 878                   1158
6175 46 20   STO    MN    0&X2                              0   4  0913  D 0!0                   1158
6176 46 21          SAR   LAST#3                           0   4  0917  Q P52                   1158
6177 46 22          MN    0&X3                              0   4  0921  D 0?0                   1158
6178 46 23          SAR   X2                                0   4  0925  Q 094                   1158
6179 46 24   CLR2   C     X2,LAST                           0   7  0929  C 094 P52               1158
6180 46 25          BE    MVUP                              0   5  0936  B 953 S                 1158
6181 46 26          CS    0&X2                              0   4  0941  / 0!0                   1159
6182 46 27          SBR   X2                                0   4  0945  H 094                   1159
6183 46 28          B     CLR2                              0   4  0949  B 929                   1159
6184 46 29   MVUP   MOVUP X3,X1,NOMO,ALL,|                                                    MACRO
6185          MVUP  MN    0&X1                              0   4  0953  D 0|0           GEN   1159
6186                SAR   X1                                0   4  0957  Q 089           GEN   1159
6187          )0J163 MCM  0&X3                              0   4  0961  P 0?0           GEN   1159
6188                SAR   )0L163&6                          0   4  0965  Q 987           GEN   1159
6189                MCM   0&X3,1&X1                         0   7  0969  P 0?0 0|1       GEN   1160
6190                MN                                      0   1  0976  D               GEN   1160
6191                SBR   X1                                0   4  0977  H 089           GEN   1160
6192          )0L163 SBR  X3,0                              0   7  0981  H 099 000       GEN   1160
6193                BCE   )0J163,0&X1,|                     0   8  0988  B 961 0|0 |     GEN   1160
6194                MN    0&X3                              0   4  0996  D 0?0           GEN   1160
6195                CW                                      0   1  1000  )               GEN   1160
6196                SW    0&X1                              0   4  1001  , 0|0           GEN   1161
6197                C     X3,NOMO                           0   7  1005  C 099 P45       GEN   1161
6198                BU    )0J163                            0   5  1012  B 961 /         GEN   1161
6199 46 30          MN    0&X1                              0   4  1017  D 0|0                 1161
6200 46 31          SAR   X1                                0   4  1021  Q 089                 1161
6201 46 32          MN    0&X3                              0   4  1025  D 0?0                 1161
6202 46 33          SBR   NXBTM#3                           0   4  1029  H P55                 1161
6203 46 34          BCE   START,0&X3,}        GROUP MK      0   8  1033  B |60 0?0 } GMARK 1162
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
6204 46 35          SBR   X3                                          0   4  1041  H 099             1162
6205 46 36          LCA   GM                                          0   4  1045  L N73             1162
6206 46 37          SBR   NXBTM                                       0   4  1049  H P55             1162
6207 46 38          MCW   X3,NOMO                                     0   7  1053  M 099 P45         1162
6208 46 39   START  MCW   NXBTM,HEX2#3                                0   7  1060  M P55 P58         1162
6209 46 40          MCW   0&X1,X3                                     0   7  1067  M 0|0 099         1163
6210 46 41          BWZ   *&5,X3,2                                    0   8  1074  V |86 099 2       1163
6211 46 42          B     *&9                                         0   4  1082  B |94             1163
6212 46 43          BWZ   *&8,X3-2,2                                  0   8  1086  V /01 097 2       1163
6213 46 44          MCW   0&X3,X3                                     0   7  1094  M 0?0 099         1163
6214 46 45          MCW   X3,CODE#3                                   0   7  1101  M 099 P61         1164
6215 46 46          MCW   BLNKS,CNTR                                  0   7  1108  M Q14 Q28         1164
6216 46 47          MCW   @]@,40&X1        11-5-8                     0   7  1115  M P62 0U0         1164
6217 46 48          SBR   KLOBR&6,40&X1                               0   7  1122  H /85 0U0         1164
6218 46 49          B     MVDWN                                       0   4  1129  B S57             1164
6219 46 50          BCE   IF,2&X1,E                                   0   8  1133  B S21 0|2 E       1165
6220 46 51          C     2&X1,@R@                                    0   7  1141  C 0|2 P63         1165
6221 46 52          BU    DUN                                         0   5  1148  B N19 /           1165
6222 46 53   ARITH  MCW   X1,X3                                       0   7  1153  M 089 099         1165
6223 46 54          SBR   TUKIT&3,0&X1                               0   7  1160  H M96 0|0         1165
6224 46 55          C     0&X3                                        0   4  1167  C 0?0             1165
6225 46 56          SAR   NEXT#3                                      0   4  1171  Q P66             1166
6226 46 57          B     GETLF                                       0   4  1175  B S91             1166
6227 46 58   KLOBR  BCE   CNTRL,0,]        11-5-8                     0   8  1179  B T81 000 ]       1166
6228 46 59          FQUIT                                                                MACRO
6229                CS    332                                         0   4  1187  / 332       GEN   1166
6230                CS                                                0   1  1191  /           GEN   1166
6231                CC    1                                           0   2  1192  F 1         GEN   1166
6232                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   0   7  1194  M Q02 270   GEN   1166
6233                W                                                 0   1  1201  2           GEN   1167
6234                CC    1                                           0   2  1202  F 1         GEN   1167
6235                BCE   *&6,MONTOR,1                                0   8  1204  B S17 769 1 GEN   1167
6236                RWD   1                                           0   5  1212  U %U1 R     GEN   1167
6237                H     *-3                                         0   4  1217  . S17       GEN   1167
6238 46 60   IF     MCW   X1,X3                                       0   7  1221  M 089 099         1167
6239 46 61   RUCOM  BCE   PASS,0&X3,,                                 0   8  1228  B S44 0?0 ,       1167
6240 46 62          SBR   X3                                          0   4  1236  H 099             1168
6241 46 63          B     RUCOM                                       0   4  1240  B S28             1168
6242 46 64   PASS   MN    0&X3                                        0   4  1244  D 0?0             1168
6243 46 65          SW                                                0   1  1248  ,                 1168
6244 46 66          B     MVDWN                                       0   4  1249  B S57             1168
6245 46 67          B     ARITH                                       0   4  1253  B /53             1168
6246 46 68   MVDWN  SBR   EXMVD&3                                     0   4  1257  H S90             1168
6247 46 69          MCW   NXBTM,X2                                    0   7  1261  M P55 094         1169
6248 46 70          LCA   0&X1,0&X2                                   0   7  1268  L 0|0 0!0         1169
6249 46 71          SBR   NXBTM                                       0   4  1275  H P55             1169
6250 46 72          C     0&X1                                        0   4  1279  C 0|0             1169
6251 46 73          SAR   X1                                          0   4  1283  Q 089             1169
6252 46 74   EXMVD  B     0                                           0   4  1287  B 000             1169
6253 46 75   GETLF  SBR   EXGTL&3                                     0   4  1291  H T46             1169
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS              SFX CT  LOCN  INSTRUCTION TYPE  CARD
6254 46 76          BCE   SBSCR,0&X3,$           0   8  1295  B T47 0?0 $       1170
6255 46 77   LOOP   MCW   0&X3,PHILF            0   7  1303  M 0?0 Q15         1170
6256 46 78          SAR   X3                     0   4  1310  Q 099             1170
6257 46 79          MCW   PHILF,*&8              0   7  1314  M Q15 T28         1170
6258 46 80          BCE   EXGTL,OPS,0            0   8  1321  B T43 O42 0       1170
6259 46 81          CHAIN 10                                                MACRO
6260                BCE                          0   1  1329  B           GEN   1170
6261                BCE                          0   1  1330  B           GEN   1170
6262                BCE                          0   1  1331  B           GEN   1171
6263                BCE                          0   1  1332  B           GEN   1171
6264                BCE                          0   1  1333  B           GEN   1171
6265                BCE                          0   1  1334  B           GEN   1171
6266                BCE                          0   1  1335  B           GEN   1171
6267                BCE                          0   1  1336  B           GEN   1171
6268                BCE                          0   1  1337  B           GEN   1171
6269                BCE                          0   1  1338  B           GEN   1172
6270 46 82          B     LOOP                   0   4  1339  B T03             1172
6271 46 83   EXGTL  B     0                      0   4  1343  B 000             1172
6272 46 84   SBSCR  C     0&X3,BLNKS#12          0   7  1347  C 0?0 Q14         1172
6273 46 85          SAR   X3                     0   4  1354  Q 099             1172
6274 46 86          BCE   EXGTL,2&X3,$          0   8  1358  B T43 0?2 $       1172
6275 46 87          C     0&X3,BLNKS-6           0   7  1366  C 0?0 Q08         1172
6276 46 88          SAR   X3                     0   4  1373  Q 099             1173
6277 46 89          B     EXGTL                  0   4  1377  B T43             1173
6278 46 90   CNTRL  MCW   1&X3,PHILF#1           0   7  1381  M 0?1 Q15         1173
6279 46 91          MCW   1&X1,PHIRT#1           0   7  1388  M 0|1 Q16         1173
6280 46 92          MCW   PHIRT,CKOP&7           0   7  1395  M Q16 V46         1173
6281 46 93          MCW   BLNKS,UNITS#3          0   7  1402  M Q14 Q19         1173
6282 46 94          B     GTNUM                  0   4  1409  B V16             1174
6283 46 95          MN    NUM#1,UNITS-1          0   7  1413  D Q20 Q18         1174
6284 46 96          MCW   PHILF,CKOP&7           0   7  1420  M Q15 V46         1174
6285 46 97          B     GTNUM                  0   4  1427  B V16             1174
6286 46 98          MN    NUM,UNITS              0   7  1431  D Q20 Q19         1174
6287 46 99          MCW   UNITS,X2               0   7  1438  M Q19 094         1174
6288 47 00          MN    MATRX&X2,X2            0   7  1445  D OM3 094         1175
6289 47 01          MCW   BLNKS                  0   4  1452  M Q14             1175
6290 47 02          BWZ   ERR5,X2,S              0   8  1456  V K61 094 S       1175
6291 47 03          A     X2                     0   4  1464  A 094             1175
6292 47 04          A     X2                     0   4  1468  A 094             1175
6293 47 05          B     *&1&X2                 0   4  1472  B UP6             1175
6294 47 06          B     SKIP                   0   4  1476  B W03             1175
6295 47 07          B     PAREN                  0   4  1480  B W18             1176
6296 47 08          B     FORCE                  0   4  1484  B W59             1176
6297 47 09          B     EOJ                    0   4  1488  B M58             1176
6298 47 10          B     NEG                    0   4  1492  B Z48             1176
6299 47 11          B     FUN                    0   4  1496  B Z81             1176
6300 47 12          B     ERR1                   0   4  1500  B M13             1176
6301 47 13          B     ERR2                   0   4  1504  B L75             1176
6302 47 14          B     ERR3                   0   4  1508  B L37             1177
6303 47 15          B     ERR4                   0   4  1512  B K99             1177
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6304 47 16   GTNUM  SBR   CKOP&3                    0   4  1516  H V42             1177
6305 47 17          BCE   GOTUM,CKOP&7,-            0   8  1520  B V62 V46 -       1177
6306 47 18   NISH   S     NUM                       0   4  1528  S Q20             1177
6307 47 19          MCW   &OPS,CKOP&6               0   7  1532  M Q23 V45         1177
6308 47 20   CKOP   BCE   0,0,0                     0   8  1539  B 000 000 0       1177
6309 47 21          SBR   CKOP&6                    0   4  1547  H V45             1178
6310 47 22          A     @1@,NUM                   0   7  1551  A Q24 Q20         1178
6311 47 23          B     CKOP                      0   4  1558  B V39             1178
6312 47 24   GOTUM  MCW   @&@,CKOP&7                0   7  1562  M Q25 V46         1178
6313 47 25          B     NISH                      0   4  1569  B V28             1178
6314 47 26   GNTMP  SBR   EXGTP&3                   0   4  1573  H W02             1178
6315 47 27          A     @1@,CNTR#3                0   7  1577  A Q24 Q28         1178
6316 47 28          MZ    CNTR-1,TEMP               0   7  1584  Y Q27 N72         1179
6317 47 29          MN    CNTR,TEMP                 0   7  1591  D Q28 N72         1179
6318 47 30          MN                              0   1  1598  D                 1179
6319 47 31   EXGTP  B     0                         0   4  1599  B 000             1179
6320 47 32   SKIP   MCW   X3,X1                     0   7  1603  M 099 089         1179
6321 47 33          B     GETLF                     0   4  1610  B S91             1179
6322 47 34          B     CNTRL                     0   4  1614  B T81             1179
6323 47 35   PAREN  SW    2&X3                      0   4  1618  , 0?2             1180
6324 47 36          LCA   0&X1,1&X1                 0   7  1622  L 0|0 0|1         1180
6325 47 37          CW    3&X3                      0   4  1629  ) 0?3             1180
6326 47 38          CW                              0   1  1633  )                 1180
6327 47 39          LCA   0&X3,2&X3                 0   7  1634  L 0?0 0?2         1180
6328 47 40          SBR   X1,1&X1                   0   7  1641  H 089 0|1         1180
6329 47 41          SBR   X3,1&X3                   0   7  1648  H 099 0?1         1180
6330 47 42          B     CNTRL                     0   4  1655  B T81             1181
6331 47 43   FORCE  MCW   NXBTM,X2                  0   7  1659  M P55 094         1181
6332 47 44          MZ    4&X3,ZONE#1               0   7  1666  Y 0?4 Q29         1181
6333 47 45          BCE   *&8,2&X3,$                0   8  1673  B W88 0?2 $       1181
6334 47 46          MZ    3&X3,ZONE                 0   7  1681  Y 0?3 Q29         1181
6335 47 47          SW    2&X3                      0   4  1688  , 0?2             1181
6336 47 48          LCA   0&X1,0&X2                 0   7  1692  L 0|0 0!0         1182
6337 47 49          SBR   X2                        0   4  1699  H 094             1182
6338 47 50          CW    1&X2                      0   4  1703  ) 0!1             1182
6339 47 51          SW    2&X1                      0   4  1707  , 0|2             1182
6340 47 52          SW                              0   1  1711  ,                 1182
6341 47 53          LCA   1&X1,0&X2                 0   7  1712  L 0|1 0!0         1182
6342 47 54          SBR   X2                        0   4  1719  H 094             1182
6343 47 55          SBR   NXBTM                     0   4  1723  H P55             1183
6344 47 56          CW    1&X2                      0   4  1727  ) 0!1             1183
6345 47 57          BCE   SBVRT,2&X1,$              0   8  1731  B Y90 0|2 $       1183
6346 47 58          LCA   4&X1,0&X2                 0   7  1739  L 0|4 0!0         1183
6347 47 59          SBR   NXBTM                     0   4  1746  H P55             1183
6348 47 60          MZ    3&X1,TEMP-1               0   7  1750  Y 0|3 N71         1183
6349 47 61          SAR   X1                        0   4  1757  Q 089             1183
6350 47 62   FNISH  B     GNTMP                     0   4  1761  B V73             1184
6351 47 63          LCA   TEMP,2&X1                 0   7  1765  L N72 0|2         1184
6352 47 64          LCA   1&X3                      0   4  1772  L 0?1             1184
6353 47 65          CW    0&X1                      0   4  1776  ) 0|0             1184
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6354 47 66          MN                                              0   1  1780  D                   1184
6355 47 67          SAR   X3                                        0   4  1781  Q 099               1184
6356 47 68          SBR   X1,2&X1                                  0   7  1785  H 089 0|2           1184
6357 47 69          BWZ   RUINT,TEMP-1,S                           0   8  1792  V Y36 N71 S         1185
6358 47 70          BWZ   RUINT,TEMP-1,K                           0   8  1800  V Y36 N71 K         1185
6359 47 71          BWZ   KLOBR,ZONE,2                            0   8  1808  V /79 Q29 2         1185
6360 47 72          BWZ   KLOBR,ZONE,B                            0   8  1816  V /79 Q29 B         1185
6361 47 73          BCE   KLOBR,PHIRT,.                           0   8  1824  B /79 Q16 .         1186
6362 47 74          B     ERR46                                     0   4  1832  B Y52               1186
6363 47 75  RUINT  BWZ   KLOBR,ZONE,S                            0   8  1836  V /79 Q29 S         1186
6364 47 76          BWZ   KLOBR,ZONE,K                            0   8  1844  V /79 Q29 K         1186
6365 47 77  ERR46  FTMSG 46,MIXING IN ARITH,CODE,17                                          MACRO
6366        ERR46  CS    332                                       0   4  1852  / 332         GEN   1186
6367               CS                                             0   1  1856  /             GEN   1186
6368               SW    FAILSW                                    0   4  1857  , 184         GEN   1186
6369               MN    CODE,224&17                               0   7  1861  D P61 241     GEN   1187
6370               MN                                              0   1  1868  D             GEN   1187
6371               MN                                              0   1  1869  D             GEN   1187
6372               MCW   @ERROR 46 - MIXING IN ARITH, STATEMENT @   0   4  1870  M Q67         GEN   1187
6373               W                                               0   1  1874  2             GEN   1187
6374               BCV   *&5                                       0   5  1875  B Y84 @       GEN   1187
6375               B     *&3                                       0   4  1880  B Y86         GEN   1187
6376               CC    1                                         0   2  1884  F 1           GEN   1188
6377 47 78          B     KILL                                      0   4  1886  B M47               1188
6378 47 79  SBVRT  SBR   X2,10&X1                                  0   7  1890  H 094 0/0           1188
6379 47 80          BCE   SEND,2&X2,$                             0   8  1897  B Z12 0!2 $         1188
6380 47 81          SBR   X2,6&X2                                  0   7  1905  H 094 0!6           1188
6381 47 82  SEND   MCW   NXBTM,*&7                                0   7  1912  M P55 Z25           1188
6382 47 83          LCA   2&X2,0                                   0   7  1919  L 0!2 000           1189
6383 47 84          SBR   NXBTM                                     0   4  1926  H P55               1189
6384 47 85          MZ    4&X1,TEMP-1                               0   7  1930  Y 0|4 N71           1189
6385 47 86          MCW   X2,X1                                     0   7  1937  M 094 089           1189
6386 47 87          B     FNISH                                     0   4  1944  B X61               1189
6387 47 88  NEG    MCW   @N@,1&X1                                  0   7  1948  M Q68 0|1           1189
6388 47 89          MZ    4&X3,TEMP-1                               0   7  1955  Y 0?4 N71           1190
6389 47 90          BCE   FUNY,2&X3,$                               0   8  1962  B J17 0?2 $         1190
6390 47 91          MZ    3&X3,TEMP-1                               0   7  1970  Y 0?3 N71           1190
6391 47 92          B     FUNY                                      0   4  1977  B J17               1190
6392 47 93  FUN    MCW   3&X1,TYPE#2                               0   7  1981  M 0|3 Q70           1190
6393 47 94          BCE   FXMOD,3&X1,X                              0   8  1988  B J75 0|3 X         1191
6394 47 95          MZ    *-4,TEMP-1                                0   7  1996  Y Z98 N71           1191
6395 47 96  CKUSR  SW    2&X1                                      0   4  2003  , 0|2               1191
6396 47 97          MCW   2&X1,*&8                                  0   7  2007  M 0|2 !21           1191
6397 47 98          BCE   OKAY,@RUPWYZKJLMDH@,0                    0   8  2014  B !99 Q82 0         1191
6398 47 99          CHAIN 11                                                                 MACRO
6399               BCE                                             0   1  2022  B             GEN   1191
6400               BCE                                             0   1  2023  B             GEN   1191
6401               BCE                                             0   1  2024  B             GEN   1192
6402               BCE                                             0   1  2025  B             GEN   1192
6403               BCE                                             0   1  2026  B             GEN   1192
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6404				BCE		0	1	2027	B	GEN	1192
6405				BCE		0	1	2028	B	GEN	1192
6406				BCE		0	1	2029	B	GEN	1192
6407				BCE		0	1	2030	B	GEN	1192
6408				BCE		0	1	2031	B	GEN	1193
6409				BCE		0	1	2032	B	GEN	1193
6410	48	00		MZ	4&X3,ZONE	0	7	2033	Y 0?4 Q29		1193
6411	48	01		BCE	*&8,2&X3,$	0	8	2040	B !55 0?2 $		1193
6412	48	02		MZ	3&X3,ZONE	0	7	2048	Y 0?3 Q29		1193
6413	48	03		BCE	RUFIX,2&X1,F	0	8	2055	B K07 0|2 F		1193
6414	48	04		BCE	RUFIX,2&X1,I	0	8	2063	B K07 0|2 I		1194
6415	48	05		C	TYPE,@AX@	0	7	2071	C Q70 Q84		1194
6416	48	06		BE	RUFIX	0	5	2078	B K07 S		1194
6417	48	07		BWZ	ERR6,ZONE,S	0	8	2083	V K23 Q29 S		1194
6418	48	08		BWZ	ERR6,ZONE,K	0	8	2091	V K23 Q29 K		1194
6419	48	09	OKAY	MCW	2&X1,1&X1	0	7	2099	M 0|2 0|1		1195
6420	48	10		MCW	@%@,2&X1	0	7	2106	M Q85 0|2		1195
6421	48	11		CW	2&X1	0	4	2113	) 0|2		1195
6422	48	12	FUNY	MCW	NXBTM,X2	0	7	2117	M P55 094		1195
6423	48	13		SW	2&X3	0	4	2124	, 0?2		1195
6424	48	14		LCA	1&X1,0&X2	0	7	2128	L 0|1 0!0		1195
6425	48	15		SBR	NXBTM	0	4	2135	H P55		1196
6426	48	16		B	GNTMP	0	4	2139	B V73		1196
6427	48	17		LCA	TEMP,1&X1	0	7	2143	L N72 0|1		1196
6428	48	18		LCA	1&X3	0	4	2150	L 0?1		1196
6429	48	19		MN	0&X1	0	4	2154	D 0|0		1196
6430	48	20		CW		0	1	2158	)		1196
6431	48	21		MN		0	1	2159	D		1196
6432	48	22		SAR	X3	0	4	2160	Q 099		1197
6433	48	23		SBR	X1,1&X1	0	7	2164	H 089 0|1		1197
6434	48	24		B	KLOBR	0	4	2171	B /79		1197
6435	48	25	FXMOD	MZ	*-6,TEMP-1	0	7	2175	Y J75 N71		1197
6436	48	26		LCA	2&X1,3&X1	0	7	2182	L 0|2 0|3		1197
6437	48	27		SBR	X1,1&X1	0	7	2189	H 089 0|1		1197
6438	48	28		SBR	X3,1&X3	0	7	2196	H 099 0?1		1198
6439	48	29		B	CKUSR	0	4	2203	B !03		1198
6440	48	30	RUFIX	BWZ	OKAY,ZONE,S	0	8	2207	V !99 Q29 S		1198
6441	48	31		BWZ	OKAY,ZONE,K	0	8	2215	V !99 Q29 K		1198
6442	48	32	ERR6	CS	332	0	4	2223	/ 332		1198
6443	48	33		CS		0	1	2227	/		1198
6444	48	34		SW	FAILSW	0	4	2228	, 184		1198
6445	48	35		MN	CODE,224&37	0	7	2232	D P61 261		1199
6446	48	36		MN		0	1	2239	D		1199
6447	48	37		MN		0	1	2240	D		1199
6448	48	38		MCW	BGMSG	0	4	2241	M O31		1199
6449	48	39		W		0	1	2245	2		1199
6450	48	40		BCV	*&5	0	5	2246	B K55 @		1199
6451	48	41		B	*&3	0	4	2251	B K57		1199
6452	48	42		CC	1	0	2	2255	F 1		1200
6453	48	43		B	KILL	0	4	2257	B M47		1200

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6454 48 44   ERR5   FTMSG  24,SYSTEM ERROR,CODE,14                                                MACRO
6455         ERR5   CS     332                                        0  4  2261  / 332       GEN   1200
6456                CS                                               0  1  2265  /           GEN   1200
6457                SW     FAILSW                                    0  4  2266  , 184       GEN   1200
6458                MN     CODE,224&14                               0  7  2270  D P61 238   GEN   1200
6459                MN                                               0  1  2277  D           GEN   1200
6460                MN                                               0  1  2278  D           GEN   1201
6461                MCW    @ERROR 24 - SYSTEM ERROR, STATEMENT @     0  4  2279  M R20       GEN   1201
6462                W                                                0  1  2283  2           GEN   1201
6463                BCV    *&5                                       0  5  2284  B K93 @     GEN   1201
6464                B      *&3                                       0  4  2289  B K95       GEN   1201
6465                CC     1                                         0  2  2293  F 1         GEN   1201
6466 48 45          B      KILL                                      0  4  2295  B M47               1201
6467 48 46   ERR4   FTMSG  26,EXCESS OF # SIGNS,CODE,19                                          MACRO
6468         ERR4   CS     332                                        0  4  2299  / 332       GEN   1202
6469                CS                                               0  1  2303  /           GEN   1202
6470                SW     FAILSW                                    0  4  2304  , 184       GEN   1202
6471                MN     CODE,224&19                               0  7  2308  D P61 243   GEN   1202
6472                MN                                               0  1  2315  D           GEN   1202
6473                MN                                               0  1  2316  D           GEN   1202
6474                MCW    @ERROR 26 - EXCESS OF # SIGNS, STATEMENT @0  4  2317  M R60       GEN   1202
6475                W                                                0  1  2321  2           GEN   1203
6476                BCV    *&5                                       0  5  2322  B L31 @     GEN   1203
6477                B      *&3                                       0  4  2327  B L33       GEN   1203
6478                CC     1                                         0  2  2331  F 1         GEN   1203
6479 48 47          B      KILL                                      0  4  2333  B M47               1203
6480 48 48   ERR3   FTMSG  32,MULTIPLE EXPONENT,CODE,19                                         MACRO
6481         ERR3   CS     332                                        0  4  2337  / 332       GEN   1203
6482                CS                                               0  1  2341  /           GEN   1203
6483                SW     FAILSW                                    0  4  2342  , 184       GEN   1204
6484                MN     CODE,224&19                               0  7  2346  D P61 243   GEN   1204
6485                MN                                               0  1  2353  D           GEN   1204
6486                MN                                               0  1  2354  D           GEN   1204
6487                MCW    @ERROR 32 - MULTIPLE EXPONENT, STATEMENT @0  4  2355  M ?00       GEN   1204
6488                W                                                0  1  2359  2           GEN   1204
6489                BCV    *&5                                       0  5  2360  B L69 @     GEN   1204
6490                B      *&3                                       0  4  2365  B L71       GEN   1205
6491                CC     1                                         0  2  2369  F 1         GEN   1205
6492 48 49          B      KILL                                      0  4  2371  B M47               1205
6493 48 50   ERR2   FTMSG  16,PARENTHESIS ERROR,CODE,19                                         MACRO
6494         ERR2   CS     332                                        0  4  2375  / 332       GEN   1205
6495                CS                                               0  1  2379  /           GEN   1205
6496                SW     FAILSW                                    0  4  2380  , 184       GEN   1205
6497                MN     CODE,224&19                               0  7  2384  D P61 243   GEN   1205
6498                MN                                               0  1  2391  D           GEN   1206
6499                MN                                               0  1  2392  D           GEN   1206
6500                MCW    @ERROR 16 - PARENTHESIS ERROR, STATEMENT @0  4  2393  M ?40       GEN   1206
6501                W                                                0  1  2397  2           GEN   1206
6502                BCV    *&5                                       0  5  2398  B M07 @     GEN   1206
6503                B      *&3                                       0  4  2403  B M09       GEN   1206
```

```
 SEQ PG LIN  LABEL   OP     OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
6504                CC     1                                                        0   2  2407  F 1         GEN   1206
6505 48  51        B      KILL                                                     0   4  2409  B M47             1207
6506 48  52  ERR1  FTMSG  25,LEFT SIDE INVALID,CODE,19                                          MACRO
6507        ERR1    CS     332                                                      0   4  2413  / 332       GEN   1207
6508                CS                                                              0   1  2417  /           GEN   1207
6509                SW     FAILSW                                                   0   4  2418  , 184       GEN   1207
6510                MN     CODE,224&19                                              0   7  2422  D P61 243   GEN   1207
6511                MN                                                              0   1  2429  D           GEN   1207
6512                MN                                                              0   1  2430  D           GEN   1207
6513                MCW    @ERROR 25 - LEFT SIDE INVALID, STATEMENT @               0   4  2431  M ?80       GEN   1208
6514                W                                                               0   1  2435  2           GEN   1208
6515                BCV    *&5                                                      0   5  2436  B M45 @     GEN   1208
6516                B      *&3                                                      0   4  2441  B M47       GEN   1208
6517                CC     1                                                        0   2  2445  F 1         GEN   1208
6518 48  53  KILL   MCW    HEX2,NXBTM                                               0   7  2447  M P58 P55         1208
6519 48  54        B      RESET                                                    0   4  2454  B N08             1208
6520 48  55  EOJ    MCW    NXBTM,X2                                                 0   7  2458  M P55 094         1209
6521 48  56        SW     2&X3                                                     0   4  2465  , 0?2             1209
6522 48  57        LCA    0&X1,0&X2                                                0   7  2469  L 0|0 0!0         1209
6523 48  58        LCA    @#@                                                      0   4  2476  L ?81             1209
6524 48  59        SBR    X2                                                       0   4  2480  H 094             1209
6525 48  60        CW     2&X2                                                     0   4  2484  ) 0!2             1209
6526 48  61        CW                                                              0   1  2488  )                 1209
6527 48  62        SW     2&X1                                                     0   4  2489  , 0|2             1210
6528 48  63  TUKIT  LCA    0,0&X2                                                   0   7  2493  L 000 0!0         1210
6529 48  64        LCA    GM                                                       0   4  2500  L N73             1210
6530 48  65        SBR    NXBTM                                                    0   4  2504  H P55             1210
6531 48  66  RESET  MCW    NEXT,X1                                                  0   7  2508  M P66 089         1210
6532 48  67        B      START                                                    0   4  2515  B |60             1210
6533 48  68  DUN    SBR    X1,5&X1                                                  0   7  2519  H 089 0|5         1210
6534 48  69        MCW    NXBTM,X3                                                 0   7  2526  M P55 099         1211
6535 48  70        SBR    X2,5&X3                                                  0   7  2533  H 094 0?5         1211
6536 48  71        MCW    NOMO,X3                                                  0   7  2540  M P45 099         1211
6537 48  72  OUT    FENDX  C,,,,,,SYSGM,ARITH TRI                                             MACRO
6538        OUT     BSS    333,C                                                    0   5  2547  B 333 C     GEN   1211
6539                SBR    TCLEAR,SYSGM                                             0   7  2552  H 710 ?91   GEN   1211
6540                LCA    @ARITH TRI@,110                                          0   7  2559  L ?90 110   GEN   1212
6541                B      MONTER                                                   0   4  2566  B 700       GEN   1212
6542 48  73        DCW    @<@        DELTA   12-6-8                                0   1  2570                    1212
6543 48  74  TEMP   DC     @  @      BLANKS                                        0   2  2572                    1212
6544 48  75  GM     DC     @}@      GROUP MK                                       0   1  2573                GMARK 1212
6545 48  76        DCW    @ERROR 28 - INCORRECT MODE OF FUNCTION ARGUMENT, ST@     0  50  2623                    1214
6546 48  77  BGMSG  DC     @ATEMENT @                                               0   8  2631                    1214
6547 48  78        DCW    @-@                                                      0   1  2632                    1214
6548 48  79  OPS    DCW    @, .@&}#%)*@        PLUS, G-M, EQUAL                     0  10  2642                    1214
6549 48  80  MATRX  EQU    *&1                                                      0      2643
6550 48  81        DC     @220922200SSSSSSSSSS0109700000070930000066605666666@     0  50  2692                    1216
6551 48  82        DC     @020922000S220922200S220922280S0509700000440944400S@     0  50  2742                    1218
6552 48  83  *
6553 48  84  *
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

6554 48 85   *    ARITH ALGORITHM
6555 48 86   *
6556 48 87   *
6557 48 88   *
6558 48 89   *                      PHI LEFT
6559 48 90   *
6560 48 91   *                                          -
6561 48 92   *              *   )   %   #  GM   &   /  **  F%  NG
6562 48 93   *
6563 48 94   *   P     *    2   2   0   9   2   2   2   0   0   S
6564 48 95   *   H     )    S   S   S   S   S   S   S   S   S   S
6565 48 96   *   I     %    0   1   0   9   7   0   0   0   0   0
6566 48 97   *         #    0   7   0   9   3   0   0   0   0   0
6567 48 98   *   R    GM    6   6   6   0   S   6   6   6   6   6
6568 48 99   *   I    -&    0   2   0   9   2   2   0   0   0   S
6569 49 00   *   G     /    2   2   0   9   2   2   2   0   0   S
6570 49 01   *   H   .**    2   2   0   9   2   2   2   8   0   S
6571 49 02   *   T    F%    0   5   0   9   7   0   0   0   0   0
6572 49 03   *       ,NG    4   4   0   9   4   4   4   0   0   S
6573 49 04   *
6574 49 05   *
6575 49 06   *          0  SKIP TO NEXT OP
6576 49 07   *          1  DELETE PARENS
6577 49 08   *          2  FORCE BINARY OP
6578 49 09   *          3  EOJ
6579 49 10   *          4  NEGATE FN
6580 49 11   *          5  OTHER FN
6581 49 12   *          6  LEFT SIDE INVALID
6582 49 13   *          7  PAREN ERROR
6583 49 14   *          8  DOUBLE EXPONENTIATION
6584 49 15   *          9  MULTIPLE # SIGNS
6585 49 16   *          S  COMPILER ERROR
6586 49 17   *
6587 49 18   *
6588 49 19          LTORG *                                          0            2743
             NOMO 0 DCW   #03                                      0   3  2745             AREA  1218
             TAIL 0 DCW   #02                                      0   2  2747             AREA  1218
                    DCW   @00@                                     0   2  2749             LIT   1218
             LAST 0 DCW   #03                                      0   3  2752             AREA  1218
             NXBTM0 DCW   #03                                      0   3  2755             AREA  1219
             HEX2 0 DCW   #03                                      0   3  2758             AREA  1219
             CODE 0 DCW   #03                                      0   3  2761             AREA  1219
                    DCW   @]@                                      0   1  2762             LIT   1219
                    DCW   @R@                                      0   1  2763             LIT   1219
             NEXT 0 DCW   #03                                      0   3  2766             AREA  1219
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@   0  36  2802             LIT   1220
             BLNKS0 DCW   #12                                      0  12  2814             AREA  1221
             PHILF0 DCW   #01                                      0   1  2815             AREA  1221
             PHIRT0 DCW   #01                                      0   1  2816             AREA  1221
             UNITS0 DCW   #03                                      0   3  2819             AREA  1221
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
			NUM 0	DCW	#01	0	1	2820		AREA	1221
				DCW	&OPS 0	0	3	2823	O42	ADCON	1221
				DCW	@1@	0	1	2824		LIT	1221
				DCW	@&@	0	1	2825		LIT	1222
			CNTR 0	DCW	#03	0	3	2828		AREA	1222
			ZONE 0	DCW	#01	0	1	2829		AREA	1222
				DCW	@ERROR 46 - MIXING IN ARITH, STATEMENT @	0	38	2867		LIT	1223
				DCW	@N@	0	1	2868		LIT	1223
			TYPE 0	DCW	#02	0	2	2870		AREA	1224
				DCW	@RUPWYZKJLMDH@	0	12	2882		LIT	1224
				DCW	@AX@	0	2	2884		LIT	1224
				DCW	@%@	0	1	2885		LIT	1224
				DCW	@ERROR 24 - SYSTEM ERROR, STATEMENT @	0	35	2920		LIT	1225
				DCW	@ERROR 26 - EXCESS OF # SIGNS, STATEMENT @	0	40	2960		LIT	1227
				DCW	@ERROR 32 - MULTIPLE EXPONENT, STATEMENT @	0	40	3000		LIT	1229
				DCW	@ERROR 16 - PARENTHESIS ERROR, STATEMENT @	0	40	3040		LIT	1231
				DCW	@ERROR 25 - LEFT SIDE INVALID, STATEMENT @	0	40	3080		LIT	1233
				DCW	@#@	0	1	3081		LIT	1233
				DCW	@ARITH TRI@	0	9	3090		LIT	1233
6589	49	20	SYSGM	DCW	@}@ SYSTEM GROUP MK	0	1	3091		GMARK	1233
6590	49	21		XFR	INITL	0			B 838		1234

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

6591 49 22          JOB   ARITH PHASE THREE
6592 49 23          SFX   [         12-5-8
6593 49 24   110    DCW   @ARITH 3@                          [   7  0110                   1237
6594 49 25          ORG   XBEGIN                             [            0838
6595 49 26   START  FENDX C,,,,,,SYSGM,ARITH 4                                 MACRO
6596         START  BSS   333,C                               [   5  0838  B 333 C     GEN   1238
6597                SBR   TCLEAR,SYSGM                       [   7  0843  H 710 |68   GEN   1238
6598                LCA   @ARITH 4@,110                      [   7  0850  L |67 110   GEN   1238
6599                B     MONTER                             [   4  0857  B 700       GEN   1238
6600 49 27          ORG   *&200                             [            1061
6601 49 28          LTORG *                                  [            1061
                    DCW   @ARITH 4@                          [   7  1067              LIT   1239
6602 49 29   SYSGM  DCW   @}@           SYSTEM GM           [   1  1068              GMARK 1239
6603 49 30          XFR   START                              [            B 838             1240
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

6604 49 31          JOB   ARITH PHASE FOUR
6605 49 32          FBEGN ARITH 4,  X1,,X2,,X3,,7                                              MACRO
6606                SFX   7                                                                    GEN
6607          110   DCW   @ARITH 4@                                  7   7  0110              GEN   1243
6608          X1    EQU   089                                       7      0089              GEN
6609          X2    EQU   094                                       7      0094              GEN
6610          X3    EQU   099                                       7      0099              GEN
6611 49 33          ORG   XBEGIN                                    7             0838
6612 49 34    *  START - INITIALIZATION
6613 49 35    START BCE   FENDX,X2,.                                7   8  0838  B R37 094 .       1244
6614 49 36          SW    GM1                                       7   4  0846  , K40             1244
6615 49 37          SBR   SAVX3#3,0&X3                              7   7  0850  H R62 0?0         1244
6616 49 38          SBR   X1,1&X1                                   7   7  0857  H 089 0|1         1244
6617 49 39          SBR   X2,1&X2                                   7   7  0864  H 094 0!1         1244
6618 49 40    *  START OF EVERY STATEMENT
6619 49 41    NUSTM S     TBLR                                      7   4  0871  S N72             1244
6620 49 42          C     X2, SAVX3                                 7   7  0875  C 094 R62         1245
6621 49 43          BE    FENDX                                     7   5  0882  B R37 S           1245
6622 49 44          MCW   BLK4,MAXDL                                7   7  0887  M ?45 ?21         1245
6623 49 45          SBR   HEX1#3,0&X1                              7   7  0894  H R65 0|0         1245
6624 49 46    *  START OF EVERY DELTA STRING
6625 49 47    BLKOP MCW   BLK4, HLDOP#1                            7   7  0901  M ?45 R66         1245
6626 49 48    CWPRT CW    PRTSW                                     7   4  0908  ) R36             1245
6627 49 49          B     FIX          X2 AT HIGH ORDER MINUS ONE   7   4  0912  B N73             1246
6628 49 50          BCE   DELT1,LEFT-2,<    12-6-8    X2 AT UNITS POS 7   8  0916  B 974 ?61 <       1246
6629 49 51    CKDL2 BCE   DELT2,RIGHT-2,<   12-6-8                  7   8  0924  B /66 ?86 <       1246
6630 49 52          BCE   OUTPT,1&X2,}      GM                      7   8  0932  B X33 0!1 } GMARK 1246
6631 49 53          BW    BIG,PRTSW                                 7   8  0940  V T02 R36 1       1246
6632 49 54    ADD3  A     @I99@,CURDL#3                             7   7  0948  A R69 R72         1247
6633 49 55          MCW   CURDL,X3                                  7   7  0955  M R72 099         1247
6634 49 56          BCE   ADD3,TABLE&X3,1                           7   8  0962  B 948 KD1 1       1247
6635 49 57          B     BLKOP                                     7   4  0970  B 901             1247
6636 49 58    *   DELTA IS LEFT OPERAND
6637 49 59    DELT1 BCE   CKDL2,OP,#                                7   8  0974  B 924 ?64 #       1247
6638 49 60          BCE   TUF,OP,.                                  7   8  0982  B T28 ?64 .       1248
6639 49 61          B     CVTDL                                     7   4  0990  B P58             1248
6640 49 62          DCW   LEFT                                      7   3  0996  ?63               1248
6641 49 63    D2    B     GETDL            CVT3 HAS DELTA NO OF SOUGHT TEMP 7 4  0997  B Q37       1248
6642 49 64          MN    &1,TABLE&X1      MARK DELTA DELETED       7   7  1001  D R73 KU1         1248
6643 49 65          LCA   0&X3,HLD35#35                             7   7  1008  L 0?0 ?08         1248
6644 49 66          SAR   X1                                        7   4  1015  Q 089             1248
6645 49 67    *   DELETE TEMP
6646 49 68    CMP3  C     X1,X2                                     7   7  1019  C 089 094         1249
6647 49 69          BE    HLFT                                      7   5  1026  B |54 S           1249
6648 49 70          MVDWN X1,X3                                                                MACRO
6649                LCA   0&X1,0&X3                                 7   7  1031  L 0|0 0?0   GEN   1249
6650                SAR   X1                                        7   4  1038  Q 089       GEN   1249
6651                C     0&X3                                      7   4  1042  C 0?0       GEN   1249
6652                SAR   X3                                        7   4  1046  Q 099       GEN   1249
6653 49 71          B     CMP3                                      7   4  1050  B |19             1249
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6654 49 72   *  X1 # X2 UNITS POSN OF TEMP TO BE OPTIMIZED
6655 49 73   * X3 # UNITS OF INSERTION OF OPTIMIZED TEMP
6656 49 74   *  INSERT TEMP IN STRING
6657 49 75   HLFT   C     0&X2                                       7   4  1054  C 0!0             1250
6658 49 76          SAR   X1              X1 AT HI ORD OF OLD TEMP   7   4  1058  Q 089             1250
6659 49 77          BW    CW2,PRTSW                                  7   8  1062  V R28 R36 1       1250
6660 49 78   CKRT   BCE   NORT,RIGHT,*                               7   8  1070  B /01 ?88 *       1250
6661 49 79          BCE   FST1,OP,#                                 7   8  1078  B W95 ?64 #       1250
6662 49 80          LCA   RIGHT,0&X3                                7   7  1086  L ?88 0?0         1250
6663 49 81          SBR   X3                                        7   4  1093  H 099             1251
6664 49 82          CW    1&X3                                       7   4  1097  ) 0?1             1251
6665 49 83   NORT   LCA   OP,0&X3                                   7   7  1101  L ?64 0?0         1251
6666 49 84          SBR   X3                                        7   4  1108  H 099             1251
6667 49 85          CW    1&X3                                       7   4  1112  ) 0?1             1251
6668 49 86          LCA   HLD35,0&X3                               7   7  1116  L ?08 0?0         1251
6669 49 87          SBR   X3                                        7   4  1123  H 099             1251
6670 49 88          SBR   X2              X2 NOA AT NEW LOC OF TEMP  7   4  1127  H 094             1252
6671 49 89   *   SHIFT REST OF STATEMENT
6672 49 90   LOAD2  LCA   0&X1,0&X3                                  7   7  1131  L 0|0 0?0         1252
6673 49 91          SAR   X1                                        7   4  1138  Q 089             1252
6674 49 92          C     0&X3                                       7   4  1142  C 0?0             1252
6675 49 93          SAR   X3                                        7   4  1146  Q 099             1252
6676 49 94          BCE   *&5,1&X1,}    GM                         7   8  1150  B /62 0|1 } GMARK 1252
6677 49 95          B     LOAD2                                      7   4  1158  B /31             1252
6678 49 96          B     BLKOP                                      7   4  1162  B 901             1253
6679 49 97   *   DELTA IS RIGHT OPERAND
6680 49 98   DELT2  BCE   *&5,HLDOP,       BLANK                    7   8  1166  B /78 R66         1253
6681 49 99          B     CANU                                       7   4  1174  B U96             1253
6682 50 00          BCE   FIRST,OP,#                                 7   8  1178  B W63 ?64 #       1253
6683 50 01          FBCEQ COMUT,OP,&,*                                                 MACRO
6684                BCE   COMUT, OP, &                              7   8  1186  B S14 ?64 & GEN   1253
6685                BCE   COMUT, OP, *                              7   8  1194  B S14 ?64 * GEN   1254
6686 50 02          BCE   NEGAT,OP,-                               7   8  1202  B S39 ?64 -       1254
6687 50 03          B     CKND                                       7   4  1210  B V27             1254
6688 50 04   COMUT  LCA   LEFT,HLD35                                7   7  1214  L ?63 ?08         1254
6689 50 05          LCA   RIGHT,LEFT                                7   7  1221  L ?88 ?63         1254
6690 50 06          LCA   HLD35,RIGHT                               7   7  1228  L ?08 ?88         1255
6691 50 07          B     DELT1                                      7   4  1235  B 974             1255
6692 50 08   NEGAT  BW    KWM,PRTSW                                  7   8  1239  V T79 R36 1       1255
6693 50 09          LCA   LEFT,0&X2                                  7   7  1247  L ?63 0!0         1255
6694 50 10          LCA   @&@                                        7   4  1254  L ?09             1255
6695 50 11          SBR   X2                                        7   4  1258  H 094             1255
6696 50 12          CW    2&X2,XNEGTF                                7   7  1262  ) 0!2 123         1256
6697 50 13   NEG3   LCA   RIGHT,LEFT                                7   7  1269  L ?88 ?63         1256
6698 50 14          LCA   @***@,RIGHT                              7   7  1276  L ?12 ?88         1256
6699 50 15          MCW   @N@,OP                                    7   7  1283  M ?13 ?64         1256
6700 50 16          CW    XNEGTF                                     7   4  1290  ) 123             1256
6701 50 17          SW    PRTSW                                      7   4  1294  , R36             1256
6702 50 18          B     DELT1                                      7   4  1298  B 974             1257
6703 50 19   *   IN THE MIDDLE OF PARTIALLY OPTIMIZED TEMP
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
6704 50 20   BIG    BCE    TUF,RIGHT,*                              7   8  1302  B T28 ?88 *       1257
6705 50 21          MCW    OP,BCE1&7                                7   7  1310  M ?64 T24         1257
6706 50 22   BCE1   BCE    MAYBE,@&-*@@, 0                          7   8  1317  B T91 ?17 0       1257
6707 50 23          CHAIN  3                                                      MACRO
6708                BCE                                             7   1  1325  B           GEN   1257
6709                BCE                                             7   1  1326  B           GEN   1257
6710                BCE                                             7   1  1327  B           GEN   1257
6711 50 24   TUF    BW     *&5,PRTSW                                7   8  1328  V T40 R36 1       1258
6712 50 25          B      ADD3                                     7   4  1336  B 948             1258
6713 50 26          B      KWM                                      7   4  1340  B T79             1258
6714 50 27   TUF2   BW     ADJST,2&X2                               7   8  1344  V T60 0!2 1       1258
6715 50 28          SBR    X2                                       7   4  1352  H 094             1258
6716 50 29          B      TUF2                                     7   4  1356  B T44             1258
6717 50 30   ADJST  SBR    X2,1&X2                                  7   7  1360  H 094 0!1         1258
6718 50 31          BCE    OUTPT,1&X2,}          GM                 7   8  1367  B X33 0!1 } GMARK 1259
6719 50 32          B      ADD3                                     7   4  1375  B 948             1259
6720 50 33   KWM    SBR    KWMXT&3                                  7   4  1379  H T90             1259
6721 50 34          CW     1&X2                                     7   4  1383  ) 0!1             1259
6722 50 35   KWMXT  B      0                                        7   4  1387  B 000             1259
6723 50 36   MAYBE  BCE    *&5,HLDOP,            BLANK              7   8  1391  B U03 R66         1259
6724 50 37          B      ADNL                                     7   4  1399  B U40             1259
6725 50 38          MCW    OP,HLDOP                                 7   7  1403  M ?64 R66         1260
6726 50 39   MESUR  CW     1&X2                                     7   4  1410  ) 0!1             1260
6727 50 40          LCA    RIGHT,0&X2                               7   7  1414  L ?88 0!0         1260
6728 50 41          SBR    X2                                       7   4  1421  H 094             1260
6729 50 42          CW     MIDSW#1                                  7   4  1425  ) ?18             1260
6730 50 43          SBR    CW5&3,1&X2                               7   7  1429  H O17 0!1         1260
6731 50 44          B      CWPRT                                    7   4  1436  B 908             1260
6732 50 45   ADNL   FBCEQ  HOPE,HLDOP,&,-                                                MACRO
6733        ADNL    BCE    HOPE, HLDOP, &                           7   8  1440  B U76 R66 & GEN   1261
6734                BCE    HOPE, HLDOP, -                           7   8  1448  B U76 R66 - GEN   1261
6735 50 46          FBCEQ  MESUR,OP,*,/                                           MACRO
6736                BCE    MESUR, OP, *                             7   8  1456  B U10 ?64 * GEN   1261
6737                BCE    MESUR, OP, /                             7   8  1464  B U10 ?64 / GEN   1261
6738 50 47          B      TUF                                      7   4  1472  B T28             1261
6739 50 48   HOPE   FBCEQ  MESUR,OP,&,-                                           MACRO
6740        HOPE    BCE    MESUR, OP, &                             7   8  1476  B U10 ?64 & GEN   1262
6741                BCE    MESUR, OP, -                             7   8  1484  B U10 ?64 - GEN   1262
6742 50 49          B      TUF                                      7   4  1492  B T28             1262
6743 50 50   *  DELTA FOUND IN MIDDLE OF LARGE STRING
6744 50 51   CANU   MCW    OP,*&8                                   7   7  1496  M ?64 V10         1262
6745 50 52          BCE    SWAP,HLDOP,0                             7   8  1503  B V75 R66 0       1262
6746 50 53          FBCEQ  HOPE2,HLDOP,&,-                                        MACRO
6747                BCE    HOPE2, HLDOP, &                          7   8  1511  B V55 R66 & GEN   1263
6748                BCE    HOPE2, HLDOP, -                          7   8  1519  B V55 R66 - GEN   1263
6749 50 54   CKND   BCE    OUTPT,1&X2,}          GM                 7   8  1527  B X33 0!1 } GMARK 1263
6750 50 55          BW     TUF,PRTSW                                7   8  1535  V T28 R36 1       1263
6751 50 56          BW     ADD3,1&X2                                7   8  1543  V 948 0!1 1       1264
6752 50 57          B      TUF                                      7   4  1551  B T28             1264
6753 50 58   HOPE2  FBCEQ  SWAP,OP,&,-                                           MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6754         HOPE2  BCE   SWAP, OP, &                               7   8  1555  B V75 ?64 & GEN   1264
6755                BCE   SWAP, OP, -                               7   8  1563  B V75 ?64 - GEN   1264
6756 50 59          B     CKND                                      7   4  1571  B V27            1264
6757 50 60    *  SHIFT MIDDLE DELTA TO FRONT OF STRING
6758 50 61    SWAP  BCE   TUF,OP,@                                  7   8  1575  B T28 ?64 @      1265
6759 50 62          BW    KWM,PRTSW                                 7   8  1583  V T79 R36 1      1265
6760 50 63          C     0&X2,BLK4                                 7   7  1591  C 0!0 ?45        1265
6761 50 64          SAR   X3                                        7   4  1598  Q 099            1265
6762 50 65          MCW   0&X3,0&X2                                 7   7  1602  M 0?0 0!0        1265
6763 50 66          SBR   X2                                        7   4  1609  H 094            1265
6764 50 67          BCE   NEG2,OP,-                                7   8  1613  B W44 ?64 -      1266
6765 50 68          MCW   OP,0&X2                                  7   7  1621  M ?64 0!0        1266
6766 50 69          MCW   RIGHT                                     7   4  1628  M ?88            1266
6767 50 70          C     0&X2                                      7   4  1632  C 0!0            1266
6768 50 71          SBR   X2                  ??? SAR ???           7   4  1636  H 094            1266
6769 50 72          B     BLKOP                                     7   4  1640  B 901            1266
6770 50 73    NEG2  LCA   @&@,0&X2                                 7   7  1644  L ?09 0!0        1266
6771 50 74          SBR   X2                                        7   4  1651  H 094            1267
6772 50 75          SW    PRTSW                                     7   4  1655  , R36            1267
6773 50 76          B     NEG3                                      7   4  1659  B S69            1267
6774 50 77    FIRST B     CVTDL                                     7   4  1663  B P58            1267
6775 50 78          DCW   RIGHT                                     7   3  1669  ?88              1267
6776 50 79          MCW   RIGHT,MAXDL#3                             7   7  1670  M ?88 ?21        1267
6777 50 80          MCW   CVT3,CURDL                                7   7  1677  M ?91 R72        1267
6778 50 81          A     &1,CURDL                                  7   7  1684  A R73 R72        1268
6779 50 82          B     D2                                        7   4  1691  B 997            1268
6780 50 83    FST1  LCA   HLD35,0&X3                                7   7  1695  L ?08 0?0        1268
6781 50 84          SBR   X2                                        7   4  1702  H 094            1268
6782 50 85          LCA   OP                                        7   4  1706  L ?64            1268
6783 50 86          SBR   X3                                        7   4  1710  H 099            1268
6784 50 87          CW    1&X3                                      7   4  1714  ) 0?1            1268
6785 50 88          LCA   LEFT,0&X3                                 7   7  1718  L ?63 0?0        1269
6786 50 89          LCA   GM1                                       7   4  1725  L K40            1269
6787 50 90          B     BLKOP                                     7   4  1729  B 901            1269
6788 50 91    *  ALL OPTIMIZATION HAS TAKEN PLACE - OUTPUT STATEMENT
6789 50 92    OUTPT MCW   HEX1,X1                                   7   7  1733  M R65 089        1269
6790 50 93          SBR   HEX2#3,0&X2                               7   7  1740  H ?24 0!0        1269
6791 50 94          BCE   NOPTM,2&X2,,        IF STATEMENT          7   8  1747  B Y87 0!2 ,      1269
6792 50 95          BCE   NOPTM,MAXDL-2,<     12-6-8                7   8  1755  B Y87 ?19 <      1270
6793 50 96          BCE   NOPTM,0&X2,$                              7   8  1763  B Y87 0!0 $      1270
6794 50 97          BCE   NOPTM,BOP,$                               7   8  1771  B Y87 ?63 $      1270
6795 50 98          BWZ   CKFIX,BOP-1,K                            7   8  1779  V Y07 ?62 K      1270
6796 50 99          BWZ   NOPTM,AOP-1,K                            7   8  1787  V Y87 ?87 K      1271
6797 51 00          BWZ   NOPTM,AOP-1,S                            7   8  1795  V Y87 ?87 S      1271
6798 51 01          B     OPTM                                      7   4  1803  B Y23            1271
6799 51 02    CKFIX BWZ   NOPTM,AOP-1,2                            7   8  1807  V Y87 ?87 2      1271
6800 51 03          BWZ   NOPTM,AOP-1,B                            7   8  1815  V Y87 ?87 B      1271
6801 51 04    *  GENERATE INLINE CODING
6802 51 05    OPTM  B     NOPTM                                     7   4  1823  B Y87            1272
6803 51 06          LCA   BOP                                       7   4  1827  L ?63            1272
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
6804 51 07          LCA   AOP                                7  4  1831  L ?88             1272
6805 51 08          LCA   @L@                                7  4  1835  L ?25             1272
6806 51 09          SBR   X3                                 7  4  1839  H 099             1272
6807 51 10          CW    2&X3,5&X3                          7  7  1843  ) 0?2 0?5         1272
6808 51 11          MZ    *-4,3&X3                           7  7  1850  Y Y52 0?3         1272
6809 51 12          MZ    *-4,6&X3                           7  7  1857  Y Y59 0?6         1273
6810 51 13          SBR   X1,6&X1                           7  7  1864  H 089 0|6         1273
6811 51 14          LCA   6&X2                             7  4  1871  L 0!6             1273
6812 51 15          LCA                                     7  1  1875  L                 1273
6813 51 16          SBR   X2,6&X2                          7  7  1876  H 094 0!6         1273
6814 51 17          B     NUSTM                             7  4  1883  B 871             1273
6815 51 18    *  CANNOT GENERATE INLINE CODING
6816 51 19    NOPTM MCW   @01@,MAXDL                        7  7  1887  M ?27 ?21         1273
6817 51 20          MCW   @001@,X3                          7  7  1894  M ?30 099         1274
6818 51 21          MCW   @01@,DL2#2                       7  7  1901  M ?27 ?32         1274
6819 51 22          SBR   X1,4&X1                          7  7  1908  H 089 0|4         1274
6820 51 23          LCA   @B700@                           7  4  1915  L ?36             1274
6821 51 24    CKZRO BCE   PRODL,TABLE&X3,0                  7  8  1919  B Z63 KD1 0       1274
6822 51 25    DECR  A     &1,DL2                            7  7  1927  A R73 ?32         1275
6823 51 26          MCW   DL2,MAXDL                        7  7  1934  M ?32 ?21         1275
6824 51 27          MZ    DL2-1,MAXDL                       7  7  1941  Y ?31 ?21         1275
6825 51 28          A     &1,X3                             7  7  1948  A R73 099         1275
6826 51 29          SW    PRTSW                             7  4  1955  , R36             1275
6827 51 30          B     CKZRO                             7  4  1959  B Z19             1275
6828 51 31    PRODL LCA   @#@,4&X1                         7  7  1963  L ?37 0|4         1276
6829 51 32          LCA   MAXDL                             7  4  1970  L ?21             1276
6830 51 33          CW    4&X1                              7  4  1974  ) 0|4             1276
6831 51 34          C     0&X1,@B700@                       7  7  1978  C 0|0 ?36         1276
6832 51 35          BE    *&5                               7  5  1985  B Z94 S           1276
6833 51 36          CW    1&X1                              7  4  1990  ) 0|1             1276
6834 51 37          LCA   GM1,1&X2                          7  7  1994  L K40 0!1         1276
6835 51 38    CX2   C     0&X2                              7  4  2001  C 0!0             1277
6836 51 39          SAR   X2                                7  4  2005  Q 094             1277
6837 51 40          BCE   KWM2,0&X2,#                       7  8  2009  B J39 0!0 #       1277
6838 51 41          BCE   SUB3,1&X2,$                       7  8  2017  B J47 0!1 $       1277
6839 51 42          MZ    2&X2,2&X1                         7  7  2025  Y 0!2 0|2         1277
6840 51 43    BMPX1 SBR   X1,4&X1                          7  7  2032  H 089 0|4         1277
6841 51 44    *  STRING TO OUTPUT AREA
6842 51 45    PMOV  MCM   1&X2,1&X1                         7  7  2039  P 0!1 0|1         1278
6843 51 46          MN                                      7  1  2046  D                 1278
6844 51 47          SBR   X1                                7  4  2047  H 089             1278
6845 51 48          MCM   1&X2                              7  4  2051  P 0!1             1278
6846 51 49          MN                                      7  1  2055  D                 1278
6847 51 50          SAR   X2                                7  4  2056  Q 094             1278
6848 51 51          BCE   PMOV,0&X2,|                       7  8  2060  B !39 0!0 |       1278
6849 51 52          C     0&X2                              7  4  2068  C 0!0             1279
6850 51 53          SAR   X2                                7  4  2072  Q 094             1279
6851 51 54          MCW   X3,HEX3#3                         7  7  2076  M 099 ?40         1279
6852 51 55          MCW   @|@,0&X1                         7  7  2083  M ?41 0|0         1279
6853 51 56          LCA   0&X2                             7  4  2090  L 0!0             1279
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6854 51 57          SBR   X3                                         7   4  2094  H 099              1279
6855 51 58          CW    0&X1,1&X3                                  7   7  2098  ) 0|0 0?1          1279
6856 51 59          C     0&X2                                       7   4  2105  C 0!0              1280
6857 51 60          SAR   X3                                         7   4  2109  Q 099              1280
6858 51 61          BCE   EOSTR,0&X3,}          GM                  7   8  2113  B J58 0?0 } GMARK  1280
6859 51 62          SBR   X2,0&X3                                   7   7  2121  H 094 0?0          1280
6860 51 63          MCW   HEX3,X3                                   7   7  2128  M ?40 099          1280
6861 51 64          B     DECR                                       7   4  2135  B Z27              1280
6862 51 65   KWM2   CW    1&X2                                       7   4  2139  ) 0!1              1280
6863 51 66          B     CX2                                        7   4  2143  B !01              1281
6864 51 67   SUB3   MZ    3&X2,2&X1                                  7   7  2147  Y 0!3 0|2          1281
6865 51 68          B     BMPX1                                      7   4  2154  B !32              1281
6866 51 69   *  ALL OF STATEMENT TO OUTPUT AREA
6867 51 70   EOSTR  C     0&X1,BLK4#4                                7   7  2158  C 0|0 ?45          1281
6868 51 71          SAR   X1                                         7   4  2165  Q 089              1281
6869 51 72          LCA   @|@,0&X1                                   7   7  2169  L ?41 0|0          1281
6870 51 73          MCW   0&X2                                       7   4  2176  M 0!0              1281
6871 51 74          MCW   HEX2,X2                                    7   7  2180  M ?24 094          1282
6872 51 75          BW    DOCOD,6&X2                                 7   8  2187  V K17 0!6 1        1282
6873 51 76          SW    3&X2                                       7   4  2195  , 0!3              1282
6874 51 77          SBR   X1,9&X1                                   7   7  2199  H 089 0|9          1282
6875 51 78          LCA   11&X2                                      7   4  2206  L 0J1              1282
6876 51 79          SBR   X2,11&X2                                  7   7  2210  H 094 0J1          1282
6877 51 80   DOCOD  SBR   X1,6&X1                                   7   7  2217  H 089 0|6          1283
6878 51 81          LCA   6&X2                                       7   4  2224  L 0!6              1283
6879 51 82          LCA                                              7   1  2228  L                  1283
6880 51 83          SBR   X2,6&X2                                    7   7  2229  H 094 0!6          1283
6881 51 84          B     NUSTM                                      7   4  2236  B 871              1283
6882 51 85   GM1    DC    @}@          G-M                           7   1  2240                GMARK 1283
6883 51 86   TABLE  DA    1X332,C                                    7      2241   2572            1283
6884 51 87   TBLR   EQU   *                                          7      2572
6885 51 88   *  GETS OPERAND LEFT, OPERATOR, OPERAND RIGHT
6886 51 89   FIX    SBR   FIXT&3                                     7   4  2573  H P27              1292
6887 51 90          BCE   SUB1,1&X2,$                                7   8  2577  B P28 0!1 $        1292
6888 51 91          LCA   3&X2,LEFT#18                               7   7  2585  L 0!3 ?63          1292
6889 51 92          MCW   4&X2,OP#1                                  7   7  2592  M 0!4 ?64          1293
6890 51 93          SBR   X2,4&X2                                    7   7  2599  H 094 0!4          1293
6891 51 94          BW    *&5,MIDSW                                  7   8  2606  V O18 ?18 1        1293
6892 51 95   CW5    CW    0                                          7   4  2614  ) 000              1293
6893 51 96          SW    MIDSW                                      7   4  2618  , ?18              1293
6894 51 97          BW    UNARY,1&X2                                 7   8  2622  V O72 0!1 1        1293
6895 51 98          SW    1&X2                                       7   4  2630  , 0!1              1294
6896 51 99          SBR   CW&3,1&X2                                  7   7  2634  H P23 0!1          1294
6897 52 00          MN    0&X2,BCE3&7                                7   7  2641  D 0!0 O62          1294
6898 52 01          MZ    0&X2,BCE3&7                                7   7  2648  Y 0!0 O62          1294
6899 52 02   BCE3   BCE   ISTWO,@&-*@.#@,0                          7   8  2655  B O83 ?70 0        1294
6900 52 03          CHAIN 5                                                                 MACRO
6901                BCE                                              7   1  2663  B           GEN   1294
6902                BCE                                              7   1  2664  B           GEN   1294
6903                BCE                                              7   1  2665  B           GEN   1295
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
6904                BCE                                            7   1  2666  B           GEN   1295
6905                BCE                                            7   1  2667  B           GEN   1295
6906 52 04          SW    PRTSW                                    7   4  2668  , R36             1295
6907 52 05  UNARY   LCA   @***@,RIGHT                              7   7  2672  L ?12 ?88         1295
6908 52 06          B     FIXT                                     7   4  2679  B P24             1295
6909 52 07  ISTWO   BCE   SUB1,1&X2,$                             7   8  2683  B P28 0!1 $       1295
6910 52 08          LCA   3&X2,RIGHT#18                            7   7  2691  L 0!3 ?88         1296
6911 52 09          SBR   X2,3&X2                                 7   7  2698  H 094 0!3         1296
6912 52 10          BW    CW,1&X2                                  7   8  2705  V P20 0!1 1       1296
6913 52 11          SW    1&X2,PRTSW                               7   7  2713  , 0!1 R36         1296
6914 52 12  CW      CW    0                                        7   4  2720  ) 000             1296
6915 52 13  FIXT    B     0                                        7   4  2724  B 000             1296
6916 52 14  SUB1    SBR   SUBXT&3                                 7   4  2728  H P57             1297
6917 52 15          SBR   X2,8&X2                                  7   7  2732  H 094 0!8         1297
6918 52 16          BCE   SUBXT,3&X2,$                             7   8  2739  B P54 0!3 $       1297
6919 52 17          SBR   X2,6&X2                                  7   7  2747  H 094 0!6         1297
6920 52 18  SUBXT   B     0                                        7   4  2754  B 000             1297
6921 52 19  *  CONVERTS ANY DELTA NUMBER TO THREE CHARACTERS
6922 52 20  CVTDL   SBR   X1                                       7   4  2758  H 089             1297
6923 52 21          SBR   CVTXT&3,3&X1                             7   7  2762  H Q36 0|3         1298
6924 52 22          MCW   2&X1,X1                                  7   7  2769  M 0|2 089         1298
6925 52 23          MN    0&X1,CVT3#3                              7   7  2776  D 0|0 ?91         1298
6926 52 24          MN                                             7   1  2783  D                 1298
6927 52 25          MCW   @0@                                      7   4  2784  M ?92             1298
6928 52 26          BWZ   CVTXT,0&X1,2                            7   8  2788  V Q33 0|0 2       1298
6929 52 27          A     &100,CVT3                                7   7  2796  A ?95 ?91         1299
6930 52 28          BWZ   CVTXT,0&X1,S                            7   8  2803  V Q33 0|0 S       1299
6931 52 29          A     &100,CVT3                                7   7  2811  A ?95 ?91         1299
6932 52 30          BWZ   CVTXT,0&X1,K                            7   8  2818  V Q33 0|0 K       1299
6933 52 31          A     &100,CVT3                                7   7  2826  A ?95 ?91         1299
6934 52 32  CVTXT   B     0                                        7   4  2833  B 000             1300
6935 52 33  *  FINDS TEMP TO BE OPTIMIZED
6936 52 34  GETDL   SBR   GDLXT&3                                 7   4  2837  H Q73             1300
6937 52 35          SBR   X3,0&X2                                 7   7  2841  H 099 0!0         1300
6938 52 36          MCW   CURDL,X1          X1 HAS CURRENT DELTA   7   7  2848  M R72 089         1300
6939 52 37          BW    GETWM,PRTSW                              7   8  2855  V Q90 R36 1       1300
6940 52 38  CMP2    C     X1,CVT3                                  7   7  2863  C 089 ?91         1300
6941 52 39  GDLXT   BE    0                                        7   5  2870  B 000 S           1301
6942 52 40          BCE   ADD1,TABLE&X1,1                         7   8  2875  B R17 KU1 1       1301
6943 52 41          A     @I99@,X1                                 7   7  2883  A R69 089         1301
6944 52 42  GETWM   BW    GOTWM,2&X3                               7   8  2890  V R06 0?2 1       1301
6945 52 43          SBR   X3                                       7   4  2898  H 099             1301
6946 52 44          B     GETWM                                    7   4  2902  B Q90             1301
6947 52 45  GOTWM   SBR   X3,1&X3                                 7   7  2906  H 099 0?1         1302
6948 52 46          B     CMP2                                     7   4  2913  B Q63             1302
6949 52 47  ADD1    A     @I99@,X1                                 7   7  2917  A R69 089         1302
6950 52 48          B     CMP2                                     7   4  2924  B Q63             1302
6951 52 49  CW2     CW    1&X3                                     7   4  2928  ) 0?1             1302
6952 52 50          B     CKRT                                     7   4  2932  B |70             1302
6953 52 51  PRTSW   DC    #1                                       7   1  2936                    1302
```

```
 SEQ PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
6954 52 52   FENDX   FENDX  C,,,,,,SYSGM,  ARITH 5                                      MACRO
6955         FENDX   BSS    333,C                              7   5  2937  B 333 C     GEN   1302
6956                 SBR    TCLEAR,SYSGM                       7   7  2942  H 710 A03   GEN   1303
6957                 LCA    @ARITH 5@,110                      7   7  2949  L A02 110   GEN   1303
6958                 B      MONTER                             7   4  2956  B 700       GEN   1303
6959 52 53           LTORG  *                                  7              2960
             SAVX37  DCW    #03                                7   3  2962              AREA  1303
             HEX1 7  DCW    #03                                7   3  2965              AREA  1303
             HLDOP7  DCW    #01                                7   1  2966              AREA  1303
                     DCW    @I99@                              7   3  2969              LIT   1303
             CURDL7  DCW    #03                                7   3  2972              AREA  1304
                     DCW    &1                                 7   1  2973              LIT   1304
             HLD357  DCW    #35                                7  35  3008              AREA  1304
                     DCW    @&@                                7   1  3009              LIT   1305
                     DCW    @***@                              7   3  3012              LIT   1305
                     DCW    @N@                                7   1  3013              LIT   1305
                     DCW    @&-*@@                             7   4  3017              LIT   1305
             MIDSW7  DCW    #01                                7   1  3018              AREA  1305
             MAXDL7  DCW    #03                                7   3  3021              AREA  1305
             HEX2 7  DCW    #03                                7   3  3024              AREA  1305
                     DCW    @L@                                7   1  3025              LIT   1306
                     DCW    @01@                               7   2  3027              LIT   1306
                     DCW    @001@                              7   3  3030              LIT   1306
             DL2  7  DCW    #02                                7   2  3032              AREA  1306
                     DCW    @B700@                             7   4  3036              LIT   1306
                     DCW    @#@                                7   1  3037              LIT   1306
             HEX3 7  DCW    #03                                7   3  3040              AREA  1306
                     DCW    @|@                                7   1  3041              LIT   1307
             BLK4 7  DCW    #04                                7   4  3045              AREA  1307
             LEFT 7  DCW    #18                                7  18  3063              AREA  1307
             OP   7  DCW    #01                                7   1  3064              AREA  1307
                     DCW    @&-*@.#@                           7   6  3070              LIT   1307
             RIGHT7  DCW    #18                                7  18  3088              AREA  1308
             CVT3 7  DCW    #03                                7   3  3091              AREA  1308
                     DCW    @0@                                7   1  3092              LIT   1308
                     DCW    &100                               7   3  3095              LIT   1308
                     DCW    @ARITH 5@                          7   7  3102              LIT   1308
6960 52 54   AOP     EQU    RIGHT                              7      3088
6961 52 55   BOP     EQU    LEFT                               7      3063
6962 52 56   SYSGM   DCW    @}@           SYSTEM GROUP MARK    7   1  3103              GMARK 1308
6963 52 57           ORG    *&50                               7              3154
6964 52 58   NDRITH  EQU    *                                  7      3153
6965 52 59           XFR    START                              7           B 838          1309
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
6966 52 60          JOB   ARITH PHASE FIVE
6967 52 61          FBEGN ARITH 5,X1,,X2,,X3,,Y                                          MACRO
6968                SFX   Y                                                            GEN
6969        110     DCW   @ARITH 5@                                       Y   7  0110            GEN   1312
6970        X1      EQU   089                                             Y      0089            GEN
6971        X2      EQU   094                                             Y      0094            GEN
6972        X3      EQU   099                                             Y      0099            GEN
6973 52 62          ORG   XBEGIN                                          Y           0838
6974 52 63  START   BCE   NOARI,X2,.                                      Y   8  0838  B U99 094 .       1313
6975 52 64          C     0&X2                                            Y   4  0846  C 0!0             1313
6976 52 65          SAR   X2                                              Y   4  0850  Q 094             1313
6977 52 66          SBR   SAVX3#3                                        Y   4  0854  H O89             1313
6978 52 67          C     0&X1                                            Y   4  0858  C 0|0             1313
6979 52 68          SAR   X1                                              Y   4  0862  Q 089             1313
6980 52 69  *  BEGINNING OF PROCESSING OF EACH STATEMENT
6981 52 70  NUSTM  MCW   0&X1,CODE                                        Y   7  0866  M 0|0 O86         1313
6982 52 71          MCW                                                   Y   1  0873  M                1314
6983 52 72          BCE   MVDWN,CODE-3,E                                  Y   8  0874  B 894 O83 E       1314
6984 52 73          BCE   *&5,CODE-3,R                                    Y   8  0882  B 894 O83 R       1314
6985 52 74          B     FENDX                                           Y   4  0890  B U78             1314
6986 52 75  MVDWN  MVDWN X1,X2                                                        MACRO
6987        MVDWN   LCA   0&X1,0&X2                                       Y   7  0894  L 0|0 0!0   GEN   1314
6988                SAR   X1                                              Y   4  0901  Q 089       GEN   1314
6989                C     0&X2                                            Y   4  0905  C 0!0       GEN   1314
6990                SAR   X2                                              Y   4  0909  Q 094       GEN   1315
6991 52 76          LCA   1&X2,2&X2                                       Y   7  0913  L 0!1 0!2        1315
6992 52 77          SBR   X2                                              Y   4  0920  H 094            1315
6993 52 78          CW    MODSW#1                                         Y   4  0924  ) O90            1315
6994 52 79          BCE   IFTYP,2&X1,E                                    Y   8  0928  B V22 0|2 E      1315
6995 52 80  CKXF   MVDWN X1,X2                                                        MACRO
6996        CKXF    LCA   0&X1,0&X2                                       Y   7  0936  L 0|0 0!0   GEN   1315
6997                SAR   X1                                              Y   4  0943  Q 089       GEN   1315
6998                C     0&X2                                            Y   4  0947  C 0!0       GEN   1316
6999                SAR   X2                                              Y   4  0951  Q 094       GEN   1316
7000 52 81          SBR   X3,0&X1                                         Y   7  0955  H 099 0|0        1316
7001 52 82          SBR   HEX3#3                                          Y   4  0962  H O93            1316
7002 52 83          BCE   EOSTR,0&X1,}       GM                         Y   8  0966  B U21 0|0 } GMARK 1316
7003 52 84  *  GENERATE FIX OR FLOAT FUNCTION IF LEFT SIDE AND RIGHT
7004 52 85  *     SIDE ARE NOT OF SAME MODE
7005 52 86  NEXT   MN    0&X3,BCE5&7                                     Y   7  0974  D 0?0 999         1316
7006 52 87          MZ    0&X3,BCE5&7                                     Y   7  0981  Y 0?0 999         1317
7007 52 88          SAR   X3                                              Y   4  0988  Q 099            1317
7008 52 89  BCE5   BCE   GOTSQ,@&-@*.#@,0                                Y   8  0992  B |09 O99 0       1317
7009 52 90          CHAIN 5                                                            MACRO
7010                BCE                                                   Y   1  1000  B                GEN   1317
7011                BCE                                                   Y   1  1001  B                GEN   1317
7012                BCE                                                   Y   1  1002  B                GEN   1317
7013                BCE                                                   Y   1  1003  B                GEN   1317
7014                BCE                                                   Y   1  1004  B                GEN   1318
7015 52 91          B     NEXT                                            Y   4  1005  B 974                  1318
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
7016 52 92   GOTSQ  BCE   WORRY,1&X3,.                       Y   8  1009  B /09 0?1 .       1318
7017 52 93          MZ    4&X3,OPMD#1                       Y   7  1017  Y 0?4 P00         1318
7018 52 94          BCE   SUB5,2&X3,$                       Y   8  1024  B /90 0?2 $       1318
7019 52 95          MZ    3&X3,OPMD                         Y   7  1032  Y 0?3 P00         1318
7020 52 96   BMP4   SBR   X3,4&X3                          Y   7  1039  H 099 0?4         1319
7021 52 97   CMP5   C     X3,HEX3                           Y   7  1046  C 099 O93         1319
7022 52 98          BE    SCNEQ                             Y   5  1053  B S16 S           1319
7023 52 99          SBR   X3,1&X3                          Y   7  1058  H 099 0?1         1319
7024 53 00          FBCEQ MODCH,0&X3,F,X                                                MACRO
7025                BCE   MODCH, 0&X3, F                   Y   8  1065  B |85 0?0 F GEN   1319
7026                BCE   MODCH, 0&X3, X                   Y   8  1073  B |85 0?0 X GEN   1320
7027 53 01          B     CMP5                              Y   4  1081  B |46             1320
7028 53 02   MODCH  BW    CW1,MODSW                         Y   8  1085  V /01 O90 1       1320
7029 53 03          SW    MODSW                             Y   4  1093  , O90           1320
7030 53 04          B     CMP5                              Y   4  1097  B |46             1320
7031 53 05   CW1    CW    MODSW                             Y   4  1101  ) O90           1320
7032 53 06          B     CMP5                              Y   4  1105  B |46             1320
7033 53 07   WORRY  SBR   BMPUM&6,0&X3                      Y   7  1109  H /41 0?0         1321
7034 53 08          BCE   GRIEF,0&X3,$                      Y   8  1116  B /54 0?0 $       1321
7035 53 09          SBR   X3                                Y   4  1124  H 099           1321
7036 53 10   SNDUM  MZ    0&X3,OPMD                         Y   7  1128  Y 0?0 P00         1321
7037 53 11   BMPUM  SBR   X3,0                             Y   7  1135  H 099 000         1321
7038 53 12          BCE   SUB5,2&X3,$                       Y   8  1142  B /90 0?2 $       1322
7039 53 13          B     BMP4                              Y   4  1150  B |39             1322
7040 53 14   GRIEF  C     0&X3,BLK8                         Y   7  1154  C 0?0 Q66         1322
7041 53 15          SAR   X3                                Y   4  1161  Q 099           1322
7042 53 16          BCE   SNDUM,0&X3,$          DUMMY       Y   8  1165  B /28 0?0 $       1322
7043 53 17          B               DUMMY                   Y   1  1173  B               1322
7044 53 18          B                                       Y   1  1174  B               1322
7045 53 19          C     0&X3,BLK6                         Y   7  1175  C 0?0 Q72         1323
7046 53 20          SAR   X3                                Y   4  1182  Q 099           1323
7047 53 21          B     SNDUM                             Y   4  1186  B /28           1323
7048 53 22   SUB5   SBR   X3,12&X3                         Y   7  1190  H 099 0A2         1323
7049 53 23          BCE   CMP5,0&X3,$                       Y   8  1197  B |46 0?0 $       1323
7050 53 24          SBR   X3,6&X3                          Y   7  1205  H 099 0?6         1323
7051 53 25          B     CMP5                              Y   4  1212  B |46             1324
7052 53 26   SCNEQ  BCE   GOTEQ,0&X3,#                      Y   8  1216  B S32 0?0 #       1324
7053 53 27          SBR   X3                                Y   4  1224  H 099           1324
7054 53 28          B     SCNEQ                             Y   4  1228  B S16           1324
7055 53 29   GOTEQ  MCW   0&X3,HLD18#18                     Y   7  1232  M 0?0 P18         1324
7056 53 30          BCE   SUB1,HLD18-1,$                    Y   8  1239  B O57 P17 $       1324
7057 53 31          MZ    HLD18-2,FSTMD#1                   Y   7  1247  Y P16 P19         1325
7058 53 32   NOWOP  BWZ   CKFIX,FSTMD,S                     Y   8  1254  V T40 P19 S       1325
7059 53 33          BWZ   CKFIX,FSTMD,K                     Y   8  1262  V T40 P19 K       1325
7060 53 34          BWZ   CKSWF,OPMD,2                      Y   8  1270  V T16 P00 2       1325
7061 53 35          BWZ   CKSWF,OPMD,B                      Y   8  1278  V T16 P00 B       1325
7062 53 36          BW    NOCVT,MODSW                       Y   8  1286  V T82 O90 1       1326
7063 53 37   MKFLT  MCW   @F@,0&X2                          Y   7  1294  M P20 0!0         1326
7064 53 38          SBR   X2                                Y   4  1301  H 094           1326
7065 53 39          CW    1&X2,XFLTFU                       Y   7  1305  ) 0!1 125         1326
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
7066 53 40          B     NOCVT                              Y   4  1312  B T82             1326
7067 53 41   CKSWF   BW    MKFLT,MODSW                        Y   8  1316  V S94 O90 1       1326
7068 53 42          B     NOCVT                              Y   4  1324  B T82             1327
7069 53 43   CKSWX  BW    MKFIX,MODSW                        Y   8  1328  V T64 O90 1       1327
7070 53 44          B     NOCVT                              Y   4  1336  B T82             1327
7071 53 45   CKFIX  BWZ   CKSWX,OPMD,S                       Y   8  1340  V T28 P00 S       1327
7072 53 46          BWZ   CKSWX,OPMD,K                       Y   8  1348  V T28 P00 K       1327
7073 53 47          BW    NOCVT,MODSW                        Y   8  1356  V T82 O90 1       1328
7074 53 48   MKFIX  MCW   @X@,0&X2                           Y   7  1364  M P21 0!0         1328
7075 53 49          SBR   X2                                 Y   4  1371  H 094             1328
7076 53 50          CW    1&X2,XFIXFU                        Y   7  1375  ) 0!1 124        1328
7077 53 51   SCAN   EQU   *&1                                Y      1382                   1328
7078 53 52   NOCVT  SBR   X3,0&X1                           Y   7  1382  H 099 0|0         1328
7079 53 53   SCAN2  BCE   EXPN,0&X1,.                       Y   8  1389  B Y08 0|0 .       1329
7080 53 54          BCE   DIV,0&X1,@                         Y   8  1397  B U63 0|0 @       1329
7081 53 55          BCE   EOSTR,0&X1,}          GM           Y   8  1405  B U21 0|0 } GMARK 1329
7082 53 56          SBR   X1                                 Y   4  1413  H 089             1329
7083 53 57          B     SCAN2                              Y   4  1417  B T89             1329
7084 53 58   *  END OF STATEMENT ROUTINE
7085 53 59   EOSTR  MVDWN X3,X2                                                 MACRO
7086        EOSTR  LCA   0&X3,0&X2                          Y   7  1421  L 0?0 0!0   GEN   1329
7087               SAR   X3                                 Y   4  1428  Q 099       GEN   1330
7088               C     0&X2                               Y   4  1432  C 0!0       GEN   1330
7089               SAR   X2                                 Y   4  1436  Q 094       GEN   1330
7090 53 60          BCE   *&5,1&X3,}          GM           Y   8  1440  B U52 0?1 } GMARK 1330
7091 53 61          B     EOSTR                              Y   4  1448  B U21             1330
7092 53 62          SBR   X1,0&X3                          Y   7  1452  H 089 0?0         1330
7093 53 63          B     NUSTM                              Y   4  1459  B 866             1330
7094 53 64   *  SUBSTITUTE / FOR @ AS DIVIDE SYMBOL
7095 53 65   DIV    MCW   @/@,0&X1                          Y   7  1463  M P22 0|0         1331
7096 53 66          SBR   X1                                 Y   4  1470  H 089             1331
7097 53 67          B     SCAN2                              Y   4  1474  B T89             1331
7098 53 68   FENDX  SBR   X1,5&X1                          Y   7  1478  H 089 0|5         1331
7099 53 69          MCW   SAVX3,X3                         Y   7  1485  M O89 099         1331
7100 53 70          SBR   X3,2&X3                          Y   7  1492  H 099 0?2         1331
7101 53 71   NOARI  FENDX C,,,,,,SYSGM,ARITH6                                   MACRO
7102        NOARI  BSS   333,C                             Y   5  1499  B 333 C    GEN   1332
7103               SBR   TCLEAR,SYSGM                      Y   7  1504  H 710 Q73  GEN   1332
7104               LCA   @ARITH6@,110                      Y   7  1511  L P28 110  GEN   1332
7105               B     MONTER                             Y   4  1518  B 700      GEN   1332
7106 53 72   *  GENERATE IF EXITS
7107 53 73   IFTYP  C     0&X1                               Y   4  1522  C 0|0             1332
7108 53 74          SAR   X1                                 Y   4  1526  Q 089             1332
7109 53 75          MCW   9&X1,MINUS                       Y   7  1530  M 0|9 N08         1332
7110 53 76          MCW   6&X1,ZERO                        Y   7  1537  M 0|6 N00         1333
7111 53 77          MCW   3&X1,PLUS                        Y   7  1544  M 0|3 M92         1333
7112 53 78          MZ    @K@,MINUS-1                      Y   7  1551  Y P29 N07         1333
7113 53 79          MZ    @K@,ZERO-1                       Y   7  1558  Y P29 M99         1333
7114 53 80          MZ    @K@,PLUS-1                       Y   7  1565  Y P29 M91         1333
7115 53 81          MCW   PLUS,ELSE&3                      Y   7  1572  M M92 M88         1334
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7116 53 82          LCA   BLK20#20,HLD20             Y   7  1579  L P49 M84         1334
7117 53 83          SBR   X3,HLD20-20               Y   7  1586  H 099 M64         1334
7118 53 84          C     PLUS,ZERO                  Y   7  1593  C M92 N00         1334
7119 53 85          BE    PZ                         Y   5  1600  B X79 S           1334
7120 53 86          C     ZERO,MINUS                 Y   7  1605  C N00 N08         1335
7121 53 87          BE    MKPLS                      Y   5  1612  B W42 S           1335
7122 53 88          SBR   X3,8&X3                    Y   7  1617  H 099 0?8         1335
7123 53 89          MCW   IFZRO                      Y   4  1624  M N04             1335
7124 53 90          MCW                              Y   1  1628  M                 1335
7125 53 91          LCA                              Y   1  1629  L                 1335
7126 53 92          C     PLUS,MINUS                 Y   7  1630  C M92 N08         1335
7127 53 93          BE    MVLS                       Y   5  1637  B W62 S           1336
7128 53 94   MKPLS  SBR   X3,8&X3                    Y   7  1642  H 099 0?8         1336
7129 53 95          MCW   IFPLS                      Y   4  1649  M M96             1336
7130 53 96          MCW                              Y   1  1653  M                 1336
7131 53 97          LCA                              Y   1  1654  L                 1336
7132 53 98          MCW   MINUS,ELSE&3               Y   7  1655  M N08 M88         1336
7133 53 99   MVLS   MCW   X3,HEX3                    Y   7  1662  M 099 O93         1336
7134 54 00          BWZ   *&5,CODE,2                 Y   8  1669  V W81 O86 2       1337
7135 54 01          B     *&9                        Y   4  1677  B W89             1337
7136 54 02          BWZ   LSADD,CODE-2,2            Y   8  1681  V X03 O84 2       1337
7137 54 03          MCW   CODE,X3                   Y   7  1689  M O86 099         1337
7138 54 04          MCW   0&X3,CODE                  Y   7  1696  M 0?0 O86         1337
7139 54 05   LSADD  A     &1,CODE                    Y   7  1703  A P50 O86         1338
7140 54 06          MCW   ELSE&3,X3                  Y   7  1710  M M88 099         1338
7141 54 07          C     0&X3,CODE                  Y   7  1717  C 0?0 O86         1338
7142 54 08          MCW   HEX3,X3                    Y   7  1724  M O93 099         1338
7143 54 09          BE    NOBR                       Y   5  1731  B X48 S           1338
7144 54 10   ALL3   SBR   X3,4&X3                    Y   7  1736  H 099 0?4         1339
7145 54 11          MCW   ELSE&3                     Y   4  1743  M M88             1339
7146 54 12          LCA                              Y   1  1747  L                 1339
7147 54 13   NOBR   MVDWN X3,X2                                                MACRO
7148        NOBR   LCA   0&X3,0&X2                  Y   7  1748  L 0?0 0!0   GEN   1339
7149               SAR   X3                         Y   4  1755  Q 099       GEN   1339
7150               C     0&X2                       Y   4  1759  C 0!0       GEN   1339
7151               SAR   X2                         Y   4  1763  Q 094       GEN   1339
7152 54 14          BCE   CKXF,0&X3,|                Y   8  1767  B 936 0?0 |       1340
7153 54 15          B     NOBR                       Y   4  1775  B X48             1340
7154 54 16   PZ     C     PLUS,MINUS                 Y   7  1779  C M92 N08         1340
7155 54 17          BE    ALL3                       Y   5  1786  B X36 S           1340
7156 54 18          SBR   X3,8&X3                    Y   7  1791  H 099 0?8         1340
7157 54 19          MCW   IFMNS                      Y   4  1798  M N12             1340
7158 54 20          MCW                              Y   1  1802  M                 1340
7159 54 21          LCA                              Y   1  1803  L                 1341
7160 54 22          B     MVLS                       Y   4  1804  B W62             1341
7161 54 23   *  PROCESS EXPONENTIATION
7162 54 24   EXPN   SW    1&X1                       Y   4  1808  , 0|1             1341
7163 54 25          BCE   XSUB,1&X1,$                Y   8  1812  B N13 0|1 $       1341
7164 54 26          LCA   3&X1,XPON#17               Y   7  1820  L 0|3 P67         1341
7165 54 27          MZ    2&X1,XPMOD#1               Y   7  1827  Y 0|2 P68         1341
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
7166 54 28          SBR   HEX31#3,3&X1                                Y   7  1834  H P71 0|3        1341
7167 54 29          C     HEX31,X3                                    Y   7  1841  C P71 099        1342
7168 54 30          BE    SKIP                                        Y   5  1848  B Y80 S          1342
7169 54 31          SW    4&X1                                        Y   4  1853  , 0|4            1342
7170 54 32   MVBAL  MVDWN X3,X2                                                    MACRO
7171         MVBAL  LCA   0&X3,0&X2                                   Y   7  1857  L 0?0 0!0  GEN   1342
7172                SAR   X3                                          Y   4  1864  Q 099      GEN   1342
7173                C     0&X2                                        Y   4  1868  C 0!0      GEN   1342
7174                SAR   X2                                          Y   4  1872  Q 094      GEN   1342
7175 54 33          CW    1&X2                                        Y   4  1876  ) 0!1            1343
7176 54 34   SKIP   C     0&X1,BLK4#4                                 Y   7  1880  C 0|0 P75        1343
7177 54 35          SAR   X1                                          Y   4  1887  Q 089            1343
7178 54 36          BCE   BSUB,3&X1,$                                Y   8  1891  B N78 0|3 $      1343
7179 54 37          MZ    2&X1,BMOD#1                                 Y   7  1899  Y 0|2 P76        1343
7180 54 38          SW    1&X1                                        Y   4  1906  , 0|1            1343
7181 54 39   LOAD   LCA   3&X1,BASE#17                               Y   7  1910  L 0|3 P93        1344
7182 54 40          SAR   X1                                          Y   4  1917  Q 089            1344
7183 54 41          BWZ   FIXXP,XPMOD,S                              Y   8  1921  V !77 P68 S      1344
7184 54 42          BWZ   FIXXP,XPMOD,K                              Y   8  1929  V !77 P68 K      1344
7185 54 43          CW    XLOGFN,XXPNTL                               Y   7  1937  ) 119 120        1344
7186 54 44          CW    XCOMF1                                      Y   4  1944  ) 117            1344
7187 54 45   *  PROCESS FLOATING EXPONENTIATION
7188 54 46          BWZ   FLT,BMOD,2                                  Y   8  1948  V !32 P76 2      1345
7189 54 47          BWZ   FLT,BMOD,B                                  Y   8  1956  V !32 P76 B      1345
7190 54 48          BWZ   *&5,CODE,2                                  Y   8  1964  V Z76 O86 2      1345
7191 54 49          B     *&9                                         Y   4  1972  B Z84            1345
7192 54 50          BWZ   FTMSG,CODE-2,2                            Y   8  1976  V Z98 O84 2      1345
7193 54 51          MCW   CODE,X3                                     Y   7  1984  M O86 099        1346
7194 54 52          MCW   0&X3,CODE                                   Y   7  1991  M 0?0 O86        1346
7195 54 53   FTMSG  FTMSG 30,FIX TO FLOAT POWER,CODE,20                                  MACRO
7196         FTMSG  CS    332                                         Y   4  1998  / 332      GEN   1346
7197                CS                                               Y   1  2002  /          GEN   1346
7198                SW    FAILSW                                      Y   4  2003  , 184      GEN   1346
7199                MN    CODE,224&20                                 Y   7  2007  D O86 244  GEN   1346
7200                MN                                               Y   1  2014  D          GEN   1346
7201                MN                                               Y   1  2015  D          GEN   1347
7202                MCW   @ERROR 30 - FIX TO FLOAT POWER, STATEMENT @ Y   4  2016  M Q34      GEN   1347
7203                W                                                Y   1  2020  2          GEN   1347
7204                BCV   *&5                                         Y   5  2021  B !30 @    GEN   1347
7205                B     *&3                                         Y   4  2026  B !32      GEN   1347
7206                CC    1                                           Y   2  2030  F 1        GEN   1347
7207 54 54   FLT    LCA   @E@,0&X2                                   Y   7  2032  L Q35 0!0        1347
7208 54 55          LCA   XPON                                        Y   4  2039  L P67            1348
7209 54 56          LCA   @G*@                                       Y   4  2043  L Q37            1348
7210 54 57          SBR   X2                                          Y   4  2047  H 094            1348
7211 54 58          CW    3&X2,1&X1                                   Y   7  2051  ) 0!3 0|1        1348
7212 54 59          LCA   BASE,0&X2                                   Y   7  2058  L P93 0!0        1348
7213 54 60          SBR   X2                                          Y   4  2065  H 094            1348
7214 54 61          CW    1&X2                                        Y   4  2069  ) 0!1            1348
7215 54 62          B     SCAN                                        Y   4  2073  B T82            1349
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

7216 54 63   *  PROCESS FIXED POINT EXPONENTIATION
7217 54 64   FIXXP  BWZ   SWEAT,XPMOD,K                          Y   8  2077  V K54 P68 K       1349
7218 54 65          BCE   SWEAT,XPON-2,<    12-6-8               Y   8  2085  B K54 P65 <       1349
7219 54 66          MCW   XPON,X3                                Y   7  2093  M P67 099        1349
7220 54 67          MA    PLUSDF,X3                             Y   7  2100  # 160 099        1349
7221 54 68          C     @3@,0&X3                              Y   7  2107  C Q38 0?0        1350
7222 54 69          BH    SWEAT                                 Y   5  2114  B K54 U          1350
7223 54 70          LCA   BASE,0&X2                            Y   7  2119  L P93 0!0        1350
7224 54 71          LCA   @*@                                   Y   4  2126  L Q39            1350
7225 54 72          SBR   X2                                    Y   4  2130  H 094            1350
7226 54 73          SBR   SAV2#3                                Y   4  2134  H Q42            1350
7227 54 74          CW    1&X2,2&X2                             Y   7  2138  ) 0!1 0!2        1350
7228 54 75          LCA   BASE,0&X2                            Y   7  2145  L P93 0!0        1351
7229 54 76          SBR   X2                                    Y   4  2152  H 094            1351
7230 54 77          CW    1&X2                                  Y   4  2156  ) 0!1            1351
7231 54 78          BCE   HUH,0&X3,0                           Y   8  2160  B K18 0?0 0      1351
7232 54 79          BCE   HUH2,0&X3,1                          Y   8  2168  B K36 0?0 1      1351
7233 54 80          BCE   SCAN,0&X3,2                          Y   8  2176  B T82 0?0 2      1351
7234 54 81          LCA   @*@,0&X2                              Y   7  2184  L Q39 0!0        1352
7235 54 82          SBR   X2                                    Y   4  2191  H 094            1352
7236 54 83          CW    1&X2                                  Y   4  2195  ) 0!1            1352
7237 54 84          LCA   BASE,0&X2                            Y   7  2199  L P93 0!0        1352
7238 54 85          SBR   X2                                    Y   4  2206  H 094            1352
7239 54 86          CW    1&X2                                  Y   4  2210  ) 0!1            1352
7240 54 87          B     SCAN                                  Y   4  2214  B T82            1352
7241 54 88   HUH    MCW   SAV2,X3                              Y   7  2218  M Q42 099        1353
7242 54 89          MCW   @/@,1&X3                              Y   7  2225  M P22 0?1        1353
7243 54 90          B     SCAN                                  Y   4  2232  B T82            1353
7244 54 91   HUH2   MCW   SAV2,X2                              Y   7  2236  M Q42 094        1353
7245 54 92          SBR   X2,1&X2                               Y   7  2243  H 094 0!1        1353
7246 54 93          B     SCAN                                  Y   4  2250  B T82            1353
7247 54 94   SWEAT  CW    XLOGFN,XXPNTL                         Y   7  2254  ) 119 120        1354
7248 54 95          CW    XCOMF1,XFLTFU                         Y   7  2261  ) 117 125        1354
7249 54 96          BWZ   CTU1,BMOD,2                          Y   8  2268  V L21 P76 2      1354
7250 54 97          BWZ   CTU1,BMOD,B                          Y   8  2276  V L21 P76 B      1354
7251 54 98          LCA   @X@,0&X2                              Y   7  2284  L P21 0!0        1354
7252 54 99          SBR   X2                                    Y   4  2291  H 094            1355
7253 55 00          CW    0&X2,XFIXFU                           Y   7  2295  ) 0!0 124        1355
7254 55 01          LCA   XEXPON,0&X2                          Y   7  2302  L 157 0!0        1355
7255 55 02          LCA   @&@                                   Y   4  2309  L Q43            1355
7256 55 03          SBR   X2                                    Y   4  2313  H 094            1355
7257 55 04          CW    2&X2                                  Y   4  2317  ) 0!2            1355
7258 55 05   CTU1   LCA   @E@,0&X2                            Y   7  2321  L Q35 0!0        1355
7259 55 06          LCA   @F*<4?@          F,*,12-6-8,4,12-0    Y   4  2328  L Q48            1356
7260 55 07          LCA   XPON                                  Y   4  2332  L P67            1356
7261 55 08          SBR   X2                                    Y   4  2336  H 094            1356
7262 55 09          CW    1&X2                                  Y   4  2340  ) 0!1            1356
7263 55 10          C     0&X1,BLK4                             Y   7  2344  C 0|0 P75         1356
7264 55 11          SAR   X3                                    Y   4  2351  Q 099            1356
7265 55 12          BCE   FSUB,3&X3,$                           Y   8  2355  B O23 0?3 $       1356
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                SFX CT  LOCN  INSTRUCTION TYPE  CARD
7266 55 13   SWM    SW    1&X3                     Y   4  2363  , 0?1             1357
7267 55 14          MVDWN X1,X2                                                MACRO
7268                LCA   0&X1,0&X2                Y   7  2367  L 0|0 0!0   GEN   1357
7269                SAR   X1                       Y   4  2374  Q 089       GEN   1357
7270                C     0&X2                     Y   4  2378  C 0!0       GEN   1357
7271                SAR   X2                       Y   4  2382  Q 094       GEN   1357
7272 55 15          CW    1&X2                     Y   4  2386  ) 0!1             1357
7273 55 16          LCA   @G|@                     Y   4  2390  L Q50              1357
7274 55 17          SBR   X2                       Y   4  2394  H 094             1358
7275 55 18          BWZ   BSFLT,BMOD,2            Y   8  2398  V M25 P76 2       1358
7276 55 19          BWZ   BSFLT,BMOD,B            Y   8  2406  V M25 P76 B       1358
7277 55 20          LCA   @F@,0&X2                 Y   7  2414  L P20 0!0         1358
7278 55 21          SBR   X2                       Y   4  2421  H 094             1358
7279 55 22   BSFLT  LCA   BASE,0&X2                Y   7  2425  L P93 0!0         1358
7280 55 23          LCA   @<4?#@                   Y   4  2432  L Q54             1359
7281 55 24          SBR   X2                       Y   4  2436  H 094             1359
7282 55 25          CW    5&X2                     Y   4  2440  ) 0!5             1359
7283 55 26          C     0&X1,@B700@              Y   7  2444  C 0|0 Q58         1359
7284 55 27          BE    SCAN                     Y   5  2451  B T82 S           1359
7285 55 28          CW    1&X2                     Y   4  2456  ) 0!1             1359
7286 55 29          B     SCAN                     Y   4  2460  B T82            1359
7287 55 30          DCW   @|@                      Y   1  2464                   1360
7288 55 31   HLD20  DCW   #20                      Y  20  2484                   1360
7289 55 32   ELSE   B                              Y   1  2485  B                1360
7290 55 33          DCW   #3                       Y   3  2488                   1360
7291 55 34          BWZ                            Y   1  2489  V                1360
7292 55 35   PLUS   DCW   #3                       Y   3  2492                   1360
7293 55 36          DSA   277&X3                   Y   3  2495  2G7              1360
7294 55 37   IFPLS  DC    @B@                      Y   1  2496                   1360
7295 55 38          BCE                            Y   1  2497  B                1361
7296 55 39   ZERO   DCW   #3                       Y   3  2500                   1361
7297 55 40          DSA   280                      Y   3  2503  280              1361
7298 55 41   IFZRO  DC    @0@                      Y   1  2504                   1361
7299 55 42          BWZ                            Y   1  2505  V                1361
7300 55 43   MINUS  DCW   #3                       Y   3  2508                   1361
7301 55 44          DSA   277&X3                   Y   3  2511  2G7              1361
7302 55 45   IFMNS  DC    @K@                      Y   1  2512                   1361
7303 55 46   XSUB   MZ    3&X1,XPMOD               Y   7  2513  Y 0|3 P68         1361
7304 55 47          SBR   X1,11&X1                 Y   7  2520  H 089 0/1         1362
7305 55 48          BCE   GOTSB,0&X1,$             Y   8  2527  B N42 0|0 $       1362
7306 55 49          SBR   X1,6&X1                  Y   7  2535  H 089 0|6         1362
7307 55 50   GOTSB  C     X1,X3                    Y   7  2542  C 089 099         1362
7308 55 51          BE    *&5                      Y   5  2549  B N58 S           1362
7309 55 52          SW    1&X1                     Y   4  2554  , 0|1             1362
7310 55 53          LCA   0&X1,XPON                Y   7  2558  L 0|0 P67         1363
7311 55 54          SAR   X1                       Y   4  2565  Q 089             1363
7312 55 55          BE    SKIP                     Y   5  2569  B Y80 S           1363
7313 55 56          B     MVBAL                    Y   4  2574  B Y57            1363
7314 55 57   BSUB   C     0&X1,BLK8#8              Y   7  2578  C 0|0 Q66         1363
7315 55 58          SAR   X3                       Y   4  2585  Q 099             1363
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
7316 55 59          BCE   GTSUB,1&X3,$                                     Y   8  2589  B O08 0?1 $       1363
7317 55 60          C     0&X3,BLK6                                        Y   7  2597  C 0?0 Q72        1364
7318 55 61          SAR   X3                                               Y   4  2604  Q 099           1364
7319 55 62   GTSUB  MZ    3&X3,BMOD                                        Y   7  2608  Y 0?3 P76        1364
7320 55 63          SW    1&X3                                             Y   4  2615  , 0?1           1364
7321 55 64          B     LOAD                                             Y   4  2619  B Z10           1364
7322 55 65   FSUB   C     0&X3,BLK8                                        Y   7  2623  C 0?0 Q66        1364
7323 55 66          SAR   X3                                               Y   4  2630  Q 099           1364
7324 55 67          BCE   SWM,1&X3,$                                      Y   8  2634  B L63 0?1 $       1365
7325 55 68          C     0&X3,BLK6#6                                      Y   7  2642  C 0?0 Q72        1365
7326 55 69          SAR   X3                                               Y   4  2649  Q 099           1365
7327 55 70          B     SWM                                              Y   4  2653  B L63           1365
7328 55 71   SUB1   MZ    HLD18-9,FSTMD                                    Y   7  2657  Y P09 P19        1365
7329 55 72          BCE   NOWOP,HLD18-11,$                                 Y   8  2664  B S54 P07 $      1365
7330 55 73          MZ    HLD18-15,FSTMD                                   Y   7  2672  Y P03 P19        1366
7331 55 74          B     NOWOP                                            Y   4  2679  B S54           1366
7332 55 75          DCW   #1                                               Y   1  2683                  1366
7333 55 76   CODE   DCW   #3                                               Y   3  2686                  1366
7334 55 77          LTORG *                                                Y          2687
             SAVX3Y DCW   #03                                              Y   3  2689          AREA    1366
             MODSWY DCW   #01                                              Y   1  2690          AREA    1366
             HEX3 Y DCW   #03                                              Y   3  2693          AREA    1366
                    DCW   @&-@*.#@                                         Y   6  2699          LIT     1367
             OPMD Y DCW   #01                                              Y   1  2700          AREA    1367
             HLD18Y DCW   #18                                              Y  18  2718          AREA    1367
             FSTMDY DCW   #01                                              Y   1  2719          AREA    1367
                    DCW   @F@                                              Y   1  2720          LIT     1367
                    DCW   @X@                                              Y   1  2721          LIT     1367
                    DCW   @/@                                              Y   1  2722          LIT     1367
                    DCW   @ARITH6@                                         Y   6  2728          LIT     1368
                    DCW   @K@                                              Y   1  2729          LIT     1368
             BLK20Y DCW   #20                                              Y  20  2749          AREA    1368
                    DCW   &1                                               Y   1  2750          LIT     1368
             XPON Y DCW   #17                                              Y  17  2767          AREA    1369
             XPMODY DCW   #01                                              Y   1  2768          AREA    1369
             HEX31Y DCW   #03                                              Y   3  2771          AREA    1369
             BLK4 Y DCW   #04                                              Y   4  2775          AREA    1369
             BMOD Y DCW   #01                                              Y   1  2776          AREA    1369
             BASE Y DCW   #17                                              Y  17  2793          AREA    1370
                    DCW   @ERROR 30 - FIX TO FLOAT POWER, STATEMENT @      Y  41  2834          LIT     1372
                    DCW   @E@                                              Y   1  2835          LIT     1372
                    DCW   @G*@                                             Y   2  2837          LIT     1372
                    DCW   @3@                                              Y   1  2838          LIT     1372
                    DCW   @*@                                              Y   1  2839          LIT     1372
             SAV2 Y DCW   #03                                              Y   3  2842          AREA    1373
                    DCW   @&@                                              Y   1  2843          LIT     1373
                    DCW   @F*<4?@                                          Y   5  2848          LIT     1373
                    DCW   @G|@                                             Y   2  2850          LIT     1373
                    DCW   @<4?#@                                           Y   4  2854          LIT     1373
                    DCW   @B700@                                           Y   4  2858          LIT     1373
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
             BLK8 Y DCW   #08                         Y   8  2866              AREA  1373
             BLK6 Y DCW   #06                         Y   6  2872              AREA  1374
7335 55 78   SYSGM  DCW   @}@          SYSTEM GROUP MARK Y  1  2873              GMARK 1374
7336 55 79          XFR   START                        Y            B 838             1375
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
7337 55 80          JOB   FORTRAN ARITH PHASE SIX
7338 55 81          FBEGN ARITH SIX,X1,,X2,,X3,,S                                          MACRO
7339                SFX   S                                                              GEN
7340          110   DCW   @ARITH SIX@                             S   9  0110           GEN   1378
7341          X1    EQU   089                                     S      0089           GEN
7342          X2    EQU   094                                     S      0094           GEN
7343          X3    EQU   099                                     S      0099           GEN
7344 55 82    NXTOP EQU   086                                     S      0086
7345 55 83          ORG   XBEGIN                                  S            0838
7346 55 84    INISH BCE   FENDX,X2,.                             S   8  0838  B S51 094 .       1379
7347 55 85          SBR   HEX2#3,0&X2                            S   7  0846  H N31 0!0         1379
7348 55 86          MN    0&X3                                    S   4  0853  D 0?0             1379
7349 55 87          MN                                            S   1  0857  D                 1379
7350 55 88          SAR   NOMO#3                                  S   4  0858  Q N34             1379
7351 55 89          SBR   HEX1#3,0&X1                            S   7  0862  H N37 0|0         1379
7352 55 90          MCW   NXTOP,MXTMP                             S   7  0869  M 086 N66         1379
7353 55 91          MCW   PARAMA&6,TMPSZ#3                        S   7  0876  M 692 N40         1380
7354 55 92          MN    &0,TMPSZ-2                              S   7  0883  D N41 N38         1380
7355 55 93          A     &2,TMPSZ                                S   7  0890  A N42 N40         1380
7356 55 94          C     TMPSZ,PARAMA&4                          S   7  0897  C N40 690         1380
7357 55 95          BL    START                                   S   5  0904  B 916 T           1380
7358 55 96          MCW   PARAMA&4,TMPSZ                          S   7  0909  M 690 N40         1381
7359 55 97    START C     X2,NOMO                                 S   7  0916  C 094 N34         1381
7360 55 98          BE    DUN                                     S   5  0923  B S21 S           1381
7361 55 99          MCW   TABLE&165,TABLE&164                     S   7  0928  M M94 M93         1381
7362 56 00    GETUM BCE   GOTUM,2&X2,<        DELTA   12-6-8     S   8  0935  B 959 0!2 <       1381
7363 56 01          SBR   X2                                      S   4  0943  H 094             1381
7364 56 02          BCE   NXGUY,1&X2,}        GM                  S   8  0947  B S10 0!1 } GMARK 1382
7365 56 03          B     GETUM                                   S   4  0955  B 935             1382
7366 56 04    GOTUM MN    4&X2,DLVAL#3                            S   7  0959  D 0!4 N45         1382
7367 56 05          MN                                            S   1  0966  D                 1382
7368 56 06          MCW   @0@                                     S   4  0967  M N46             1382
7369 56 07          BWZ   BMPUM,4&X2,2                           S   8  0971  V |16 0!4 2       1382
7370 56 08          A     &100,DLVAL                              S   7  0979  A N49 N45         1382
7371 56 09          BWZ   BMPUM,4&X2,S                           S   8  0986  V |16 0!4 S       1383
7372 56 10          A     &100,DLVAL                              S   7  0994  A N49 N45         1383
7373 56 11          BWZ   BMPUM,4&X2,K                           S   8  1001  V |16 0!4 K       1383
7374 56 12          A     &100,DLVAL                              S   7  1009  A N49 N45         1383
7375 56 13    BMPUM MCW   DLVAL,X3                              S   7  1016  M N45 099         1383
7376 56 14          A     X3                                      S   4  1023  A 099             1384
7377 56 15          A     DLVAL,X3                                S   7  1027  A N45 099         1384
7378 56 16          BCE   ASSGN,5&X2,#                           S   8  1034  B |60 0!5 #       1384
7379 56 17          MCW   MATRX-1&X3,X1                         S   7  1042  M T?5 089         1384
7380 56 18          MCW   @|@,TABLE-1&X1                        S   7  1049  M N50 LS8         1384
7381 56 19          B     CMPAD                                   S   4  1056  B |89             1384
7382 56 20    ASSGN MCM   TABLE                                  S   4  1060  P L29             1385
7383 56 21          SAR   X1                                      S   4  1064  Q 089             1385
7384 56 22          MA    -TABLE,X1                               S   7  1068  # N53 089         1385
7385 56 23          MCW   *-6,TABLE-1&X1                         S   7  1075  M |75 LS8         1385
7386 56 24          MCW   X1,MATRX-1&X3                         S   7  1082  M 089 T?5         1385
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
7387 56 25   CMPAD  ZA     X1,ACCUM-4                                   S   7  1089  ? 089 N56          1385
7388 56 26          M      TMPSZ,ACCUM#7                                S   7  1096  @ N40 N60          1386
7389 56 27          SW     ACCUM-4                                      S   4  1103  , N56              1386
7390 56 28          FPACK  ACCUM,4&X2,X3                                              MACRO
7391                INCLD  ZONES                                                     MACRO
7392                MN     ACCUM,4&X2                                   S   7  1107  D N60 0!4   GEN    1386
7393                MN                                                  S   1  1114  D           GEN    1386
7394                MN                                                  S   1  1115  D           GEN    1386
7395                SAR    *&4                                          S   4  1116  Q /23       GEN    1386
7396                MCW    0,X3                                         S   7  1120  M 000 099   GEN    1386
7397                MCW    @0@                                          S   4  1127  M N46       GEN    1387
7398                A      X3                                           S   4  1131  A 099       GEN    1387
7399                MZ     ZONES&1&X3,4&X2                              S   7  1135  Y MI8 0!4   GEN    1387
7400                CW                                                  S   1  1142  )           GEN    1387
7401                SBR    *&7                                          S   4  1143  H /53       GEN    1387
7402                MZ     ZONES&X3, 0                                  S   7  1147  Y MI7 000   GEN    1387
7403 56 29          CW     ACCUM-4                                      S   4  1154  ) N56              1387
7404 56 30          MA     NXTOP,4&X2                                   S   7  1158  # 086 0!4          1388
7405 56 31          C      X1,HYTEST#3                                  S   7  1165  C 089 N63          1388
7406 56 32          BH     GOBAK                                        S   5  1172  B /99 U            1388
7407 56 33          MCW    X1,HYTEST                                    S   7  1177  M 089 N63          1388
7408 56 34          MCW    4&X2,MXTMP#3                                 S   7  1184  M 0!4 N66          1388
7409 56 35          BWZ    BLWUP,MXTMP,2                                S   8  1191  V S74 N66 2        1389
7410 56 36   GOBAK  SBR    X2,3&X2                                      S   7  1199  H 094 0!3          1389
7411 56 37          B      GETUM                                        S   4  1206  B 935              1389
7412 56 38   NXGUY  SBR    X2,4&X2                                      S   7  1210  H 094 0!4          1389
7413 56 39          B      START                                        S   4  1217  B 916              1389
7414 56 40   DUN    MCW    HEX2,X3                                      S   7  1221  M N31 099          1389
7415 56 41          MCW    HEX1,X1                                      S   7  1228  M N37 089          1390
7416 56 42          C      0&X1                                         S   4  1235  C 0|0              1390
7417 56 43          C                                                   S   1  1239  C                  1390
7418 56 44          SAR    X1                                           S   4  1240  Q 089              1390
7419 56 45          MCW    MXTMP,NXTOP                                  S   7  1244  M N66 086          1390
7420 56 46   FENDX  FENDX  D,,,,,,SYS6,I/O TWO                                      MACRO
7421        FENDX  BSS    333,D                                        S   5  1251  B 333 D     GEN    1390
7422                SBR    TCLEAR,SYS6                                  S   7  1256  H 710 O10   GEN    1390
7423                LCA    @I/O TWO@,110                                S   7  1263  L N73 110   GEN    1391
7424                B      MONTER                                       S   4  1270  B 700       GEN    1391
7425 56 47   BLWUP  BW     GOBAK,LGSW                                   S   8  1274  V /99 M95 1        1391
7426 56 48          CS     332                                          S   4  1282  / 332              1391
7427 56 49          CS                                                  S   1  1286  /                  1391
7428 56 50          MLC    @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   S   7  1287  M O09 270          1391
7429 56 51          W                                                   S   1  1294  2                  1391
7430 56 52          SW     FAILSW,LGSW                                  S   7  1295  , 184 M95          1392
7431 56 53          B      GOBAK                                        S   4  1302  B /99              1392
7432 56 54   MATRX  DA     1X1023                                       S      1306   2328               1392
7433 56 55   TABLE  DA     1X165,|                                      S      2329   2494               1392
                    DC     @|@                                          S   1  2494              RMARK 1393
7434 56 56   LGSW   DC     #1                                           S   1  2495                    1393
7435 56 57          ORG    *                                            S              2496
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

7436                LTORG *    WVS: AUTOCODER SHOULDN'T LOAD INCLD AT ORG   S          2496
7437                DCW   #1                                                 S  1  2496              GEN   1393
7438          ZONES DC    9                                                  S  1  2497              GEN   1393
7439                DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  S 31  2528              GEN   1393
              *        LTORG*                                                                        GEN
              HEX2 S DCW   #03                                               S  3  2531              AREA  1393
              NOMO S DCW   #03                                               S  3  2534              AREA  1394
              HEX1 S DCW   #03                                               S  3  2537              AREA  1394
              TMPSZS DCW   #03                                               S  3  2540              AREA  1394
                     DCW   &0                                                S  1  2541              LIT   1394
                     DCW   &2                                                S  1  2542              LIT   1394
              DLVALS DCW   #03                                               S  3  2545              AREA  1394
                     DCW   @0@                                               S  1  2546              LIT   1394
                     DCW   &100                                              S  3  2549              LIT   1395
                     DCW   @|@                                               S  1  2550              LIT   1395
                     DCW   -TABLES                                           S  3  2553  W7A         ADCON 1395
              ACCUMS DCW   #07                                               S  7  2560              AREA  1395
              HYTEST DCW   #03                                               S  3  2563              AREA  1395
              MXTMPS DCW   #03                                               S  3  2566              AREA  1395
                     DCW   @I/O TWO@                                         S  7  2573              LIT   1395
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@            S 36  2609              LIT   1396
7440 56 58    SYS6   DCW   @}@        SYSTEM AND WORK GROUP MARK            S  1  2610              GMARK 1396
7441 56 59           XFR   INISH                                             S           B 838             1397
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7442 56 60          JOB   1401 FORTRAN  INPUT/OUTPUT PHASE TWO
7443 56 61          FBEGN I/O TWO,X1,,X2,R,X3,,U                                                MACRO
7444                SFX   U                                                                     GEN
7445          110   DCW   @I/O TWO@                                 U   7  0110               GEN   1400
7446          X1    EQU   089                                       U      0089               GEN
7447          X2    EQU   094                                       U      0094               GEN
7448          094   DCW   000                                       U   3  0094               GEN   1401
7449          096   DC    00                                        U   2  0096               GEN   1401
7450          X3    EQU   099                                       U      0099               GEN
7451 56 62          ORG   XBEGIN                                    U            0838
7452 56 63    START BCE   OUT,0&X1,                                 U   8  0838  B 870 0|0          1402
7453 56 64          MCW   0&X1,CODE#4                               U   7  0846  M 0|0 S30          1402
7454 56 65          MCW   CODE-3,*&8                               U   7  0853  M S27 867          1402
7455 56 66          BCE   WORK,@BZN@,0          D CHAR INITIALIZED  U   8  0860  B 893 S33 0       1402
7456 56 67          BCE                                           U   1  0868  B                  1402
7457 56 68          BCE                                           U   1  0869  B                  1402
7458 56 69    OUT   FENDX C,,,,,,SYS1,CGOTO                                                     MACRO
7459          OUT   BSS   333,C                                     U   5  0870  B 333 C     GEN   1402
7460                SBR   TCLEAR,SYS1                             U   7  0875  H 710 T24   GEN   1403
7461                LCA   @CGOTO@,110                             U   7  0882  L S38 110   GEN   1403
7462                B     MONTER                                  U   4  0889  B 700       GEN   1403
7463 56 70    WORK  MCW   @B@,IOCW                                U   7  0893  M S39 S26          1403
7464 56 71          MCW   @<@,2&X1                  12-6-8        U   7  0900  M S40 0|2          1403
7465 56 72          SBR   KLOBR&6,2&X1                            U   7  0907  H /23 0|2          1403
7466 56 73          BCE   CTU1,CODE-3,B                           U   8  0914  B 944 S27 B        1404
7467 56 74          MCW   @R@,IOCW                                U   7  0922  M S41 S26          1404
7468 56 75          BCE   CTU1,CODE-3,Z                           U   8  0929  B 944 S27 Z        1404
7469 56 76          MCW   @M@,IOCW                                U   7  0937  M S42 S26          1404
7470 56 77    CTU1  MVDWN X1,X3                                                                 MACRO
7471          CTU1  LCA   0&X1,0&X3                               U   7  0944  L 0|0 0?0    GEN   1404
7472                SAR   X1                                      U   4  0951  Q 089       GEN   1405
7473                C     0&X3                                    U   4  0955  C 0?0       GEN   1405
7474                SAR   X3                                      U   4  0959  Q 099       GEN   1405
7475 56 78          LCA   1&X1,2&X3                              U   7  0963  L 0|1 0?2          1405
7476 56 79          SBR   X3                                      U   4  0970  H 099              1405
7477 56 80          BWZ   *&5,CODE,2                             U   8  0974  V 986 S30 2        1405
7478 56 81          B     CHNG                                    U   4  0982  B 994              1405
7479 56 82          BWZ   CKNUM,CODE-2,2                         U   8  0986  V |08 S28 2        1406
7480 56 83    CHNG  MCW   CODE,X2                                 U   7  0994  M S30 094          1406
7481 56 84          MCW   0&X2,CODE                               U   7  1001  M 0!0 S30          1406
7482 56 85    CKNUM BCE   NONUM,0&X1,}                 12-7-8        U   8  1008  B /59 0|0 } GMARK 1406
7483 56 86          MN    0&X1                                    U   4  1016  D 0|0              1406
7484 56 87          SAR   X2                                      U   4  1020  Q 094              1406
7485 56 88          BCE   CONST,0&X2,}                 12-7-8        U   8  1024  B S04 0!0 } GMARK 1407
7486 56 89    SYMB  MCW   @0@,TUNO                                U   7  1032  M S43 S25          1407
7487 56 90          MCW   0&X1,MVMSK-3                            U   7  1039  M 0|0 S18          1407
7488 56 91          MCW   @D@,MVMSK-6                            U   7  1046  M S44 S15          1407
7489 56 92          MZ    *-4,MVMSK-4                             U   7  1053  Y |55 S17          1407
7490 56 93          CW    MVSW#1                                  U   4  1060  ) S45              1408
7491 56 94    SLIDE C     0&X1                                    U   4  1064  C 0|0              1408
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7492 56 95           SAR   X1                                         U   4  1068  Q 089             1408
7493 56 96           LCA   IOCW,0&X3                                  U   7  1072  L S26 0?0         1408
7494 56 97           SBR   X3                          TO SOURCE      U   4  1079  H 099             1408
7495 56 98           BW    NOINT,MVSW                                 U   8  1083  V /06 S45 1       1408
7496 56 99           SW    MVSW                                       U   4  1091  , S45             1408
7497 57 00           LCA   MVMSK,0&X3                 LOAD INITIALIZE U   7  1095  L S21 0?0         1409
7498 57 01           SBR   X3                                         U   4  1102  H 099             1409
7499 57 02  NOINT     LCA   1&X1,0&X3                  LOAD GM        U   7  1106  L 0|1 0?0         1409
7500 57 03           SBR   X3                                         U   4  1113  H 099             1409
7501 57 04  KLOBR     BCE   START,0,<                  12-6-8         U   8  1117  B 838 000 <       1409
7502 57 05           FQUIT                                                                MACRO
7503                 CS    332                                        U   4  1125  / 332       GEN   1409
7504                 CS                                               U   1  1129  /           GEN   1409
7505                 CC    1                                          U   2  1130  F 1         GEN   1410
7506                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270  U   7  1132  M S81 270   GEN   1410
7507                 W                                                U   1  1139  2           GEN   1410
7508                 CC    1                                          U   2  1140  F 1         GEN   1410
7509                 BCE   *&6,MONTOR,1                               U   8  1142  B /55 769 1 GEN   1410
7510                 RWD   1                                          U   5  1150  U %U1 R     GEN   1410
7511                 H     *-3                                        U   4  1155  . /55       GEN   1410
7512 57 06  NONUM    FTMSG 33,NO TAPE UNIT NUMBER,CODE,21                                 MACRO
7513        NONUM    CS    332                                        U   4  1159  / 332       GEN   1411
7514                 CS                                               U   1  1163  /           GEN   1411
7515                 SW    FAILSW                                     U   4  1164  , 184       GEN   1411
7516                 MN    CODE,224&21                                U   7  1168  D S30 245   GEN   1411
7517                 MN                                               U   1  1175  D           GEN   1411
7518                 MN                                               U   1  1176  D           GEN   1411
7519                 MCW   @ERROR 33 - NO TAPE UNIT NUMBER, STATEMENT @ U   4  1177  M T23       GEN   1411
7520                 W                                                U   1  1181  2           GEN   1412
7521                 BCV   *&5                                        U   5  1182  B /91 @     GEN   1412
7522                 B     *&3                                        U   4  1187  B /93       GEN   1412
7523                 CC    1                                          U   2  1191  F 1         GEN   1412
7524 57 07           MCW   @0@,TUNO                                  U   7  1193  M S43 S25         1412
7525 57 08           B     SYMB                                       U   4  1200  B |32            1412
7526 57 09  CONST     MN    0&X1,TUNO                                  U   7  1204  D 0|0 S25         1412
7527 57 10           B     SLIDE                                      U   4  1211  B |64            1413
7528 57 11  MVMSK     DCW   @MXXX0?4@          0,12-0,4              U   7  1221                   1413
7529 57 12  IOCW      DCW   @U%U0X@                                   U   5  1226                   1413
7530 57 13  TUNO      EQU   IOCW-1                                     U      1225
7531 57 14           LTORG *                                          U            1227
             CODE U  DCW   #04                                        U   4  1230            AREA  1413
                     DCW   @BZN@                                      U   3  1233            LIT   1413
                     DCW   @CGOTO@                                    U   5  1238            LIT   1413
                     DCW   @B@                                        U   1  1239            LIT   1413
                     DCW   @<@                                        U   1  1240            LIT   1414
                     DCW   @R@                                        U   1  1241            LIT   1414
                     DCW   @M@                                        U   1  1242            LIT   1414
                     DCW   @0@                                        U   1  1243            LIT   1414
                     DCW   @D@                                        U   1  1244            LIT   1414
             MVSW U  DCW   #01                                        U   1  1245            AREA  1414
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@       U 36  1281              LIT   1415
                    DCW   @ERROR 33 - NO TAPE UNIT NUMBER, STATEMENT @ U 42  1323              LIT   1417
7532 57 15  SYS1   DCW   @}@           SYSTEM GROUP MARK               U  1  1324              GMARK 1417
7533 57 16          XFR   START                                       U           B 838               1418
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7534 57 17          JOB   1401 FORTRAN  COMPUTED GO TO PHASE
7535 57 18          FBEGN CGOTO,X1,,X2,R,X3,,.                                                MACRO
7536                SFX   .                                                                   GEN
7537         110    DCW   @CGOTO@                                    .   5  0110             GEN   1421
7538         X1     EQU   089                                       .      0089             GEN
7539         X2     EQU   094                                       .      0094             GEN
7540         094    DCW   000                                       .   3  0094             GEN   1422
7541         096    DC    00                                        .   2  0096             GEN   1422
7542         X3     EQU   099                                       .      0099             GEN
7543 57 19          ORG   XBEGIN                                    .            0838
7544 57 20   INITL  SW    GM1,GM2                                   .   7  0838  , S95 T09        1423
7545 57 21   START  BWZ   OUT,0&X1,1                               .   8  0845  V T20 0|0 1      1423
7546 57 22          MCW   0&X1,ID#3                                .   7  0853  M 0|0 T62        1423
7547 57 23          MCW   ID,MASK                                  .   7  0860  M T62 T12        1423
7548 57 24          MCW   @]@,1&X1                    11-5-8       .   7  0867  M T63 0|1        1423
7549 57 25          SBR   KLOBR&6,1&X1                            .   7  0874  H |78 0|1        1424
7550 57 26          C     0&X1                                     .   4  0881  C 0|0            1424
7551 57 27          SAR   X1                                       .   4  0885  Q 089            1424
7552 57 28          C     2&X1,@T@                                 .   7  0889  C 0|2 T64        1424
7553 57 29          BU    DUN                                      .   5  0896  B T13 /          1424
7554 57 30   SMALL  S     MAX#2                                    .   4  0901  S T66            1424
7555 57 31   LOOP   MN    0&X1                                     .   4  0905  D 0|0            1424
7556 57 32          MN                                             .   1  0909  D                1425
7557 57 33          MN                                             .   1  0910  D                1425
7558 57 34          SAR   X1                                       .   4  0911  Q 089            1425
7559 57 35          A     &1,MAX                                   .   7  0915  A T67 T66        1425
7560 57 36          C     MAX,&11                                  .   7  0922  C T66 T69        1425
7561 57 37          BE    ERROR                                    .   5  0929  B S23 S          1425
7562 57 38          C     0&X1,@,@                                 .   7  0934  C 0|0 T70        1425
7563 57 39          BU    LOOP                                     .   5  0941  B 905 /          1426
7564 57 40          MN    0&X1                                     .   4  0946  D 0|0            1426
7565 57 41          SAR   X1                                       .   4  0950  Q 089            1426
7566 57 42          B     RUADR                                    .   4  0954  B /14            1426
7567 57 43          LCA   MASK,0&X3                                .   7  0958  L T12 0?0        1426
7568 57 44          LCA   TRAP                                     .   4  0965  L T59            1426
7569 57 45          LCA                                            .   1  0969  L                1426
7570 57 46          LCA                                            .   1  0970  L                1427
7571 57 47          SBR   X3                                       .   4  0971  H 099            1427
7572 57 48          SBR   X1,1&X1                                  .   7  0975  H 089 0|1        1427
7573 57 49   ANYMO  BW    NOMO,4&X1                                .   8  0982  V |53 0|4 1      1427
7574 57 50          SW    BRNCH-6                                  .   4  0990  , T44           1427
7575 57 51          MN    MAX,BRNCH                                .   7  0994  D T66 T50        1427
7576 57 52          MCW   I                                        .   4  1001  M T02            1427
7577 57 53          MCW   6&X1                                     .   4  1005  M 0|6            1428
7578 57 54          SAR   X1                                       .   4  1009  Q 089            1428
7579 57 55          CW    BRNCH-6                                  .   4  1013  ) T44           1428
7580 57 56          MZ    @K@,BRNCH-5                              .   7  1017  Y T71 T45        1428
7581 57 57          MZ    *-4,BRNCH-2                              .   7  1024  Y |26 T48        1428
7582 57 58          LCA   BRNCH,0&X3                               .   7  1031  L T50 0?0        1428
7583 57 59          SBR   X3                                       .   4  1038  H 099            1428
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
7584 57 60          S     &1,MAX                                           .   7  1042  S T67 T66          1429
7585 57 61          B     ANYMO                                            .   4  1049  B 982              1429
7586 57 62   NOMO   LCA   GM1,0&X3                                        .   7  1053  L S95 0?0          1429
7587 57 63          SBR   X3                                             .   4  1060  H 099              1429
7588 57 64   BOTM   C     0&X1                                           .   4  1064  C 0|0              1429
7589 57 65          SAR   X1                                             .   4  1068  Q 089              1429
7590 57 66   KLOBR  BCE   START,0,]                    11-5-8             .   8  1072  B 845 000 ]        1429
7591 57 67          FQUIT                                                                MACRO
7592                CS    332                                            .   4  1080  / 332        GEN   1430
7593                CS                                                   .   1  1084  /            GEN   1430
7594                CC    1                                              .   2  1085  F 1          GEN   1430
7595                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270     .   7  1087  M U07 270    GEN   1430
7596                W                                                    .   1  1094  2            GEN   1430
7597                CC    1                                              .   2  1095  F 1          GEN   1430
7598                BCE   *&6,MONTOR,1                                   .   8  1097  B /10 769 1   GEN   1430
7599                RWD   1                                              .   5  1105  U %U1 R      GEN   1431
7600                H     *-3                                            .   4  1110  . /10        GEN   1431
7601 57 68   RUADR  SBR   EXRUA&3                                        .   4  1114  H S22              1431
7602 57 69          S     COUNT#1                                        .   4  1118  S U08              1431
7603 57 70   OK     MN    0&X1,TEST&7                                    .   7  1122  D 0|0 /55          1431
7604 57 71          SAR   X1                                             .   4  1129  Q 089              1431
7605 57 72          BCE   RUFIX,COUNT,B                                  .   8  1133  B /81 U08 B        1431
7606 57 73          A     &1,COUNT                                       .   7  1141  A T67 U08          1432
7607 57 74   TEST   BCE   OK,@0123456789@,0                             .   8  1148  B /22 U18 0        1432
7608 57 75          CHAIN 9                                                              MACRO
7609                BCE                                                  .   1  1156  B            GEN   1432
7610                BCE                                                  .   1  1157  B            GEN   1432
7611                BCE                                                  .   1  1158  B            GEN   1432
7612                BCE                                                  .   1  1159  B            GEN   1432
7613                BCE                                                  .   1  1160  B            GEN   1432
7614                BCE                                                  .   1  1161  B            GEN   1433
7615                BCE                                                  .   1  1162  B            GEN   1433
7616                BCE                                                  .   1  1163  B            GEN   1433
7617                BCE                                                  .   1  1164  B            GEN   1433
7618 57 76   ERR1   BCE   ERROR,0&X1,}                    12-7-8          .   8  1165  B S23 0|0 }      GMARK 1433
7619 57 77          SBR   X1                                             .   4  1173  H 089              1433
7620 57 78          B     ERR1                                           .   4  1177  B /65              1433
7621 57 79   RUFIX  BWZ   FIXED,2&X1,K                                   .   8  1181  V /93 0|2 K        1434
7622 57 80          B     ERR1                                           .   4  1189  B /65              1434
7623 57 81   FIXED  MZ    BLANK#1,2&X1                                   .   7  1193  Y U19 0|2          1434
7624 57 82          MCW   3&X1,I                                         .   7  1200  M 0|3 T02          1434
7625 57 83          C     0&X1,GM1                                       .   7  1207  C 0|0 S95          1434
7626 57 84          BU    ERR1                                           .   5  1214  B /65 /            1434
7627 57 85   EXRUA  B     0                                              .   4  1219  B 000              1435
7628 57 86   ERROR  BWZ   *&5,ID,2                                       .   8  1223  V S35 T62 2        1435
7629 57 87          B     ZONE                                           .   4  1231  B S43              1435
7630 57 88          BWZ   PRINT,ID-2,2                                   .   8  1235  V S57 T60 2        1435
7631 57 89   ZONE   MCW   ID,X2                                          .   7  1243  M T62 094          1435
7632 57 90          MCW   0&X2,ID                                        .   7  1250  M 0!0 T62          1435
7633 57 91   PRINT  FTMSG 34,COMPUTED GO TO SYNTAX,ID,23                                MACRO
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
7634         PRINT  CS    332                                               .   4  1257  / 332       GEN   1436
7635                CS                                                     .   1  1261  /            GEN   1436
7636                SW    FAILSW                                            .   4  1262  , 184       GEN   1436
7637                MN    ID,224&23                                         .   7  1266  D T62 247   GEN   1436
7638                MN                                                     .   1  1273  D           GEN   1436
7639                MN                                                     .   1  1274  D           GEN   1436
7640                MCW   @ERROR 34 - COMPUTED GO TO SYNTAX, STATEMENT @    .   4  1275  M U63       GEN   1436
7641                W                                                      .   1  1279  2           GEN   1437
7642                BCV   *&5                                              .   5  1280  B S89 @     GEN   1437
7643                B     *&3                                              .   4  1285  B S91       GEN   1437
7644                CC    1                                                .   2  1289  F 1         GEN   1437
7645 57 92          B     BOTM                                             .   4  1291  B |64             1437
7646 57 93  GM1     DC    @}@                          GM                  .   1  1295               GMARK 1437
7647 57 94          DCW   @T@                                              .   1  1296                     1437
7648 57 95          DC    XLINKS            INOPERATIVE IN VER 3           .   3  1299  840              1437
7649 57 96  I       DCW   #3                                               .   3  1302                     1437
7650 57 97          DCW   #3                           MAX VALUE OF I      .   3  1305                     1438
7651 57 98  BASE    DCW   #3                           BASE ADDRESS OF TABLE .  3  1308                     1438
7652 57 99  GM2     DC    @}@                          GM                  .   1  1309               GMARK 1438
7653 58 00  MASK    DC    #3                                               .   3  1312                     1438
7654 58 01  DUN     SBR   X1,5&X1                                          .   7  1313  H 089 0|5         1438
7655 58 02  OUT     FENDX C,,,,,,SYSCG,GOMSK                                                 MACRO
7656         OUT     BSS   333,C                                            .   5  1320  B 333 C     GEN   1438
7657                SBR   TCLEAR,SYSCG                                     .   7  1325  H 710 U69   GEN   1438
7658                LCA   @GOMSK@,110                                      .   7  1332  L U68 110   GEN   1438
7659                B     MONTER                                           .   4  1339  B 700       GEN   1439
7660 58 03  BRNCH   DCW   @BXXXXXXA@                                       .   8  1350                     1439
7661 58 04          NOP   1001                                             .   4  1351  N |01             1439
7662 58 05          H                                                      .   1  1355  .                1439
7663 58 06  TRAP    DCW   @BIIB@                                           .   4  1359                     1439
7664 58 07          LTORG *                                                .          1360
             ID   . DCW   #03                                              .   3  1362               AREA  1439
                    DCW   @]@                                              .   1  1363               LIT   1439
                    DCW   @T@                                              .   1  1364               LIT   1440
             MAX  . DCW   #02                                              .   2  1366               AREA  1440
                    DCW   &1                                               .   1  1367               LIT   1440
                    DCW   &11                                              .   2  1369               LIT   1440
                    DCW   @,@                                              .   1  1370               LIT   1440
                    DCW   @K@                                              .   1  1371               LIT   1440
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@           .  36  1407               LIT   1441
             COUNT. DCW   #01                                              .   1  1408               AREA  1441
                    DCW   @0123456789@                                     .  10  1418               LIT   1442
             BLANK. DCW   #01                                              .   1  1419               AREA  1442
                    DCW   @ERROR 34 - COMPUTED GO TO SYNTAX, STATEMENT @   .  44  1463               LIT   1444
                    DCW   @GOMSK@                                          .   5  1468               LIT   1444
7665 58 08  SYSCG   DCW   @}@                          SYSTEM GROUP MARK   .   1  1469               GMARK 1444
7666 58 09          XFR   INITL                                            .          B 838              1445
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

7667 58 10          JOB   1401 FORTRAN  GO TO MASK PHASE
7668 58 11          FBEGN GOMSK,X1,,,,X3,,*                                          MACRO
7669                SFX   *                                                        GEN
7670          110   DCW   @GOMSK@                                  *   5  0110            GEN   1448
7671          X1    EQU   089                                      *      0089            GEN
7672          X3    EQU   099                                      *      0099            GEN
7673 58 12          ORG   XBEGIN                                   *           0838
7674 58 13  START   BCE   OUT,0&X1,                  BLANK         *   8  0838  B 861 0|0       1449
7675 58 14          MCW   0&X1,CODE#4                              *   7  0846  M 0|0 962       1449
7676 58 15          BCE   CTU,CODE-3,G                            *   8  0853  B 884 959 G     1449
7677 58 16  OUT     FENDX C,,,,,,SYS1,STOP/PAUSE                                     MACRO
7678          OUT   BSS   333,C                                    *   5  0861  B 333 C   GEN   1449
7679                SBR   TCLEAR,SYS1                            *   7  0866  H 710 975 GEN   1449
7680                LCA   @STOP/PAUSE@,110                       *   7  0873  L 972 110 GEN   1450
7681                B     MONTER                                 *   4  0880  B 700       GEN   1450
7682 58 17  CTU     MVDWN X1,X3                                                      MACRO
7683          CTU   LCA   0&X1,0&X3                              *   7  0884  L 0|0 0?0 GEN   1450
7684                SAR   X1                                     *   4  0891  Q 089     GEN   1450
7685                C     0&X3                                   *   4  0895  C 0?0     GEN   1450
7686                SAR   X3                                     *   4  0899  Q 099     GEN   1450
7687 58 18          LCA   1&X3,2&X3                              *   7  0903  L 0?1 0?2       1450
7688 58 19          SBR   X3                                     *   4  0910  H 099         1451
7689 58 20          MVDWN X1,X3                                                      MACRO
7690                LCA   0&X1,0&X3                              *   7  0914  L 0|0 0?0 GEN   1451
7691                SAR   X1                                     *   4  0921  Q 089     GEN   1451
7692                C     0&X3                                   *   4  0925  C 0?0     GEN   1451
7693                SAR   X3                                     *   4  0929  Q 099     GEN   1451
7694 58 21          MCW   @B@,1&X3                               *   7  0933  M 973 0?1       1451
7695 58 22          LCA   1&X1                                   *   4  0940  L 0|1         1451
7696 58 23          SBR   X3                                     *   4  0944  H 099         1452
7697 58 24          MZ    @K@,4&X3                               *   7  0948  Y 974 0?4       1452
7698 58 25          B     START                                  *   4  0955  B 838         1452
7699 58 26          LTORG *                                      *           0959
             CODE * DCW   #04                                    *   4  0962            AREA  1452
                    DCW   @STOP/PAUSE@                           *  10  0972            LIT   1452
                    DCW   @B@                                    *   1  0973            LIT   1452
                    DCW   @K@                                    *   1  0974            LIT   1452
7700 58 27  SYS1    DCW   @}@                  SYSTEM GROUP MARK *   1  0975            GMARK 1453
7701 58 28          XFR   START                                  *           B 838          1454
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
7702 58 29          JOB   1401 FORTRAN  STOP/PAUSE PHASE
7703 58 30          FBEGN STOP/PAUSE,X1,,X2,,X3,,3                                          MACRO
7704                SFX   3                                                               GEN
7705          110   DCW   @STOP/PAUSE@                            3  10  0110            GEN   1457
7706          X1    EQU   089                                      3      0089            GEN
7707          X2    EQU   094                                      3      0094            GEN
7708          X3    EQU   099                                      3      0099            GEN
7709 58 31          ORG   XBEGIN                                   3           0838
7710 58 32   START  CS    299                                      3   4  0838  / 299             1458
7711 58 33   NUTYP  BCE   OUT,0&X1,                    BLANK       3   8  0842  B 873 0|0         1458
7712 58 34          MCW   0&X1,CODE#4                              3   7  0850  M 0|0 W02         1458
7713 58 35          FBCEQ DOIT,CODE-3,A,S                                                 MACRO
7714                BCE   DOIT, CODE-3, A                         3   8  0857  B 896 V99 A GEN   1458
7715                BCE   DOIT, CODE-3, S                         3   8  0865  B 896 V99 S GEN   1458
7716 58 36   OUT    FENDX C,,,,,,SYS1,LIGHT                                               MACRO
7717         OUT    BSS   333,C                                   3   5  0873  B 333 C     GEN   1459
7718                SBR   TCLEAR,SYS1                            3   7  0878  H 710 W61   GEN   1459
7719                LCA   @LIGHT@,110                            3   7  0885  L W07 110   GEN   1459
7720                B     MONTER                                 3   4  0892  B 700       GEN   1459
7721 58 37   DOIT   MCW   @<@,2&X1                    12-6-8      3   7  0896  M W08 0|2         1459
7722 58 38          SBR   KLOBR&6,2&X1                           3   7  0903  H S58 0|2         1459
7723 58 39          MVDWN X1,X3                                                           MACRO
7724                LCA   0&X1,0&X3                              3   7  0910  L 0|0 0?0   GEN   1460
7725                SAR   X1                                     3   4  0917  Q 089       GEN   1460
7726                C     0&X3                                   3   4  0921  C 0?0       GEN   1460
7727                SAR   X3                                     3   4  0925  Q 099       GEN   1460
7728 58 40          LCA   1&X3,2&X3                              3   7  0929  L 0?1 0?2         1460
7729 58 41          SBR   X3                                     3   4  0936  H 099             1460
7730 58 42          BCE   NOAD,0&X1,}                GM          3   8  0940  B |69 0|0 } GMARK 1460
7731 58 43          CS    WORK                                   3   4  0948  / V98             1461
7732 58 44          FFLIP 0&X1,LOWK,X1,X2,,WM                                             MACRO
7733                MN    LOWK                                   3   4  0952  D V00       GEN   1461
7734                MN                                           3   1  0956  D           GEN   1461
7735                SAR   X2                                     3   4  0957  Q 094       GEN   1461
7736                SBR   X1, 0&X1                              3   7  0961  H 089 0|0   GEN   1461
7737          )0K212 MCW  0&X1,)0L212#1                          3   7  0968  M 0|0 W09   GEN   1461
7738                SAR   X1                                     3   4  0975  Q 089       GEN   1461
7739                BW    )0M212, 1&X1                           3   8  0979  V |02 0|1 1 GEN   1462
7740                MCW   )0L212, 2&X2                           3   7  0987  M W09 0!2   GEN   1462
7741                SBR   X2                                     3   4  0994  H 094       GEN   1462
7742                B     )0K212                                 3   4  0998  B 968       GEN   1462
7743          )0M212 EQU  *&1                                    3      1002              GEN
7744 58 45          SW    LOWK                                   3   4  1002  , V00             1462
7745 58 46          BCE   OKAY2,LOWK&3,              BLANK       3   8  1006  B |42 V03         1462
7746 58 47          MCW   MSG1,222                              3   7  1014  M T15 222         1463
7747 58 48          MCW   MSG2,247                              3   7  1021  M T33 247         1463
7748 58 49          MCW   LOWK&4,228                            3   7  1028  M V04 228         1463
7749 58 50          MCW   LOWK&2,251                            3   7  1035  M V02 251         1463
7750 58 51   OKAY2  BCE   *&5,LOWK&2,                BLANK       3   8  1042  B |54 V02         1463
7751 58 52          B     SETUP                                  3   4  1050  B |84             1464
```

```
 SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7752 58 53           MCW   LOWK&1,LOWK&2                              3  7  1054  M V01 V02        1464
7753 58 54           MCW   @0@                                        3  4  1061  M W10            1464
7754 58 55           B     OKAY2                                      3  4  1065  B |42            1464
7755 58 56   NOAD    LCA   @000@,LOWK&2                              3  7  1069  L W13 V02        1464
7756 58 57           C     0&X1                                       3  4  1076  C 0|0            1464
7757 58 58           SAR   X1                                         3  4  1080  Q 089            1464
7758 58 59   SETUP   MCW   LOWK&2,SAVE3#3                            3  7  1084  M V02 W16        1465
7759 58 60           A     @0@,LOWK&3                                 3  7  1091  A W10 V03        1465
7760 58 61           C     LOWK&2,SAVE3                               3  7  1098  C V02 W16        1465
7761 58 62           BE    AOK                                        3  5  1105  B /70 S          1465
7762 58 63           BCE   NUERR,201,                    BLANK       3  8  1110  B /31 201        1465
7763 58 64   RTN     MZ    BLNK3#3,251                                3  7  1118  Y W19 251        1466
7764 58 65           MZ                                               3  1  1125  Y                1466
7765 58 66           MZ                                               3  1  1126  Y                1466
7766 58 67           B     AOK                                        3  4  1127  B /70            1466
7767 58 68   NUERR   MCW   MSG1,222                                   3  7  1131  M T15 222        1466
7768 58 69           MCW   MSG2,247                                   3  7  1138  M T33 247        1466
7769 58 70           MCW   LOWK&2,226                                 3  7  1145  M V02 226        1466
7770 58 71           MCW   LOWK&2,251                                 3  7  1152  M V02 251        1467
7771 58 72           MCW   BLANK,223                                  3  7  1159  M W17 223        1467
7772 58 73           B     RTN                                        3  4  1166  B /18            1467
7773 58 74   AOK     BCE   CTU,201,                      BLANK       3  8  1170  B /94 201        1467
7774 58 75           W                                                3  1  1178  2                1467
7775 58 76           FORMS                                                                MACRO
7776                 BCV   *&5                                        3  5  1179  B /88 @     GEN  1467
7777                 B     *&3                                        3  4  1184  B /90       GEN  1467
7778                 CC    1                                          3  2  1188  F 1         GEN  1468
7779 58 77           CS    299                                        3  4  1190  / 299            1468
7780 58 78   CTU     CW    LOWK                                       3  4  1194  ) V00            1468
7781 58 79           BCE   PAUSE,CODE-3,A                             3  8  1198  B S33 V99 A      1468
7782 58 80           LCA   @BIIB@,0&X3                                3  7  1206  L W23 0?0        1468
7783 58 81           LCA   @.@                                        3  4  1213  L W24            1468
7784 58 82           LCA   LOWK&2                                     3  4  1217  L V02            1468
7785 58 83           LCA   1&X1                                       3  4  1221  L 0|1            1469
7786 58 84           SBR   X3                                         3  4  1225  H 099            1469
7787 58 85           B     KLOBR                                      3  4  1229  B S52            1469
7788 58 86   PAUSE   LCA   @.@,0&X3                                  3  7  1233  L W24 0?0        1469
7789 58 87           LCA   LOWK&2                                     3  4  1240  L V02            1469
7790 58 88           LCA   1&X1                                       3  4  1244  L 0|1            1469
7791 58 89           SBR   X3                                         3  4  1248  H 099            1469
7792 58 90   KLOBR   BCE   NUTYP,0,<                     12-6-8      3  8  1252  B 842 000 <      1470
7793 58 91           FQUIT                                                                MACRO
7794                 CS    332                                        3  4  1260  / 332       GEN  1470
7795                 CS                                               3  1  1264  /           GEN  1470
7796                 CC    1                                          3  2  1265  F 1         GEN  1470
7797                 MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270 3  7  1267  M W60 270   GEN  1470
7798                 W                                                3  1  1274  2           GEN  1470
7799                 CC    1                                          3  2  1275  F 1         GEN  1470
7800                 BCE   *&6,MONTOR,1                               3  8  1277  B S90 769 1 GEN  1471
7801                 RWD   1                                          3  5  1285  U %U1 R     GEN  1471
```

```
 SEQ PG LIN  LABEL   OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7802                H      *-3                                        3  4  1290  . S90       GEN   1471
7803 58 92   MSG1   DCW    @ERROR 35 - HALT NUMBER@                   3 22  1315                    1471
7804 58 93   MSG2   DCW    @TO BE DISPLAYED AS@                       3 18  1333                    1472
7805 58 94          ORG    *&X00                                      3        1400
7806 58 95          ORG    *&99                                       3        1499
7807 58 96          DCW    @N@                                        3  1  1499                    1473
7808 58 97   LOWK   DS     1                                          3     1500
7809 58 98   WORK   DS     98                                         3     1598
7810 58 99          LTORG  *                                          3        1599
             CODE 3 DCW    #04                                        3  4  1602            AREA  1474
                    DCW    @LIGHT@                                    3  5  1607            LIT   1474
                    DCW    @<@                                        3  1  1608            LIT   1474
             )0L212 DCW    #01                                        3  1  1609            AREA  1474
                    DCW    @0@                                        3  1  1610            LIT   1474
                    DCW    @000@                                      3  3  1613            LIT   1474
             SAVE33 DCW    #03                                        3  3  1616            AREA  1474
             BLNK33 DCW    #03                                        3  3  1619            AREA  1475
                    DCW    @BIIB@                                     3  4  1623            LIT   1475
                    DCW    @.@                                        3  1  1624            LIT   1475
                    DCW    @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     3 36  1660            LIT   1476
7811 59 00   SYS1   DCW    @}@                          SYSTEM GROUP MARK 3  1  1661            GMARK 1476
7812 59 01   BLANK  EQU    BLNK3-2                                    3     1617
7813 59 02          XFR    START                                      3        B 838             1477
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
7814 59 03          JOB   1401 FORTRAN  SENSE LIGHT PHASE
7815 59 04          FBEGN LIGHT,X1,,X2,R,X3,,5                                              MACRO
7816                SFX   5                                                               GEN
7817          110   DCW   @LIGHT@                                 5   5  0110            GEN   1480
7818          X1    EQU   089                                     5      0089            GEN
7819          X2    EQU   094                                     5      0094            GEN
7820          094   DCW   000                                     5   3  0094            GEN   1481
7821          096   DC    00                                      5   2  0096            GEN   1481
7822          X3    EQU   099                                     5      0099            GEN
7823 59 05          ORG   XBEGIN                                  5           0838
7824 59 06    START BCE   OUT,0&X1,                   BLANK       5   8  0838  B 861 0|0       1482
7825 59 07          MCW   0&X1,CODE#4                             5   7  0846  M 0|0 /88       1482
7826 59 08          BCE   DOIT,CODE-3,J                           5   8  0853  B 884 /85 J     1482
7827 59 09    OUT   FENDX C,,,,,,SYSL,IFCOND                                               MACRO
7828          OUT   BSS   333,C                                   5   5  0861  B 333 C     GEN   1482
7829                SBR   TCLEAR,SYSL                             5   7  0866  H 710 S92   GEN   1482
7830                LCA   @IFCOND@,110                            5   7  0873  L /94 110   GEN   1483
7831                B     MONTER                                  5   4  0880  B 700       GEN   1483
7832 59 10    DOIT  MVDWN X1,X3                                                             MACRO
7833          DOIT  LCA   0&X1,0&X3                               5   7  0884  L 0|0 0?0   GEN   1483
7834                SAR   X1                                      5   4  0891  Q 089       GEN   1483
7835                C     0&X3                                    5   4  0895  C 0?0       GEN   1483
7836                SAR   X3                                      5   4  0899  Q 099       GEN   1483
7837 59 11          SBR   KLOBR&6,1&X1                           5   7  0903  H /26 0|1       1483
7838 59 12          MCW   @]@,1&X1                   11-5-8      5   7  0910  M /95 0|1       1484
7839 59 13          LCA   1&X3,2&X3                               5   7  0917  L 0?1 0?2       1484
7840 59 14          SBR   X3                                      5   4  0924  H 099           1484
7841 59 15          MCW   CODE,HOLD#3                 MCW  0&X2,HOLD 5   7  0928  M /88 /98       1484
7842 59 16          BWZ   *&5,HOLD,2                              5   8  0935  V 947 /98 2     1484
7843 59 17          B     SWEAT                                   5   4  0943  B 955           1484
7844 59 18          BWZ   CKGM,HOLD-2,2                           5   8  0947  V 969 /96 2     1485
7845 59 19    SWEAT MCW   HOLD,X2                                 5   7  0955  M /98 094       1485
7846 59 20          MCW   0&X2,HOLD                               5   7  0962  M 0!0 /98       1485
7847 59 21    CKGM  BCE   BAD,0&X1,}                   GM          5   8  0969  B |15 0|0 } GMARK 1485
7848 59 22          MCW   0&X1,HLD2#2                            5   7  0977  M 0|0 S00       1485
7849 59 23          BCE   *&5,HLD2-1,}          GM                5   8  0984  B 996 /99 } GMARK 1486
7850 59 24          B     BAD                                     5   4  0992  B |15           1486
7851 59 25          MN    0&X1,*&8                                5   7  0996  D 0|0 |10       1486
7852 59 26          BCE   OK,@01234@,0                           5   8  1003  B |68 S05 0     1486
7853 59 27          CHAIN 4                                                                 MACRO
7854                BCE                                         5   1  1011  B             GEN   1486
7855                BCE                                         5   1  1012  B             GEN   1486
7856                BCE                                         5   1  1013  B             GEN   1486
7857                BCE                                         5   1  1014  B             GEN   1487
7858 59 28    BAD   FTMSG 36,ILLEGAL SENSE LIGHT,HOLD,21                                   MACRO
7859          BAD   CS    332                                     5   4  1015  / 332         GEN   1487
7860                CS                                          5   1  1019  /             GEN   1487
7861                SW    FAILSW                                  5   4  1020  , 184         GEN   1487
7862                MN    HOLD,224&21                             5   7  1024  D /98 245     GEN   1487
7863                MN                                          5   1  1031  D             GEN   1487
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
7864                MN                                                 5   1  1032  D           GEN   1487
7865                MCW   @ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @  5   4  1033  M S47       GEN   1488
7866                W                                                  5   1  1037  2           GEN   1488
7867                BCV   *&5                                          5   5  1038  B |47 @     GEN   1488
7868                B     *&3                                          5   4  1043  B |49       GEN   1488
7869                CC    1                                            5   2  1047  F 1         GEN   1488
7870 59 29          SBR   X3,4&X3                                      5   7  1049  H 099 0?4         1488
7871 59 30          C     0&X1                                         5   4  1056  C 0|0             1488
7872 59 31          SAR   X1                                           5   4  1060  Q 089             1489
7873 59 32          B     START                                        5   4  1064  B 838             1489
7874 59 33   OK     MZ    *-4,0&X1                                     5   7  1068  Y |70 0|0         1489
7875 59 34          BCE   ZERO,0&X1,0                                  5   8  1075  B /62 0|0 0       1489
7876 59 35          MN    0&X1,MASK1                                   5   7  1083  D 0|0 /84         1489
7877 59 36          LCA   MASK1,0&X3                                   5   7  1090  L /84 0?0         1489
7878 59 37          SBR   X3                                           5   4  1097  H 099             1490
7879 59 38   RTN    C     0&X1                                         5   4  1101  C 0|0             1490
7880 59 39          SAR   X1                                           5   4  1105  Q 089             1490
7881 59 40          LCA   1&X1,0&X3                                    5   7  1109  L 0|1 0?0         1490
7882 59 41          SBR   X3                                           5   4  1116  H 099             1490
7883 59 42   KLOBR  BCE   START,0,]                    11-5-8           5   8  1120  B 838 000 ]       1490
7884 59 43          FQUIT                                                                MACRO
7885                CS    332                                          5   4  1128  / 332       GEN   1490
7886                CS                                                 5   1  1132  /           GEN   1491
7887                CC    1                                            5   2  1133  F 1         GEN   1491
7888                MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270    5   7  1135  M S83 270   GEN   1491
7889                W                                                  5   1  1142  2           GEN   1491
7890                CC    1                                            5   2  1143  F 1         GEN   1491
7891                BCE   *&6,MONTOR,1                                 5   8  1145  B /58 769 1 GEN   1491
7892                RWD   1                                            5   5  1153  U %U1 R     GEN   1491
7893                H     *-3                                          5   4  1158  . /58       GEN   1492
7894 59 44   ZERO   LCA   @,@,0&X3                                    5   7  1162  L S84 0?0         1492
7895 59 45          LCA   @,082084@                                    5   4  1169  L S91             1492
7896 59 46          SBR   X3                                           5   4  1173  H 099             1492
7897 59 47          B     RTN                                          5   4  1177  B /01             1492
7898 59 48   MASK1  DCW   @)080@                                       5   4  1184                    1492
7899 59 49          LTORG *                                            5          1185
             CODE 5 DCW   #04                                          5   4  1188        AREA  1492
                    DCW   @IFCOND@                                     5   6  1194        LIT   1493
                    DCW   @]@                                          5   1  1195        LIT   1493
             HOLD 5 DCW   #03                                          5   3  1198        AREA  1493
             HLD2 5 DCW   #02                                          5   2  1200        AREA  1493
                    DCW   @01234@                                      5   5  1205        LIT   1493
                    DCW   @ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @ 5  42  1247        LIT   1495
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@       5  36  1283        LIT   1495
                    DCW   @,@                                          5   1  1284        LIT   1496
                    DCW   @,082084@                                    5   7  1291        LIT   1496
7900 59 50   SYSL   DCW   @}@                          SYSTEM GROUP MARK 5   1  1292        GMARK 1496
7901 59 51          XFR   START                                        5          B 838             1497
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
7902 59 52          JOB   1401 FORTRAN  IF %HARDWARE) PHASE
7903 59 53          FBEGN IFCOND,X1,,X2,R,X3,,4                                                MACRO
7904                SFX   4                                                                    GEN
7905          110   DCW   @IFCOND@                                  4   6  0110              GEN   1500
7906          X1    EQU   089                                       4      0089              GEN
7907          X2    EQU   094                                       4      0094              GEN
7908          094   DCW   000                                       4   3  0094              GEN   1501
7909          096   DC    00                                        4   2  0096              GEN   1501
7910          X3    EQU   099                                       4      0099              GEN
7911 59 54          ORG   XBEGIN                                    4            0838
7912 59 55    START BCE   OUT,0&X1,          BLANK                 4   8  0838  B 870 0|0         1502
7913 59 56          MCW   0&X1,CODE                                 4   7  0846  M 0|0 U45         1502
7914 59 57          MCW                                             4   1  0853  M               1502
7915 59 58          FBCEQ DOIT,CODE-3,W,K                                                      MACRO
7916                BCE   DOIT, CODE-3, W                          4   8  0854  B 893 U42 W GEN   1502
7917                BCE   DOIT, CODE-3, K                          4   8  0862  B 893 U42 K GEN   1502
7918 59 59    OUT   FENDX C,,,,,,SYS1,CONTINUE                                                 MACRO
7919          OUT   BSS   333,C                                     4   5  0870  B 333 C     GEN   1502
7920                SBR   TCLEAR,SYS1                             4   7  0875  H 710 W14   GEN   1503
7921                LCA   @CONTINUE@,110                          4   7  0882  L U69 110   GEN   1503
7922                B     MONTER                                  4   4  0889  B 700       GEN   1503
7923 59 60    DOIT  MCW   @<@,2&X1            12-6-8              4   7  0893  M U70 0|2         1503
7924 59 61          SBR   KLOBR&6,2&X1                            4   7  0900  H S03 0|2         1503
7925 59 62          MVDWN X1,X3                                                                MACRO
7926                LCA   0&X1,0&X3                               4   7  0907  L 0|0 0?0   GEN   1503
7927                SAR   X1                                      4   4  0914  Q 089       GEN   1504
7928                C     0&X3                                    4   4  0918  C 0?0       GEN   1504
7929                SAR   X3                                      4   4  0922  Q 099       GEN   1504
7930 59 63          LCA   1&X3,2&X3                               4   7  0926  L 0?1 0?2         1504
7931 59 64          SBR   X3                                      4   4  0933  H 099             1504
7932 59 65          MCW   0&X1,ON                                 4   7  0937  M 0|0 U36         1504
7933 59 66          MCW                                           4   1  0944  M               1504
7934 59 67          SAR   X1                                      4   4  0945  Q 089             1505
7935 59 68          MZ    @K@,ON-1                                4   7  0949  Y U71 U35         1505
7936 59 69          MZ    @K@,OFF-1                               4   7  0956  Y U71 U32         1505
7937 59 70          BWZ   *&5,CODE,2                             4   8  0963  V 975 U45 2       1505
7938 59 71          B     FLIP                                    4   4  0971  B 983             1505
7939 59 72          BWZ   CKCOM,CODE-2,2                         4   8  0975  V 997 U43 2       1505
7940 59 73    FLIP  MCW   CODE,X2                                 4   7  0983  M U45 094         1506
7941 59 74          MCW   0&X2,CODE                               4   7  0990  M 0!0 U45         1506
7942 59 75    CKCOM B     AOK                                     4   4  0997  B |20             1506
7943 59 76    KILL  C     0&X1                                    4   4  1001  C 0|0             1506
7944 59 77          SAR   X1                                      4   4  1005  Q 089             1506
7945 59 78          SBR   X3,4&X3                                4   7  1009  H 099 0?4         1506
7946 59 79          B     START                                   4   4  1016  B 838             1506
7947 59 80    AOK   MN    0&X1                                    4   4  1020  D 0|0             1507
7948 59 81          SAR   X1                                      4   4  1024  Q 089             1507
7949 59 82          BCE   LIGHT,CODE-3,K                          4   8  1028  B S54 U42 K       1507
7950 59 83          MCW   0&X1,BOX#1                PROCESS IF SENSE  4   7  1036  M 0|0 U72         1507
7951 59 84          MCW   BOX,*&8                    SWITCH          4   7  1043  M U72 |57         1507
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
7952 59 85          BCE    AOK2,@0123456@,0                                 4  8  1050  B /02 U79 0       1507
7953 59 86          CHAIN  6                                                                 MACRO
7954                BCE                                                     4  1  1058  B           GEN   1507
7955                BCE                                                     4  1  1059  B           GEN   1508
7956                BCE                                                     4  1  1060  B           GEN   1508
7957                BCE                                                     4  1  1061  B           GEN   1508
7958                BCE                                                     4  1  1062  B           GEN   1508
7959                BCE                                                     4  1  1063  B           GEN   1508
7960 59 87          FTMSG  37,ILLEGAL SENSE SWITCH,CODE,22                                   MACRO
7961                CS     332                                              4  4  1064  / 332       GEN   1508
7962                CS                                                      4  1  1068  /           GEN   1508
7963                SW     FAILSW                                           4  4  1069  , 184       GEN   1509
7964                MN     CODE,224&22                                      4  7  1073  D U45 246   GEN   1509
7965                MN                                                      4  1  1080  D           GEN   1509
7966                MN                                                      4  1  1081  D           GEN   1509
7967                MCW    @ERROR 37 - ILLEGAL SENSE SWITCH, STATEMENT @    4  4  1082  M V22       GEN   1509
7968                W                                                       4  1  1086  2           GEN   1509
7969                BCV    *&5                                              4  5  1087  B |96 @     GEN   1509
7970                B      *&3                                              4  4  1092  B |98       GEN   1510
7971                CC     1                                                4  2  1096  F 1         GEN   1510
7972 59 88          B      KILL                                             4  4  1098  B |01             1510
7973 59 89  AOK2    A      &1,BOX                                           4  7  1102  A V23 U72         1510
7974 59 90          MN     BOX,MASK1                                        4  7  1109  D U72 U41         1510
7975 59 91          MCW    ON,MASK1-1                                       4  7  1116  M U36 U40         1510
7976 59 92          MCW    OFF,X2                                           4  7  1123  M U33 094         1510
7977 59 93          MCW    0&X2,X2                                          4  7  1130  M 0!0 094         1511
7978 59 94          S      &10,X2&1                                         4  7  1137  S V25 095         1511
7979 59 95          C      CODE,X2                                          4  7  1144  C U45 094         1511
7980 59 96          BE     NOXTR                                            4  5  1151  B S39 S           1511
7981 59 97          MCW    OFF,MASK2                                        4  7  1156  M U33 U49         1511
7982 59 98          LCA    MASK2,0&X3                                       4  7  1163  L U49 0?0         1512
7983 59 99          LCA    MASK1                                            4  4  1170  L U41             1512
7984 60 00          SBR    X3                                               4  4  1174  H 099             1512
7985 60 01  RETRN   C      0&X1                                             4  4  1178  C 0|0             1512
7986 60 02          SAR    X1                                               4  4  1182  Q 089             1512
7987 60 03          LCA    1&X1,0&X3                                        4  7  1186  L 0|1 0?0         1512
7988 60 04          SBR    X3                                               4  4  1193  H 099             1512
7989 60 05  KLOBR   BCE    START,0,<                      12-6-8            4  8  1197  B 838 000 <       1513
7990 60 06          FQUIT                                                                MACRO
7991                CS     332                                              4  4  1205  / 332       GEN   1513
7992                CS                                                      4  1  1209  /           GEN   1513
7993                CC     1                                                4  2  1210  F 1         GEN   1513
7994                MCW    @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270       4  7  1212  M V61 270   GEN   1513
7995                W                                                       4  1  1219  2           GEN   1513
7996                CC     1                                                4  2  1220  F 1         GEN   1513
7997                BCE    *&6,MONTOR,1                                     4  8  1222  B S35 769 1 GEN   1514
7998                RWD    1                                                4  5  1230  U %U1 R     GEN   1514
7999                H      *-3                                              4  4  1235  . S35       GEN   1514
8000 60 07  NOXTR   LCA    MASK1,0&X3                                       4  7  1239  L U41 0?0         1514
8001 60 08          SBR    X3                                               4  4  1246  H 099             1514
```

```
 SEQ  PG LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8002 60 09           B      RETRN                                      4   4  1250  B /78              1514
8003 60 10    LIGHT  MCW    0&X1,BOX                                   4   7  1254  M 0|0 U72          1514
8004 60 11           MCW    BOX,*&8                                    4   7  1261  M U72 S75          1515
8005 60 12           BCE    AOK3,@1234@,0                              4   8  1268  B T17 V65 0        1515
8006 60 13           CHAIN  3                                                        MACRO
8007                 BCE                                               4   1  1276  B            GEN   1515
8008                 BCE                                               4   1  1277  B            GEN   1515
8009                 BCE                                               4   1  1278  B            GEN   1515
8010 60 14           FTMSG  36,ILLEGAL SENSE LIGHT,CODE,21                          MACRO
8011                 CS     332                                        4   4  1279  / 332        GEN   1515
8012                 CS                                                4   1  1283  /            GEN   1515
8013                 SW     FAILSW                                     4   4  1284  , 184        GEN   1516
8014                 MN     CODE,224&21                                4   7  1288  D U45 245    GEN   1516
8015                 MN                                                4   1  1295  D            GEN   1516
8016                 MN                                                4   1  1296  D            GEN   1516
8017                 MCW    @ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @ 4 4  1297  M W07        GEN   1516
8018                 W                                                 4   1  1301  2            GEN   1516
8019                 BCV    *&5                                        4   5  1302  B T11 @      GEN   1516
8020                 B      *&3                                        4   4  1307  B T13        GEN   1517
8021                 CC     1                                          4   2  1311  F 1          GEN   1517
8022 60 15           B      KILL                                       4   4  1313  B |01              1517
8023 60 16    AOK3   MCW    @080@,WORK3#3                              4   7  1317  M W10 W13          1517
8024 60 17           A      BOX,WORK3                                  4   7  1324  A U72 W13          1517
8025 60 18           MCW    WORK3,MASK3-1                              4   7  1331  M W13 U56          1517
8026 60 19           MCW    OFF                                        4   4  1338  M U33              1517
8027 60 20           MCW    WORK3,MASK4                                4   7  1342  M W13 U61          1518
8028 60 21           MCW    ON,X2                                      4   7  1349  M U36 094          1518
8029 60 22           MCW    0&X2,X2                                    4   7  1356  M 0!0 094          1518
8030 60 23           S      &10,X2&1                                   4   7  1363  S V25 095          1518
8031 60 24           C      CODE,X2                                    4   7  1370  C U45 094          1518
8032 60 25           BE     CHEAP                                      4   5  1377  B U12 S            1519
8033 60 26           MCW    ON,MASK2                                   4   7  1382  M U36 U49          1519
8034 60 27           LCA    MASK2,0&X3                                 4   7  1389  L U49 0?0          1519
8035 60 28           LCA    MASK4                                      4   4  1396  L U61              1519
8036 60 29           LCA    MASK3                                      4   4  1400  L U57              1519
8037 60 30           SBR    X3                                         4   4  1404  H 099              1519
8038 60 31           B      RETRN                                      4   4  1408  B /78              1519
8039 60 32    CHEAP  LCA    MASK4,0&X3                                 4   7  1412  L U61 0?0          1520
8040 60 33           LCA    MASK3                                      4   4  1419  L U57              1520
8041 60 34           SBR    X3                                         4   4  1423  H 099              1520
8042 60 35           B      RETRN                                      4   4  1427  B /78              1520
8043 60 36    OFF    DCW    #3                                         4   3  1433                     1520
8044 60 37    ON     DCW    #3                                         4   3  1436                     1520
8045 60 38    MASK1  DCW    @B   &@                                    4   5  1441                     1520
8046 60 39           DCW    #1                                         4   1  1442                     1521
8047 60 40    CODE   DCW    #3                                         4   3  1445                     1521
8048 60 41    MASK2  DCW    @B   @                                     4   4  1449                     1521
8049 60 42    MASK3  DCW    @V      1@                                 4   8  1457                     1521
8050 60 43    MASK4  DCW    @,   @                                     4   4  1461                     1521
8051 60 44           LTORG  *                                          4          1462
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@CONTINUE@	4	8	1469		LIT	1521
				DCW	@<@	4	1	1470		LIT	1521
				DCW	@K@	4	1	1471		LIT	1522
			BOX 4	DCW	#01	4	1	1472		AREA	1522
				DCW	@0123456@	4	7	1479		LIT	1522
				DCW	@ERROR 37 - ILLEGAL SENSE SWITCH, STATEMENT @	4	43	1522		LIT	1524
				DCW	&1	4	1	1523		LIT	1524
				DCW	&10	4	2	1525		LIT	1524
				DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	4	36	1561		LIT	1525
				DCW	@1234@	4	4	1565		LIT	1526
				DCW	@ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @	4	42	1607		LIT	1528
				DCW	@080@	4	3	1610		LIT	1528
			WORK34	DCW	#03	4	3	1613		AREA	1528
8052	60	45	SYS1	DCW	@}@ SYSTEM GROUP MARK	4	1	1614		GMARK	1528
8053	60	46		XFR	START	4			B 838		1529

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

8054 60 47          JOB   1401 FORTRAN  CONTINUE PHASE
8055 60 48          FBEGN CONTINUE,X1,,,,X3,,&                                              MACRO
8056                SFX   &                                                                 GEN
8057          110   DCW   @CONTINUE@                              &   8  0110              GEN   1532
8058          X1    EQU   089                                     &      0089              GEN
8059          X3    EQU   099                                     &      0099              GEN
8060 60 49          ORG   XBEGIN                                  &           0838
8061 60 50  START   BCE   OUT,0&X1,                 BLANK        &   8  0838  B 861 0|0          1533
8062 60 51          MCW   0&X1,CODE#4                             &   7  0846  M 0|0 925          1533
8063 60 52          BCE   ISCTU,CODE-3,C                          &   8  0853  B 884 922 C        1533
8064 60 53  OUT     FENDX C,,,,,,SYS1,DOMSK                                                 MACRO
8065        OUT     BSS   333,C                                   &   5  0861  B 333 C      GEN   1533
8066                SBR   TCLEAR,SYS1                             &   7  0866  H 710 931    GEN   1533
8067                LCA   @DOMSK@,110                             &   7  0873  L 930 110    GEN   1534
8068                B     MONTER                                  &   4  0880  B 700         GEN   1534
8069 60 54  ISCTU   MVDWN X1,X3                                                             MACRO
8070        ISCTU   LCA   0&X1,0&X3                               &   7  0884  L 0|0 0?0    GEN   1534
8071                SAR   X1                                      &   4  0891  Q 089         GEN   1534
8072                C     0&X3                                    &   4  0895  C 0?0         GEN   1534
8073                SAR   X3                                      &   4  0899  Q 099         GEN   1534
8074 60 55          LCA   1&X1,2&X3                               &   7  0903  L 0|1 0?2          1534
8075 60 56          C     0&X1                                    &   4  0910  C 0|0              1535
8076 60 57          SAR   X1                                      &   4  0914  Q 089              1535
8077 60 58          B     START                                   &   4  0918  B 838              1535
8078 60 59          LTORG *                                       &           0922
             CODE & DCW   #04                                     &   4  0925              AREA  1535
                    DCW   @DOMSK@                                 &   5  0930              LIT   1535
8079 60 60  SYS1    DCW   @}@                   SYSTEM GROUP MARK &   1  0931              GMARK 1535
8080 60 61          XFR   START                                   &          B 838              1536
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

8081 60 62          JOB   1401 FORTRAN  DO PHASE
8082 60 63          FBEGN DOMSK,X1,,X2,R,X3,,%                                          MACRO
8083                SFX   %                                                             GEN
8084          110   DCW   @DOMSK@                                    %   5  0110      GEN   1539
8085          X1    EQU   089                                         %      0089      GEN
8086          X2    EQU   094                                         %      0094      GEN
8087          094   DCW   000                                       %   3  0094      GEN   1540
8088          096   DC    00                                        %   2  0096      GEN   1540
8089          X3    EQU   099                                       %      0099      GEN
8090 60 64    * DO PHASE ALGORITHM
8091 60 65    *
8092 60 66    *                     OUTER
8093 60 67    *
8094 60 68    *                      NO   SAME  DIFF
8095 60 69    *           I        B XT  B XT  B XT
8096 60 70    *           N
8097 60 71    *           N   GM   T BK  T IN  T BK
8098 60 72    *           E   EZ   B BK  B IN  B BK
8099 60 73    *           R   HD   - BK  - IN  - BK
8100 60 74    *
8101 60 75          ORG   XBEGIN                                    %            0838
8102 60 76    INITL SW    GM1,GM2                                   %   7  0838  , V98 W26       1541
8103 60 77          SW    GM3,GM4                                   %   7  0845  , W31 W22       1541
8104 60 78          MCW   X3,HEX3#3                                 %   7  0852  M 099 W37       1541
8105 60 79    START BWZ   OUT,000&X1,1                              %   8  0859  V V33 0|0 1     1541
8106 60 80          MCW   @<@,2&X1                    12-6-8        %   7  0867  M W38 0|2       1541
8107 60 81          SBR   KLOBR&6,2&X1                              %   7  0874  H S65 0|2       1542
8108 60 82          C     000&X1                                    %   4  0881  C 0|0           1542
8109 60 83          SAR   X1                                        %   4  0885  Q 089           1542
8110 60 84          C     002&X1,@D@                                %   7  0889  C 0|2 W39       1542
8111 60 85          BU    DUN                                       %   5  0896  B V26 /         1542
8112 60 86          CW    XDOAD1,XDOAD2                             %   7  0901  ) 111 112       1542
8113 60 87          CW    XDOAD3,XDOINI                             %   7  0908  ) 113 114       1543
8114 60 88          MCW   005&X1,X2                                 %   7  0915  M 0|5 094       1543
8115 60 89          MCW   000&X2,TOP#3                              %   7  0922  M 0!0 W42       1543
8116 60 90          MCW   000&X1,X2                                 %   7  0929  M 0|0 094       1543
8117 60 91          SAR   X1                                        %   4  0936  Q 089           1543
8118 60 92          MCW   000&X2,BOTM#3                            %   7  0940  M 0!0 W45       1543
8119 60 93          ZA    TOP,ACCUM#3                               %   7  0947  ? W42 W48       1544
8120 60 94          S     BOTM,ACCUM                                %   7  0954  S W45 W48       1544
8121 60 95          MCW   @N@,SWTCH                                 %   7  0961  M W49 S12       1544
8122 60 96          BWZ   ERR1,ACCUM,B                            %   8  0968  V T97 W48 B     1544
8123 60 97          MCW   X1,X2                                     %   7  0976  M 089 094       1544
8124 60 98          MCW   @   @,EXIT                              %   7  0983  M W52 W21       1545
8125 60 99          MCW   @T@,GOBAK-3                             %   7  0990  M W53 W27       1545
8126 61 00          MCW   @B@,NOAPX                               %   7  0997  M W54 S16       1545
8127 61 01    LOOP  C     000&X2                                    %   4  1004  C 0!0           1545
8128 61 02          C                                             %   1  1008  C               1545
8129 61 03          SAR   X2                                        %   4  1009  Q 094           1545
8130 61 04          C     002&X2,@D@                                %   7  1013  C 0!2 W39       1545
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
8131 61 05          BU    DIFNT                              %   5  1020  B |90 /           1546
8132 61 06          MCW   000&X2,X3                          %   7  1025  M 0!0 099         1546
8133 61 07          C     000&X3,TOP                         %   7  1032  C 0?0 W42         1546
8134 61 08          BH    LOOP                               %   5  1039  B |04 U           1546
8135 61 09          C     000&X3,BOTM                        %   7  1044  C 0?0 W45         1546
8136 61 10          BH    ERR2                               %   5  1051  B U42 U           1546
8137 61 11          BCE   RUDIF,1&X2,H                       %   8  1056  B |71 0!1 H       1547
8138 61 12          MCW   @E@,1&X2                           %   7  1064  M W55 0!1         1547
8139 61 13  RUDIF   BL    DIFNT                              %   5  1071  B |90 T           1547
8140 61 14          MCW   @H@,1&X2                           %   7  1076  M W56 0!1         1547
8141 61 15          MCW   5&X2,EXIT                          %   7  1083  M 0!5 W21         1547
8142 61 16  DIFNT   BCE   MDIFY,4&X1,H                      %   8  1090  B /20 0|4 H       1548
8143 61 17          MCW   @N@,NOAPX                          %   7  1098  M W49 S16         1548
8144 61 18          BCE   MDIFY,4&X1,}        GROUP MK       %   8  1105  B /20 0|4 } GMARK 1548
8145 61 19          MCW   @B@,GOBAK-3                       %   7  1113  M W54 W27         1548
8146 61 20  MDIFY   MCW   BOTM,MASK                         %   7  1120  M W45 W34         1548
8147 61 21          SW    006&X1                             %   4  1127  , 0|6             1549
8148 61 22          MCW   008&X1,MASK-9                     %   7  1131  M 0|8 W25         1549
8149 61 23          MCW   008&X1,GOBAK                      %   7  1138  M 0|8 W30         1549
8150 61 24  CKSYN   B     TEST                               %   4  1145  B T01             1549
8151 61 25          DCW   @,@                                %   1  1149                   1549
8152 61 26          DCW   &I                                 %   3  1152  W18               1549
8153 61 27          B     TEST                               %   4  1153  B T01             1549
8154 61 28          DCW   @#@                                %   1  1157                   1550
8155 61 29          DCW   &M1                                %   3  1160  W09               1550
8156 61 30          B     TEST                               %   4  1161  B T01             1550
8157 61 31          DCW   @,@                                %   1  1165                   1550
8158 61 32          DCW   &M2                                %   3  1168  W12               1550
8159 61 33          BWZ   M3IS1,000&X1,1                     %   8  1169  V T86 0|0 1       1550
8160 61 34          B     TEST                               %   4  1177  B T01             1550
8161 61 35          DCW   @,@                                %   1  1181                   1551
8162 61 36          DCW   &M3                                %   3  1184  W15               1551
8163 61 37          BWZ   SEND,000&X1,1                      %   8  1185  V /97 0|0 1       1551
8164 61 38          B     ERROR                              %   4  1193  B U80             1551
8165 61 39  SEND    MCW   HEX3,X3                           %   7  1197  M W37 099         1551
8166 61 40          MN    000&X1                             %   4  1204  D 0|0             1551
8167 61 41          SAR   X1                                %   4  1208  Q 089             1551
8168 61 42  SWTCH   NOP   KLOBR                            %   4  1212  N S59             1552
8169 61 43  NOAPX   NOP   REG                              %   4  1216  N S40             1552
8170 61 44          A     &1,GNSTMZ                          %   7  1220  A W57 151         1552
8171 61 45          LCA   MASK,000&X3                      %   7  1227  L W34 0?0         1552
8172 61 46          CHAIN 2                                                 MACRO
8173                LCA                                    %   1  1234  L           GEN   1552
8174                LCA                                    %   1  1235  L           GEN   1552
8175 61 47          SBR   X3                               %   4  1236  H 099             1552
8176 61 48  REG     LCA   GM2-1,0&X3                       %   7  1240  L W25 0?0         1553
8177 61 49          CHAIN 8                                                 MACRO
8178                LCA                                    %   1  1247  L           GEN   1553
8179                LCA                                    %   1  1248  L           GEN   1553
8180                LCA                                    %   1  1249  L           GEN   1553
```

```
 SEQ PG LIN  LABEL  OP     OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
8181                LCA                                                    %   1  1250  L           GEN   1553
8182                LCA                                                    %   1  1251  L           GEN   1553
8183                LCA                                                    %   1  1252  L           GEN   1553
8184                LCA                                                    %   1  1253  L           GEN   1554
8185                LCA                                                    %   1  1254  L           GEN   1554
8186 61 50          SBR    HEX3                                            %   4  1255  H W37        GEN   1554
8187 61 51  KLOBR   BCE    START,0,<                    12-6-8             %   8  1259  B 859 000 <  GEN   1554
8188 61 52          FQUIT                                                                            MACRO
8189                CS     332                                             %   4  1267  / 332       GEN   1554
8190                CS                                                     %   1  1271  /           GEN   1554
8191                CC     1                                               %   2  1272  F 1         GEN   1554
8192                MCW    @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270      %   7  1274  M W93 270   GEN   1555
8193                W                                                      %   1  1281  2           GEN   1555
8194                CC     1                                               %   2  1282  F 1         GEN   1555
8195                BCE    *&6,MONTOR,1                                    %   8  1284  B S97 769 1 GEN   1555
8196                RWD    1                                               %   5  1292  U %U1 R     GEN   1555
8197                H      *-3                                             %   4  1297  . S97       GEN   1555
8198 61 53  TEST    SBR    X2                                              %   4  1301  H 094             1555
8199 61 54          C      000&X1,000&X2                                   %   7  1305  C 0|0 0!0         1556
8200 61 55          SAR    X1                                              %   4  1312  Q 089             1556
8201 61 56          BU     ERROR                                           %   5  1316  B U80 /           1556
8202 61 57          MCW    003&X2,*&7                                      %   7  1321  M 0!3 T34         1556
8203 61 58          MCW    000&X1,000                                      %   7  1328  M 0|0 000         1556
8204 61 59          S      COUNT#1                                         %   4  1335  S W94             1556
8205 61 60  OK      A      &1,COUNT                                        %   7  1339  A W57 W94         1557
8206 61 61          BCE    004&X2,COUNT,D                                  %   8  1346  B 0!4 W94 D       1557
8207 61 62          MN     000&X1,RUOK&7                                   %   7  1354  D 0|0 T72         1557
8208 61 63          SAR    X1                                              %   4  1361  Q 089             1557
8209 61 64  RUOK    BCE    OK,@0123456789@,0                               %   8  1365  B T39 X04 0       1557
8210 61 65          CHAIN  9                                                                            MACRO
8211                BCE                                                    %   1  1373  B           GEN   1557
8212                BCE                                                    %   1  1374  B           GEN   1557
8213                BCE                                                    %   1  1375  B           GEN   1558
8214                BCE                                                    %   1  1376  B           GEN   1558
8215                BCE                                                    %   1  1377  B           GEN   1558
8216                BCE                                                    %   1  1378  B           GEN   1558
8217                BCE                                                    %   1  1379  B           GEN   1558
8218                BCE                                                    %   1  1380  B           GEN   1558
8219                BCE                                                    %   1  1381  B           GEN   1558
8220 61 66          B      ERROR                                           %   4  1382  B U80             1559
8221 61 67  M3IS1   MCW    ONEADR,M3                                       %   7  1386  M 142 W15         1559
8222 61 68          B      SEND                                            %   4  1393  B /97            1559
8223 61 69  ERR1    FTMSG  38,ILLEGAL RANGE OF DO,TOP,21                                                MACRO
8224        ERR1    CS     332                                             %   4  1397  / 332       GEN   1559
8225                CS                                                     %   1  1401  /           GEN   1559
8226                SW     FAILSW                                          %   4  1402  , 184       GEN   1559
8227                MN     TOP,224&21                                      %   7  1406  D W42 245   GEN   1559
8228                MN                                                     %   1  1413  D           GEN   1560
8229                MN                                                     %   1  1414  D           GEN   1560
8230                MCW    @ERROR 38 - ILLEGAL RANGE OF DO, STATEMENT @    %   4  1415  M X46       GEN   1560
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
8231                  W                                                  %   1  1419  2           GEN   1560
8232                  BCV   *&5                                          %   5  1420  B U29 @     GEN   1560
8233                  B     *&3                                          %   4  1425  B U31       GEN   1560
8234                  CC    1                                            %   2  1429  F 1         GEN   1560
8235 61 70   AVOID    MCW   @B@,SWTCH                                    %   7  1431  M W54 S12         1561
8236 61 71            B     CKSYN                                        %   4  1438  B /45             1561
8237 61 72   ERR2     FTMSG 39,ILLEGAL NESTING,TOP,17                                                MACRO
8238         ERR2     CS    332                                          %   4  1442  / 332       GEN   1561
8239                  CS                                                 %   1  1446  /           GEN   1561
8240                  SW    FAILSW                                       %   4  1447  , 184       GEN   1561
8241                  MN    TOP,224&17                                   %   7  1451  D W42 241   GEN   1561
8242                  MN                                                 %   1  1458  D           GEN   1561
8243                  MN                                                 %   1  1459  D           GEN   1562
8244                  MCW   @ERROR 39 - ILLEGAL NESTING, STATEMENT @      %   4  1460  M X84       GEN   1562
8245                  W                                                  %   1  1464  2           GEN   1562
8246                  BCV   *&5                                          %   5  1465  B U74 @     GEN   1562
8247                  B     *&3                                          %   4  1470  B U76       GEN   1562
8248                  CC    1                                            %   2  1474  F 1         GEN   1562
8249 61 73            B     AVOID                                        %   4  1476  B U31             1562
8250 61 74   ERROR    FTMSG 40,DO SYNTAX,TOP,11                                                      MACRO
8251         ERROR    CS    332                                          %   4  1480  / 332       GEN   1563
8252                  CS                                                 %   1  1484  /           GEN   1563
8253                  SW    FAILSW                                       %   4  1485  , 184       GEN   1563
8254                  MN    TOP,224&11                                   %   7  1489  D W42 235   GEN   1563
8255                  MN                                                 %   1  1496  D           GEN   1563
8256                  MN                                                 %   1  1497  D           GEN   1563
8257                  MCW   @ERROR 40 - DO SYNTAX, STATEMENT @           %   4  1498  M Y16       GEN   1563
8258                  W                                                  %   1  1502  2           GEN   1564
8259                  BCV   *&5                                          %   5  1503  B V12 @     GEN   1564
8260                  B     *&3                                          %   4  1508  B V14       GEN   1564
8261                  CC    1                                            %   2  1512  F 1         GEN   1564
8262 61 75            C     001&X1                                       %   4  1514  C 0|1             1564
8263 61 76            SAR   X1                                           %   4  1518  Q 089             1564
8264 61 77            B     KLOBR                                        %   4  1522  B S59             1564
8265 61 78   DUN      SBR   X1,5&X1                                      %   7  1526  H 089 0|5         1565
8266 61 79   OUT      MCW   HEX3,X3                                      %   7  1533  M W37 099         1565
8267 61 80            MN    0&X3                                         %   4  1540  D 0?0             1565
8268 61 81            SAR   X2                                           %   4  1544  Q 094             1565
8269 61 82   KLEAR    CS    0&X2                                         %   4  1548  / 0!0             1565
8270 61 83            SBR   X2                                           %   4  1552  H 094             1565
8271 61 84            C     0&X2,DOEND                                   %   7  1556  C 0!0 Y99         1565
8272 61 85            BU    KLEAR                                        %   5  1563  B V48 /           1566
8273 61 86            FENDX E,GM1,,,BEGINZ,,TABELZ,RESORT 1                                          MACRO
8274                  BSS   333,E                                        %   5  1568  B 333 E     GEN   1566
8275                  SBR   INITXT&3,BEGINZ                              %   7  1573  H 796 /75   GEN   1566
8276                  SBR   TCLEAR,TABELZ                                %   7  1580  H 710 M99   GEN   1566
8277                  LCA   @RESORT 1@,110                               %   7  1587  L Y24 110   GEN   1566
8278                  B     MONTER                                       %   4  1594  B 700       GEN   1566
8279 61 87   GM1      DC    @}@        GROUP MK                          %   1  1598              GMARK 1566
8280 61 88            DCW   @T@                                          %   1  1599                    1566
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
8281 61 89           DC    DOADR1                                             %   3  1602  924               1567
8282 61 90           DCW   @T@                                              %   1  1603                    1567
8283 61 91           DC    DOADR2                                             %   3  1606  921               1567
8284 61 92   M1      DCW   #3                                               %   3  1609                    1567
8285 61 93   M2      DCW   #3                                               %   3  1612                    1567
8286 61 94   M3      DCW   #3                                               %   3  1615                    1567
8287 61 95   I       DCW   #3                                               %   3  1618                    1568
8288 61 96   EXIT    DCW   #3                                               %   3  1621                    1568
8289 61 97   GM4     DC    @}@        GROUP MK                            %   1  1622              GMARK 1568
8290 61 98           DC    #3             XYZ OF INTERNAL NUMBER          %   3  1625                    1568
8291 61 99   GM2     DC    @}@       GROUP MK                             %   1  1626              GMARK 1568
8292 62 00           DCW   @T@                                              %   1  1627                    1568
8293 62 01   GOBAK   DC    #3                                               %   3  1630                    1568
8294 62 02   GM3     DC    @}@        GROUP MK                            %   1  1631              GMARK 1568
8295 62 03   MASK    DC    #3                                               %   3  1634                    1568
8296 62 04           LTORG *                                                %          1635
             HEX3 %  DCW   #03                                              %   3  1637              AREA  1568
                     DCW   @<@                                              %   1  1638              LIT   1568
                     DCW   @D@                                              %   1  1639              LIT   1568
             TOP  %  DCW   #03                                              %   3  1642              AREA  1568
             BOTM %  DCW   #03                                              %   3  1645              AREA  1569
             ACCUM%  DCW   #03                                              %   3  1648              AREA  1569
                     DCW   @N@                                              %   1  1649              LIT   1569
                     DCW   @   @                                            %   3  1652              LIT   1569
                     DCW   @T@                                              %   1  1653              LIT   1569
                     DCW   @B@                                              %   1  1654              LIT   1569
                     DCW   @E@                                              %   1  1655              LIT   1569
                     DCW   @H@                                              %   1  1656              LIT   1570
                     DCW   &1                                               %   1  1657              LIT   1570
                     DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@           %  36  1693              LIT   1570
             COUNT%  DCW   #01                                              %   1  1694              AREA  1570
                     DCW   @0123456789@                                     %  10  1704              LIT   1571
                     DCW   @ERROR 38 - ILLEGAL RANGE OF DO, STATEMENT @     %  42  1746              LIT   1573
                     DCW   @ERROR 39 - ILLEGAL NESTING, STATEMENT @         %  38  1784              LIT   1574
                     DCW   @ERROR 40 - DO SYNTAX, STATEMENT @               %  32  1816              LIT   1575
                     DCW   @RESORT 1@                                       %   8  1824              LIT   1576
8297 62 05           DCW   @}@                              SYSTEM GROUP MARK %   1  1825              GMARK 1576
8298 62 06           ORG   *&X00                                            %          1900
8299 62 07   DOEND   EQU   *                                                %       1899
8300 62 08           XFR   INITL                                            %             B 838              1577
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8301 62 09           JOB   1401 FORTRAN  RESORT PHASE ONE
8302 62 10           FBEGN RESORT 1,X1,,X2,,X3,,Z                                          MACRO
8303                 SFX   Z                                                               GEN
8304          110    DCW   @RESORT 1@                             Z   8  0110            GEN   1580
8305          X1     EQU   089                                     Z      0089            GEN
8306          X2     EQU   094                                     Z      0094            GEN
8307          X3     EQU   099                                     Z      0099            GEN
8308 62 11           ORG   XBEGIN                                  Z             0838
8309 62 12    THREE  DCW   0                                       Z   1  0838                    1581
8310 62 13    COUNT  DCW   000                                     Z   3  0841                    1581
8311 62 14    ASIDE  DCW   000                                     Z   3  0844                    1581
8312 62 15    TBL1   DCW   000                                     Z   3  0847                    1581
8313 62 16    LAST   DCW   000                                     Z   3  0850                    1581
8314 62 17    STORE  DCW   000                                     Z   3  0853                    1581
8315 62 18    SAUCE  DCW   000                                     Z   3  0856                    1581
8316 62 19    DIFF   DCW   000                                     Z   3  0859                    1582
8317 62 20    ADDIN  DCW   000                                     Z   3  0862                    1582
8318 62 21    INTNO  DCW   000                                     Z   3  0865                    1582
8319 62 22    FROMX  EQU   SAUCE                                   Z      0856
8320 62 23    WKBK1  DCW   00000                                   Z   5  0870                    1582
8321 62 24    WKBK2  DCW   00000                                   Z   5  0875                    1582
8322 62 25    AREA1  DCW   00000                                   Z   5  0880                    1582
8323 62 26    ADRES  EQU   BSAUCE                                  Z      0148
8324 62 27    TBL2   DCW   000                                     Z   3  0883                    1582
8325 62 28    TEST1  DCW   0                                       Z   1  0884                    1583
8326 62 29    ZONE   DCW   99                                      Z   2  0886                    1583
8327 62 30    HOLD   DCW   @     @                                 Z   5  0891                    1583
8328 62 31    CNVRT  DCW   @     @                                 Z   5  0896                    1583
8329 62 32    TABLE  DCW   9                                       Z   1  0897                    1583
8330 62 33           DC    9                                       Z   1  0898                    1583
8331 62 34           DCW   @Z9@                                    Z   2  0900                    1583
8332 62 35           DCW   @R9@                                    Z   2  0902                    1583
8333 62 36           DCW   @I9@                                    Z   2  0904                    1584
8334 62 37           DCW   @9Z@                                    Z   2  0906                    1584
8335 62 38           DCW   @ZZ@                                    Z   2  0908                    1584
8336 62 39           DCW   @RZ@                                    Z   2  0910                    1584
8337 62 40           DCW   @IZ@                                    Z   2  0912                    1584
8338 62 41           DCW   @9R@                                    Z   2  0914                    1584
8339 62 42           DCW   @ZR@                                    Z   2  0916                    1584
8340 62 43           DCW   @RR@                                    Z   2  0918                    1585
8341 62 44           DCW   @IR@                                    Z   2  0920                    1585
8342 62 45           DCW   @9I@                                    Z   2  0922                    1585
8343 62 46           DCW   @ZI@                                    Z   2  0924                    1585
8344 62 47           DCW   @RI@                                    Z   2  0926                    1585
8345 62 48           DCW   @II@                                    Z   2  0928                    1585
8346 62 49    K5TOK3 SBR   CMBCK&3           CONVERT FIVE DIGIT NUMBER  Z   4  0929  H 968      1585
8347 62 50           ZA    CNVRT-3,X1        TO THREE DIGIT ADRES       Z   7  0933  ? 893 089  1586
8348 62 51           MZ    @ @,X1                    BLANK              Z   7  0940  Y /26 089  1586
8349 62 52           A     X1                                           Z   4  0947  A 089      1586
8350 62 53           MZ    TABLE&X1,CNVRT-2                             Z   7  0951  Y 8Z7 894  1586
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
8351 62 54          MZ    TABLE&1&X1,CNVRT                             Z   7  0958  Y 8Z8 896        1586
8352 62 55   CMBCK  B     0000                                         Z   4  0965  B 000           1586
8353 62 56   EXPND  SBR   CZONE&10          CONVERT THREE DIGIT ADRES  Z   4  0969  H |24           1587
8354 62 57          MLC   @     @,HOLD      TO FIVE DIGIT NUMBER       Z   7  0973  M /31 891       1587
8355 62 58          MN    CNVRT,HOLD                                   Z   7  0980  D 896 891       1587
8356 63 59          MN                                                 Z   1  0987  D               1587
8357 62 60          MN                                                 Z   1  0988  D               1587
8358 62 61          MZ    CNVRT,ZONE                                   Z   7  0989  Y 896 886       1587
8359 62 62          MZ    CNVRT-2,ZONE-1                               Z   7  0996  Y 894 885       1587
8360 62 63          MLC   &TABLE&1,CZONE&6                            Z   7  1003  M /34 |20       1588
8361 62 64          S     CNVRT                                        Z   4  1010  S 896           1588
8362 62 65   CZONE  C     ZONE,000                                     Z   7  1014  C 886 000       1588
8363 62 66          BE    000                                          Z   5  1021  B 000 S         1588
8364 62 67          A     @1@,HOLD-3                                   Z   7  1026  A /35 888       1588
8365 62 68          SW    CZONE&4                                      Z   4  1033  , |18           1588
8366 62 69          A     @002@,CZONE&6                                Z   7  1037  A /38 |20       1589
8367 62 70          CW    CZONE&4                                      Z   4  1044  ) |18           1589
8368 62 71          B     CZONE                                        Z   4  1048  B |14           1589
8369 62 72   IMVUP  SBR   HERE&3                                      Z   4  1052  H |91           1589
8370 62 73          MN    0&X3                                         Z   4  1056  D 0?0           1589
8371 62 74          SAR   X3                                           Z   4  1060  Q 099           1589
8372 62 75   REMCK  MCM   1&X3                                        Z   4  1064  P 0?1           1589
8373 62 76          MN                                                 Z   1  1068  D               1590
8374 62 77          SBR   X3                                           Z   4  1069  H 099           1590
8375 62 78          BCE   REMCK,0&X3,|                                 Z   8  1073  B |64 0?0 |      1590
8376 62 79          SBR   X3,1&X3                                      Z   7  1081  H 099 0?1        1590
8377 62 80   HERE   B     0                                            Z   4  1088  B 000           1590
8378 62 81   ERRMS  FQUIT                                                                MACRO
8379        ERRMS  CS    332                                          Z   4  1092  / 332          GEN   1590
8380               CS                                                 Z   1  1096  /              GEN   1590
8381               CC    1                                            Z   2  1097  F 1            GEN   1591
8382               MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270   Z   7  1099  M /74 270      GEN   1591
8383               W                                                  Z   1  1106  2              GEN   1591
8384               CC    1                                            Z   2  1107  F 1            GEN   1591
8385               BCE   *&6,MONTOR,1                                 Z   8  1109  B /22 769 1     GEN   1591
8386               RWD   1                                            Z   5  1117  U %U1 R         GEN   1591
8387               H     *-3                                          Z   4  1122  . /22          GEN   1591
8388 62 82          LTORG *                                          Z            1126
                    DCW   @ @                                        Z   1  1126                  LIT   1592
                    DCW   @     @                                    Z   5  1131                  LIT   1592
                    DCW   &TABLEZ&1                                  Z   3  1134  898             ADCON 1592
                    DCW   @1@                                        Z   1  1135                  LIT   1592
                    DCW   @002@                                      Z   3  1138                  LIT   1592
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     Z  36  1174                  LIT   1593
8389 62 83   BEGIN  SBR   SAUCE,0&X3                                 Z   7  1175  H 856 0?0       1594
8390 62 84          SBR   X1,END                                     Z   7  1182  H 089 M99       1594
8391 62 85          SBR   TBL1              EQUIV TO ONE BELOW TBL1  Z   4  1189  H 847           1594
8392 62 86          MLC   INTST,TMS3&6                               Z   7  1193  M 183 S13       1594
8393 62 87          MZ    @Z@,TMS3&5                                 Z   7  1200  Y V23 S12       1594
8394 62 88   TMS3   SBR   X1,0                                       Z   7  1207  H 089 000       1594
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8395 62 89          A     @1@,THREE                                 Z   7  1214  A V24 838         1595
8396 62 90          C     THREE,@3@                                 Z   7  1221  C 838 V25         1595
8397 62 91          BH    TMS3                                      Z   5  1228  B S07 U           1595
8398 62 92          SBR   COUNT,0&X1                                Z   7  1233  H 841 0|0         1595
8399 62 93          SBR   TBL2,1&X1          STARTING ADRES OF TBL2 Z   7  1240  H 883 0|1         1595
8400 62 94          MLC   @ @,THREE                                 Z   7  1247  M V26 838         1596
8401 62 95          BCE   *&5,GNSTM,         DO GEN STMNTS EXIST, TST BLANK Z   8  1254  B S66 151  1596
8402 62 96          B     *&27                                      Z   4  1262  B S92             1596
8403 62 97          SBR   ADDIN,1&X1                                Z   7  1266  H 862 0|1         1596
8404 62 98          SBR   CNVRT                                     Z   4  1273  H 896             1596
8405 62 99          B     EXPND                                     Z   4  1277  B 969             1596
8406 63 00          MLC   HOLD,WKBK1                                Z   7  1281  M 891 870         1597
8407 63 01          B     ROOM                                      Z   4  1288  B T61             1597
8408 63 02          MLC   GNSTM,WKBK2        STARTING ADRES OF TBL2 Z   7  1292  M 151 875         1597
8409 63 03          A     WKBK2              MULTIPLY BY SIX        Z   4  1299  A 875             1597
8410 63 04          A     WKBK2                                     Z   4  1303  A 875             1597
8411 63 05          A     GNSTM                                     Z   4  1307  A 151             1597
8412 63 06          A     GNSTM,WKBK2                               Z   7  1311  A 151 875         1597
8413 63 07          SBR   CNVRT,1&X1                               Z   7  1318  H 896 0|1         1598
8414 63 08          B     EXPND                                     Z   4  1325  B 969             1598
8415 63 09          MLC   HOLD,WKBK1                                Z   7  1329  M 891 870         1598
8416 63 10          A     WKBK2,WKBK1                               Z   7  1336  A 875 870         1598
8417 63 11          MLC   WKBK1,CNVRT                               Z   7  1343  M 870 896         1598
8418 63 12          B     K5TOK3                                    Z   4  1350  B 929             1598
8419 63 13          MLC   CNVRT,ADDIN        ONE POS ABOVE TBL2     Z   7  1354  M 896 862         1599
8420 63 14  ROOM    MLC   SAUCE,CNVRT                               Z   7  1361  M 856 896         1599
8421 63 15          B     EXPND                                     Z   4  1368  B 969             1599
8422 63 16          MLC   HOLD,AREA1                                Z   7  1372  M 891 880         1599
8423 63 17          C     WKBK1,AREA1                               Z   7  1379  C 870 880         1599
8424 63 18          BH    *&5                                       Z   5  1386  B T95 U           1599
8425 63 19          B     ERRMS                                     Z   4  1391  B |92                1600
8426 63 20          MESSG @STARTING ADDRESS OF STATEMENTS@,43,1,K                                MACRO
8427                CC    1                                         Z   2  1395  F 1              GEN  1600
8428                CS    332                                       Z   4  1397  / 332            GEN  1600
8429                CS                                              Z   1  1401  /                GEN  1600
8430                MCW   @STARTING ADDRESS OF STATEMENTS@,43&200    Z   7  1402  M V56 243        GEN  1600
8431                W                                               Z   1  1409  2                GEN  1600
8432                CC    K                                         Z   2  1410  F K              GEN  1600
8433 63 21          CS    332                                       Z   4  1412  / 332                1601
8434 63 22          CS                                              Z   1  1416  /                   1601
8435 63 23          MCW   @SEQ@,208                                 Z   7  1417  M V59 208         1601
8436 63 24          MCW   @STARTING ADDRESS@,242                    Z   7  1424  M V75 242         1601
8437 63 25          MCW   @DISPLAY@,256                             Z   7  1431  M V82 256         1601
8438 63 26          W                                               Z   1  1438  2                1601
8439 63 27          CC    J                                         Z   2  1439  F J              1601
8440 63 28          CS    332                                       Z   4  1441  / 332             1602
8441 63 29          CS                                              Z   1  1445  /                 1602
8442 63 30          LCA   @000@,208                                 Z   7  1446  L V85 208         1602
8443 63 31          MLC   FROMX,X1                                  Z   7  1453  M 856 089         1602
8444 63 32          SBR   X1,2&X1            GMWM1&1   TOP         Z   7  1460  H 089 0|2         1602
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
8445 63 33          SBR   X3                                               Z   4  1467  H 099            1602
8446 63 34          B     IMVUP                                            Z   4  1471  B |52            1602
8447 63 35          MLC   X3,X2                                            Z   7  1475  M 099 094        1603
8448 63 36          FENDX C,,,BEGIN,BEGIN,BEGIN,SYS1,RESORT 2                                 MACRO
8449                BSS   333,C                                            Z   5  1482  B 333 C    GEN   1603
8450                SBR   INITAP&6,BEGIN                                   Z   7  1487  H 786 /75  GEN   1603
8451                SBR   BCLEAR                                           Z   4  1494  H 833      GEN   1603
8452                SBR   INITXT&3,BEGIN                                   Z   7  1498  H 796 /75  GEN   1603
8453                SBR   TCLEAR,SYS1                                      Z   7  1505  H 710 V94  GEN   1603
8454                LCA   @RESORT 2@,110                                   Z   7  1512  L V93 110  GEN   1604
8455                B     MONTER                                           Z   4  1519  B 700      GEN   1604
8456 63 37          LTORG *                                                Z             1523
                    DCW   @Z@                                              Z   1  1523              LIT   1604
                    DCW   @1@                                              Z   1  1524              LIT   1604
                    DCW   @3@                                              Z   1  1525              LIT   1604
                    DCW   @ @                                              Z   1  1526              LIT   1604
                    DCW   @STARTING ADDRESS OF STATEMENTS@                 Z  30  1556              LIT   1605
                    DCW   @SEQ@                                            Z   3  1559              LIT   1605
                    DCW   @STARTING ADDRESS@                               Z  16  1575              LIT   1606
                    DCW   @DISPLAY@                                        Z   7  1582              LIT   1606
                    DCW   @000@                                            Z   3  1585              LIT   1606
                    DCW   @RESORT 2@                                       Z   8  1593              LIT   1606
8457 63 38  SYS1    DCW   @}@                          SYSTEM GROUP MARK   Z   1  1594              GMARK 1606
8458 63 39          XFR   BEGIN                                            Z            B /75             1607
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8459 63 40          JOB   1401 FORTRAN  RESORT PHASE TWO
8460 63 41          ORG   BEGIN                                     Z          1175
8461 63 42   110    DC    2                                         Z   1  0110                    1610
8462 63 43          MLC   TBL2,X3          ADRES OF TBL2 IN X3     Z   7  1175  M 883 099         1611
8463 63 44          B     SAVE                                      Z   4  1182  B S25            1611
8464 63 45   INIT   SBR   X2,2&X2                                   Z   7  1186  H 094 0!2         1611
8465 63 46          MZ    X3,ASIDE                                  Z   7  1193  Y 099 844         1611
8466 63 47          MLC   X2,X3                                     Z   7  1200  M 094 099         1611
8467 62 48          B     IMVUP                                     Z   4  1207  B |52             1611
8468 62 49          MLC   X3,X2             POS GMWM2&1 IN X2       Z   7  1211  M 099 094         1612
8469 62 50          MLC   ASIDE,X3                                  Z   7  1218  M 844 099         1612
8470 63 51   SAVE   SBR   STORE,2&X2        POS GMWM3-1 IN STORE    Z   7  1225  H 853 0!2         1612
8471 63 52          BWZ   *&5,0&X2,2        ZONE IN HUNS POS OF INT NO Z  8  1232  V S44 0!0 2       1612
8472 63 53          B     *&9                                       Z   4  1240  B S52            1612
8473 63 54          BWZ   CNTNU,2&X2,2      TST FOR ZN IN UNTS POS OF INT NO Z 8  1244  V S70 0!2 2  1613
8474 63 55          MLC   2&X2,X2           PCKUP INTNO FROM TBL PUT IN X2 Z  7  1252  M 0!2 094     1613
8475 63 56          MLC   0&X2,X2                                   Z   7  1259  M 0!0 094         1613
8476 63 57          B     *&8                                       Z   4  1266  B S77            1613
8477 63 58   CNTNU  MLC   2&X2,X2           PLACE INTNO IN X2       Z   7  1270  M 0!2 094         1613
8478 63 59          SBR   INTNO,0&X2                                Z   7  1277  H 865 0!0         1614
8479 63 60          SBR   MLPLY&6                                   Z   4  1284  H T01            1614
8480 63 61          MZ    @R@,MLPLY&5                               Z   7  1288  Y W55 T00         1614
8481 63 62   MLPLY  SBR   X2,0                                     Z   7  1295  H 094 000         1614
8482 63 63          MLC   INTNO,*&14                               Z   7  1302  M 865 T22         1614
8483 63 64          MZ    @R@,*&6                                   Z   7  1309  Y W55 T21         1614
8484 63 65          SBR   X2,0                                     Z   7  1316  H 094 000         1615
8485 63 66          C     TABEL&X2,@   @     TEST FOR FILLED TABLE-BLANKS Z 7  1323  C MR9 W58      1615
8486 63 67          BU    GNTBL                                     Z   5  1330  B T46 /          1615
8487 63 68          MLC   X1,TABEL&X2       HI ORD POS OF INST IN TBL1 Z  7  1335  M 089 MR9         1615
8488 63 69          B     SETX1                                     Z   4  1342  B T96            1615
8489 63 70   GNTBL  SW    3&X3                                      Z   4  1346  , 0?3            1615
8490 63 71          MLC   TABEL&X2,5&X3     GEN BRANCH SECOND IN TBL2 Z  7  1350  M MR9 0?5         1616
8491 63 72          CW    3&X3                                      Z   4  1357  ) 0?3            1616
8492 63 73          MLC   X1,2&X3           ORIG INST FIRST IN TBL2 Z   7  1361  M 089 0?2         1616
8493 63 74          MLC   @1@,TEST1         SWTCH FOR REPLC TBL     Z   7  1368  M W59 884         1616
8494 63 75          SBR   TABEL&X2,2&X3     LOW ORDER POS OF ENTRY1, TBL2 Z 7  1375  H MR9 0?2         1616
8495 63 76          MZ    @Z@,TABEL-1&X2    A ZONE IN TENS POS OF TBL1 Z  7  1382  Y W60 MR8         1616
8496 63 77          SBR   X3,6&X3                                   Z   7  1389  H 099 0?6         1617
8497 63 78   SETX1  MLC   STORE,X2                                  Z   7  1396  M 853 094         1617
8498 63 79          C     ADRES,STORE                               Z   7  1403  C 148 853         1617
8499 63 80          BU    RESET                                     Z   5  1410  B V90 /          1617
8500 63 81          BCE   CTOAL,TEST1,0                            Z   8  1415  B U48 884 0       1617
8501 63 82          MLC   @0@,TEST1                                Z   7  1423  M W61 884         1618
8502 63 83          MLC   X1,X3                                     Z   7  1430  M 089 099         1618
8503 63 84          B     IMVUP                                     Z   4  1437  B |52             1618
8504 63 85          MZ    @Z@,1&X3                                  Z   7  1441  Y W60 0?1         1618
8505 63 86   CTOAL  MLC   ADDIN,X2                                  Z   7  1448  M 862 094         1618
8506 63 87          LCA   @:@,0&X2           5-8 WITH WM ABOVE PROGRAM Z  7  1455  L W62 0!0         1618
8507 63 88          MLC   TBL1,X3           ADRES ONE POS ABOVE TABLE 1 Z  7  1462  M 847 099         1619
8508 63 89          SBR   X3,3&X3                                   Z   7  1469  H 099 0?3         1619
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8509 63 90           MLC   86,CNVRT          TRUE STARTING ADRES     Z   7  1476  M 086 896        1619
8510 63 91           B     EXPND                                     Z   4  1483  B 969           1619
8511 63 92           MLC   HOLD,WKBK1                                Z   7  1487  M 891 870       1619
8512 63 93           SBR   CNVRT,0&X2                                Z   7  1494  H 896 0!0       1619
8513 63 94           B     EXPND                                     Z   4  1501  B 969           1620
8514 63 95           MLC   HOLD,WKBK2                                Z   7  1505  M 891 875       1620
8515 63 96           S     WKBK2,WKBK1                               Z   7  1512  S 875 870       1620
8516 63 97           BWZ   *&5,WKBK1,K              IS DIFF NEG      Z   8  1519  V V31 870 K     1620
8517 63 98           B     *&8                                       Z   4  1527  B V38           1620
8518 63 99           A     @16000@,WKBK1                             Z   7  1531  A W67 870       1620
8519 64 00           MLC   WKBK1,CNVRT                              Z   7  1538  M 870 896       1621
8520 64 01           B     K5TOK3                                    Z   4  1545  B 929           1621
8521 64 02           MLC   CNVRT,DIFF        DIFF BET ACT AND FIXED ADRES  Z   7  1549  M 896 859       1621
8522 64 03           SBR   X2,1&X2           HIGH ORD ADRES OF SORTED PROGRAM  Z   7  1556  H 094 0!1       1621
8523 64 04           SBR   INTST                                     Z   4  1563  H 183           1621
8524 64 05           FENDX C,,,,,,SYS2,RESORT 3                                                 MACRO
8525                 BSS   333,C                                     Z   5  1567  B 333 C    GEN  1621
8526                 SBR   TCLEAR,SYS2                               Z   7  1572  H 710 W76  GEN  1622
8527                 LCA   @RESORT 3@,110                            Z   7  1579  L W75 110  GEN  1622
8528                 B     MONTER                                    Z   4  1586  B 700      GEN  1622
8529 64 06   RESET   MLC   X3,ASIDE                                  Z   7  1590  M 099 844       1622
8530 64 07           MLC   X1,X3                                     Z   7  1597  M 089 099       1622
8531 64 08           B     IMVUP             SET X1 TO GMWM1&1 OF NXT INSTR  Z   4  1604  B |52          1622
8532 64 09           MLC   X3,X1                                     Z   7  1608  M 099 089       1623
8533 64 10           MLC   ASIDE,X3                                  Z   7  1615  M 844 099       1623
8534 64 11           BCE   *&15,TEST1,0                              Z   8  1622  B W44 884 0     1623
8535 64 12           MLC   @0@,TEST1                                 Z   7  1630  M W61 884       1623
8536 64 13           MZ    @Z@,1&X1                                  Z   7  1637  Y W60 0|1       1623
8537 64 14           SBR   X1,4&X1                                   Z   7  1644  H 089 0|4       1624
8538 64 15           B     INIT                                      Z   4  1651  B /86           1624
8539 64 16           LTORG *                                         Z          1655
                     DCW   @R@                                       Z   1  1655           LIT  1624
                     DCW   @   @                                     Z   3  1658           LIT  1624
                     DCW   @1@                                       Z   1  1659           LIT  1624
                     DCW   @Z@                                       Z   1  1660           LIT  1624
                     DCW   @0@                                       Z   1  1661           LIT  1624
                     DCW   @:@                                       Z   1  1662           LIT  1625
                     DCW   @16000@                                   Z   5  1667           LIT  1625
                     DCW   @RESORT 3@                                Z   8  1675           LIT  1625
8540 64 17   SYS2    DCW   @}@                   SYSTEM GROUP MARK   Z   1  1676           GMARK 1625
8541 64 18           XFR   BEGIN                                     Z          B /75          1626
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8542 64 19          JOB   1401 FORTRAN  RESORT PHASE THREE
8543 64 20          ORG   BEGIN                                    Z          1175
8544 64 21   110    DC    @3@                                      Z   1  0110                    1629
8545 64 22          SW    GMWM                                     Z   4  1175  , M68             1630
8546 64 23          B     NEXT&7                                   Z   4  1179  B /90             1630
8547 64 24   NEXT   SBR   X3,0              RE-INIT X3             Z   7  1183  H 099 000         1630
8548 64 25          SBR   LAST                                     Z   4  1190  H 850             1630
8549 64 26          BCE   ADONE,0&X3,       TST FOR BLANKS IN TBL  Z   8  1194  B Z30 0?0         1630
8550 64 27          SBR   NEXT&6,3&X3                            Z   7  1202  H /89 0?3         1630
8551 64 28          MN    0&X3                                     Z   4  1209  D 0?0             1630
8552 64 29          SAR   *&7                                      Z   4  1213  Q S23             1631
8553 64 30          BWZ   CASE2,0,S          A ZONE IN TENS POS OF TBL1  Z   8  1217  V Y26 000 S  1631
8554 64 31          MLC   0&X3,X1            PLACE HI ORD POS OF INST IN X1  Z   7  1225  M 0?0 089  1631
8555 64 32          SBR   ADDIN,0&X3                             Z   7  1232  H 862 0?0         1631
8556 64 33          MLC   X1,PREP1#3         SAVE X1                Z   7  1239  M 089 M47         1631
8557 64 34   SPACE  MLC   X1,X3                                    Z   7  1246  M 089 099         1632
8558 64 35          B     IMVUP                                    Z   4  1253  B |52             1632
8559 64 36          MLC   X3,CNVRT                                 Z   7  1257  M 099 896         1632
8560 64 37          B     EXPND                                    Z   4  1264  B 969             1632
8561 64 38          MLC   HOLD,AREA1                               Z   7  1268  M 891 880         1632
8562 64 39          A     @1@,AREA1                                Z   7  1275  A M48 880         1632
8563 64 40          MLC   PREP1,CNVRT                              Z   7  1282  M M47 896         1633
8564 64 41          B     EXPND                                    Z   4  1289  B 969             1633
8565 64 42          MLC   HOLD,AREA2                               Z   7  1293  M 891 M42         1633
8566 64 43          S     AREA2,AREA1        LNGTH OF NXT INST TO BE MOVED  Z   7  1300  S M42 880  1633
8567 64 44          MLC   X2,CNVRT           NXT AVAIL POS IN SORTED AREA   Z   7  1307  M 094 896  1633
8568 64 45          B     EXPND                                    Z   4  1314  B 969             1633
8569 64 46          MLC   HOLD,WKBK1                              Z   7  1318  M 891 870         1634
8570 64 47          B     NUFRM                                    Z   4  1325  B Y90             1634
8571 64 48          BL    SQUEZ                                    Z   5  1329  B Z71 T           1634
8572 64 49   LIST   MLC   PREP1,X1                                 Z   7  1334  M M47 089         1634
8573 64 50          BCE   *&12,TEST2,1       PRINT STMT NO, HI ORD ADRES  Z   8  1341  B T60 M43 1  1634
8574 64 51          A     @1@,208                                  Z   7  1349  A M48 208         1634
8575 64 52          B     ADDR1                                    Z   4  1356  B V27             1635
8576 64 53          MLC   @0@,TEST2          RESET INDICATOR        Z   7  1360  M M49 M43         1635
8577 64 54          MLC   X3,GARY&6                                Z   7  1367  M 099 V26         1635
8578 64 55          MCW   3&X1,X3                                  Z   7  1374  M 0|3 099         1635
8579 64 56          MCW   0&X3,X3                                  Z   7  1381  M 0?0 099         1635
8580 64 57          SBR   3&X1,4&X3                              Z   7  1388  H 0|3 0?4         1635
8581 64 58          MA    DIFF,3&X1                                Z   7  1395  # 859 0|3         1636
8582 64 59          MCW   X1,HEX1#3                              Z   7  1402  M 089 M52         1636
8583 64 60   ROUND  MZ    *-4,9&X3                                 Z   7  1409  Y U11 0?9         1636
8584 64 61          MZ    *-4,12&X3                                Z   7  1416  Y U18 0A2         1636
8585 64 62          MZ    *-4,15&X3                                Z   7  1423  Y U25 0A5         1636
8586 64 63          MZ    *-4,18&X3                                Z   7  1430  Y U32 0A8         1637
8587 64 64          BCE   OUTER,22&X3,       BLANK                  Z   8  1437  B U84 0B2         1637
8588 64 65          MCW   22&X3,X1                                 Z   7  1445  M 0B2 089         1637
8589 64 66          MCW   0&X1,22&X3                               Z   7  1452  M 0|0 0B2         1637
8590 64 67          MA    @004@,22&X3                              Z   7  1459  # M55 0B2         1637
8591 64 68          MA    DIFF,22&X3                               Z   7  1466  # 859 0B2         1638
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8592 64 69          MCW   0&X1,X3                                 Z   7  1473  M 0|0 099         1638
8593 64 70          B     ROUND                                   Z   4  1480  B U09            1638
8594 64 71   OUTER  SBR   22&X3,4&X2                              Z   7  1484  H 0B2 0!4         1638
8595 64 72          MA    DIFF,22&X3                              Z   7  1491  # 859 0B2        1638
8596 64 73          MCW   HEX1,X1                                 Z   7  1498  M M52 089        1638
8597 64 74          BCE   *&8,0&X1,B                              Z   8  1505  B V20 0|0 B      1639
8598 64 75          SBR   3&X1,DOADR3                             Z   7  1513  H 0|3 918        1639
8599 64 76   GARY   SBR   X3,0                                    Z   7  1520  H 099 000        1639
8600 64 77   ADDR1  MCW   DIFF,227                                 Z   7  1527  M 859 227        1639
8601 64 78          MA    X2,227                                  Z   7  1534  # 094 227        1639
8602 64 79          MCW   227,X3                                  Z   7  1541  M 227 099        1640
8603 64 80          MCW   X3,CNVRT                                Z   7  1548  M 099 896        1640
8604 64 81          B     EXPND                                   Z   4  1555  B 969            1640
8605 64 82          MCS   HOLD,244                                Z   7  1559  Z 891 244        1640
8606 64 83          MCW   X3,256                                  Z   7  1566  M 099 256        1640
8607 64 84          MA    @004@,256                               Z   7  1573  # M55 256        1640
8608 64 85          W                                             Z   1  1580  2                1641
8609 64 86          FORMS                                                                MACRO
8610                BCV   *&5                                     Z   5  1581  B V90 @     GEN   1641
8611                B     *&3                                     Z   4  1586  B V92       GEN   1641
8612                CC    1                                       Z   2  1590  F 1         GEN   1641
8613 65 87          MLC   X2,SYMBL-1                             Z   7  1592  M 094 X01        1641
8614 64 88          BCE   CNTU2,0&X1,}      DUZ STMNT EXIST   12-7-8  Z   8  1599  B W74 0|0 } GMARK 1641
8615 64 89          MN    0&X2              MOVE STATEMENT          Z   4  1607  D 0!0            1641
8616 64 90          SAR   X2                                      Z   4  1611  Q 094            1642
8617 64 91   CTNMV  MCM   0&X1                                    Z   4  1615  P 0|0            1642
8618 64 92          SAR   STRX1&6                                 Z   4  1619  Q W41            1642
8619 64 93          MCM   0&X1,1&X2                              Z   7  1623  P 0|0 0!1        1642
8620 64 94          MN                                            Z   1  1630  D                1642
8621 64 95          SBR   X2                                      Z   4  1631  H 094            1642
8622 64 96   STRX1  SBR   X1,0                                    Z   7  1635  H 089 000        1642
8623 64 97          BCE   CTNMV,0&X2,|                           Z   8  1642  B W15 0!0 |      1643
8624 64 98          BWZ   *&5,0&X1,2        DUZ REPLC TBL NEED UPDATING  Z   8  1650  V W62 0|0 2      1643
8625 64 99          B     CHNGE                                   Z   4  1658  B W88            1643
8626 65 00          BWZ   SYMBL,2&X1,2                           Z   8  1662  V X02 0|2 2      1643
8627 65 01          B     CHNGE                                   Z   4  1670  B W88            1643
8628 65 02   CNTU2  SBR   X1,1&X1                                Z   7  1674  H 089 0|1        1643
8629 65 03          MLC   @B@,SYMBL&7                            Z   7  1681  M M56 X09        1644
8630 65 04   CHNGE  MLC   2&X1,X3            UPDATE REPLC TABLE      Z   7  1688  M 0|2 099        1644
8631 65 05          SBR   0&X3,0                                 Z   7  1695  H 0?0 000        1644
8632 65 06   SYMBL  MLC   @:@,0&X1          MV SYMB INTO STMNT  5-8  Z   7  1702  M M57 0|0        1644
8633 65 07          NOP   BOTOM             SKIP TRAWM FOR NO STMNT Z   4  1709  N X61            1644
8634 65 08          MN    0&X1                                    Z   4  1713  D 0|0            1644
8635 65 09          MN                                            Z   1  1717  D                1644
8636 65 10          SAR   X1                GMWM2-1 OF STMNT JUST MOVED  Z   4  1718  Q 089            1645
8637 65 11          MN    0&X2                                    Z   4  1722  D 0!0            1645
8638 65 12          SAR   TRAWM&6                                 Z   4  1726  Q X36            1645
8639 65 13   TRAWM  LCA   0&X1,0&X2          TRANSFER WORD MARKS     Z   7  1730  L 0|0 0!0        1645
8640 65 14          SBR   TRAWM&6                                 Z   4  1737  H X36            1645
8641 65 15          C     0&X1                                    Z   4  1741  C 0|0            1645
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8642 65 16          SAR   X1                                      Z   4  1745  Q 089             1645
8643 65 17          BCE   *&5,0&X1,}          12-7-8             Z   8  1749  B X61 0|0 } GMARK 1646
8644 65 18          B     TRAWM                                   Z   4  1757  B X30            1646
8645 65 19   BOTOM  MLC   @N@,SYMBL&7        RE-INIT NOP BRANCH  Z   7  1761  M M58 X09        1646
8646 65 20          C     LAST,COUNT                              Z   7  1768  C 850 841        1646
8647 65 21          BU    TSTCS                                   Z   5  1775  B Y14 /          1646
8648 65 22   LDSYM  LCA   @:@,0&X2             5-8               Z   7  1780  L M57 0!0        1646
8649 65 23          SBR   X3                                      Z   4  1787  H 099            1647
8650 65 24          FENDX C,,,,,,SYSGM,RESORT 4                                                MACRO
8651                BSS   333,C                                   Z   5  1791  B 333 C    GEN   1647
8652                SBR   TCLEAR,SYSGM                            Z   7  1796  H 710 M69  GEN   1647
8653                LCA   @RESORT 4@,110                          Z   7  1803  L M66 110  GEN   1647
8654                B     MONTER                                  Z   4  1810  B 700      GEN   1647
8655 65 25   TSTCS  BCE   PART2,TEST1,1      TST FOR 2ND PART OF GEN INT NO  Z   8  1814  B Y58 884 1      1647
8656 65 26          B     NEXT               SORT NEXT STATEMENT  Z   4  1822  B /83            1647
8657 65 27   CASE2  MLC   0&X3,X3             LOW ORD ADRES OF TBL2  Z   7  1826  M 0?0 099        1648
8658 65 28          MLC   0&X3,X1                                  Z   7  1833  M 0?0 089        1648
8659 65 29          SBR   PART2&10,3&X3                           Z   7  1840  H Y68 0?3        1648
8660 65 30          MLC   @1@,TEST1                              Z   7  1847  M M48 884        1648
8661 65 31          B     SPACE-14                                Z   4  1854  B S32            1648
8662 65 32   PART2  MLC   @0@,TEST1           RESET INDICATOR     Z   7  1858  M M49 884        1648
8663 65 33          MLC   0,X1                                    Z   7  1865  M 000 089        1649
8664 65 34          MLC   PART2&10,ADDIN      PREPX3 FOR WMTST    Z   7  1872  M Y68 862        1649
8665 65 35          MLC   @1@,TEST2                              Z   7  1879  M M48 M43        1649
8666 65 36          B     SPACE-7                                 Z   4  1886  B S39            1649
8667 65 37   NUFRM  SBR   STREG&3                                 Z   4  1890  H Z29            1649
8668 65 38          MLC   FROMX,CNVRT                             Z   7  1894  M 856 896        1649
8669 65 39          B     EXPND                                   Z   4  1901  B 969            1650
8670 65 40          MLC   HOLD,WKBK2                             Z   7  1905  M 891 875        1650
8671 65 41          S     WKBK1,WKBK2         SPACE AVAIL FOR NXT INST  Z   7  1912  S 870 875   1650
8672 65 42          C     AREA1,WKBK2                             Z   7  1919  C 880 875        1650
8673 65 43   STREG  B     0                                       Z   4  1926  B 000            1650
8674 65 44   ADONE  A     @1@,208             ADD 1 FOR VANISHED STMNT  Z   7  1930  A M48 208   1650
8675 65 45          C     LAST,COUNT                              Z   7  1937  C 850 841        1651
8676 65 46          BE    LDSYM                                   Z   5  1944  B X80 S           1651
8677 65 47          SBR   X3,3&X3                                 Z   7  1949  H 099 0?3        1651
8678 65 48          SBR   LAST                                    Z   4  1956  H 850            1651
8679 65 49          B     NEXT&11                                 Z   4  1960  B /94            1651
8680 65 50   FIXIT  SBR   FROMX,2&X3          NEW GMWM1-1 IF HI ORD STMNT  Z   7  1964  H 856 0?2   1651
8681 65 51   SQUEZ  MLC   FROMX,X3            GMWM1-1 OR HIORD STMNT  Z   7  1971  M 856 099        1652
8682 65 52          SBR   X3,2&X3             GMWM1&1 OF HI ORD STMNT  Z   7  1978  H 099 0?2        1652
8683 65 53          B     IMVUP                                   Z   4  1985  B |52            1652
8684 65 54          BCE   FIXIT,0&X3,:        TST FOR USED HI ORD STMNTS 5-8  Z   8  1989  B Z64 0?0 :  1652
8685 65 55          B     NUFRM                                   Z   4  1997  B Y90            1652
8686 65 56          BL    LOOP-7                                  Z   5  2001  B !10 T          1652
8687 65 57          B     LIST                                    Z   4  2006  B T34            1652
8688 65 58          SBR   SAVE1&6,0&X2                           Z   7  2010  H M19 0!0        1653
8689 65 59   LOOP   C     X3,PARAMA&2                             Z   7  2017  C 099 688        1653
8690 65 60          BE    LOPP                                    Z   5  2024  B !44 S          1653
8691 65 61          SBR   X1,3&X3             SAVE GMWM3          Z   7  2029  H 089 0?3        1653
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8692 65 62          BCE   MVAGN-7,0&X1,}     12-7-8                  Z   8  2036  B !57 0|0 } GMARK 1653
8693 65 63   LOPP   B     NUFRM                                      Z   4  2044  B Y90             1653
8694 65 64          BL    ERRMS                                      Z   5  2048  B |92 T           1654
8695 65 65          B     SAVE1                                      Z   4  2053  B M13             1654
8696 65 66          SBR   X3,4&X3                                    Z   7  2057  H 099 0?4         1654
8697 65 67   MVAGN  B     IMVUP                                      Z   4  2064  B |52             1654
8698 65 68          C     0&X3,@:@           SEARCH FOR USED STMNT  5-8 Z   7  2068  C 0?0 M57         1654
8699 65 69          BU    LOOP                                       Z   5  2075  B !17 /           1654
8700 65 70          SBR   HOLD2&6,0&X3                               Z   7  2080  H J46 0?0         1654
8701 65 71          SBR   STORE,2&X3                                 Z   7  2087  H 853 0?2         1655
8702 65 72          SBR   X3,3&X3            TOX ADRES IN X3         Z   7  2094  H 099 0?3         1655
8703 65 73   MVDWN  LCA   0&X1,0&X3          OVERLAY USED STMNTS     Z   7  2101  L 0|0 0?0         1655
8704 65 74          SAR   X1                                         Z   4  2108  Q 089             1655
8705 65 75          C     0&X3                                       Z   4  2112  C 0?0             1655
8706 65 76          SAR   X3                                         Z   4  2116  Q 099             1655
8707 65 77          BCE   *&5,0&X1,}          12-7-8                  Z   8  2120  B J32 0|0 } GMARK 1656
8708 65 78          B     MVDWN                                      Z   4  2128  B J01             1656
8709 65 79          MN    0&X1                                       Z   4  2132  D 0|0             1656
8710 65 80          SAR   ASIDE                                      Z   4  2136  Q 844             1656
8711 65 81   HOLD2  SBR   X1,0                                       Z   7  2140  H 089 000         1656
8712 65 82          BWZ   *&5,1&X1,S          A ZONE IN TENS POS OF INST Z   8  2147  V J59 0|1 S      1656
8713 65 83          B     *&8                                        Z   4  2155  B J66             1656
8714 65 84          MLC   @1@,TEST3                                  Z   7  2159  M M48 M44         1657
8715 65 85          BWZ   *&5,0&X1,2          TST FOR ZN IN INTNO ST JUST MOVED Z 8  2166  V J78 0|0 2  1657
8716 65 86          B     *&9                                        Z   4  2174  B J86             1657
8717 65 87          BWZ   UPDAT,2&X1,2        TST FOR ZN IN UNITS POS Z  8  2178  V K04 0|2 2      1657
8718 65 88          MLC   2&X1,X1             ADRES OF INT NO         Z   7  2186  M 0|2 089         1657
8719 65 89          MLC   0&X1,X2             INT NO IN X2            Z   7  2193  M 0|0 094         1658
8720 65 90          B     *&8                                        Z   4  2200  B K11             1658
8721 65 91   UPDAT  MLC   2&X1,X2              INIT NO IN X2          Z   7  2204  M 0|2 094         1658
8722 65 92          SBR   INTNO,0&X2          MULT INT NO BY 3        Z   7  2211  H 865 0!0         1658
8723 65 93          SBR   MULT&6                                     Z   4  2218  H K35             1658
8724 65 94          MZ    @R@,MULT&5                                 Z   7  2222  Y M67 K34         1658
8725 65 95   MULT   SBR   X2,0                                       Z   7  2229  H 094 000         1659
8726 65 96          MLC   INTNO,*&14                                 Z   7  2236  M 865 K56         1659
8727 65 97          MZ    @R@,*&6                                    Z   7  2243  Y M67 K55         1659
8728 65 98          SBR   X2,0                ENTRY POS ON TBL1       Z   7  2250  H 094 000         1659
8729 65 99          BWZ   ACHCK,TABEL-1&X2,S                         Z   8  2257  V K76 MR8 S      1659
8730 66 00          SBR   TABEL&X2,1&X3       NEW HI ORD POS IN TBL1  Z   7  2265  H MR9 0?1         1660
8731 66 01          B     NUPOS&14                                   Z   4  2272  B L16             1660
8732 66 02   ACHCK  MLC   TABEL&X2,X1                                Z   7  2276  M MR9 089         1660
8733 66 03          BCE   NUPOS,TEST3,1                              Z   8  2283  B L02 M44 1      1660
8734 66 04          SBR   3&X1,1&X3           NEW HI ORD POS IN TBL2, ENTRY2 Z 7  2291  H 0|3 0?1         1660
8735 66 05          B     NUPOS&14                                   Z   4  2298  B L16             1660
8736 66 06   NUPOS  SBR   0&X1,1&X3           NEW HI ORD POS IN TBL2, ENTRY1 Z 7  2302  H 0|0 0?1         1661
8737 66 07          MLC   @0@,TEST3                                  Z   7  2309  M M49 M44         1661
8738 66 08          C     ASIDE,FROMX         WAS WHOLE TOP MOVED DOWN Z  7  2316  C 844 856         1661
8739 66 09          BE    RTNLD                                      Z   5  2323  B L56 S           1661
8740 66 10          MLC   ASIDE,X1                                   Z   7  2328  M 844 089         1661
8741 66 11          MN    0&X3                                       Z   4  2335  D 0?0             1661
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
8742 66 12           MN                                                Z   1  2339  D                 1661
8743 66 13           MN                                                Z   1  2340  D                 1662
8744 66 14           SAR   HOLD2&6                                     Z   4  2341  Q J46              1662
8745 66 15           SBR   X1,1&X1                                     Z   7  2345  H 089 0|1          1662
8746 66 16           B     MVDWN                                       Z   4  2352  B J01              1662
8747 66 17   RTNLD   LCA   GMWM,0&X3                                   Z   7  2356  L M68 0?0          1662
8748 66 18           SBR   FROMX            NEW GMWM1-1 OF HI ORD UNSRT INST  Z   4  2363  H 856            1662
8749 66 19           C     ADRES,STORE                                 Z   7  2367  C 148 853          1662
8750 66 20           BE    FINIS                                       Z   5  2374  B M04 S            1663
8751 66 21           MLC   STORE,X3                                    Z   7  2379  M 853 099          1663
8752 66 22           SBR   X1,1&X3                                    Z   7  2386  H 089 0?1          1663
8753 66 23           SBR   X3,2&X3                                     Z   7  2393  H 099 0?2          1663
8754 66 24           B     MVAGN                                       Z   4  2400  B !64              1663
8755 66 25   FINIS   B     NUFRM                                       Z   4  2404  B Y90              1663
8756 66 26           BL    ERRMS                                       Z   5  2408  B |92 T            1663
8757 66 27   SAVE1   SBR   X2,0                                       Z   7  2413  H 094 000          1664
8758 66 28           MLC   ADDIN,X3                                    Z   7  2420  M 862 099          1664
8759 66 29           MLC   0&X3,PREP1                                  Z   7  2427  M 0?0 M47          1664
8760 66 30           B     LIST                                        Z   4  2434  B T34              1664
8761 66 31   AREA2   DCW   00000                                       Z   5  2442                    1664
8762 66 32   TEST2   DCW   0                                           Z   1  2443                    1664
8763 66 33   TEST3   DCW   0                                           Z   1  2444                    1664
8764 66 34           LTORG *                                           Z          2445
             PREP1Z  DCW   #03                                         Z   3  2447            AREA    1665
                     DCW   @1@                                         Z   1  2448            LIT     1665
                     DCW   @0@                                         Z   1  2449            LIT     1665
             HEX1 Z  DCW   #03                                         Z   3  2452            AREA    1665
                     DCW   @004@                                       Z   3  2455            LIT     1665
                     DCW   @B@                                         Z   1  2456            LIT     1665
                     DCW   @:@                                         Z   1  2457            LIT     1665
                     DCW   @N@                                         Z   1  2458            LIT     1666
                     DCW   @RESORT 4@                                  Z   8  2466            LIT     1666
                     DCW   @R@                                         Z   1  2467            LIT     1666
8765 66 35   GMWM    DC    @}@        WORK GROUP MK                  Z   1  2468            GMARK   1666
8766 66 36   SYSGM   DCW   @}@       SYSTEM GROUP MK                 Z   1  2469            GMARK   1666
8767 66 37           ORG   *&X00                                       Z          2500
8768 66 38   END     EQU   *                                           Z      2499
8769 66 39   TABEL   EQU   END                                         Z      2499
8770 66 40           XFR   BEGIN                                       Z          B /75              1667
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8771 66 41          JOB   1401 FORTRAN  RESORT PHASE FOUR
8772 66 42          ORG   BEGIN                                    Z          1175                 
8773 66 43   110    DC    4                                       Z   1  0110                    1670
8774 66 44          MLC   BSAUCE,X1                               Z   7  1175  M 148 089         1671
8775 66 45          SBR   X1,1&X1                                 Z   7  1182  H 089 0|1         1671
8776 66 46          C     ADTBLL,X1                               Z   7  1189  C 145 089         1671
8777 66 47          BE    ENDPH                                   Z   5  1196  B S60 S           1671
8778 66 48   CONST  SBR   X1,3&X1            NXT TBL ENTRY       Z   7  1201  H 089 0|3         1671
8779 66 49          MLC   0&X1,X2            CONTRNTS OF TBL IN X2 Z  7  1208  M 0|0 094         1672
8780 66 50          BWZ   BYP4,X2-1,2                            Z   8  1215  V S34 093 2       1672
8781 66 51          MCW   0&X2,0&X1                             Z   7  1223  M 0!0 0|0         1672
8782 66 52          B     CMP4                                    Z   4  1230  B S48            1672
8783 66 53   BYP4   MA    DIFF,X2                                 Z   7  1234  # 859 094         1672
8784 66 54          MCW   X2,0&X1                                Z   7  1241  M 094 0|0         1673
8785 66 55   CMP4   C     X1,ADTBLL                               Z   7  1248  C 089 145         1673
8786 66 56          BU    CONST                                   Z   5  1255  B S01 /           1673
8787 66 57   ENDPH  MCW   DIFF,X1                                 Z   7  1260  M 859 089         1673
8788 66 58          MA    X3,X1                                   Z   7  1267  # 099 089         1673
8789 66 59          MCW   X1,RTR&6                               Z   7  1274  M 089 U69         1674
8790 66 60          SBR   CNVRT,0&X3                            Z   7  1281  H 896 0?0         1674
8791 66 61          B     EXPND                                   Z   4  1288  B 969            1674
8792 66 62          MLC   HOLD,WKBK1                            Z   7  1292  M 891 870         1674
8793 66 63          MCW   HOLD,WKBK3#5                          Z   7  1299  M 891 W68         1674
8794 66 64          MLC   DIFF,CNVRT                            Z   7  1306  M 859 896         1674
8795 66 65          B     EXPND                                   Z   4  1313  B 969            1675
8796 66 66          A     HOLD,WKBK1                              Z   7  1317  A 891 870         1675
8797 66 67          C     SIXTN,WKBK1                             Z   7  1324  C W63 870         1675
8798 66 68          BL    *&8                                     Z   5  1331  B T43 T           1675
8799 66 69          S     SIXTN,WKBK1                             Z   7  1336  S W63 870         1675
8800 66 70          MLC   BSAUCE,CNVRT                           Z   7  1343  M 148 896         1675
8801 66 71          B     EXPND                                   Z   4  1350  B 969            1676
8802 66 72          C     HOLD,WKBK1                              Z   7  1354  C 891 870         1676
8803 66 73          BH    ERRMS                                   Z   5  1361  B |92 U           1676
8804 66 74          MZ    X1,TESTA&7                              Z   7  1366  Y 089 V77         1676
8805 66 75          MCW   X1-2,TESTB&7                          Z   7  1373  M 087 V97         1676
8806 66 76          MLC   INTST,X2                              Z   7  1380  M 183 094         1676
8807 66 77          MA    DIFF,INTST                              Z   7  1387  # 859 183         1677
8808 66 78          C     WKBK1,WKBK3                             Z   7  1394  C 870 W68         1677
8809 66 79          BH    WMTST                                   Z   5  1401  B V14 U           1677
8810 66 80   MVD    LCA   0&X3,0&X1                             Z   7  1406  L 0?0 0|0         1677
8811 66 81          SAR   X3                                      Z   4  1413  Q 099            1677
8812 66 82          C     0&X1                                    Z   4  1417  C 0|0            1677
8813 66 83          SAR   X1                                      Z   4  1421  Q 089            1677
8814 66 84          BCE   *&5,0&X3,:          5-8                Z   8  1425  B U37 0?0 :       1678
8815 66 85          B     MVD                                     Z   4  1433  B U06            1678
8816 66 86   DUN    CS    0&X1                                    Z   4  1437  / 0|0            1678
8817 66 87          SBR   X1                                      Z   4  1441  H 089            1678
8818 66 88          C     X1,@W99@                                Z   7  1445  C 089 W71         1678
8819 66 89          BU    DUN                                     Z   5  1452  B U37 /           1678
8820 66 90          CW    0&X1                                    Z   4  1457  ) 0|0            1678
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
8821 66 91          CW                                      Z   1  1461  )               1679
8822 66 92          CW                                      Z   1  1462  )               1679
8823 66 93   RTR     SBR   X3,0                            Z   7  1463  H 099 000       1679
8824 66 94          SW    0&X1,1&X3                       Z   7  1470  , 0|0 0?1       1679
8825 66 95          MLC   DIFF,X2                         Z   7  1477  M 859 094       1679
8826 66 96          FENDX D,,,,,,GM50A,SHIFT CFL                                MACRO
8827                BSS   333,D                           Z   5  1484  B 333 D   GEN   1679
8828                SBR   TCLEAR,GM50A                    Z   7  1489  H 710 W88 GEN   1679
8829                LCA   @SHIFT CFL@,110                 Z   7  1496  L W80 110 GEN   1680
8830                B     MONTER                          Z   4  1503  B 700     GEN   1680
8831 66 97   ADD1    A     &1,X2                           Z   7  1507  A W81 094       1680
8832 66 98   WMTST   BW    LDWRD,1&X2                      Z   8  1514  V V26 0!1 1     1680
8833 66 99          B     ADD1                            Z   4  1522  B V07           1680
8834 67 00   LDWRD   MLC   X2,X1                          Z   7  1526  M 094 089       1680
8835 67 01          MA    DIFF,X1                         Z   7  1533  # 859 089       1681
8836 67 02          LCA   0&X2,0&X1                       Z   7  1540  L 0!0 0|0       1681
8837 67 03          C     X2,X3                           Z   7  1547  C 094 099       1681
8838 67 04          BU    ADD1                            Z   5  1554  B V07 /         1681
8839 67 05          LCA   @  @,2&X3          BLANKS       Z   7  1559  L W83 0?2       1681
8840 67 06          CW    1&X3                            Z   4  1566  ) 0?1          1681
8841 67 07   TESTA   BWZ   TESTB,X3,2                     Z   8  1570  V V90 099 2     1682
8842 67 08          CS    0&X3                            Z   4  1578  / 0?0          1682
8843 67 09          SBR   X3                              Z   4  1582  H 099          1682
8844 67 10          B     TESTA                           Z   4  1586  B V70          1682
8845 67 11   TESTB   BCE   TESTC,X3-2,0                   Z   8  1590  B W10 097 0    1682
8846 67 12          CS    0&X3                            Z   4  1598  / 0?0          1682
8847 67 13          SBR   X3                              Z   4  1602  H 099          1682
8848 67 14          B     TESTB                           Z   4  1606  B V90          1683
8849 67 15   TESTC   C     X3,X1                           Z   7  1610  C 099 089       1683
8850 67 16          BE    FIN1S                           Z   5  1617  B W41 S        1683
8851 67 17          LCA   @ @,0&X3           BLANK        Z   7  1622  L W84 0?0       1683
8852 67 18          CW    0&X3                            Z   4  1629  ) 0?0          1683
8853 67 19          SBR   X3                              Z   4  1633  H 099          1683
8854 67 20          B     TESTC                           Z   4  1637  B W10          1683
8855 67 21   FIN1S   MCW   INTST,X1                       Z   7  1641  M 183 089       1684
8856 67 22          MA    @I9I@,X1                        Z   7  1648  # W87 089       1684
8857 67 23          B     DUN                             Z   4  1655  B U37          1684
8858 67 24   SIXTN   DCW   @160000@                       Z   5  1663                 1684
8859 67 25          LTORG *                               Z        1664
             WKBK3Z  DCW   #05                             Z   5  1668          AREA  1684
                     DCW   @W99@                           Z   3  1671          LIT   1684
                     DCW   @SHIFT CFL@                     Z   9  1680          LIT   1685
                     DCW   &1                              Z   1  1681          LIT   1685
                     DCW   @  @                            Z   2  1683          LIT   1685
                     DCW   @ @                             Z   1  1684          LIT   1685
                     DCW   @I9I@                           Z   3  1687          LIT   1685
8860 67 26   GM50A   DCW   @}@                 GROUP MARK  Z   1  1688          GMARK 1685
8861 67 27          XFR   BEGIN                           Z        B /75               1686
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8862 67 28          JOB   SHIFT CONSTANTS,FORMATS,AND LISTS
8863 67 29   110    DCW   @SHIFT CFL@                               Z   9  0110                    1689
8864 67 30   NXBTM  EQU   83                                        Z      0083
8865 67 31          ORG   BEGINZ                                    Z           1175
8866 67 32          C     PARAMA&2,CONLST                           Z   7  1175  C 688 194          1690
8867 67 33          BE    EXIT                                      Z   5  1182  B V49 S            1690
8868 67 34          MCW   BSAUCE,X1                                 Z   7  1187  M 148 089          1690
8869 67 35          MCW   BSAUCE,X2                                 Z   7  1194  M 148 094          1690
8870 67 36          MA    MACFLS,X2                                 Z   7  1201  # 163 094          1690
8871 67 37          SBR   RSX3&6,0&X3                              Z   7  1208  H U89 0?0          1691
8872 67 38          CW    CNVRT-2                                   Z   4  1215  ) 894             1691
8873 67 39          MCW   X2,CNVRT                                  Z   7  1219  M 094 896          1691
8874 67 40          B     EXPND                                     Z   4  1226  B 969             1691
8875 67 41          MCW   HOLD,X25#5                               Z   7  1230  M 891 V94          1691
8876 67 42          MCW   X3,CNVRT                                  Z   7  1237  M 099 896          1691
8877 67 43          B     EXPND                                     Z   4  1244  B 969             1692
8878 67 44          MCW   HOLD,X35#5                               Z   7  1248  M 891 V99          1692
8879 67 45          C     X25,X35                                   Z   7  1255  C V94 V99          1692
8880 67 46          BH    ERRMS                                     Z   5  1262  B |92 U            1692
8881 67 47          MCW   BSAUCE,CNVRT                             Z   7  1267  M 148 896          1692
8882 67 48          B     EXPND                                     Z   4  1274  B 969             1692
8883 67 49          MCW   HOLD,NXBTM5#5                           Z   7  1278  M 891 W04          1693
8884 67 50          MCW   CONLST,CNVRT                              Z   7  1285  M 194 896          1693
8885 67 51          B     EXPND                                     Z   4  1292  B 969             1693
8886 67 52          MCW   HOLD,CNLST5#5                           Z   7  1296  M 891 W09          1693
8887 67 53          C     NXBTM5,CNLST5                           Z   7  1303  C W04 W09          1693
8888 67 54          BL    WRDMV                                     Z   5  1310  B T93 T            1693
8889 67 55   MAD    MA    @001@,X1                                  Z   7  1315  # W12 089          1694
8890 67 56          MA    @001@,X2                                  Z   7  1322  # W12 094          1694
8891 67 57          BW    LDWM,0&X1                                 Z   8  1329  V T82 0|0 1        1694
8892 67 58          CW    0&X2                                      Z   4  1337  ) 0!0             1694
8893 67 59          MN    0&X1,0&X2                                 Z   7  1341  D 0|0 0!0          1694
8894 67 60          MZ    0&X1,0&X2                                 Z   7  1348  Y 0|0 0!0          1695
8895 67 61   CWX1   CW    0&X1                                      Z   4  1355  ) 0|0             1695
8896 67 62          C     X1,CONLST                                 Z   7  1359  C 089 194          1695
8897 67 63          BU    MAD                                       Z   5  1366  B T15 /            1695
8898 67 64          MLC   CONLST,X3                                 Z   7  1371  M 194 099          1695
8899 67 65          B     TSTWM                                     Z   4  1378  B U00             1695
8900 67 66   LDWM   LCA   0&X1,0&X2                                 Z   7  1382  L 0|0 0!0          1696
8901 67 67          B     CWX1                                      Z   4  1389  B T55             1696
8902 67 68   WRDMV  MLC   BSAUCE,X3                                 Z   7  1393  M 148 099          1696
8903 67 69   TSTWM  BW    MANXB,1&X3        TEST FOR WORD MARKIN TEST ADR&1   Z   8  1400  V U16 0?1 1      1696
8904 67 70          CW    WMSW#1                                    Z   4  1408  ) W13            1696
8905 67 71          SW    1&X3                                      Z   4  1412  , 0?1            1696
8906 67 72   MANXB  MCW   PARAMA&2,X1                              Z   7  1416  M 688 089          1697
8907 67 73          MCW   CONLST,X2                                 Z   7  1423  M 194 094          1697
8908 67 74   LOAD   LCA   0&X1,0&X2                                 Z   7  1430  L 0|0 0!0          1697
8909 67 75          SBR   X2                                        Z   4  1437  H 094             1697
8910 67 76          SBR   X1                                        Z   4  1441  H 089             1697
8911 67 77          MA    PLUSDF,X1                                 Z   7  1445  # 160 089          1697
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8912 67 78           C     X1,X3                                    Z   7  1452  C 089 099         1698
8913 67 79           BU    LOAD                                     Z   5  1459  B U30 /           1698
8914 67 80           BW    RSX3,WMSW          BRANCH IF WM SWITCH IS ON  Z   8  1464  V U83 W13 1       1698
8915 67 81           MA    MACFLS,X3                                Z   7  1472  # 163 099         1698
8916 67 82           CW    1&X3                                     Z   4  1479  ) 0?1             1698
8917 67 83   RSX3    SBR   X3,0                                    Z   7  1483  H 099 000         1698
8918 67 84           MA    MACFLS,NXBTM                             Z   7  1490  # 163 083         1699
8919 67 85           MA    MACFLS,ADTBLL                            Z   7  1497  # 163 145         1699
8920 67 86           MA    MACFLS,BSAUCE                            Z   7  1504  # 163 148         1699
8921 67 87           MCW   PARAMA&2,X1                             Z   7  1511  M 688 089         1699
8922 67 88   CX1CN   C     X1,CONLST                                Z   7  1518  C 089 194         1699
8923 67 89           BE    EXIT                                     Z   5  1525  B V49 S           1700
8924 67 90           MCW   @ @,0&X1           MOVE BLANKS TO CLEAR STORAGE.  Z   7  1530  M W14 0|0        1700
8925 67 91           CW    0&X1                                     Z   4  1537  ) 0|0            1700
8926 67 92           SBR   X1                                       Z   4  1541  H 089             1700
8927 67 93           B     CX1CN                                    Z   4  1545  B V18            1700
8928 67 94   EXIT    FENDX C,,,XBEGIN,XBEGIN,,GM50C,REPLACE 1                                      MACRO
8929         EXIT    BSS   333,C                                   Z   5  1549  B 333 C     GEN   1700
8930                 SBR   INITAP&6,XBEGIN                          Z   7  1554  H 786 838   GEN   1700
8931                 SBR   BCLEAR                                   Z   4  1561  H 833       GEN   1701
8932                 SBR   INITXT&3,XBEGIN                          Z   7  1565  H 796 838   GEN   1701
8933                 SBR   TCLEAR,GM50C                            Z   7  1572  H 710 W24   GEN   1701
8934                 LCA   @REPLACE 1@,110                          Z   7  1579  L W23 110   GEN   1701
8935                 B     MONTER                                   Z   4  1586  B 700       GEN   1701
8936 67 95           LTORG *                                        Z        1590                     
             X25  Z  DCW   #05                                      Z   5  1594              AREA  1701
             X35  Z  DCW   #05                                      Z   5  1599              AREA  1701
             NXBTM5  DCW   #05                                      Z   5  1604              AREA  1702
             CNLST5  DCW   #05                                      Z   5  1609              AREA  1702
                     DCW   @001@                                    Z   3  1612              LIT   1702
             WMSW Z  DCW   #01                                      Z   1  1613              AREA  1702
                     DCW   @ @                                      Z   1  1614              LIT   1702
                     DCW   @REPLACE 1@                              Z   9  1623              LIT   1702
8937 67 96   GM50C   DCW   @}@                GROUP MARK            Z   1  1624              GMARK 1702
8938 67 97           XFR   BEGIN                                    Z          B /75                  1703
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
8939 67 98          JOB   1401 FORTRAN  REPLACE PHASE ONE
8940 67 99          FBEGN REPLACE 1,X1,R,X2,,X3,,V                                          MACRO
8941                SFX   V                                                               GEN
8942        110     DCW   @REPLACE 1@                          V   9  0110              GEN   1706
8943        X1      EQU   089                                  V      0089              GEN
8944        089     DCW   000                                  V   3  0089              GEN   1707
8945        091     DC    00                                   V   2  0091              GEN   1707
8946        X2      EQU   094                                  V      0094              GEN
8947        X3      EQU   099                                  V      0099              GEN
8948 68 00          ORG   XBEGIN                               V            0838
8949 68 01  INIT    MCW   X3,GARY#3                            V   7  0838  M 099 S49          1708
8950 68 02          MCW   BSAUCE,*&7                           V   7  0845  M 148 858          1708
8951 68 03          MCW   @>@,0           6-8 PUNCH           V   7  0852  M S50 000          1708
8952 68 04          MCW   PERIOD,X2                           V   7  0859  M 154 094          1708
8953 68 05          MCW   @>@,1600         6-8 PUNCH           V   7  0866  M S50 W00          1708
8954 68 06  SCNDL   BCE   DOLR,0&X2,$                         V   8  0873  B 915 0!0 $        1709
8955 68 07          CHAIN 9                                                               MACRO
8956                BCE                                      V   1  0881  B              GEN   1709
8957                BCE                                      V   1  0882  B              GEN   1709
8958                BCE                                      V   1  0883  B              GEN   1709
8959                BCE                                      V   1  0884  B              GEN   1709
8960                BCE                                      V   1  0885  B              GEN   1709
8961                BCE                                      V   1  0886  B              GEN   1709
8962                BCE                                      V   1  0887  B              GEN   1710
8963                BCE                                      V   1  0888  B              GEN   1710
8964                BCE                                      V   1  0889  B              GEN   1710
8965 68 08  RU68    BCE   SKGBG,0&X2,>      6-8 PUNCH         V   8  0890  B |15 0!0 >       1710
8966 66 09          CHAIN 9                                                               MACRO
8967                BCE                                      V   1  0898  B              GEN   1710
8968                BCE                                      V   1  0899  B              GEN   1710
8969                BCE                                      V   1  0900  B              GEN   1710
8970                BCE                                      V   1  0901  B              GEN   1711
8971                BCE                                      V   1  0902  B              GEN   1711
8972                BCE                                      V   1  0903  B              GEN   1711
8973                BCE                                      V   1  0904  B              GEN   1711
8974                BCE                                      V   1  0905  B              GEN   1711
8975                BCE                                      V   1  0906  B              GEN   1711
8976 66 10          SBR   X2                                 V   4  0907  H 094              1711
8977 68 11          B     SCNDL                              V   4  0911  B 873              1712
8978 68 12  DOLR    BCE   FND,0&X2,$                         V   8  0915  B 931 0!0 $        1712
8979 68 13          SBR   X2                                 V   4  0923  H 094              1712
8980 68 14          B     DOLR                               V   4  0927  B 915              1712
8981 68 15  FND     MN    0&X2                               V   4  0931  D 0!0              1712
8982 68 16          SAR   X2                                 V   4  0935  Q 094              1712
8983 68 17          BCE   SETSW,0&X2,$                       V   8  0939  B 966 0!0 $        1712
8984 68 18          CHAIN 15                                                              MACRO
8985                BCE                                      V   1  0947  B              GEN   1713
8986                BCE                                      V   1  0948  B              GEN   1713
8987                BCE                                      V   1  0949  B              GEN   1713
8988                BCE                                      V   1  0950  B              GEN   1713
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
8989                BCE                                            V   1  0951  B           GEN   1713
8990                BCE                                            V   1  0952  B           GEN   1713
8991                BCE                                            V   1  0953  B           GEN   1713
8992                BCE                                            V   1  0954  B           GEN   1714
8993                BCE                                            V   1  0955  B           GEN   1714
8994                BCE                                            V   1  0956  B           GEN   1714
8995                BCE                                            V   1  0957  B           GEN   1714
8996                BCE                                            V   1  0958  B           GEN   1714
8997                BCE                                            V   1  0959  B           GEN   1714
8998                BCE                                            V   1  0960  B           GEN   1714
8999                BCE                                            V   1  0961  B           GEN   1715
9000 68 19          B     SCNDL                                    V   4  0962  B 873             1715
9001 68 20  SETSW   CW    XDOSBS                                   V   4  0966  ) 116             1715
9002 68 21  DLOOP   MN    0&X2                                     V   4  0970  D 0!0             1715
9003 68 22          CHAIN 2                                                                 MACRO
9004                MN                                             V   1  0974  D           GEN   1715
9005                MN                                             V   1  0975  D           GEN   1715
9006 68 23          SAR   X2                                       V   4  0976  Q 094             1715
9007 68 24          SW    1&X2                                     V   4  0980  , 0!1             1716
9008 68 25          BCE   NDOLR,0&X2,$                             V   8  0984  B |03 0!0 $       1716
9009 68 26          MZ    *-4,2&X2                                 V   7  0992  Y 994 0!2         1716
9010 68 27          B     DLOOP                                    V   4  0999  B 970             1716
9011 68 28  NDOLR   MN    0&X2                                     V   4  1003  D 0!0             1716
9012 68 29          SAR   X2                                       V   4  1007  Q 094             1716
9013 68 30          B     SCNDL                                    V   4  1011  B 873             1716
9014 68 31  SKGBG   MCW   &TEST5,RU68&3                           V   7  1015  M S53 893         1717
9015 68 32          MCW   X3,X2                                    V   7  1022  M 099 094         1717
9016 68 33          B     SCNDL                                    V   4  1029  B 873             1717
9017 68 34  TEST5   BCE   EXIT,0&X3,          BLANK                V   8  1033  B S10 0?0         1717
9018 68 35          MCW   X3,SBR&6                                 V   7  1041  M 099 /37         1717
9019 68 36          C     0&X3       MOVE POINTER                  V   4  1048  C 0?0             1717
9020 68 37          SBR   X2                                       V   4  1052  H 094             1718
9021 68 38          SBR   X3                                       V   4  1056  H 099             1718
9022 68 39          BCE   PSKIP,1&X3,|                             V   8  1060  B /74 0?1 |       1718
9023 68 40  TEST2   BWZ   TEST5,4&X2,1                            V   8  1068  V |33 0!4 1       1718
9024 68 41          BWZ                                            V   1  1076  V               1718
9025 68 42          BWZ                                            V   1  1077  V               1718
9026 68 43          BM    REPLC,3&X2                               V   8  1078  V /42 0!3 K       1718
9027 68 44          C     4&X2,@2G7@          CHANGE ON REAS. OF OBJ ARITH V   7  1086  C 0!4 S56   1719
9028 68 45          BE    TEST5                                    V   5  1093  B |33 S           1719
9029 68 46          BWZ   ADDU,3&X2,B                              V   8  1098  V /17 0!3 B       1719
9030 68 47  RIGHT   SBR   X2,3&X2                                 V   7  1106  H 094 0!3         1719
9031 68 48          B     TEST2                                    V   4  1113  B |68             1719
9032 68 49  ADDU    MCW   4&X2,X1                                  V   7  1117  M 0!4 089         1719
9033 68 50          MZ    *-6,SBR&5                                V   7  1124  Y /24 /36         1720
9034 68 51  SBR     SBR   4&X2,0                                   V   7  1131  H 0!4 000         1720
9035 68 52          B     RIGHT                                    V   4  1138  B /06            1720
9036 68 53  REPLC   MCW   4&X2,X1                                  V   7  1142  M 0!4 089         1720
9037 68 54          MA    MACFLS,X1                                V   7  1149  # 163 089         1720
9038 68 55          MCW   0&X1,X1                                  V   7  1156  M 0|0 089         1720
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

9039 68 56          MCW   X1,4&X2                                          V   7  1163  M 089 0!4        1721
9040 68 57          B     RIGHT                                            V   4  1170  B /06           1721
9041 68 58   PSKIP  BW    SKIP,2&X3                                        V   8  1174  V /86 0?2 1     1721
9042 68 59          B     TEST5                                            V   4  1182  B |33           1721
9043 68 60   SKIP   C     0&X3                                             V   4  1186  C 0?0           1721
9044 68 61          SBR   X3                                               V   4  1190  H 099           1721
9045 68 62          C     4&X3,@B700@        CHANGE ON REORIGIN OF OBJ ARITH V   7  1194  C 0?4 S60      1721
9046 68 63          BE    TEST5                                            V   5  1201  B |33 S         1722
9047 68 64          B     SKIP                                             V   4  1206  B /86           1722
9048 68 65   EXIT   MCW   GARY,X3                                          V   7  1210  M S49 099       1722
9049 68 66          FENDX C,,,,STARTR,,SYS1,LOAD 52B&C                                                MACRO
9050                BSS   333,C                                            V   5  1217  B 333 C    GEN  1722
9051                SBR   INITXT&3,STARTR                                  V   7  1222  H 796 934  GEN  1722
9052                SBR   TCLEAR,SYS1                                      V   7  1229  H 710 S71  GEN  1722
9053                LCA   @LOAD 52B&C@,110                                 V   7  1236  L S70 110  GEN  1723
9054                B     MONTER                                           V   4  1243  B 700      GEN  1723
9055 68 67          LTORG *                                                V        1247
             GARY V DCW   #03                                              V   3  1249           AREA 1723
                  DCW   @>@                                                V   1  1250           LIT  1723
                  DCW   &TEST5V                                            V   3  1253  |33      ADCON 1723
                  DCW   @2G7@                                              V   3  1256           LIT  1723
                  DCW   @B700@                                             V   4  1260           LIT  1723
                  DCW   @LOAD 52B&C@                                       V  10  1270           LIT  1724
9056 68 68   SYS1   DCW   @}@                          SYSTEM GROUP MARK   V   1  1271           GMARK 1724
9057 68 69          XFR   INIT                                             V          B 838          1725
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

9058 68 70          JOB   LOAD PHASE 52-SECTIONS B & C
9059 68 71          SFX   R
9060 68 72   110    DCW   @LOAD 52B&C@                                      R  10  0110                    1728
9061 68 73          ORG   XBEGIN                                            R          0838
9062 68 74   XLINKS DCW   #3                                                R   3  0840                    1729
9063 68 75   YUSR12 DCW   #3                                                R   3  0843                    1729
9064 68 76   YUSR11 DCW   #3                                                R   3  0846                    1729
9065 68 77   YUSR10 DCW   #3                                                R   3  0849                    1729
9066 68 78   YUSER9 DCW   #3                                                R   3  0852                    1729
9067 68 79   YUSER8 DCW   #3                                                R   3  0855                    1729
9068 68 80   YUSER7 DCW   #3                                                R   3  0858                    1729
9069 68 81   YUSER6 DCW   #3                                                R   3  0861                    1730
9070 68 82   YUSER5 DCW   #3                                                R   3  0864                    1730
9071 68 83   YUSER4 DCW   #3                                                R   3  0867                    1730
9072 68 84   YUSER3 DCW   #3                                                R   3  0870                    1730
9073 68 85   YUSER2 DCW   #3                                                R   3  0873                    1730
9074 68 86   YUSER1 DCW   #3                                                R   3  0876                    1730
9075 68 87   SQRTFN DCW   #3                                                R   3  0879                    1730
9076 68 88   FLTFUN DCW   #3                                                R   3  0882                    1731
9077 68 89   FIXFUN DCW   #3                                                R   3  0885                    1731
9078 68 90   NEGTFN DCW   #3                                                R   3  0888                    1731
9079 68 91   ABSVAL DCW   #3                                                R   3  0891                    1731
9080 68 92   ATANFN DCW   #3                                                R   3  0894                    1731
9081 68 93   XPNETL DCW   #3                                                R   3  0897                    1731
9082 68 94   LOGFUN DCW   #3                                                R   3  0900                    1731
9083 68 95   SINFUN DCW   #3                                                R   3  0903                    1732
9084 68 96   COMFN1 DCW   #3                                                R   3  0906                    1732
9085 68 97   DOSBSC DCW   #3                                                R   3  0909                    1732
9086 68 98   OBLIST DCW   @J32@   FMTXT   CHANGE IF OBJ FORMAT REASSEMBLED   R   3  0912                    1732
9087 68 99   DOINIT DCW   #3                                                R   3  0915                    1732
9088 69 00   DOADR3 DCW   #3                                                R   3  0918                    1732
9089 69 01   DOADR2 DCW   #3                                                R   3  0921                    1732
9090 69 02   DOADR1 DCW   #3                                                R   3  0924                    1733
9091 69 03   TBLAD  DCW   DOADR1                                            R   3  0927  924               1733
9092 69 04   FIXWD  DCW   #3                                                R   3  0930                    1733
9093 69 05   FLTWD  DCW   #3                                                R   3  0933                    1733
9094 69 06   START  B     EXIT3                                             R   4  0934  B 983            1733
9095 69 07   LD52C  FENDX ,,,START,START1,,GMWM,FUNLOAD C                                                MACRO
9096        LD52C  SBR   INITAP&6,START                                    R   7  0938  H 786 934   GEN   1733
9097               SBR   BCLEAR                                            R   4  0945  H 833       GEN   1733
9098               SBR   INITXT&3,START1                                   R   7  0949  H 796 337   GEN   1734
9099               SBR   TCLEAR,GMWM                                       R   7  0956  H 710 W96   GEN   1734
9100               LCA   @FUNLOAD C@,110                                   R   7  0963  L 982 110   GEN   1734
9101               B     MONTER                                            R   4  0970  B 700       GEN   1734
9102 69 08          LTORG *                                                R          0974
                    DCW   @FUNLOAD C@                                      R   9  0982              LIT   1734
9103 69 09   EXIT3  SBR   INITAP&6,333                                     R   7  0983  H 786 333         1735
9104 69 10          SBR   BCLEAR,EXIT3                                     R   7  0990  H 833 983         1735
9105 69 11          FENDX C,,,,LD52C,,GMWM,FUNLOAD B                                                    MACRO
9106               BSS   333,C                                             R   5  0997  B 333 C     GEN   1735
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
9107            SBR   INITXT&3,LD52C                R   7  1002  H 796 938   GEN   1735
9108            SBR   TCLEAR,GMWM                   R   7  1009  H 710 W96   GEN   1735
9109            LCA   @FUNLOAD B@,110               R   7  1016  L |35 110   GEN   1736
9110            B     MONTER                        R   4  1023  B 700       GEN   1736
9111 69 12      LTORG *                             R            1027
                DCW   @FUNLOAD B@                   R   9  1035              LIT   1736
9112 69 13      ORG   1696                          R            1696
9113 69 14  GMWM DCW   @}@              GROUP MARK   R   1  1696              GMARK 1737
9114 69 15      XFR   START                         R            B 934             1738
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9115 69 16          JOB   1401 FORTRAN  FUNCTION/SUBROUTINE LOADER-B
9116 69 17          FBEGN FUNLOAD B,X1,R,X2,R,X3,,R                                              MACRO
9117                SFX   R                                                                      GEN
9118          110   DCW   @FUNLOAD B@                               R   9  0110               GEN   1741
9119          X1    EQU   089                                        R      0089               GEN
9120          089   DCW   000                                        R   3  0089               GEN   1742
9121          091   DC    00                                         R   2  0091               GEN   1742
9122          X2    EQU   094                                        R      0094               GEN
9123          094   DCW   000                                        R   3  0094               GEN   1742
9124          096   DC    00                                         R   2  0096               GEN   1742
9125          X3    EQU   099                                        R      0099               GEN
9126 69 18    NXBTM EQU   83                                         R      0083
9127 69 19          ORG   333                                        R            0333
9128 69 20          H     333                                        R   4  0333  . 333              1743
9129 69 21    START1 CS   080                                        R   4  0337  / 080              1743
9130 69 22          MCW   X3,HEX3                                    R   7  0341  M 099 W35          1743
9131 69 23          SBR   X3,1&X3                                    R   7  0348  H 099 0?1          1743
9132 69 24          SW    1,40                                       R   7  0355  , 001 040          1743
9133 69 25          SW    47,54                                      R   7  0362  , 047 054          1743
9134 69 26          SW    61,68                                      R   7  0369  , 061 068          1744
9135 69 27          SW    72                                         R   4  0376  , 072              1744
9136 69 28          MCW   MONTOR,READ                                R   7  0380  M 769 /60          1744
9137 69 29          B     GET                                        R   4  0387  B /49              1744
9138 69 30          MCW   NXBTM,X2                                   R   7  0391  M 083 094          1744
9139 69 31          MN    0&X2                                       R   4  0398  D 0!0              1744
9140 69 32          MN                                               R   1  0402  D                  1744
9141 69 33          SBR   KLOBR&6                                    R   4  0403  H |95              1745
9142 69 34          MCW   @_@                 11-7-8                 R   4  0407  M V65              1745
9143 69 35          NOP                                              R   1  0411  N                  1745
9144 69 36    LOOP2 MCW   X3,NOP4&3                                  R   7  0412  M 099 436          1745
9145 69 37          MZ    @B@,NOP4&2                                 R   7  0419  Y V66 435          1745
9146 69 38          MCW   DSA,X3                                     R   7  0426  M V60 099          1745
9147 59 39    NOP4  NOP   0                                          R   4  0433  N 000              1745
9148 59 40          SAR   X3                                         R   4  0437  Q 099              1746
9149 59 41    GET2  B     GET                                        R   4  0441  B /49              1746
9150 59 42    AGET2 C     005,@____@                  ALL 11-7-8     R   7  0445  C 005 V70          1746
9151 59 43          BU    MVAD                                       R   5  0452  B 468 /            1746
9152 69 44          MCW   X3,HXCMN#3                                 R   7  0457  M 099 V73          1746
9153 69 45          B     GET2                                       R   4  0464  B 441              1746
9154 69 46    MVAD  MCW   TBAD2,X1                                   R   7  0468  M V63 089          1746
9155 69 47    BMPT2 SBR   TBAD2,1&X1                                 R   7  0475  H V63 0|1          1747
9156 69 48    CX1   C     X1,&NDTABL                                 R   7  0482  C 089 V76          1747
9157 69 49          BE    OUT                                        R   5  0489  B T59 S            1747
9158 69 50          MCW   @H@,BMPT2                                  R   7  0494  M V77 475          1747
9159 69 51          C     TBLAD,&YUSER1                              R   7  0501  C 927 V80          1747
9160 69 52    CKUSR BE    STOTP                                      R   5  0508  B U23 S            1747
9161 69 53          MCW   TBLAD,X2                                   R   7  0513  M 927 094          1748
9162 69 54          C     0&X2                                       R   4  0520  C 0!0              1748
9163 69 55          SAR   TBLAD                                      R   4  0524  Q 927              1748
9164 69 56          BW    NODIC,0&X1                                 R   8  0528  V T35 0|0 1        1748
```

```
 SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
9165  69 57   NOPSW  MCW   @N@,SW1                                 R   7  0536  M V81 583        1748
9166  69 58   CKZN   BWZ   PURE,42,2                               R   8  0543  V /31 042 2      1748
9167  69 59          MN    46,LOAD&6                               R   7  0551  D 046 578        1749
9168  69 60          CHAIN 5                                                     MACRO
9169                 MN                                            R   1  0558  D          GEN  1749
9170                 MN                                            R   1  0559  D          GEN  1749
9171                 MN                                            R   1  0560  D          GEN  1749
9172                 MN                                            R   1  0561  D          GEN  1749
9173                 MN                                            R   1  0562  D          GEN  1749
9174  69 61          MZ    46,LOAD&6                               R   7  0563  Y 046 578        1749
9175  69 62          MN                                            R   1  0570  D               1750
9176  69 63          MZ                                            R   1  0571  Y               1750
9177  69 64   LOAD   LCA   0,0&X3                                  R   7  0572  L 000 0?0        1750
9178  69 65          SBR   X2                                      R   4  0579  H 094           1750
9179  69 66   SW1    NOP   CTU1                                    R   4  0583  N 608           1750
9180  69 67          MCW   TBLAD,X1                                R   7  0587  M 927 089       1750
9181  69 68          SBR   3&X1,1&X2                               R   7  0594  H 0|3 0!1       1750
9182  69 69          MCW   @B@,SW1                                 R   7  0601  M V66 583       1751
9183  69 70   CTU1   MZ    45,HLDZN#1                              R   7  0608  Y 045 V82       1751
9184  69 71          B     RELOC                    FIELD          R   4  0615  B S17           1751
9185  69 72          S     X1&1                                    R   4  0619  S 090           1751
9186  69 73   DOWM   C     50&X1,@040@             PROCESS SUBSEQUENT R   7  0623  C 0V0 V85       1751
9187  69 74          BE    READ2                     DATA FIELDS IF ANY R   5  0630  B |11 S         1751
9188  69 75          MCW   50&X1,SETWM&3                           R   7  0635  M 0V0 667       1752
9189  69 76          MZ    @B@,SETWM&2                             R   7  0642  Y V66 666       1752
9190  69 77          BCE   SETWM,SETWM,)                           R   8  0649  B 664 664 )     1752
9191  69 78          MCW   @,@,SETWM                               R   7  0657  M V86 664       1752
9192  69 79   SETWM  SW    0&X3                     SET WORD MARK IN R   4  0664  , 0?0           1752
9193  69 80          SAR   X2                        STORAGE        R   4  0668  Q 094           1752
9194  69 81          B     BRELC                                   R   4  0672  B 934           1753
9195  69 82          NOP   000                                     R   4  0676  N 000           1753
9196  69 83   GMK1   DCW   @}@              GROUP MARK             R   1  0680            GMARK 1753
9197  69 84          XFR   LD52CR                                  R          B 938           1754
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

9198 69 85           JOB   1401 FORTRAN  FUNCTION/SUBROUTINE LOADER-C
9199 69 86   110     DCW   @FUNLOAD C@                                R   9  0110                    1757
9200 69 87           ORG   STARTR                                     R          0934
9201 69 88   BRELC   MZ    49&X1,HLDZN                               R   7  0934  Y 0U9 V82          1758
9202 59 89           B     RELOC                       RELOCATE OPERANDS R   4  0941  B S17             1758
9203 69 90   ADDS    NOP   @4@,X1                                    R   7  0945  N V87 089          1758
9204 69 91   ADDS2   A     @3@,X1                                    R   7  0952  A V88 089          1758
9205 69 92           BCE   TYPE1,ADDS,A                              R   8  0959  B 993 945 A        1758
9206 69 93           MCW   @A@,ADDS                                 R   7  0967  M V89 945          1759
9207 69 94           MCW   @N@,ADDS2                                R   7  0974  M V81 952          1759
9208 69 95           BCE   ADDS,SETWM,)                             R   8  0981  B 945 664 )        1759
9209 69 96           B     DOWM                                      R   4  0989  B 623             1759
9210 69 97   TYPE1   MCW   @N@,ADDS                                 R   7  0993  M V81 945          1759
9211 69 98           MCW   @A@,ADDS2                                R   7  1000  M V89 952          1760
9212 69 99           B     DOWM                                      R   4  1007  B 623             1760
9213 70 00   READ2   MCW   46,LAST#3                                R   7  1011  M 046 V92          1760
9214 70 01           MCW   @N@,ADDS                                 R   7  1018  M V81 945          1760
9215 70 02           MCW   @A@,ADDS2                                R   7  1025  M V89 952          1760
9216 70 03           B     GET                                       R   4  1032  B /49             1760
9217 70 04   CKEX    BCE   END,68,B                                  R   8  1036  B |56 068 B        1761
9218 70 05           BCE   END,40,/                                  R   8  1044  B |56 040 /        1761
9219 70 06           B     CKZN                                      R   4  1052  B 543             1761
9220 70 07   END     MCW   LAST,NOP3&3                               R   7  1056  M V92 |73          1761
9221 70 08           MZ    @B@,NOP3&2                                R   7  1063  Y V66 |72          1761
9222 70 09   NOP3    NOP   0&X3                                      R   4  1070  N 0?0             1761
9223 70 10           SAR   X3                                        R   4  1074  Q 099             1762
9224 70 11           SBR   HEX3                                      R   4  1078  H W35             1762
9225 70 12           SBR   X3,1&X3                                   R   7  1082  H 099 0?1          1762
9226 70 13   KLOBR   BCE   LOOP2,0,_                    11-7-8       R   8  1089  B 412 000 _        1762
9227 70 14           CS    332                                       R   4  1097  / 332             1762
9228 70 15           CS                                              R   1  1101  /                 1762
9229 70 16           CC    1                                         R   2  1102  F 1               1762
9230 70 17           MCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270 R   7  1104  M W28 270         1763
9231 70 18           W                                               R   1  1111  2                 1763
9232 70 19           CC    1                                         R   2  1112  F 1               1763
9233 70 20           BCE   *&6,MONTOR,1                             R   8  1114  B /27 769 1        1763
9234 70 21           RWD   1                                         R   5  1122  U %U1 R            1763
9235 70 22           H     *-3                                       R   4  1127  . /27             1763
9236 70 23   PURE    SBR   71,READ2                                 R   7  1131  H 071 |11          1763
9237 70 24           MCW   @B@,68                                   R   7  1138  M V66 068          1764
9238 70 25           B     40                                        R   4  1145  B 040             1764
9239 70 26   GET     SBR   GETXT&3                                   R   4  1149  H /87             1764
9240 70 27           MCW   @ @,001                                  R   7  1153  M W29 001          1764
9241 70 28   READ    R     GETXT                                     R   4  1160  1 /84             1764
9242 70 29   MVNIN   MCW   &9,RDCNT#1                               R   7  1164  M W30 W31          1764
9243 70 30   RDTAP   RT    1,1                                       R   8  1171  M %U1 001 R        1765
9244 70 31           BER   TPERR                                     R   5  1179  B /88 L           1765
9245 70 32   GETXT   B     0                                         R   4  1184  B 000             1765
9246 70 33   TPERR   BSP   1                                         R   5  1188  U %U1 B           1765
9247 70 34           S     &1,RDCNT                                  R   7  1193  S W32 W31          1765
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9248 70 35          BWZ   RDTAP,RDCNT,B                    R   8  1200  V /71 W31 B       1765
9249 70 36          NOP   3333                              R   4  1208  N C33            1766
9250 70 37          H                                       R   1  1212  .               1766
9251 70 38          B     MVNIN                             R   4  1213  B /64           1766
9252 70 39   RELOC  SBR   RELXT&3                           R   4  1217  H T34           1766
9253 70 40          BWZ   RELXT,HLDZN,2                    R   8  1221  V T31 V82 2     1766
9254 70 41          BWZ   ISB,HLDZN,S                      R   8  1229  V S88 V82 S     1766
9255 70 42          MCW   X3,HEX3#3                       R   7  1237  M 099 W35       1766
9256 70 43          BWZ   SW2X2,4&X2,2                    R   8  1244  V S66 0!4 2     1767
9257 70 44          MCW   HXCMN,X3                        R   7  1252  M V73 099       1767
9258 70 45          MZ    *-4,4&X2                        R   7  1259  Y S61 0!4       1767
9259 70 46   SW2X2  MA    X3,4&X2                         R   7  1266  # 099 0!4       1767
9260 70 67          MCW   HEX3,X3                        R   7  1273  M W35 099       1767
9261 70 48          BWZ   RELXT,HLDZN,K                  R   8  1280  V T31 V82 K     1768
9262 70 49   ISB    MCW   X3,HEX3                        R   7  1288  M 099 W35       1768
9263 70 50          BWZ   MCWX2,7&X2,2                   R   8  1295  V T17 0!7 2     1768
9264 70 51          MCW   HXCMN,X3                       R   7  1303  M V73 099       1768
9265 70 52          MZ    *-4,7&X2                        R   7  1310  Y T12 0!7       1768
9266 70 53   MCWX2  MA    X3,7&X2                         R   7  1317  # 099 0!7       1769
9267 70 54          MCW   HEX3,X3                        R   7  1324  M W35 099       1769
9268 70 55   RELXT  B     0                               R   4  1331  B 000           1769
9269 70 56   NODIC  B     GET                             R   4  1335  B /49           1769
9270 70 57          BCE   GET2,40,/                       R   8  1339  B 441 040 /     1769
9271 70 58          BCE   GET2,68,B                       R   8  1347  B 441 068 B     1769
9272 70 59          B     NODIC                           R   4  1355  B T35           1770
9273 70 60   OUT    NOP   OUT2                            R   4  1359  N U41           1770
9274 70 61          MCW   @B@,OUT                         R   7  1363  M V66 T59       1770
9275 70 62          SBR   TBAD2,XSINFU                    R   7  1370  H V63 118       1770
9276 70 63          MCW   HEX3,X2                         R   7  1377  M W35 094       1770
9277 70 64          SBR   GOTOFN,1&X2                     R   7  1384  H 188 0!1       1770
9278 70 65          MCW   @N@,BMPT2                      R   7  1391  M V81 475       1771
9279 70 66          MCW   @N@,NOPSW                       R   7  1398  M V81 536       1771
9280 70 67          MCW   @B@,SW1                        R   7  1405  M V66 583       1771
9281 70 68          MCW   HEX3,BTM#3                     R   7  1412  M W35 W38       1771
9282 70 69          B     AGET2                           R   4  1419  B 445           1771
9283 70 70   STOTP  MCW   HEX3,TOP#3                     R   7  1423  M W35 W41       1771
9284 70 71          MCW   @N@,CKUSR                      R   7  1430  M V81 508       1772
9285 70 72          B     CKUSR&5                         R   4  1437  B 513           1772
9286 70 73   OUT2   MCW   HEX3,X3                        R   7  1441  M W35 099       1772
9287 70 74          MCW   PARAMA&2,X2                     R   7  1448  M 688 094       1772
9288 70 75          C     0&X2                            R   4  1455  C 0!0           1772
9289 70 76          SAR   X2                              R   4  1459  Q 094           1772
9290 70 77          SBR   FLTWD                          R   4  1463  H 933           1772
9291 70 78          C     0&X2                            R   4  1467  C 0!0           1773
9292 70 79          SAR   FIXWD                          R   4  1471  Q 930           1773
9293 70 80          BCE   MTPX1,XLINKS,        BLANK      R   8  1475  B V08 840       1773
9294 70 81          MCW   XLINKS,X1                       R   7  1483  M 840 089       1773
9295 70 82          MA    @013@,X1                        R   7  1490  # W44 089       1773
9296 70 83          MLC   CONLST,0&X1                     R   7  1497  M 194 0|0       1773
9297 70 84          CW    XLINKW                          R   4  1504  ) 185           1774
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

9298 70 85   MTPX1  MCW   TOP,X1                                    R   7  1508  M W41 089       1774
9299 70 86          MCW   BTM,X2                                    R   7  1515  M W38 094       1774
9300 70 87          FENDX ,,,START,START,,1696,RELOAD SS                                 MACRO
9301                SBR   INITAP&6,START                            R   7  1522  H 786 934 GEN   1774
9302                SBR   BCLEAR                                    R   4  1529  H 833     GEN   1774
9303                SBR   INITXT&3,START                            R   7  1533  H 796 934 GEN   1774
9304                SBR   TCLEAR,1696                               R   7  1540  H 710 W96 GEN   1775
9305                LCA   @RELOAD SS@,110                           R   7  1547  L W53 110 GEN   1775
9306                B     MONTER                                    R   4  1554  B 700     GEN   1775
9307 70 88   DSA    DSA   -2000                                    R   3  1560  !0?            1775
9308 70 89   TBAD2  DCW   XDOAD1                                    R   3  1563  111            1775
9309 70 90   LOGSW  DC    #1                                        R   1  1564                 1775
9310 70 91          LTORG *                                         R          1565
                    DCW   @_@                                     R   1  1565          LIT   1775
                    DCW   @B@                                     R   1  1566          LIT   1775
                    DCW   @____@                                  R   4  1570          LIT   1776
             HXCMNR DCW   #03                                     R   3  1573          AREA  1776
                    DCW   &NDTABL                                 R   3  1576  140     ADCON 1776
                    DCW   @H@                                     R   1  1577          LIT   1776
                    DCW   &YUSER1                                 R   3  1580  876     ADCON 1776
                    DCW   @N@                                     R   1  1581          LIT   1776
             HLDZNR DCW   #01                                     R   1  1582          AREA  1776
                    DCW   @040@                                   R   3  1585          LIT   1777
                    DCW   @,@                                     R   1  1586          LIT   1777
                    DCW   @4@                                     R   1  1587          LIT   1777
                    DCW   @3@                                     R   1  1588          LIT   1777
                    DCW   @A@                                     R   1  1589          LIT   1777
             LAST R DCW   #03                                     R   3  1592          AREA  1777
                    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@  R  36  1628          LIT   1778
                    DCW   @ @                                     R   1  1629          LIT   1778
                    DCW   &9                                      R   1  1630          LIT   1778
             RDCNTR DCW   #01                                     R   1  1631          AREA  1778
                    DCW   &1                                      R   1  1632          LIT   1779
             HEX3 R DCW   #03                                     R   3  1635          AREA  1779
             BTM  R DCW   #03                                     R   3  1638          AREA  1779
             TOP  R DCW   #03                                     R   3  1641          AREA  1779
                    DCW   @013@                                   R   3  1644          LIT   1779
                    DCW   @RELOAD SS@                             R   9  1653          LIT   1779
9311 70 92          DCW   @}@                    SYSTEM GROUP MARK R   1  1654          GMARK 1779
9312 70 93          XFR   START1                                    R          B 337          1780
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

9313 70 94          JOB   1401 FORTRAN  RELOCATABLE PACKAGE
9314 70 95   110    DCW   @]]]]]@        ALL 11-5-8     FIRST CARD OF PACKAGE  R   5  0110                    1783
9315 70 96   *
9316 70 97   *
9317 70 98   *         RELOCATABLE PACKAGE APPEARS HERE IN SYSTEM DECK
9318 70 99   *         MUST MANUALLY ZONE ADDRESS IN OBLST TO RELOCATE
9319 71 00   *
9320 71 01   *
9321 71 02   110    DCW   @;;;;;@        ALL 11-6-8     LAST CARD OF PACKAGE   R   5  0110                    1784
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

9322 71 03          JOB   1401 FORTRAN RELOADING SNAPSHOT
9323 71 04          SFX   #
9324 71 05   110    DCW   @RELOAD SS@                               #   9  0110                    1785
9325 71 06          ORG   STARTR                                    #            0934
9326 71 07   BEGIN  B     EXIT1                                     #   4  0934  B |00             1786
9327 71 08   RETRN  MCW   @D@,WORD                                 #   7  0938  M 990 680         1786
9328 71 09          CW    WORD                                      #   4  0945  ) 680             1786
9329 71 10          FENDX C,,,STARTR,STARTR,,GM53S,FORMATPAK                                MACRO
9330                BSS   333,C                                     #   5  0949  B 333 C     GEN   1786
9331                SBR   INITAP&6,STARTR                           #   7  0954  H 786 934   GEN   1786
9332                SBR   BCLEAR                                    #   4  0961  H 833       GEN   1786
9333                SBR   INITXT&3,STARTR                           #   7  0965  H 796 934   GEN   1786
9334                SBR   TCLEAR,GM53S                              #   7  0972  H 710 W96   GEN   1787
9335                LCA   @FORMATPAK@,110                           #   7  0979  L 999 110   GEN   1787
9336                B     MONTER                                    #   4  0986  B 700       GEN   1787
9337 71 11          LTORG *                                         #            0990
                    DCW   @D@                                       #   1  0990              LIT   1787
                    DCW   @FORMATPAK@                               #   9  0999              LIT   1787
9338 71 12   EXIT1  SBR   INITAP&6,333                              #   7  1000  H 786 333         1787
9339 71 13          SBR   BCLEAR,EXIT1                              #   7  1007  H 833 |00         1788
9340 71 14          SBR   INITXT&3,RETRN                            #   7  1014  H 796 938         1788
9341 71 15          SBR   TCLEAR,GM53S                              #   7  1021  H 710 W96         1788
9342 71 16          LCA   @SNAPSHOT53@,110                          #   7  1028  L |48 110         1788
9343 71 17          B     MONTER                                    #   4  1035  B 700             1788
9344 71 18          LTORG *                                         #            1039
                    DCW   @SNAPSHOT53@                              #  10  1048              LIT   1789
9345 71 19          ORG   1696                                      #            1696
9346 71 20   GM53S  DCW   @}@                GROUP MARK              #   1  1696              GMARK 1790
9347 71 21          XFR   BEGIN                                     #            B 934              1791
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9348 71 22          JOB   1401 FORTRAN SNAPSHOT 53S
9349 71 23   XXX    EQU   0                          #      0000
9350 71 24   XL1    EQU   089                        #      0089
9351 71 25   XL2    EQU   094                        #      0094
9352 71 26   XL3    EQU   099                        #      0099
9353 71 27          ORG   333                        #             0333
9354 71 28          SBR   PRTXT&3                    #   4  0333  H 567             1794
9355 71 29          SBR   HLDXT&6                    #   4  0337  H 408             1794
9356 71 30          MCW   @000@,LINCT-2              #   7  0341  M 661 656         1794
9357 71 31          MCW   XL3, HLD32&6              #   7  0348  M 099 415         1794
9358 71 32          MCW   XL1, HLD31&6              #   7  0355  M 089 422         1794
9359 71 33          SBR   XL1, 1                    #   7  0362  H 089 001         1794
9360 71 34          SBR   XL3, 202                  #   7  0369  H 099 202         1795
9361 71 35          CS    332                        #   4  0376  / 332             1795
9362 71 36          CS                               #   1  0380  /                 1795
9363 71 37          MCW   110,210                    #   7  0381  M 110 210         1795
9364 71 38          BSS   ONLY,F                     #   5  0388  B 621 F           1795
9365 71 39          CC    1                          #   2  0393  F 1               1795
9366 71 40          MCW   094,250                    #   7  0395  M 094 250         1795
9367 71 41   HLDXT  SBR   216,XXX                    #   7  0402  H 216 000         1796
9368 71 42   HLD32  SBR   256,XXX                    #   7  0409  H 256 000         1796
9369 71 43   HLD31  SBR   244,XXX                    #   7  0416  H 244 000         1796
9370 71 44          W                                #   1  0423  2                 1796
9371 71 45          CC    K                          #   2  0424  F K               1796
9372 71 46          ZA    &2,PGCTR#2                 #   7  0426  ? 662 664         1796
9373 71 47   NULIN  CS    332                        #   4  0433  / 332             1796
9374 71 48          CS                               #   1  0437  /                 1797
9375 71 49          CC    J                          #   2  0438  F J               1797
9376 71 50          MCW   LINCT,306                  #   7  0440  M 658 306         1797
9377 71 51          MCW                              #   1  0447  M                 1797
9378 71 52          SBR   MVHED&6                    #   4  0448  H 465             1797
9379 71 53          MCW   @9@, CTR-1                 #   7  0452  M 665 668         1797
9380 71 54   MVHED  MCW   CTR-1,XXX                  #   7  0459  M 668 000         1797
9381 71 55          MCW   HEAD                       #   4  0466  M 651             1798
9382 71 56          SBR   MVHED&6                    #   4  0470  H 465             1798
9383 71 57          A     @I0@, CTR#2                #   7  0474  A 667 669         1798
9384 71 58          BWZ   MVHED, CTR-1, 2            #   8  0481  V 459 668 2       1798
9385 71 59          A     &1,LINCT-2                 #   7  0489  A 670 656         1798
9386 71 60          W                                #   1  0496  2                 1798
9387 71 61   LOOP   SW    0&X3                       #   4  0497  , 0?0             1798
9388 71 62          MCW   0&X1,0&X3                  #   7  0501  M 0|0 0?0         1799
9389 71 63          BW    CMPAB,0&X1                 #   8  0508  V 520 0|0 1       1799
9390 71 64          CW    0&X3                       #   4  0516  ) 0?0             1799
9391 71 65   CMPAB  C     XL1,PARAMA&2               #   7  0520  C 089 688         1799
9392 71 66          BU    CPL                        #   5  0527  B 568 /           1799
9393 71 67          W                                #   1  0532  2                 1799
9394 71 68          WM                               #   2  0533  2 )               1799
9395 71 69   RSTRX  MCW   HLD31&6,XL1                #   7  0535  M 422 089         1800
9396 71 70          MCW   HLD32&6,XL3                #   7  0542  M 415 099         1800
9397 71 71          CS    332                        #   4  0549  / 332             1800
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

9398 71 71          CS                                       #   1  0553  /                  1800
9399 71 73          BSS   *&5,G                              #   5  0554  B 563 G            1800
9400 71 74          B     PRTXT                              #   4  0559  B 564              1800
9401 71 75          H                                        #   1  0563  .                  1800
9402 71 76  PRTXT   B     0                                  #   4  0564  B 000              1801
9403 71 77  CPL     SBR   XL1, 1&X1                          #   7  0568  H 089 0|1          1801
9404 71 78          BCE   INC, XL3-2, 2                      #   8  0575  B 632 097 2        1801
9405 71 79          SBR   XL3, 201                           #   7  0583  H 099 201          1801
9406 71 80          W                                        #   1  0590  2                  1801
9407 71 81          WM                                       #   2  0591  2 )                1801
9408 71 82          A     &1,PGCTR                           #   7  0593  A 670 664          1801
9409 71 83          C     PGCTR,&15                          #   7  0600  C 664 672          1802
9410 71 84          BU    NULIN                              #   5  0607  B 433 /            1802
9411 71 85          S     PGCTR                              #   4  0612  S 664              1802
9412 71 86          CCB   NULIN,1                            #   5  0616  F 433 1            1802
9413 71 87  ONLY    MCW   WORD,220                           #   7  0621  M 680 220          1802
9414 71 88          W     RSTRX                              #   4  0628  2 535              1802
9415 71 89  INC     A     &1,XL3                             #   7  0632  A 670 099          1802
9416 71 90          B     LOOP                               #   4  0639  B 497              1803
9417 71 91  HEAD    DCW   @9........@                        #   9  0651                      1803
9418 71 92          DCW   @9-@                              #   2  0653                      1803
9419 71 93  LINCT   DCW   00000                              #   5  0658                      1803
9420 71 94          LTORG *                                  #            0659
                    DCW   @000@                              #   3  0661            LIT   1803
                    DCW   &2                                 #   1  0662            LIT   1803
             PGCTR# DCW   #02                                #   2  0664            AREA  1803
                    DCW   @9@                                #   1  0665            LIT   1804
                    DCW   @I0@                               #   2  0667            LIT   1804
             CTR  # DCW   #02                                #   2  0669            AREA  1804
                    DCW   &1                                 #   1  0670            LIT   1804
                    DCW   &15                                #   2  0672            LIT   1804
9421 71 95          DCW   @EXECUTE@                          #   7  0679                  1804
9422 71 96  WORD    DCW   @}@              GROUP MARK IN 680 #   1  0680            GMARK 1804
9423 71 97          XFR   RETRN                              #            B 938           1805
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9424 71 98           JOB   1401 FORTRAN  REPLACE PHASE TWO
9425 71 99           SFX   Q
9426 72 00   NXTOP   EQU   086                                     Q       0086
9427 72 01   NXBTM   EQU   083                                     Q       0083
9428 72 02   X1      EQU   089                                     Q       0089
9429 72 03   X2      EQU   094                                     Q       0094
9430 72 04   X3      EQU   099                                     Q       0099
9431 72 05   FIXWD   EQU   FIXWDR                                  Q       0930
9432 72 06   FLTWD   EQU   FLTWDR                                  Q       0933
9433 72 07           ORG   STARTR                                  Q             0934
9434 72 08   INIT    SBR   GARY#3,1&X3                            Q   7   0934  H V13 0?1          1808
9435 72 09           SW    1&X3                                    Q   4   0941  , 0?1              1808
9436 72 10           SBR   LIMIT#3,0&X2                            Q   7   0945  H V16 0!0          1808
9437 72 11           SBR   TOP#3,0&X1                              Q   7   0952  H V19 0|0          1808
9438 72 12           MCW   PARAMA&2,X2                             Q   7   0959  M 688 094          1808
9439 72 13           C     0&X2                                    Q   4   0966  C 0!0              1808
9440 72 14           C                                             Q   1   0970  C                  1808
9441 72 15           C                                             Q   1   0971  C                  1809
9442 72 16           SBR   RON&6                                   Q   4   0972  H T93              1809
9443 72 17           MCW   NXTOP,X2                                Q   7   0976  M 086 094          1809
9444 72 18           MN    0&X2                                    Q   4   0983  D 0!0              1809
9445 72 19           SAR   TOP2#3                                  Q   4   0987  Q V22              1809
9446 72 20   TEST5   C     X3,LIMIT                                Q   7   0991  C 099 V16          1809
9447 72 21   SWTCH   BE    EXITA                                   Q   5   0998  B /57 S            1809
9448 72 22           C     0&X3                                    Q   4   1003  C 0?0              1810
9449 72 23           SBR   X2                                      Q   4   1007  H 094              1810
9450 72 24           SBR   X3                                      Q   4   1011  H 099              1810
9451 72 25           BCE   TEST2,1&X3,T                            Q   8   1015  B |95 0?1 T        1810
9452 72 26   CKFX    MCW   4&X3,BOX                               Q   7   1023  M 0?4 V25          1810
9453 72 27           BCE   FXFLT,BOX-2,;       11-6-8            Q   8   1030  B T98 V23 ;        1810
9454 72 28           BCE   FXFLT,BOX-2,_       11-7-8            Q   8   1038  B T98 V23 _        1811
9455 72 29           BCE   RON,BOX-2,]         11-5-8            Q   8   1046  B T87 V23 ]        1811
9456 72 30           MCW   BOX,4&X3                              Q   7   1054  M V25 0?4          1811
9457 72 31   CKBOP   MCW   7&X3,BOX#3                            Q   7   1061  M 0?7 V25          1811
9458 72 32           BCE   FXFLT,BOX-2,;       11-6-8            Q   8   1068  B T98 V23 ;        1811
9459 72 33           BCE   FXFLT,BOX-2,_       11-7-8            Q   8   1076  B T98 V23 _        1812
9460 72 34           MCW   BOX,7&X3                              Q   7   1084  M V25 0?7          1812
9461 72 35           B     TEST5                                   Q   4   1091  B 991              1812
9462 72 36   TEST2   BCE   TEST5,4&X3,$                          Q   8   1095  B 991 0?4 $        1812
9463 72 37           C     0&X3,@B700@                             Q   7   1103  C 0?0 V29          1812
9464 72 38           BE    TEST5                                   Q   5   1110  B 991 S            1812
9465 72 39           BWZ   CKFX,4&X2,1                           Q   8   1115  V |23 0!4 1        1813
9466 72 40           BWZ                                           Q   1   1123  V                  1813
9467 72 41           BWZ                                           Q   1   1124  V                  1813
9468 72 42           MCW   @B@,1&X3                              Q   7   1125  M V30 0?1          1813
9469 72 43           MCW   4&X2,X1                               Q   7   1132  M 0!4 089          1813
9470 72 44           MCW   0&X1,X1                               Q   7   1139  M 0|0 089          1813
9471 72 45           MCW   X1,4&X2                               Q   7   1146  M 089 0!4          1813
9472 72 46           B     CKFX                                    Q   4   1153  B |23              1814
9473 72 47   EXITA   MCW   &EXIT,SWTCH&3                         Q   7   1157  M V33 |01          1814
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
9474 72 48           MCW   TOP,X3                                                 Q   7  1164  M V19 099         1814
9475 72 49           MCW   @W96@,LIMIT   FORM-1 CHG ON REASSM OF OBJ FORMAT      Q   7  1171  M V36 V16         1814
9476 72 50           B     TEST5                                                  Q   4  1178  B 991             1814
9477 72 51    EXIT   MCW   GARY,X3                                                Q   7  1182  M V13 099         1814
9478 72 52           SBR   X3,1&X3                                                Q   7  1189  H 099 0?1         1815
9479 72 53           MZ    X3,ALL9                                                Q   7  1196  Y 099 V07         1815
9480 72 54           MZ                                                           Q   1  1203  Y                 1815
9481 72 55           MCW                                                          Q   1  1204  M                 1815
9482 72 56           MZ    NXBTM,ALL91                                            Q   7  1205  Y 083 V10         1815
9483 72 57           MZ                                                           Q   1  1212  Y                 1815
9484 72 58           MCW                                                          Q   1  1213  M                 1815
9485 72 59           C     ALL9,ALL91                                             Q   7  1214  C V07 V10         1816
9486 72 60           BE    SPCL                                                   Q   5  1221  B S84 S           1816
9487 72 61           MCW   NXBTM,X3                                               Q   7  1226  M 083 099         1816
9488 72 62    CLEER  CS    0&X3                                                   Q   4  1233  / 0?0             1816
9489 72 63           SBR   X3                                                     Q   4  1237  H 099             1816
9490 72 64           C     X3,ALL9                                                Q   7  1241  C 099 V07         1816
9491 72 65           BU    CLEER                                                  Q   5  1248  B S33 /           1816
9492 72 66    SNGL   C     X3,GARY                                                Q   7  1253  C 099 V13         1817
9493 72 67           BE    EOJ                                                    Q   5  1260  B S95 S           1817
9494 72 68           LCA   BLNK#1,0&X3                                           Q   7  1265  L V37 0?0         1817
9495 72 69           SBR   X3                                                     Q   4  1272  H 099             1817
9496 72 70           CW    1&X3                                                   Q   4  1276  ) 0?1             1817
9497 72 71           B     SNGL                                                   Q   4  1280  B S53             1817
9498 72 72    SPCL   MCW   NXBTM,X3                                               Q   7  1284  M 083 099         1817
9499 72 73           B     SNGL                                                   Q   4  1291  B S53             1818
9500 72 74    EOJ    MCW   NXBTM,X3                                               Q   7  1295  M 083 099         1818
9501 72 75           MCW   @|@,0&X3                                              Q   7  1302  M V38 0?0         1818
9502 72 76           SBR   X3                                                     Q   4  1309  H 099             1818
9503 72 77           MCW   @]@,0&X3                          11-5-8               Q   7  1313  M V39 0?0         1818
9504 72 78           MCW   0&X3                                                   Q   4  1320  M 0?0             1818
9505 72 79           SBR   X3                                                     Q   4  1324  H 099             1818
9506 72 80           LCA   BLNK,2&X3                                             Q   7  1328  L V37 0?2         1819
9507 72 81           LCA   BLNK                                                   Q   4  1335  L V37             1819
9508 72 82           MCW   DOSBSC,SUBSCR                                         Q   7  1339  M 909 191         1819
9509 72 83           FENDX C,,,XBEGIN,XBEGIN,XBEGIN,SYS2,SNAPSHOT                                      MACRO
9510                 BSS   333,C                                                 Q   5  1346  B 333 C     GEN   1819
9511                 SBR   INITAP&6,XBEGIN                                        Q   7  1351  H 786 838   GEN   1819
9512                 SBR   BCLEAR                                               Q   4  1358  H 833       GEN   1819
9513                 SBR   INITXT&3,XBEGIN                                       Q   7  1362  H 796 838   GEN   1820
9514                 SBR   TCLEAR,SYS2                                          Q   7  1369  H 710 V49   GEN   1820
9515                 LCA   @SNAPSHOT@,110                                       Q   7  1376  L V47 110   GEN   1820
9516                 B     MONTER                                               Q   4  1383  B 700       GEN   1820
9517 72 84    RON    SBR   4&X3,0                                               Q   7  1387  H 0?4 000         1820
9518 72 85           B     CKBOP                                                  Q   4  1394  B |61             1820
9519 72 86    FXFLT  SBR   FXT&3                                                 Q   4  1398  H U85             1821
9520 72 87           MCW   FIXWD,BOX2                                           Q   7  1402  M 930 094         1821
9521 72 88           BCE   *&8,BOX-2,_        11-7-8                            Q   8  1409  B U24 V23 _       1821
9522 72 89           MCW   FLTWD,BOX2                                           Q   7  1417  M 933 094         1821
9523 72 90           BCE   EOFX,BOX,0                                           Q   8  1424  B U75 V25 0       1821
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9524 72 91           BWZ   POSTV,BOX,B                       Q   8  1432  V U86 V25 B       1822
9525 72 92   BOX2    EQU   X2                                Q      0094                     1822
9526 72 93           SW    BOX-1                             Q   4  1440  , V24            1822
9527 72 94   LOOP    A     &1,BOX                            Q   7  1444  A V48 V25        1822
9528 72 95           BWZ   DUN2,BOX,B                       Q   8  1451  V U71 V25 B      1822
9529 72 96           MN    0&X2                              Q   4  1459  D 0!0            1822
9530 72 97           SAR   X2                                Q   4  1463  Q 094            1822
9531 72 98           B     LOOP                              Q   4  1467  B U44            1822
9532 72 99   DUN2    CW    BOX-1                             Q   4  1471  ) V24            1823
9533 73 00   EOFX    MCW   BOX2,BOX                         Q   7  1475  M 094 V25        1823
9534 73 01   FXT     B     0                                 Q   4  1482  B 000            1823
9535 73 02   POSTV   MN    BOX,SBR&6                         Q   7  1486  D V25 V00        1823
9536 73 03           MN                                      Q   1  1493  D                1823
9537 73 04   SBR     SBR   BOX,0&X2                         Q   7  1494  H V25 0!0        1823
9538 73 05           B     FXT                               Q   4  1501  B U82            1823
9539 73 06   ALL9    DCW   999                               Q   3  1507                   1824
9540 73 07   ALL91   DCW   999                               Q   3  1510                   1824
9541 73 08           LTORG *                                 Q          1511
             GARY Q  DCW   #03                               Q   3  1513          AREA     1824
             LIMITQ  DCW   #03                               Q   3  1516          AREA     1824
             TOP  Q  DCW   #03                               Q   3  1519          AREA     1824
             TOP2 Q  DCW   #03                               Q   3  1522          AREA     1824
             BOX  Q  DCW   #03                               Q   3  1525          AREA     1824
                     DCW   @B700@                            Q   4  1529          LIT      1825
                     DCW   @B@                               Q   1  1530          LIT      1825
                     DCW   &EXIT Q                           Q   3  1533  /82      ADCON    1825
                     DCW   @W96@                             Q   3  1536          LIT      1825
             BLNK Q  DCW   #01                               Q   1  1537          AREA     1825
                     DCW   @|@                               Q   1  1538          LIT      1825
                     DCW   @]@                               Q   1  1539          LIT      1825
                     DCW   @SNAPSHOT@                        Q   8  1547          LIT      1826
                     DCW   &1                                Q   1  1548          LIT      1826
9542 73 09   SYS2    DCW   @}@                SYSTEM GROUP MARK Q  1  1549          GMARK    1826
9543 73 10           XFR   INIT                              Q          B 934            1827
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
9544 73 11          JOB   1401 FORTRAN  SNAPSHOT PHASE
9545 73 12          FBEGN SNAPSHOT,X1,R,,,X3,R,8,XXX                                      MACRO
9546                SFX   8                                                             GEN
9547          XXX   EQU   0                                                   8     0000 GEN
9548          110   DCW   @SNAPSHOT@                                        8   8 0110 GEN   1830
9549          X1    EQU   089                                               8     0089 GEN
9550          089   DCW   000                                               8   3 0089 GEN   1831
9551          091   DC    00                                                8   2 0091 GEN   1831
9552          X3    EQU   099                                               8     0099 GEN
9553          099   DCW   000                                               8   3 0099 GEN   1832
9554          100   DC    0                                                 8   1 0100 GEN   1832
9555 73 13          ORG   XBEGIN                                            8       0838
9556 73 14    START BCE   *&5,PARAMA&8,S                                    8   8 0838 B 850 694 S   1833
9557 73 15          B     RSTRX                                             8   4 0846 B /28         1833
9558 73 16          BW    NOGUD,FAILSW                                      8   8 0850 V /58 184 1   1833
9559 73 17          SBR   X1,4200                                          8   7 0858 H 089 20|     1833
9560 73 18          SBR   X3,201                                           8   7 0865 H 099 201     1833
9561 73 19          BCE   NOIO,PARAMA&10,X                                  8   8 0872 B 900 696 X   1834
9562 73 20          BCE   LIO,PARAMA&10,L                                   8   8 0880 B 925 696 L   1834
9563 73 21          BCE   AFORM,PARAMA&10,A                                 8   8 0888 B 950 696 A   1834
9564 73 22          B     PRINT                                             8   4 0896 B 971         1834
9565 73 23    NOIO  SBR   X1,1600                                           8   7 0900 H 089 W00     1834
9566 73 24          MCW   @01600@,LINCT                                    8   7 0907 M T26 T21     1835
9567 73 25          MCW   @1696@,BIGMS                                     8   7 0914 M T30 T00     1835
9568 73 26          B     PRINT                                             8   4 0921 B 971         1835
9569 73 27    LIO   SBR   X1,2000                                          8   7 0925 H 089 !00     1835
9570 73 28          MCW   @02000@,LINCT                                    8   7 0932 M T35 T21     1835
9571 73 29          MCW   @2015@,BIGMS                                     8   7 0939 M T39 T00     1835
9572 73 30          B     PRINT                                             8   4 0946 B 971         1836
9573 73 31    AFORM SBR   X1,4600                                           8   7 0950 H 089 60|     1836
9574 73 32          MCW   @04600@,LINCT                                    8   7 0957 M T44 T21     1836
9575 73 33          MCW   @4616@,BIGMS                                     8   7 0964 M T48 T00     1836
9576 73 34    PRINT MESSG @SNAPSHOT OF OBJECT PROGRAM@,60,1,J                                    MACRO
9577          PRINT CC    1                                                 8   2 0971 F 1           GEN   1836
9578                CS    332                                               8   4 0973 / 332         GEN   1836
9579                CS                                                      8   1 0977 /             GEN   1836
9580                MCW   @SNAPSHOT OF OBJECT PROGRAM@,60&200               8   7 0978 M T74 260     GEN   1837
9581                W                                                       8   1 0985 2             GEN   1837
9582                CC    J                                                 8   2 0986 F J           GEN   1837
9583 73 35          MESSG @INPUT/OUTPUT AREAS LOCATED FROM 001-332@,39,,J                              MACRO
9584                CS    332                                               8   4 0988 / 332         GEN   1837
9585                CS                                                      8   1 0992 /             GEN   1837
9586                MCW   @INPUT/OUTPUT AREAS LOCATED FROM 001-332@,39&200   8   7 0993 M U13 239     GEN   1837
9587                W                                                       8   1 1000 2             GEN   1837
9588                CC    J                                                 8   2 1001 F J           GEN   1838
9589 73 36          MESSG BIGMS,48,,K                                                                  MACRO
9590                CS    332                                               8   4 1003 / 332         GEN   1838
9591                CS                                                      8   1 1007 /             GEN   1838
9592                MCW   BIGMS,48&200                                      8   7 1008 M T00 248     GEN   1838
9593                W                                                       8   1 1015 2             GEN   1838
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9594                CC    K                                                  8  2  1016  F K         GEN   1838
9595 73 37          ZA    &3,PGCTR                                           8  7  1018  ? U14 U67         1838
9596 73 38  NULIN   CS    332                                                8  4  1025  / 332             1839
9597 73 39          CS                                                       8  1  1029  /                 1839
9598 73 40          CC    J                                                  8  2  1030  F J               1839
9599 73 41          MCW   LINCT,311                                          8  7  1032  M T21 311         1839
9600 73 42          MCW                                                      8  1  1039  M                 1839
9601 73 43          MCW                                                      8  1  1040  M                 1839
9602 73 44          SBR   MVHED&6                                            8  4  1041  H |58             1839
9603 73 45          MCW   @9@,CTR-1                                         8  7  1045  M U15 U18         1840
9604 73 46  MVHED   MCW   CTR-1,XXX                                         8  7  1052  M U18 000         1840
9605 73 47          MCW   HEAD                                               8  4  1059  M T09             1840
9606 73 48          SBR   MVHED&6                                            8  4  1063  H |58             1840
9607 73 49          A     @I0@,CTR#2                                         8  7  1067  A U17 U19         1840
9608 73 50          BWZ   MVHED,CTR-1,2                                      8  8  1074  V |52 U18 2       1840
9609 73 51          A     &1,LINCT-2                                         8  7  1082  A U20 T19         1841
9610 73 52          W                                                        8  1  1089  2                 1841
9611 73 53  LOOP    SW    0&X3                                               8  4  1090  , 0?0             1841
9612 73 54          MCW   0&X1,0&X3                                         8  7  1094  M 0|0 0?0         1841
9613 73 55          BW    CMPAB,0&X1                                         8  8  1101  V /13 0|0 1       1841
9614 73 56          CW    0&X3                                               8  4  1109  ) 0?0             1841
9615 73 57  CMPAB   C     X1,PARAMA&2                                        8  7  1113  C 089 688         1841
9616 73 58          BU    CPL                                                8  5  1120  B /88 /           1842
9617 73 59          W                                                        8  1  1125  2                 1842
9618 73 60          WM                                                       8  2  1126  2 )               1842
9619 73 61  RSTRX   FENDX C,,,,BEGIN/,,SYSG,CONDECK1                                                 MACRO
9620        RSTRX   BSS   333,C                                              8  5  1128  B 333 C     GEN   1842
9621                SBR   INITXT&3,BEGIN/                                    8  7  1133  H 796 884   GEN   1842
9622                SBR   TCLEAR,SYSG                                        8  7  1140  H 710 U70   GEN   1842
9623                LCA   @CONDECK1@,110                                     8  7  1147  L U28 110   GEN   1842
9624                B     MONTER                                             8  4  1154  B 700       GEN   1843
9625 73 62  NOGUD  MESSG @SNAPSHOT DEFERRED DUE TO INPUT ERRORS@,37,J                                 MACRO
9626        NOGUD   CC    J                                                  8  2  1158  F J         GEN   1843
9627                CS    332                                                8  4  1160  / 332       GEN   1843
9628                CS                                                       8  1  1164  /           GEN   1843
9629                MCW   @SNAPSHOT DEFERRED DUE TO INPUT ERRORS@,37&200     8  7  1165  M U65 237   GEN   1843
9630                W                                                        8  1  1172  2           GEN   1843
9631 73 63          FORMS                                                                            MACRO
9632                BCV   *&5                                                8  5  1173  B /82 @     GEN   1843
9633                B     *&3                                                8  4  1178  B /84       GEN   1844
9634                CC    1                                                  8  2  1182  F 1         GEN   1844
9635 73 64          B     RSTRX                                              8  4  1184  B /28             1844
9636 73 65  CPL     SBR   X1,1&X1                                            8  7  1188  H 089 0|1         1844
9637 73 66          BCE   INC,X3-2,2                                         8  8  1195  B S42 097 2       1844
9638 73 67          SBR   X3,201                                            8  7  1203  H 099 201         1844
9639 73 68          W                                                        8  1  1210  2                 1844
9640 73 69          WM                                                       8  2  1211  2 )               1845
9641 73 70          A     &1,PGCTR#2                                         8  7  1213  A U20 U67         1845
9642 73 71          C     PGCTR,&15                                          8  7  1220  C U67 U69         1845
9643 73 72          BU    NULIN                                              8  5  1227  B |25 /           1845
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9644 73 73           S     PGCTR                                              8   4  1232  S U67             1845
9645 73 74           CC    1                                                  8   2  1236  F 1               1845
9646 73 75           B     NULIN                                              8   4  1238  B |25             1845
9647 73 76   INC     A     &1,X3                                              8   7  1242  A U20 099         1846
9648 73 77           B     LOOP                                               8   4  1249  B |90             1846
9649 73 78   BIGMS   DCW   @FIXED OBJECT TIME ROUTINES LOCATED FROM 333-4279@ 8  48  1300                    1848
9650 73 79   HEAD    DCW   @9........@                                        8   9  1309                    1848
9651 73 80           DCW   @9@                                                8   1  1310                    1848
9652 73 81           DCW   @-AREA-@                                           8   6  1316                    1848
9653 73 82   LINCT   DCW   04200                                              8   5  1321                    1848
9654 73 83           LTORG *                                                  8          1322
                     DCW   @01600@                                            8   5  1326            LIT   1849
                     DCW   @1696@                                             8   4  1330            LIT   1849
                     DCW   @02000@                                            8   5  1335            LIT   1849
                     DCW   @2015@                                             8   4  1339            LIT   1849
                     DCW   @04600@                                            8   5  1344            LIT   1849
                     DCW   @4616@                                             8   4  1348            LIT   1849
                     DCW   @SNAPSHOT OF OBJECT PROGRAM@                       8  26  1374            LIT   1850
                     DCW   @INPUT/OUTPUT AREAS LOCATED FROM 001-332@          8  39  1413            LIT   1851
                     DCW   &3                                                 8   1  1414            LIT   1852
                     DCW   @9@                                                8   1  1415            LIT   1852
                     DCW   @I0@                                               8   2  1417            LIT   1852
             CTR  8  DCW   #02                                                8   2  1419            AREA  1852
                     DCW   &1                                                 8   1  1420            LIT   1852
                     DCW   @CONDECK1@                                         8   8  1428            LIT   1852
                     DCW   @SNAPSHOT DEFERRED DUE TO INPUT ERRORS@            8  37  1465            LIT   1853
             PGCTR8  DCW   #02                                                8   2  1467            AREA  1853
                     DCW   &15                                                8   2  1469            LIT   1854
9655 73 84   SYSG    DCW   @}@                          SYSTEM GROUP MARK     8   1  1470            GMARK 1854
9656 73 85           XFR   START                                              8          B 838             1855
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9657 73 86          JOB   1401 FORTRAN  CONDENSED DECK PHASE ONE
9658 73 87          FBEGN CONDECK1,,,,,,,/                                                          MACRO
9659                SFX   /                                                                       GEN
9660        110     DCW   @CONDECK1@                                       /   8  0110            GEN   1858
9661 73 88  LAST    EQU   CONLST                                           /      0194
9662 73 89          ORG   XBEGIN                                           /           0838
9663 73 90  PCHCD   SBR   PXT&3                                           /   4  0838  H 858            1859
9664 73 91          A     &1,175                                           /   7  0842  A 883 175        1859
9665 73 92          BSS   MCW18,B                                         /   5  0849  B 859 B          1859
9666 73 93          P                                                      /   1  0854  4                1859
9667 73 94  PXT     B     0                                                /   4  0855  B 000            1859
9668 73 95  MCW18   MCW   180,280                                         /   7  0859  M 180 280        1859
9669 73 96          MCW                                                    /   1  0866  M                1859
9670 73 97          WP                                                     /   1  0867  6                1860
9671 73 98          FORMS                                                                         MACRO
9672                BCV   *&5                                              /   5  0868  B 877 @          GEN   1860
9673                B     *&3                                              /   4  0873  B 879            GEN   1860
9674                CC    1                                                /   2  0877  F 1              GEN   1860
9675 73 99          B     PXT                                              /   4  0879  B 855            1860
9676 74 00          LTORG *                                                /           0883
                    DCW   &1                                               /   1  0883                  LIT   1860
9677 74 01  BEGIN   BCE   GOTTA,PARAMA&7,P                                 /   8  0884  B 896 693 P      1860
9678 74 02          B     FENDX                                            /   4  0892  B 956            1861
9679 74 03  GOTTA   BW    FENDX,FAILSW                                     /   8  0896  V 956 184 1      1861
9680 74 04          LCA   CONLST,LAST                                      /   7  0904  L 194 194        1861
9681 74 05          CS    180                                              /   4  0911  / 180            1861
9682 74 06          SW    101                                              /   4  0915  , 101            1861
9683 74 07          MCW   PARAMA-1,180                                     /   7  0919  M 685 180        1861
9684 74 08          BSS   MESSG,B                                          /   5  0926  B 935 B          1861
9685 74 09          B     CDDMP                                            /   4  0931  B 997            1862
9686 74 10  MESSG   MESSG @CONDENSED DECK@,60,1,J                                                  MACRO
9687        MESSG   CC    1                                                /   2  0935  F 1              GEN   1862
9688                CS    332                                              /   4  0937  / 332            GEN   1862
9689                CS                                                     /   1  0941  /                GEN   1862
9690                MCW   @CONDENSED DECK@,60&200                          /   7  0942  M U04 260       GEN   1862
9691                W                                                      /   1  0949  2                GEN   1862
9692                CC    J                                                /   2  0950  F J              GEN   1862
9693 74 11          B     CDDMP                                            /   4  0952  B 997            1863
9694 74 12  FENDX   FENDX C,,,BEGIN,BEGIN,BEGIN,SYS1,CONDECK2                                       MACRO
9695        FENDX   BSS   333,C                                            /   5  0956  B 333 C          GEN   1863
9696                SBR   INITAP&6,BEGIN                                   /   7  0961  H 786 884       GEN   1863
9697                SBR   BCLEAR                                           /   4  0968  H 833            GEN   1863
9698                SBR   INITXT&3,BEGIN                                   /   7  0972  H 796 884       GEN   1863
9699                SBR   TCLEAR,SYS1                                      /   7  0979  H 710 U17       GEN   1863
9700                LCA   @CONDECK2@,110                                   /   7  0986  L U12 110       GEN   1864
9701                B     MONTER                                           /   4  0993  B 700            GEN   1864
9702 74 13  CDDMP   LCA   @0000@,175                                       /   7  0997  L U16 175        1864
9703 74 14          BWZ   LITCS,PARAMA&2,2                                 /   8  1004  V |45 688 2      1864
9704 74 15          MCW   CS1A,152                                         /   7  1012  M T19 152        1864
9705 74 16          B     PCHCD                                            /   4  1019  B 838            1864
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
9706 74 17           MCW   PARAMA&2,CS2XA                                          /   7  1023  M 688 T48         1865
9707 74 18           MCW   CS2A,171                                                /   7  1030  M T90 171         1865
9708 74 19           B     PCHCD                                                   /   4  1037  B 838             1865
9709 74 20           B     DOBC1                                                   /   4  1041  B |74             1865
9710 74 21   LITCS    MCW   CS1,144                                                /   7  1045  M /40 144         1865
9711 74 22           B     PCHCD                                                   /   4  1052  B 838             1865
9712 74 23           MCW   PARAMA&2,CS2X                                           /   7  1056  M 688 /69         1866
9713 74 24           MCW   CS2, 170                                                /   7  1063  M S10 170         1866
9714 74 25           B     PCHCD                                                   /   4  1070  B 838             1866
9715 74 26   DOBC1   MCW   BC1,171                                                 /   7  1074  M S21 171         1866
9716 74 27           CS                                                            /   1  1081  /                 1866
9717 74 28           LCA   BC2,146                                                 /   7  1082  L S67 146         1866
9718 74 29           B     PCHCD                                                   /   4  1089  B 838             1866
9719 74 30           B     FENDX                                                   /   4  1093  B 956             1867
9720 74 31   CS1     DCW   @,008015,019026,030,034041,045,053,0570571026@          /  44  1140                     1869
9721 74 32   CS2X    DCW   @L068112,102106,113/101099/I99@                         /  29  1169                     1869
9722 74 33   CS2     DC    @,027A070028)027B0010270B0261,001/001113I0@             /  41  1210                     1871
9723 74 34   BC1     DCW   @,00100110400@                                         /  11  1221                     1871
9724 74 35   BC2     DCW   @,008015,022029,036040,047054,061068,072/061039@       /  46  1267                     1873
9725 74 36           DCW   @,008015,022026,030037,044,049,053053@                 /  36  1303                     1874
9726 74 37   CS1A    DC    @N000000N00001026@                                     /  16  1319                     1875
9727 74 38   CS2XA   DCW   @L068116,105106,110117B101/I9I@                        /  29  1348                     1876
9728 74 39   CS2A    DC    @#071029C029056B026/B001/0991,001/001117I0?@            /  42  1390                     1878
9729 74 40           LTORG *                                                       /          1391
                     DCW   @CONDENSED DECK@                                      /  14  1404          LIT        1878
                     DCW   @CONDECK2@                                            /   8  1412          LIT        1878
                     DCW   @0000@                                                /   4  1416          LIT        1878
9730 74 41   SYS1    DCW   @}@                          SYSTEM GROUP MARK        /   1  1417          GMARK      1878
9731 74 42           XFR   BEGIN                                                 /          B 884                1879
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9732 74 43          JOB   1401 FORTRAN  CONDENSED DECK PHASE TWO
9733 74 44          FBEGN CONDECK2,,,,,,,2                                                 MACRO
9734                SFX   2                                                                GEN
9735        110     DCW   @CONDECK2@                                  2   8  0110        GEN   1882
9736 74 45          ORG   BEGIN/                                     2            0884
9737 74 46  START   MCW   MONTOR,READ                                 2   7  0884  M 769 |74         1883
9738 74 47          BW    PCHTS,XLINKW        BRANCH IF XLINKF SWITCH OFF  2   8  0891  V 984 185 1       1883
9739 74 48          MCW   MONTOR,SKPSS        SKIP SNAPSHOT            2   7  0899  M 769 920         1883
9740 74 49          SBR   TPERR&15,RDTPS                               2   7  0906  H /17 931         1883
9741 74 50          SBR   CK4B-1,MVNSS                                 2   7  0913  H /30 924         1883
9742 74 51  SKPSS   R     ENDSS                                        2   4  0920  1 944             1884
9743 74 52  MVNSS   MCW   &9,RDCNT                                    2   7  0924  M V36 V85         1884
9744 74 53  RDTPS   RT    1,1                                          2   8  0931  M %U1 001 R       1884
9745 74 54          BER   TPERR                                       2   5  0939  B /02 L           1884
9746 74 55  ENDSS   BCE   *&5,68,B                                    2   8  0944  B 956 068 B       1884
9747 74 56          B     SKPSS                                        2   4  0952  B 920             1884
9748 74 57          SBR   GETXT&3,CK4B        11-5-8 CARD ALREADY READ 2   7  0956  H /01 /31         1885
9749 74 58          SBR   TPERR&15,RDTAP      RESTORE TPERR OPERANDS   2   7  0963  H /17 |85         1885
9750 74 59          SBR   CK4B-1,MVNIN                                 2   7  0970  H /30 |78         1885
9751 74 60          A     &1,NBRSW                                     2   7  0977  A V37 V86         1885
9752 74 61  PCHTS   BCE   *&5,PARAMA&7,P                              2   8  0984  B 996 693 P       1885
9753 74 62          B     READ                                         2   4  0992  B |74             1886
9754 74 63          BW    NOPUN,FAILSW                                 2   8  0996  V /66 184 1       1886
9755 74 64          MCW   @1040@,171                                  2   7  1004  M V41 171         1886
9756 74 65          MCW   @L014100,092097,081082,083084@             2   4  1011  M V69             1886
9757 74 66          CS                                                 2   1  1015  /                 1886
9758 74 67          LCA   @000000000000000@, 114                      2   7  1016  L V83 114         1886
9759 74 68          MCW   @B@,RETRN                                   2   7  1023  M V84 |70         1886
9760 74 69          NOP   PCHCD                                        2   4  1030  N 838             1887
9761 74 70          MCW   @1040@,171                                  2   7  1034  M V41 171         1887
9762 74 71          MCW   LDFMT-1                                      2   4  1041  M V34             1887
9763 74 72          CS                                                 2   1  1045  /                 1887
9764 74 73          MCW   MASK,157                                     2   7  1046  M U63 157         1887
9765 74 74          SW    SYSC2                                        2   4  1053  , W12             1887
9766 74 75          MCW   SYSC2,108                                    2   7  1057  M W12 108         1887
9767 75 76          MCW   PARAMA&6                                     2   4  1064  M 692             1888
9768 75 77          MCW                                                2   1  1068  M                 1888
9769 75 78          LCA                                                2   1  1069  L                 1888
9770 74 79  RETRN   NOP   PCHCD                                        2   4  1070  N 838             1888
9771 74 80  READ    R     GETXT                                        2   4  1074  1 |98             1888
9772 74 81  MVNIN   MCW   &9,RDCNT#1                                  2   7  1078  M V36 V85         1888
9773 74 82  RDTAP   RT    1,1                                          2   8  1085  M %U1 001 R       1888
9774 74 83          BER   TPERR                                       2   5  1093  B /02 L           1889
9775 74 84  GETXT   B     ONCE                                         2   4  1098  B /55             1889
9776 74 85  TPERR   BSP   1                                          2   5  1102  U %U1 B           1889
9777 74 86          S     &1,RDCNT                                     2   7  1107  S V37 V85         1889
9778 74 87          BWZ   RDTAP,RDCNT,B                              2   8  1114  V |85 V85 B       1889
9779 74 88          NOP   3333                                       2   4  1122  N C33             1889
9780 74 89          H                                                2   1  1126  .                 1889
9781 74 90          B     MVNIN                                        2   4  1127  B |78             1890
```

```
 SEQ  PG  LIN  LABEL  OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9782  74  91   CK4B   BCE    FENDX,68,B                                 2   8  1131  B /85 068 B       1890
9783  74  92          MCW    71,171                                     2   7  1139  M 071 171         1890
9784  74  93          CHAIN  5                                                                MACRO
9785                  MCW                                               2   1  1146  M           GEN   1890
9786                  MCW                                               2   1  1147  M           GEN   1890
9787                  MCW                                               2   1  1148  M           GEN   1890
9788                  MCW                                               2   1  1149  M           GEN   1890
9789                  MCW                                               2   1  1150  M           GEN   1891
9790  74  94          B      RETRN                                      2   4  1151  B |70           1891
9791  74  95   ONCE   SBR    GETXT&3,CK4B                               2   7  1155  H /01 /31       1891
9792  74  96          B      READ                                       2   4  1162  B |74           1891
9793  74  97   NOPUN  MESSG  MESSG,43,,J                                                    MACRO
9794          NOPUN  CS     332                                        2   4  1166  / 332       GEN   1891
9795                 CS                                                2   1  1170  /           GEN   1891
9796                 MCW    MESSG,43&200                               2   7  1171  M V06 243   GEN   1891
9797                 W                                                 2   1  1178  2           GEN   1892
9798                 CC     J                                          2   2  1179  F J         GEN   1892
9799  74  98          B      READ                                       2   4  1181  B |74           1892
9800  74  99   FENDX  A      &1,NBRSW#1                                 2   7  1185  A V37 V86       1892
9801  75  00          BCE    EXIT,NBRSW,3                               2   8  1192  B S95 V86 3     1892
9802  75  01          BCE    READ,NBRSW,2                               2   8  1200  B |74 V86 2     1892
9803  75  02          BW     *&5,XLINKW          BRANCH IF XLINKF SWITCH OFF  2   8  1208  V S20 185 1     1892
9804  75  03          B      READ                                       2   4  1216  B |74           1893
9805  75  04          MCW    MONTOR,SKPXL        SKIP XLINK             2   7  1220  M 769 S41       1893
9806  75  05          SBR    TPERR&15,RDTPX                             2   7  1227  H /17 S52       1893
9807  75  06          SBR    CK4B-1,MVNXL                               2   7  1234  H /30 S45       1893
9808  75  07   SKPXL  R      ENDXL                                      2   4  1241  1 S65           1893
9809  75  08   MVNXL  MCW    &9,RDCNT                                   2   7  1245  M V36 V85       1893
9810  75  09   RDTPX  RT     1,1                                        2   8  1252  M %U1 001 R     1894
9811  75  10          BER    TPERR                                      2   5  1260  B /02 L         1894
9812  75  11   ENDXL  BCE    *&5,68,B                                   2   8  1265  B S77 068 B     1894
9813  75  12          B      SKPXL                                      2   4  1273  B S41           1894
9814  75  13          SBR    TPERR&15,RDTAP      RESTORE TPERR OPERANDS 2   7  1277  H /17 |85       1894
9815  75  14          SBR    CK4B-1,MVNIN                               2   7  1284  H /30 |78       1894
9816  75  15          B      FENDX                                      2   4  1291  B /85           1895
9817  75  16   EXIT   SBR    GETXT&3,FEND2                              2   7  1295  H /01 T06       1895
9818  75  17          B      READ                                       2   4  1302  B |74           1895
9819  75  18   FEND2  BCE    FEND3,RETRN,N                              2   8  1306  B U05 |70 N     1895
9820  75  19          CS     171                                        2   4  1314  / 171           1895
9821  75  20          SW     101                                        2   4  1318  , 101           1895
9822  75  21          MCW    @1040@,171                                 2   7  1322  M V41 171       1895
9823  75  22          MCW    LDFMT-1                                    2   4  1329  M V34           1896
9824  75  23          MCW    @M002V36@,146  CHANGE ON REASM OF OB ARITH XSIZE&6  2   7  1333  M V93 146       1896
9825  75  24          MCW    PARAMA&4,102                               2   7  1340  M 690 102       1896
9826  75  25          B      PCHCD                                      2   4  1347  B 838           1896
9827  75  26          MCW    @837@,146      CHANGE ON REASM OF OB ARITH FSIZE&6  2   7  1351  M V96 146       1896
9828  75  27          MCW    PARAMA&6,102                               2   7  1358  M 692 102       1896
9829  75  28          B      PCHCD                                      2   4  1365  B 838           1897
9830  75  29          MCW    @3T30@,146     CHANGE ON REASM OF OB ARITH OUT1-1   2   7  1369  M W00 146       1897
9831  75  30          MCW    GOTOFN,103                                 2   7  1376  M 188 103       1897
```

```
 SEQ PG LIN  LABEL   OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
9832 75 31           B     PCHCD                                                    2   4  1383  B 838             1897
9833 75 32           MCW   @S09@,146      CHANGE ON REASM OF OB ARITH STSUB&3     2   7  1387  M W03 146         1897
9834 75 33           MCW   SUBSCR,103                                              2   7  1394  M 191 103         1897
9835 75 34           B     PCHCD                                                    2   4  1401  B 838             1898
9836 75 35   FEND3   FENDX C,,,XBEGIN,XBEGIN,XBEGIN,SYSC2,CONDECK3                                                MACRO
9837         FEND3   BSS   333,C                                                   2   5  1405  B 333 C     GEN   1898
9838                 SBR   INITAP&6,XBEGIN                                         2   7  1410  H 786 838   GEN   1898
9839                 SBR   BCLEAR                                                  2   4  1417  H 833       GEN   1898
9840                 SBR   INITXT&3,XBEGIN                                        2   7  1421  H 796 838   GEN   1898
9841                 SBR   TCLEAR,SYSC2                                           2   7  1428  H 710 W12   GEN   1898
9842                 LCA   @CONDECK3@,110                                        2   7  1435  L W11 110   GEN   1899
9843                 B     MONTER                                                 2   4  1442  B 700       GEN   1899
9844 75 36           DCW   @L008@                                                 2   4  1449                    1899
9845 75 37           DC    PARAMA&7                                               2   3  1452  693               1899
9846 75 38           DC    @,@                                                    2   1  1453                    1899
9847 75 39           DC    PARAMA&3                                               2   3  1456  689               1899
9848 75 40           DC    PARAMA&5                                               2   3  1459  691               1899
9849 75 41           DC    @,@                                                    2   1  1460                    1899
9850 75 42   MASK    DC    PARAMA&7                                               2   3  1463  693               1899
9851 75 43   MESSG   DCW   @CONDENSED DECK DEFERRED DUE TO INPUT ERRORS@         2  43  1506                    1901
9852 75 44   LDFMT   DCW   @L039000,040040,040040,040040$@                       2  29  1535                    1901
9853 75 45           LTORG *                                                      2          1536
                     DCW   &9                                                     2   1  1536        LIT   1901
                     DCW   &1                                                     2   1  1537        LIT   1901
                     DCW   @1040@                                                 2   4  1541        LIT   1901
                     DCW   @L014100,092097,081082,083084@                         2  28  1569        LIT   1902
                     DCW   @000000000000000@                                      2  14  1583        LIT   1903
                     DCW   @B@                                                    2   1  1584        LIT   1903
             RDCNT2  DCW   #01                                                    2   1  1585        AREA  1903
             NBRSW2  DCW   #01                                                    2   1  1586        AREA  1903
                     DCW   @M002V36@                                              2   7  1593        LIT   1903
                     DCW   @837@                                                  2   3  1596        LIT   1903
                     DCW   @3T30@                                                 2   4  1600        LIT   1903
                     DCW   @S09@                                                  2   3  1603        LIT   1904
                     DCW   @CONDECK3@                                             2   8  1611        LIT   1904
9854 75 46   SYSC2   DCW   @}@                          SYSTEM GROUP MARK         2   1  1612        GMARK 1904
9855 75 47   PCHCD   EQU   PCHCD/                                                 2      0838
9856 75 48           XFR   START                                                  2          B 884           1905
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

9857 75 49          JOB   1401 FORTRAN  FIXED ROUTINE FOR CONDENSING ROUTINE
9858 75 50   110    DCW   @]]]]]@     ALL 11-5-8    FIRST CARD              2   5  0110                    1908
9859 75 51   *
9860 75 52   *
9861 75 53   *         COPY OF FIXED PACKAGE
9862 75 54   *         SNAPSHOT - XLINK - ARITH
9863 75 55   *
9864 75 56   110    DCW   @;;;;;@     ALL 11-6-8  LAST CARD              2   5  0110                    1909
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9865 75 57          JOB   1401 FORTRAN  CONDENSED DECK PHASE THREE
9866 75 58          FBEGN CONDECK3,X1,R,X2,R,X3,R,1                                          MACRO
9867                SFX   1                                                                  GEN
9868          110   DCW   @CONDECK3@                                 1   8  0110            GEN   1910
9869          X1    EQU   089                                       1      0089            GEN
9870          089   DCW   000                                       1   3  0089            GEN   1911
9871          091   DC    00                                        1   2  0091            GEN   1911
9872          X2    EQU   094                                       1      0094            GEN
9873          094   DCW   000                                       1   3  0094            GEN   1911
9874          096   DC    00                                        1   2  0096            GEN   1911
9875          X3    EQU   099                                       1      0099            GEN
9876          099   DCW   000                                       1   3  0099            GEN   1911
9877          100   DC    0                                         1   1  0100            GEN   1911
9878 75 59    LAST  EQU   CONLST                                    1      0194
9879 75 60          ORG   XBEGIN                                    1             0838
9880 75 61    BEGIN MCW   GOGOGO,X1                                 1   7  0838  M 183 089       1912
9881 75 62          BCE   *&5,PARAMA&7,P                            1   8  0845  B 857 693 P     1912
9882 75 63          B     GARY                                      1   4  0853  B U74           1912
9883 75 64          BW    GARY,FAILSW                               1   8  0857  V U74 184 1     1912
9884 75 65    REST  SBR   WPB&3,RESET                              1   7  0865  H /55 893       1912
9885 75 66          MCW   CON40-11,BOX1                             1   7  0872  M V10 V38       1913
9886 75 67          MCW   @146@,X3                                  1   7  0879  M V25 099       1913
9887 75 68          MCW   @L@,140                                   1   7  0886  M V26 140       1913
9888 75 69    RESET CS    139                                       1   4  0893  / 139           1913
9889 75 70          FORMS                                                                    MACRO
9890                BCV   *&5                                       1   5  0897  B 906 @         GEN   1913
9891                B     *&3                                       1   4  0902  B 908           GEN   1913
9892                CC    1                                         1   2  0906  F 1             GEN   1913
9893 75 71          MCW   CON40,171                                 1   7  0908  M V21 171       1914
9894 75 72          SW    140                                       1   4  0915  , 140           1914
9895 75 73          CS    332                                       1   4  0919  / 332           1914
9896 75 74          CS                                              1   1  0923  /               1914
9897 75 75          SW    101                                       1   4  0924  , 101           1914
9898 75 76          MCW   @001@,X2                                 1   7  0928  M V29 094       1914
9899 75 77          MCW   @1@,FLIP#1                                1   7  0935  M V30 V31       1914
9900 75 78          MCW   BOX1#7,153                                1   7  0942  M V38 153       1915
9901 75 79          BW    SKIP2,SKPSW                               1   8  0949  V S91 V22 1     1915
9902 75 80    MOVE  MN    0&X1,100&X2                               1   7  0957  D 0|0 1!0       1915
9903 75 81          MZ    0&X1,100&X2                               1   7  0964  Y 0|0 1!0       1915
9904 75 82    CPAR  C     LAST,X1                                   1   7  0971  C 194 089       1915
9905 75 83          BE    TERM                                      1   5  0978  B S04 S         1916
9906 75 84          SBR   X1,1&X1                                  1   7  0983  H 089 0|1       1916
9907 75 85          SBR   X2,1&X2                                  1   7  0990  H 094 0!1       1916
9908 75 86          BCE   SKIP,0&X1,]        11-5-8                 1   8  0997  B S83 0|0 ]     1916
9909 75 87          BW    CDFUL,0&X1                                1   8  1005  V S15 0|0 1     1916
9910 75 88    TBKFF C     @040@,X2                                  1   7  1013  C V41 094       1917
9911 75 89          BL    MOVE                                      1   5  1020  B 957 T         1917
9912 75 90          C     @160@,X3                                  1   7  1025  C V44 099       1917
9913 75 91          BL    LOZNG                                     1   5  1032  B /75 T         1917
9914 75 92          MCW   @040@,167                                 1   7  1037  M V41 167       1917
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
9915 75 93          BH    *&8                        1   5  1044  B |56 U           1917
9916 75 94          MCW   @040@, 164                 1   7  1049  M V41 164         1918
9917 75 95          CW    140                        1   4  1056  ) 140             1918
9918 75 96   SW     SW    000                        1   4  1060  , 000             1918
9919 75 97          SBR   X2                         1   4  1064  H 094             1918
9920 75 98          A     -990,X2&1                  1   7  1068  A V47 095         1918
9921 75 99          MCW   239,139                    1   7  1075  M 239 139         1918
9922 76 00   SBR    SBR   X1,000                     1   7  1082  H 089 000         1919
9923 76 01   COMMA  MCW   CON40-11,BOX1              1   7  1089  M V10 V38         1919
9924 76 02          MCW   @146@,X3                   1   7  1096  M V25 099         1919
9925 76 03   WP     A     @1@,CDNO                   1   7  1103  A V30 175         1919
9926 76 04          MN    0&X2                       1   4  1110  D 0!0             1919
9927 76 05          SBR   143                        1   4  1114  H 143             1919
9928 76 06          C     143,@000@                  1   7  1118  C 143 V50         1920
9929 76 07          BE    END2                       1   5  1125  B U26 S           1920
9930 76 08          MN    0&X1                       1   4  1130  D 0|0             1920
9931 76 09          SBR   146                        1   4  1134  H 146             1920
9932 76 10          LCA   180,280                    1   7  1138  L 180 280         1920
9933 76 11          LCA                              1   1  1145  L                 1920
9934 76 12          LCA                              1   1  1146  L                 1920
9935 76 13          BSS   SWLWP,B                    1   5  1147  B /56 B           1921
9936 76 14   WPB    P     RESET                      1   4  1152  4 893             1921
9937 76 15   SWLWP  SW    LWPB&1                     1   4  1156  , /72             1921
9938 76 16          MCW   WPB&3,LWPB&3               1   7  1160  M /55 /74         1921
9939 76 17          CW    LWPB&1                     1   4  1167  ) /72             1921
9940 76 18   LWPB   WP    RESET                      1   4  1171  6 893             1921
9941 76 19   LOZNG  MCW   @)@,BOX1-6                 1   7  1175  M V51 V32         1921
9942 76 20          MCW   X1,BOX1                    1   7  1182  M 089 V38         1922
9943 76 21          MCW   X1                         1   4  1189  M 089             1922
9944 76 22          MCW   @153@,X3                   1   7  1193  M V54 099         1922
9945 76 23          B     WP                         1   4  1200  B /03             1922
9946 76 24   TERM   SBR   WPB&3,END1                 1   7  1204  H /55 T48         1922
9947 76 25          B     WP                         1   4  1211  B /03             1922
9948 76 26   CDFUL  MCW   X1,SBR&6                   1   7  1215  M 089 |88         1923
9949 76 27          SBR   SW&3,100&X2                1   7  1222  H |63 1!0         1923
9950 76 28          C     @040@,X2                   1   7  1229  C V41 094         1923
9951 76 29          BE    COMMA                      1   5  1236  B |89 S           1923
9952 76 30          C     @167@,X3                   1   7  1241  C V57 099         1923
9953 76 31          BE    COMMA                      1   5  1248  B |89 S           1923
9954 76 32          SBR   X3,3&X3                   1   7  1253  H 099 0?3         1924
9955 76 33          ZS    FLIP                       1   4  1260  ! V31             1924
9956 76 34          BM    PLUS1,FLIP                 1   8  1264  V T37 V31 K       1924
9957 76 25   MCW    MCW   X1,0&X3                   1   7  1272  M 089 0?0         1924
9958 76 36          B     MOVE                       1   4  1279  B 957             1924
9959 76 37   SKIP   SW    SKPSW                      1   4  1283  , V22             1924
9960 76 38          B     COMMA                      1   4  1287  B |89             1924
9961 76 39   SKIP2  CW    SKPSW                      1   4  1291  ) V22             1925
9962 76 40          MCM   0&X1                       1   4  1295  P 0|0             1925
9963 76 41          SBR   X1                         1   4  1299  H 089             1925
9964 76 42          BW    MOVE,0&X1                  1   8  1303  V 957 0|0 1       1925
```

```
 SEQ PG LIN  LABEL   OP     OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
9965 76 43           MCW    X1,153                                             1   7  1311  M 089 153         1925
9966 76 44           MCW    X1                                                 1   4  1318  M 089             1925
9967 76 45           MCW    @)@                                                1   4  1322  M V51             1925
9968 76 46           MCW    @153@,X3                                           1   7  1326  M V54 099         1926
9969 76 47           B      MOVE                                               1   4  1333  B 957             1926
9970 76 48   PLUS1   SBR    X3,1&X3                                            1   7  1337  H 099 0?1         1926
9971 76 49           B      MCW                                                1   4  1344  B S72             1926
9972 76 50   END1    SBR    X1,1697     FORMAT                                 1   7  1348  H 089 W97         1926
9973 76 51           BCE    END2,PARAMA&10,X                                   1   8  1355  B U26 696 X       1926
9974 76 52           BCE    LIO,PARAMA&10,L                                    1   8  1363  B U04 696 L       1927
9975 76 53           BCE    AFORM,PARAMA&10,A                                  1   8  1371  B U15 696 A       1927
9976 76 54   NEXT1   SBR    CPAR&3,HIFMT                                       1   7  1379  H 974 V03         1927
9977 76 55           SBR    WPB&3,RESET                                        1   7  1386  H /55 893         1927
9978 76 56           SBR    TERM&6,END2                                        1   7  1393  H S10 U26         1927
9979 76 57           B      REST                                               1   4  1400  B 865             1928
9980 76 58   LIO     SBR    HIFMT,2016                                         1   7  1404  H V03 !16         1928
9981 76 59           B      NEXT1                                              1   4  1411  B T79             1928
9982 76 60   AFORM   SBR    HIFMT,4617                                         1   7  1415  H V03 61X         1928
9983 76 61           B      NEXT1                                              1   4  1422  B T79             1928
9984 76 62   END2    CS     171                                                1   4  1426  / 171             1928
9985 76 63           MCW    @080@,146                                          1   7  1430  M V60 146         1928
9986 76 64           MCW    GOGOGO                                             1   4  1437  M 183             1929
9987 76 65           LCA    @/@                                                1   4  1441  L V61             1929
9988 76 66           A      @1@,CDNO                                           1   7  1445  A V30 175         1929
9989 76 67           LCA    180,280                                            1   7  1452  L 180 280         1929
9990 76 68           LCA                                                       1   1  1459  L                 1929
9991 76 69           CS                                                        1   1  1460  /                 1929
9992 76 70           BSS    WPCS,B                                             1   5  1461  B U97 B           1929
9993 76 71           P                                                         1   1  1466  4                 1930
9994 76 72   CS180   CS     180                                                1   4  1467  / 180             1930
9995 76 73           P                                                         1   1  1471  4                 1930
9996 76 74           SS     8                                                  1   2  1472  K 8               1930
9997 76 75   GARY    FENDX  C,,,,,,SYS2,GAUX ONE                                                MACRO
9998         GARY    BSS    333,C                                              1   5  1474  B 333 C     GEN   1930
9999                 SBR    TCLEAR,SYS2                                        1   7  1479  H 710 V73   GEN   1930
|                    LCA    @GAUX ONE@,110                                     1   7  1486  L V69 110   GEN   1930
|  1                 B      MONTER                                             1   4  1493  B 700       GEN   1931
|  2 76 76   WPCS    WP     CS180                                              1   4  1497  6 U67             1931
|  3 76 77   HIFMT   DSA    4280     CHANGE IF ARRAYS DONOT ORIGIN AT 4280     1   3  1503  28|               1931
|  4 76 78   CON40   DCW    @,040040,04004010400@                              1  18  1521                   1931
|  5 76 79   SKPSW   DC     #1                                                 1   1  1522                   1931
|  6 76 80           LTORG  *                                                  1            1523
                     DCW    @146@                                              1   3  1525         LIT   1931
                     DCW    @L@                                                1   1  1526         LIT   1931
                     DCW    @001@                                              1   3  1529         LIT   1931
                     DCW    @1@                                                1   1  1530         LIT   1932
                FLIP 1 DCW  #01                                                1   1  1531         AREA  1932
                BOX1 1 DCW  #07                                                1   7  1538         AREA  1932
                     DCW    @040@                                              1   3  1541         LIT   1932
                     DCW    @160@                                              1   3  1544         LIT   1932
```

SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	-990		1	3	1547		LIT	1932
				DCW	@000@		1	3	1550		LIT	1932
				DCW	@)@		1	1	1551		LIT	1933
				DCW	@153@		1	3	1554		LIT	1933
				DCW	@167@		1	3	1557		LIT	1933
				DCW	@080@		1	3	1560		LIT	1933
				DCW	@/@		1	1	1561		LIT	1933
				DCW	@GAUX ONE@		1	8	1569		LIT	1933
7	76	81		DCW	@I99@		1	3	1572			1933
8	76	82	SYS2	DCW	@}@	SYSTEM GROUP MARK	1	1	1573		GMARK	1934
9	76	83	CDNO	EQU	175		1		0175			
10	76	84		XFR	BEGIN		1			B 838		1935

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
 11 76 85          JOB   1401 FORTRAN  GEAUX PHASE ONE
 12 76 86          FBEGN GEAUX 1,X1,R,,,,,6                                                MACRO
 13                SFX   6                                                               GEN
 14          110   DCW   @GEAUX 1@                                  6   7  0110          GEN   1938
 15          X1    EQU   089                                       6      0089          GEN
 16          089   DCW   000                                       6   3  0089          GEN   1939
 17          091   DC    00                                        6   2  0091          GEN   1939
 18 76 87          ORG   XBEGIN                                    6            0838
 19 76 88  START   LCA   BLNK4#4,84                  INITIALIZE SENSE  6   7  0838  L |78 084       1940
 20 76 89          SW    84                            LIGHTS      6   4  0845  , 084           1940
 21 76 90          SW                                              6   1  0849  ,               1940
 22 76 91          SW                                              6   1  0850  ,               1940
 23 76 92          MESSG @END OF COMPILATION@,18,1                                         MACRO
 24                CC    1                                         6   2  0851  F 1             GEN   1940
 25                CS    332                                       6   4  0853  / 332           GEN   1940
 26                CS                                              6   1  0857  /               GEN   1940
 27                MCW   @END OF COMPILATION@,18&200               6   7  0858  M |96 218       GEN   1941
 28                W                                               6   1  0865  2               GEN   1941
 29 76 93          MCW   GOGOGO,X1                                 6   7  0866  M 183 089           1941
 30 76 94          BW    BAD,FAILSW                                6   8  0873  V |56 184 1         1941
 31 76 95          MESSG @PRESS START TO GO@,17,J                                          MACRO
 32                CC    J                                         6   2  0881  F J             GEN   1941
 33                CS    332                                       6   4  0883  / 332           GEN   1941
 34                CS                                              6   1  0887  /               GEN   1941
 35                MCW   @PRESS START TO GO@,17&200                6   7  0888  M /13 217       GEN   1942
 36                W                                               6   1  0895  2               GEN   1942
 37 76 96  OUT     SW    SYS2                                      6   4  0896  , /44               1942
 38 76 97          LCA   SYS2,693                                  6   7  0900  L /44 693           1942
 39 76 98          BCE   CDSYS,MONTOR,1                            6   8  0907  B 963 769 1         1942
 40 76 99          BW    SKPXL,XLINKW                              6   8  0915  V 988 185 1         1942
 41 77 00          SBR   TPERX&15,RTPXL                            6   7  0923  H 962 930           1943
 42 77 01  RTPXL   RTW   1,333                                     6   8  0930  L %U1 333 R         1943
 43 77 02          BER   TPERX                                     6   5  0938  B 947 L             1943
 44 77 03          B     OUT33                                     6   4  0943  B |20               1943
 45 77 04  TPERX   BSP   1                                         6   5  0947  U %U1 B             1943
 46 77 05          H     4444,4444                                 6   7  0952  . 44U 44U           1943
 47 77 06          B     SKPXL                                     6   4  0959  B 988               1944
 48 77 07  CDSYS   BW    SKPXC,XLINKW                              6   8  0963  V 975 185 1         1944
 49 77 08          R     040                                       6   4  0971  1 040               1944
 50 77 09  SKPXC   R                                               6   1  0975  1                   1944
 51 77 10          BCE   OUT2,68,B         IF B, BRANCH TO READ ARITH  6   8  0976  B |01 068 B       1944
 52 77 11          B     SKPXC                                     6   4  0984  B 975               1944
 53 77 12  SKPXL   RTW   1,SYS2                                    6   8  0988  L %U1 /44 R         1944
 54 77 13          BER   TPERX                                     6   5  0996  B 947 L             1945
 55 77 14  OUT2    BSS   333,C                                     6   5  1001  B 333 C             1945
 56 77 15          LCA   @N@,381                                   6   7  1006  L /14 381           1945
 57 77 16          LCA   @.@,564                                   6   7  1013  L /15 564           1945
 58 77 17  OUT33   CW    680               RETURN FROM LOADING XLINK  6   4  1020  ) 680               1945
 59 77 18          SBR   TCLEAR,SYS2                               6   7  1024  H 710 /44           1945
 60 77 19          SBR   INITAP&6,201                              6   7  1031  H 786 201           1946
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
| 61 77 20          SBR   INITXT&3,201                               6  7  1038  H 796 201       1946
| 62 77 21          SBR   BCLEAR,XBEGIN                              6  7  1045  H 833 838       1946
| 63 77 22          B     MONTER                                     6  4  1052  B 700           1946
| 64 77 23  BAD     MESSG @CORRECT ERRORS AND RECOMPILE@,28,J                                  MACRO
| 65        BAD     CC    J                                          6  2  1056  F J           GEN  1946
| 66                CS    332                                        6  4  1058  / 332         GEN  1946
| 67                CS                                               6  1  1062  /             GEN  1946
| 68                MCW   @CORRECT ERRORS AND RECOMPILE@,28&200      6  7  1063  M /43 228     GEN  1947
| 69                W                                                6  1  1070  2             GEN  1947
| 70 77 24          B     OUT                                        6  4  1071  B 896         1947
| 71 77 25          LTORG *                                          6           1075
            BLNK46  DCW   #04                                        6  4  1078              AREA 1947
                    DCW   @END OF COMPILATION@                       6 18  1096              LIT  1947
                    DCW   @PRESS START TO GO@                        6 17  1113              LIT  1948
                    DCW   @N@                                        6  1  1114              LIT  1948
                    DCW   @.@                                        6  1  1115              LIT  1948
                    DCW   @CORRECT ERRORS AND RECOMPILE@             6 28  1143              LIT  1949
| 72 77 26  SYS2    DCW   @}@                          SYSTEM GROUP MARK 6  1  1144          GMARK 1949
| 73 77 27          XFR   START                                      6        B 838           1950
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
 74 77 28          JOB   1401 FORTRAN FIXED XLINK ROUTINE
 75 77 29          SFX   #                  AS IN SNAPSHOTS
 76 77 30          ORG   333                                      #          0333
 77 77 31          H     333                                      #   4  0333  . 333            1953
 78 77 32  START   MCW   86,XL2            X2 FOLLOWS B700       #   7  0337  M 086 094         1953
 79 77 33          CS    80                                       #   4  0344  / 080            1953
 80 77 34          BCE   ARRAY,0&X2,$                            #   8  0348  B 585 0!0 $       1953
 81 77 35  CLEAR   CS    000                                      #   4  0356  / 000            1953
 82 77 36          SBR   ADR3                                     #   4  0360  H 359            1953
 83 77 37          C     ADR3,@699@                               #   7  0364  C 359 645         1953
 84 77 38          BU    CLEAR                                    #   5  0371  B 356 /           1954
 85 77 39          SW    ACCHI-5&X3                               #   4  0376  , 2G4            1954
 86 77 40          MZ    ACCHI&X3,FIELD                           #   7  0380  Y 2G9 642         1954
 87 77 41          C     FIELD,ACCHI&X3                           #   7  0387  C 642 2G9         1954
 88 77 42          BE    CARDS                                    #   5  0394  B 603 S           1954
 89 77 43          BM    GETM,ACCHI&X3                            #   8  0399  V 620 2G9 K       1954
 90 77 44          MZ    ZERO,ACCHI&X3                            #   7  0407  Y 637 2G9         1955
 91 77 45          C     699,ACCHI&X3                             #   7  0414  C 699 2G9         1955
 92 77 46          BE    GETM                                     #   5  0421  B 620 S           1955
 93 77 47          SW    22                                       #   4  0426  , 022            1955
 94 77 48          MCW   GM,22                                    #   7  0430  M 680 022         1955
 95 77 49  SERCH   RT    1,1                                      #   8  0437  M %U1 001 R       1955
 96 77 50          BEF   OUT                                      #   5  0445  B 478 K           1956
 97 77 51          C     10,@LIB@                                 #   7  0450  C 010 648         1956
 98 77 52          BU    SERCH                                    #   5  0457  B 437 /           1956
 99 77 53          C     17,ACCHI&X3                              #   7  0462  C 017 2G9         1956
100 77 54          BE    T1                                       #   5  0469  B 498 S           1956
101 77 55          B     SERCH                                    #   4  0474  B 437            1956
102 77 56  OUT     NOP   CARDS                                    #   4  0478  N 603            1956
103 77 57          MCW   333,OUT                                  #   7  0482  M 333 478         1957
104 77 58          RWD   1                                        #   5  0489  U %U1 R           1957
105 77 59          B     SERCH                                    #   4  0494  B 437            1957
106 77 60  T1      LCA   ZEROS,101                               #   7  0498  L 641 101         1957
107 77 61          LCA   ZEROS                                    #   4  0505  L 641            1957
108 77 62          LCA   ZEROS                                    #   4  0509  L 641            1957
109 77 63          RTW   1,333                                    #   8  0513  L %U1 333 R       1957
110 77 64          BER   ERR                                      #   5  0521  B 557 L           1958
111 77 65          MCW   ZERO,CTRR                              #   7  0526  M 637 641         1958
112 77 66          SBR   TPERM-1,T2                             #   7  0533  H 580 540         1958
113 77 67  T2      RTW   1,700                                    #   8  0540  L %U1 700 R       1958
114 77 68          BER   ERR                                      #   5  0548  B 557 L           1958
115 77 69  TBOOT   B     000                FROM LIBED            #   4  0553  B 000            1958
116 77 70  ERR     A     ONE,CTRR                                 #   7  0557  A 679 641         1959
117 77 71          BCE   TPERM,CTRR,9                            #   8  0564  B 581 641 9       1959
118 77 72          BSP   1                                        #   5  0572  U %U1 B           1959
119 77 73          B     T1                                       #   4  0577  B 498            1959
120 77 74  TPERM   H     TPERM                                    #   4  0581  . 581            1959
121 77 75  ARRAY   MCW   3&X2,ADR3                               #   7  0585  M 0!3 359         1959
122 77 76          MZ    ZERO,ADR3-1                              #   7  0592  Y 637 358         1960
123 77 77          B     CLEAR                                    #   4  0599  B 356            1960
```

```
 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
|124 77 78   CARDS  SW    1                                        #   4  0603  , 001            1960
|125 77 79          R                                             #   1  0607  1                1960
|126 77 80          BCE   1,1,,                                   #   8  0608  B 001 001 ,      1960
|127 77 81          B     CARDS                                   #   4  0616  B 603            1960
|128 77 82   GETM   RWD   1                                       #   5  0620  U %U1 R          1960
|129 77 83          RTW   1,1                                     #   8  0625  L %U1 001 R      1961
|130 77 84          B     1        EXECUTE MONITOR PROGRAM        #   4  0633  B 001            1961
|131 77 85   ADR3   EQU   CLEAR&3                                 #      0359
|132 77 86   FIELD  DCW   @0000000@                               #   6  0642                   1961
|133 77 87   ZEROS  EQU   FIELD-1                                 #      0641
|134 77 88   ZERO   EQU   ZEROS-4                                 #      0637
|135 77 89   CTRR   EQU   ZEROS                                   #      0641
|136 77 90   ACCHI  EQU   279                                     #      0279
|137 77 91          LTORG *                                       #           0643
                    DCW   @699@                                   #   3  0645            LIT   1961
                    DCW   @LIB@                                   #   3  0648            LIT   1961
|138 77 92          ORG   679                                     #           0679
|139 77 93   ONE    DCW   @1@                                     #   1  0679                  1962
|140 77 94   GM     DCW   @}@                GROUP MARK IN 680    #   1  0680            GMARK 1962
|141 77 95          XFR   OUT336                                  #           B |20            1963
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
142 77 96          JOB   1401 FORTRAN GEAUX PHASE TWO
143 77 97          SFX   6
144 77 98   110    DCW   @GEAUX TWO@                                        6   9  0110                    1966
145 77 99          ORG   201                                               6          0201
146 78 00   YIPEE  BCE   MONTOR,MONTOR,1                                   6   8  0201  B 769 769 1       1967
147 78 01   RTP    RTW   1,MONTER                                          6   8  0209  L %U1 700 R       1967
148 78 02          BER   TPERR                                            6   5  0217  B 284 L           1967
149 78 03          RWD   1                                                 6   5  0222  U %U1 R           1967
150 78 04   INIT   MCW   SUBSCR,ARSUB                                      6   7  0227  M 191 S09         1967
151 78 05          CW    1696                                              6   4  0234  ) W96             1967
152 78 06          MCW   GOTOFN,FUNC                                       6   7  0238  M 188 T30         1968
153 78 07          MCW   PARAMA&4,FIXSZ                                    6   7  0245  M 690 V36         1968
154 78 08          MCW   PARAMA&6,FLTSZ                                    6   7  0252  M 692 837         1968
155 78 09          CC    1                                                 6   2  0259  F 1               1968
156 78 10          BW    HALT,FAILSW                                       6   8  0261  V 280 184 1       1968
157 78 11          MCW   GOGOGO,X1                                         6   7  0269  M 183 089         1968
158 78 12          H     0&X1                                              6   4  0276  . 0|0             1969
159 78 13   HALT   H     *-3                                               6   4  0280  . 280             1969
160 78 14   TPERR  BSP   1                                                 6   5  0284  U %U1 B           1969
161 78 15          H     3333,3333                                         6   7  0289  . C33 C33         1969
162 78 16          B     RTP                                               6   4  0296  B 209             1969
163 78 17          DCW   0                                                 6   1  0300                    1969
164 78 18   FUNC   EQU   1330           CHANGE ON REASM OF OB ARITH OUT1-1  6      1330
165 78 19   FIXSZ  EQU   1536           CHANGE ON REASM OF OB ARITH XSIZE&6 6      1536
166 78 20   FLTSZ  EQU   837            CHANGE ON REASM OF OB ARITH FSIZE&6 6      0837
167 78 21   ARSUB  EQU   1209           CHANGE ON REASM OF OB ARITH STSUB&3 6      1209
168 78 22          LTORG *                                                 6          0301
169 78 23          DCW   @}@                          SYSTEM GROUP MARK     6   1  0301              GMARK 1969
170 78 24          XFR   YIPEE                                             6          B 201                   1970
171 78 25   *
172 78 26   *         PHASE 63 GOES HERE
173 78 27   *
174 78 28          END   INIT                         THE DEED IS DONE      6          / 227 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J005	1902	)0J013	1180	)0J050	1412	)0J054	1815	)0J065	913	)0J070	910	)0J091	895
)0J093	871	)0J094	967	)0J099	1817	)0J114	1094	)0J131	865	)0J163	961	)0K005	1921
)0K013	1199	)0K028	1207	)0K029	1395	)0K039	1539	)0K043	1608	)0K050	1431	)0K053	1702
)0K054	1834	)0K070	929	)0K073	1518	)0K076	1855	)0K081	1019	)0K093	890	)0K094	986
)0K099	1836	)0K212	968	)0L005	2842	)0L013	1375	)0L028	1719	)0L029	1750	)0L039	1928
)0L043	2004	)0L050	2166	)0L053	2252	)0L054	2256	)0L065	933	)0L070	1052	)0L073	2395
)0L076	2430	)0L081	1122	)0L091	915	)0L093	2050	)0L094	2061	)0L099	2202	)0L114	1114
)0L131	885	)0L163	981	)0L212	1609	)0M005	2840	)0M013	1373	)0M028	1257	)0M029	1429
)0M039	1573	)0M043	1642	)0M050	2164	)0M053	1736	)0M054	2254	)0M070	1050	)0M073	1552
)0M076	1889	)0M081	1053	)0M093	2048	)0M094	2059	)0M099	2200	)0M212	1002	)0P005	1940
)0P013	1218	)0P050	1450	)0P054	1853	)0P070	948	)0P093	909	)0P094	1005	)0P099	1855
A K	2341	A1 G	1126	A2 G	1142	A3 G	1022	ABIT A	1700	ABIT2A	1973	ABOTMX	844
ABSVAL	891	ABSVL<	1872	ACCHI#	279	ACCUM%	1648	ACCUMG	873	ACCUMH	2136	ACCUMI	2762
ACCUMN	1322	ACCUMO	1380	ACCUMP	1357	ACCUMS	2560	ACHCKZ	2276	ACLEAR	707	ACTL 9	1391
ADD I	2048	ADD1 7	2917	ADD1 L	1167	ADD1 Z	1507	ADD3 7	948	ADDINZ	862	ADDR1Z	1527
ADDS R	945	ADDS2R	952	ADDU V	1117	ADJST7	1360	ADJSTH	2084	ADNL 7	1440	ADONEX	142
ADONEZ	1930	ADR 9	1714	ADR3 #	359	ADRESZ	148	ADRSSJ	2394	ADRSSX	2145	ADTBLL	145
AFORM1	1415	AFORM8	950	AFORMH	2060	AGAINC	1022	AGAINN	1544	AGET2R	445	ALCONI	2335
ALL3 Y	1736	ALL9 9	1616	ALL9 C	1802	ALL9 D	1090	ALL9 Q	1507	ALL919	1619	ALL91Q	1510
ALL92C	1805	ALPH N	1051	ALPHAM	1563	ALTERH	1354	ALTERX	1157	ANYMO.	982	ANYMOG	1309
AOK 3	1170	AOK 4	1020	AOK1 C	1127	AOK2 4	1102	AOK3 4	1317	AOP 7	3088	AREA1Z	880
AREA2Z	2442	ARIT T	1664	ARITH0	1153	ARITH1	1075	ARITH2	1119	ARITHE	1156	ARRAY#	585
ARRAYI	1358	ARSUB6	1209	ARTYP<	1085	ASIDEZ	844	ASSGNS	1060	ATANFN	894	ATSGNA	1689
AUNIQB	1217	AVOID%	1431	B A	2511	BACK2M	1299	BACK39	950	BACK5C	1134	BAD 5	1015
BAD 6	1056	BADSTM	1801	BADSWM	1895	BAKUPK	2232	BASE .	1308	BASE J	840	BASE N	840
BASE O	840	BASE P	840	BASE Y	2793	BC1 /	1221	BC2 /	1267	BCE1 7	1317	BCE3 7	2655
BCE5 Y	992	BCEQ T	2023	BCLEAR	833	BEGIN#	934	BEGIN/	884	BEGIN1	838	BEGIN9	838
BEGINC	1010	BEGINE	838	BEGINJ	857	BEGINX	867	BEGINZ	1175	BGIN T	1510	BGMSG0	2631
BIG 7	1302	BIG N	1436	BIGMS8	1300	BLANK.	1419	BLANK3	1617	BLANK5	1797	BLANK9	1711
BLANKD	1099	BLANKE	1503	BLANKF	1701	BLANKH	2096	BLANKI	2787	BLANKK	2504	BLANKP	1404
BLK10<	2475	BLK20Y	2749	BLK4 7	3045	BLK4 Y	2775	BLK6 Y	2872	BLK8 Y	2866	BLKOP7	901
BLNK 9	1673	BLNK Q	1537	BLNK1<	2595	BLNK2I	2788	BLNK33	1619	BLNK3A	2971	BLNK3C	1825
BLNK3F	1792	BLNK46	1078	BLNK5G	1887	BLNK6I	2792	BLNKS0	2814	BLWUPS	1274	BMOD Y	2776
BMP4 Y	1039	BMPT2R	475	BMPUMS	1016	BMPUMY	1135	BMPX17	2032	BMPX1K	1165	BOP 7	3063
BOTH T	1161	BOTM %	1645	BOTM .	1064	BOTM I	1445	BOTM J	2193	BOTM K	2089	BOTM M	958
BOTM N	1367	BOTM O	1611	BOTM2I	1453	BOTM2K	2100	BOTOMZ	1761	BOX 4	1472	BOX <	2502
BOX H	2141	BOX I	2655	BOX J	2301	BOX K	2347	BOX M	1891	BOX O	2107	BOX Q	1525
BOX1 1	1538	BOX2 <	2518	BOX2 I	2664	BOX2 Q	94	BPDWNG	1329	BRANCH	1631	BRELCR	934
BRNCH.	1350	BSAUCE	148	BSFLTY	2425	BSP E	1434	BSTARG	1446	BSUB Y	2578	BTESTD	857
BTM R	1638	BTMCGN	1428	BTMNLN	1313	BUMP D	926	BUMP H	1209	BUMP J	1186	BUMP K	2547
BUMP N	1036	BUMP O	1479	BUMP X	1590	BUMP1K	1055	BUMPRK	1912	BX2B2T	1398	BYP E	882
BYP F	1533	BYP4 Z	1234	CANU 7	1496	CARDS#	603	CASE2Z	1826	CCLEAR	830	CDDMP/	997
CDFUL1	1215	CDINT<	2001	CDNO 1	175	CDSYS6	963	CERR C	1688	CGBTML	1282	CGOTOE	1311
CGOTON	1367	CHAINJ	1201	CHAINL	1001	CHAINN	1533	CHAINO	1494	CHAMPG	857	CHAR A	2388
CHEAP4	1412	CHKN T	1977	CHKNDT	1044	CHNG U	994	CHNGEZ	1688	CHUMPG	1653	CINCHG	1672
CK A	742	CK4B 2	1131	CKBITT	872	CKBOPQ	1061	CKCMTB	914	CKCOM4	997	CKCOMX	1248
CKDL27	924	CKDONE	1045	CKEX R	1036	CKEXTL	975	CKFIX7	1807	CKFIXJ	1940	CKFIXY	1340
CKFMTD	904	CKFMTT	1315	CKFUN<	1641	CKFUNB	1349	CKFX Q	1023	CKGM 5	969	CKGM <	1268
CKGM F	1307	CKIF K	2183	CKLFPX	1240	CKLHCA	1973	CKLSTX	1798	CKND 7	1527	CKNG <	1598
CKNG X	1092	CKNODF	1545	CKNUMU	1008	CKOP 0	1539	CKPRNG	1146	CKREFJ	857	CKRT 7	1070
CKSIMG	1274	CKSWFY	1316	CKSWXY	1328	CKSYN%	1145	CKTALK	1498	CKTYPX	1822	CKUSR0	2003
CKUSRR	508	CKWMKX	1260	CKXF Y	936	CKXP <	1431	CKXPNI	2299	CKZN R	543	CKZRO7	1919
CKZROT	1827	CLEAR#	356	CLEARB	1309	CLEARD	965	CLEERC	1422	CLEERQ	1233	CLOSE<	1339
CLR 9	923	CLR A	1103	CLR T	992	CLR1 0	878	CLR1 N	958	CLR1 O	860	CLR1 P	878

CLR2 0	929	CLR2 N	1011	CLR2 O	978	CLR2 P	1009	CLRFCT	2599	CLRI T	1733	CLSCK<	1392
CLZOK<	1378	CMBCKZ	965	CMNT A	2358	CMP2 7	2863	CMP3 7	1019	CMP4 Z	1248	CMP5 Y	1046
CMPAB#	520	CMPAB7	520	CMPAB8	1113	CMPADS	1089	CMPARA	1409	CMPARD	985	CMPSWG	1177
CNLFTK	1720	CNLS5O	2066	CNLST5	1609	CNT C	1599	CNTNUZ	1270	CNTR 0	2828	CNTRL0	1381
CNTRLK	2381	CNTU C	1157	CNTU E	1346	CNTU2Z	1674	CNVRTZ	896	CODE &	925	CODE *	962
CODE 0	2761	CODE 3	1602	CODE 4	1445	CODE 5	1188	CODE 9	1649	CODE <	2447	CODE B	2424
CODE I	2646	CODE J	2286	CODE K	2353	CODE L	1286	CODE N	1062	CODE O	2096	CODE T	879
CODE U	1230	CODE W	1198	CODE X	841	CODE Y	2686	COMFN1	906	COMFN<	1856	COMMA1	1089
COMMAM	1257	COMMAX	1088	COMP F	1084	COMP G	1006	COMP N	1235	COMP O	1292	COMP P	1267
COMP X	1019	COMPAT	838	COMPLT	1115	COMRTT	1129	COMUT7	1214	CON401	1521	CONLST	194
CONSTB	2440	CONSTI	1851	CONSTU	1204	CONSTZ	1201	COOL M	1703	COPY I	1840	COPY J	1031
COPY O	1343	COSIN<	1864	COUNT%	1694	COUNT.	1408	COUNTA	2503	COUNTH	2049	COUNTI	2708
COUNTK	2423	COUNTL	1292	COUNTN	1677	COUNTX	2058	COUNTZ	841	CPAR 1	971	CPAR W	1021
CPL #	568	CPL 7	568	CPL 8	1188	CR K	1459	CS1 /	1140	CS1801	1467	CS1A /	1319
CS2 /	1210	CS2A /	1390	CS2X /	1169	CS2XA/	1348	CTNMVZ	1615	CTOALZ	1448	CTR #	669
CTR 7	669	CTR 8	1419	CTRR #	641	CTU *	884	CTU 3	1194	CTU1 R	608	CTU1 U	944
CTU1 Y	2321	CTU3 G	1816	CTU3 H	1062	CTU4 G	1661	CTUCDA	2824	CTUL F	1465	CURDL7	2972
CVT3 7	3091	CVTDL7	2758	CVTXT7	2833	CW 7	2720	CW X	1790	CW1 Y	1101	CW2 7	2928
CW5 7	2614	CWPRT7	908	CWX1 Z	1355	CX1 R	482	CX1CNZ	1518	CX2 7	2001	CZONEZ	1014
D2 7	997	DATA E	1478	DBLOP<	2161	DBLSWT	1439	DECR 7	1927	DELT17	974	DELT27	1166
DELTAI	1682	DIFF Z	859	DIFNT%	1090	DIMENF	979	DIMSWF	1700	DIV <	1446	DIV Y	1463
DIV2 <	1470	DIVCK<	1484	DL2 7	3032	DLOOPV	970	DLVALS	2545	DMSN E	1443	DO B	1521
DO E	1338	DO M	1276	DOADR1	924	DOADR2	921	DOADR3	918	DOBC1/	1074	DOCOD7	2217
DOCOD<	943	DOEND%	1899	DOINIT	915	DOIT 3	896	DOIT 4	893	DOIT 5	884	DOLLRX	1737
DOLR V	915	DOLR1J	1995	DOLR2J	2013	DOLST9	1116	DONE C	1366	DONE E	1057	DONE G	1683
DONE J	1747	DOSBSC	909	DOSPC9	1532	DOWM R	623	DRESSG	852	DRESSI	2636	DROP4W	1098
DSA R	1560	DSW F	1710	DUM3 A	2560	DUM5 A	2565	DUMMYA	1166	DUMMYB	979	DUN %	1526
DUN .	1313	DUN 0	2519	DUN J	2147	DUN L	1052	DUN S	1221	DUN X	1168	DUN Z	1437
DUN2 Q	1471	DUN2 X	1137	EASY B	1422	EINPTT	1870	ELSE Y	2485	EMASQX	1963	ENCODE	1173
END B	1337	END C	2900	END R	1056	END Z	2499	END1 1	1348	END2 1	1426	END2 T	1021
ENDCDE	1182	ENDPHZ	1260	ENDSS2	944	ENDSWA	2828	ENDXL2	1265	EOF E	1419	EOFX Q	1475
EOJ 0	2458	EOJ C	1647	EOJ D	949	EOJ H	2008	EOJ Q	1295	EOPHSD	1065	EOSTM<	1310
EOSTMT	1612	EOSTR7	2158	EOSTRY	1421	EOTWOC	2000	EQBX1G	1465	EQSCN<	1107	EQUALI	2254
EQUIVE	1454	EQUIVG	1165	ERCTRG	1994	ERR #	557	ERR 9	1487	ERR G	1505	ERR M	1830
ERR1 %	1397	ERR1 .	1165	ERR1 0	2413	ERR2 %	1442	ERR2 0	2375	ERR3 0	2337	ERR4 0	2299
ERR460	1852	ERR5 0	2261	ERR6 0	2223	ERRMSZ	1092	ERROR%	1480	ERROR.	1223	ERRORE	1092
ERRORT	206	ERRORX	1922	ERRSWG	2144	ERRSWI	2504	ERRTPA	797	ERRWTT	1269	ERSIGT	1258
ERVBLI	2600	EXCHNN	1641	EXCMAX	1100	EXDRPW	1120	EXGTL0	1343	EXGTP0	1599	EXIT %	1621
EXIT 2	1295	EXIT A	1096	EXIT C	1486	EXIT I	2134	EXIT N	1265	EXIT O	1322	EXIT P	1297
EXIT Q	1182	EXIT V	1210	EXIT Z	1549	EXIT1#	1000	EXIT1M	1751	EXIT2M	1559	EXIT3R	983
EXITAQ	1157	EXMVD0	1287	EXMVPN	933	EXPH3X	969	EXPMIX	1693	EXPN Y	1808	EXPNDZ	969
EXRDMN	1044	EXRUA.	1219	EXRUAX	1893	EXRUKX	1901	EXSLDN	960	EXSLDW	1094	EXSLDX	965
EXSNDW	1188	FAIL F	1646	FAILSW	184	FBAD T	2275	FBOX T	1460	FEED I	1693	FEND22	1306
FEND32	1405	FENDX/	956	FENDX2	1185	FENDX7	2937	FENDX<	920	FENDXS	1251	FENDXY	1478
FEWSWI	2598	FIELD#	642	FIGHTG	1269	FIN1SZ	1641	FIND G	980	FIND I	937	FIND M	1137
FIND O	1259	FIND W	889	FIND1J	1723	FIND2J	947	FIND2M	1200	FINI T	1216	FINIST	2042
FINISZ	2404	FIRST7	1663	FIRSTB	2404	FIRSTG	86	FIX 7	2573	FIX1 H	1332	FIXED.	1193
FIXEDA	2831	FIXEDB	2405	FIXEDG	1216	FIXEDH	1365	FIXEDJ	2031	FIXEDK	1931	FIXEDO	1693
FIXFUN	885	FIXITZ	1964	FIXSZ6	1536	FIXT 7	2724	FIXWDQ	930	FIXWDR	930	FIXXPY	2077
FLIP 1	1531	FLIP 4	983	FLIP J	1003	FLIP K	1863	FLIP T	1345	FLOATK	1506	FLT Y	2032
FLTFUN	882	FLTSWG	1828	FLTSZ6	837	FLTWDQ	933	FLTWDR	933	FMAT I	2470	FMTNOT	2417
FNCTRJ	2300	FND V	931	FNDLZI	1571	FNISH0	1761	FNISHW	1124	FNLIZX	1697	FOKAYT	2234
FORCE0	1659	FORK N	1409	FORMAT	2527	FOUNDG	1181	FOUNDJ	997	FOUNDO	1309	FOUNDW	939
FQUITP	1197	FRMATE	1353	FROMXZ	856	FRONTB	2415	FSCAN<	1775	FST1 7	1695	FSTMDY	2719
FSTNUA	1260	FSUB Y	2623	FTBL1<	2442	FTMSGY	1998	FULL J	2211	FULL N	1066	FULL O	1712
FUN 0	1981	FUNBX<	2485	FUNC 6	1330	FUNCSW	195	FUNSTJ	1649	FUNY 0	2117	FXFLTQ	1398
FXMOD0	2175	FXPRMD	1016	FXSW G	1827	FXT Q	1482	GARY 1	1474	GARY Q	1513	GARY V	1249

GARY Z	1520	GDLXT7	2870	GENERM	1714	GET F	1066	GET G	988	GET I	2071	GET R	1149		
GET2 G	1086	GET2 R	441	GETDL7	2837	GETLF0	1291	GETM #	620	GETSTT	880	GETUMS	935		
GETWM7	2890	GETXT2	1098	GETXTR	1184	GM #	680	GM 0	2573	GM A	2529	GM C	1806		
GM D	1091	GM F	1691	GM G	839	GM H	2085	GM I	2555	GM J	2493	GM K	2349		
GM M	1883	GM N	1725	GM X	1011	GM1 %	1598	GM1 .	1295	GM1 7	2240	GM1 9	1627		
GM1 <	2160	GM1 T	1503	GM2 %	1626	GM2 .	1309	GM2 C	1219	GM2 O	1333	GM3 %	1631		
GM4 %	1622	GM50AZ	1688	GM50CZ	1624	GM53S#	1696	GMK1 R	680	GMWM R	1696	GMWM Z	2468		
GNSTMZ	151	GNTBLZ	1346	GNTMP0	1573	GO X	852	GOBAK%	1630	GOBAKJ	1298	GOBAKS	1199		
GOGOGO	183	GOTEQ<	1131	GOTEQY	1232	GOTFN<	1883	GOTO E	1306	GOTOFN	188	GOTOP<	1191		
GOTSBY	2542	GOTSQY	1009	GOTTA/	896	GOTUM0	1562	GOTUMS	959	GOTWM7	2906	GRAB10	1180		
GRAB1M	1473	GRIEFY	1154	GSTXTT	924	GT1 G	1386	GTADR9	1473	GTNUM0	1516	GTSUBY	2608		
GUTS K	1067	HALT 6	280	HEAD #	651	HEAD 7	651	HEAD 8	1309	HEADRN	1507	HERE 9	1569		
HERE T	1787	HERE Z	1088	HEX1 7	2965	HEX1 <	2543	HEX1 G	1999	HEX1 I	2711	HEX1 K	2439		
HEX1 L	1279	HEX1 M	1894	HEX1 N	1054	HEX1 O	2091	HEX1 S	2537	HEX1 W	1194	HEX1 X	2056		
HEX1 Z	2452	HEX1XX	947	HEX2 0	2758	HEX2 7	3024	HEX2 <	2537	HEX2 F	1709	HEX2 G	1927		
HEX2 J	2327	HEX2 O	2132	HEX2 S	2531	HEX2 X	2053	HEX2XN	1360	HEX3 %	1637	HEX3 7	3040		
HEX3 <	2540	HEX3 G	876	HEX3 K	2366	HEX3 L	1276	HEX3 M	1984	HEX3 N	1684	HEX3 R	1635		
HEX3 T	875	HEX3 X	2085	HEX3 Y	2693	HEX31Y	2771	HIFMT1	1503	HLD18Y	2718	HLD2 5	1200		
HLD20Y	2484	HLD31#	416	HLD317	416	HLD32#	409	HLD327	409	HLD357	3008	HLD5AC	1363		
HLDOP7	2966	HLDXT#	402	HLDXT7	402	HLDZNR	1582	HLERRT	1409	HLFT 7	1054	HNOT T	1306		
HOLD 5	1198	HOLD C	1922	HOLD F	1703	HOLD Z	891	HOLD1E	1499	HOLD1H	2154	HOLD2Z	2140		
HOLD3E	1502	HOLD3G	2003	HOLD3X	2077	HOLD4E	1498	HOLD5C	1357	HOLD5D	1096	HOLD5I	2811		
HOLD5J	2382	HOLD5X	2068	HOLD6C	2005	HOLD8J	2390	HOLDXE	1514	HOLLRA	1751	HOPE 7	1476		
HOPE27	1555	HSW A	1394	HSW2 A	1402	HUH Y	2218	HUH2 Y	2236	HXCMNR	1573	HYTEST	2563		
I %	1618	I .	1302	ID .	1362	IEXITT	1808	IF 0	1221	IF E	1313	IFEXPM	1362		
IFMNSY	2512	IFPLSY	2496	IFSL E	1467	IFSSWE	1327	IFTYPY	1522	IFZROY	2504	IMVUPZ	1052		
INC #	632	INC 7	632	INC 8	1242	INCTOA	1375	INDIR<	982	INILZ1	2506	INILZ2	2509		
INISHG	1724	INISHS	838	INIT 6	227	INIT Q	934	INIT V	838	INIT Z	1186	INITAP	780		
INITL%	838	INITL.	838	INITL0	838	INITLF	839	INITLG	1034	INITLH	891	INITLI	838		
INITLK	838	INITLL	838	INITLM	838	INITLW	838	INITXT	793	INNERX	1421	INOUTM	1130		
INPUTA	2373	INPUTJ	1763	INTNOZ	865	INTSTZ	183	IOBGNT	2141	IOCW U	1226	IOSW T	1438		
IOTYP9	1012	IOTYPT	1402	IOWK T	2297	ISB R	1288	ISCTU&	884	ISEQUG	1158	ISFMTD	938		
ISFSWJ	2310	ISFUN<	1683	ISGM J	945	ISIN G	1673	ISREDG	1584	ISTRIA	1851	ISTWO7	2683		
ISXP <	1513	JUMP A	1425	K5TOK3	929	KARITT	2399	KEEP2J	1079	KEEPX<	1989	KEOJ T	2403		
KERR I	2561	KFSM A	2423	KH T	2376	KILL 0	2447	KILL 4	1001	KILL <	2450	KILL K	2369		
KILL M	981	KLEAR%	1548	KLEFTT	2387	KLINET	2395	KLOBR%	1259	KLOBR.	1072	KLOBR0	1179		
KLOBR3	1252	KLOBR4	1197	KLOBR5	1120	KLOBR9	1349	KLOBRG	1393	KLOBRI	1468	KLOBRK	2111		
KLOBRR	1089	KLOBRT	838	KLOBRU	1117	KP T	2407	KPROCA	2548	KRITET	2391	KVSTMI	2582		
KWM 7	1379	KWM2 7	2139	KWMXT7	1387	KX T	2383	L2PRMA	1089	LABELM	1003	LARRYA	2557		
LAST /	194	LAST 0	2752	LAST 1	194	LAST <	2482	LAST G	1447	LAST R	1592	LAST Z	850		
LD52CR	938	LDCOMI	1783	LDFLTO	1165	LDFMT2	1535	LDOLRI	1970	LDRNDA	3000	LDSYMZ	1780		
LDWM Z	1382	LDWRDZ	1526	LDZERK	1530	LEADRH	1343	LEFT 7	3063	LENNYB	1059	LFPART	1498		
LFPARX	1467	LFTRTK	1962	LGM 9	1330	LGSW H	2095	LGSW J	2248	LGSW S	2495	LIGHT4	1254		
LIGHTB	1458	LIMIOH	2068	LIMITI	1171	LIMITJ	1038	LIMITO	1350	LIMITQ	1516	LINCT#	658		
LINCT7	658	LINCT8	1321	LINK G	1477	LINK H	2139	LIO 1	1404	LIO 8	925	LIST 9	1641		
LIST C	1799	LIST I	2168	LIST X	935	LIST Z	1334	LITCS/	1045	LK4CMT	1839	LOAD M	1174		
LOAD R	572	LOAD Y	1910	LOAD Z	1430	LOAD1I	2280	LOAD27	1131	LOAD2I	2265	LOADGM	1622		
LOC N	1273	LOC O	1330	LOC P	1305	LOD A	754	LOD E	991	LOD2 I	1767	LODX O	1188		
LOGFUN	900	LOGSWR	1564	LOOK I	1216	LOOP #	497	LOOP %	1004	LOOP .	905	LOOP 0	1303		
LOOP 7	497	LOOP 8	1090	LOOP G	929	LOOP I	1255	LOOP M	1496	LOOP N	1473	LOOP Q	1444		
LOOP X	1752	LOOP Z	2017	LOOP1<	1135	LOOP1C	1329	LOOP1D	849	LOOP2<	1154	LOOP2R	412		
LOOP3<	1143	LOOP3H	1010	LOOPAH	1647	LOOPYX	1389	LOPP Z	2044	LOWERG	1416	LOWK 3	1500		
LOZNG1	1175	LOZSCF	1441	LSADDY	1703	LSTIOT	1457	LWPB 1	1171	M A	2537	M1 %	1609		
M2 %	1612	M2PRTA	1233	M3 %	1615	M3IS1%	1386	M3IS1X	1619	MACFLS	163	MAD Z	1315		
MAIN <	998	MAIN G	1359	MAIN X	1020	MANXBZ	1416	MARK A	2534	MARK K	1486	MARTYB	1318		
MASK %	1634	MASK .	1312	MASK 2	1463	MASK14	1441	MASK15	1184	MASK19	1626	MASK24	1449		
MASK34	1457	MASK44	1461	MATRX0	2643	MATRXS	1306	MAX .	1366	MAX J	844	MAX N	844		

MAX O	844	MAX P	844	MAXDL7	3021	MAYBE7	1391	MAYBEK	1091	MAYFNB	1369	MCFL5O	2087
MCM2 I	1263	MCW 1	1272	MCW18/	859	MCWX2R	1317	MDIFY%	1120	MDIFYI	960	MESBX<	2642
MESCM<	2072	MESSG/	935	MESSG2	1506	MESUR7	1410	MESUR<	2053	MESXT<	2079	MIDSW7	3018
MINUSY	2508	MIXUPJ	1103	MKFIXY	1364	MKFLTY	1294	MKFMTT	1391	MKND T	1835	MKPLSY	1642
MLPLYZ	1295	MN F	1695	MNTERB	1495	MOD J	2314	MOD N	1058	MOD O	2120	MODCHY	1085
MODSWY	2690	MONTER	700	MONTOR	769	MOR T	1062	MOV <	1926	MOVE 1	957	MOVE A	1174
MOVE C	1293	MOVE H	2033	MPLR H	1133	MRKRSI	2501	MSERRA	1077	MSG G	1951	MSG1 3	1315
MSG2 3	1333	MTPX1R	1508	MULT Z	2229	MULTYF	1356	MULTYN	1446	MUVE C	1453	MV2GMT	2248
MV2N T	1904	MV2XTT	1994	MVAD R	468	MVADRT	2340	MVAGNZ	2064	MVBALY	1857	MVD Z	1406
MVDIGT	1924	MVDWN0	1257	MVDWNT	2069	MVDWNY	894	MVDWNZ	2101	MVHED#	459	MVHED7	459
MVHED8	1052	MVIPTA	1211	MVLS Y	1662	MVMSKU	1221	MVNIN2	1078	MVNINR	1164	MVNSS2	924
MVNXL2	1245	MVRPTT	1672	MVSW U	1245	MVUP 0	953	MVUP N	853	MVUP2T	1086	MXTMPS	2566
MYB2 A	1817	N A	2528	NAME F	1019	NAME G	969	NBRSW2	1586	NCTR T	2426	NDFNDB	1385
NDOLRV	1003	NDOLRX	1768	NDRITH	3153	NDRPLT	2219	NDTABL	140	NEG 0	1948	NEG2 7	1644
NEG3 7	1269	NEGAT7	1239	NEGAT<	1626	NEGTFN	888	NEST G	1209	NEW A	1546	NEW J	1302
NEW N	1606	NEW O	1626	NEW X	989	NEWCDG	1435	NEXT 0	2766	NEXT <	2465	NEXT F	1344
NEXT N	1065	NEXT Y	974	NEXT Z	1183	NEXT11	1379	NEXT1X	963	NINE A	773	NISH 0	1528
NIX H	1598	NMBR B	2400	NOAD 3	1069	NOAPX%	1216	NOARIY	1499	NOBR Y	1748	NOCOLH	1147
NOCVTY	1382	NODICR	1335	NODUNH	1972	NOFMT9	1439	NOFUN<	1818	NOGUD8	1158	NOINTU	1106
NOIO 8	900	NOIO H	2076	NOLSTX	918	NOMO .	1053	NOMO 0	2745	NOMO <	2453	NOMO G	1247
NOMO I	2243	NOMO N	852	NOMO O	688	NOMO P	1342	NOMO S	2534	NOMO1I	2235	NONUMN	1569
NONUMU	1159	NOP C	1150	NOP3 R	1070	NOP4 R	433	NOPADK	2345	NOPR J	983	NOPRMA	2324
NOPSWR	536	NOPTM7	1887	NOPUN2	1166	NORAYH	1984	NORM M	1590	NORMLI	2029	NORMLK	1379
NORMLN	1274	NORT 7	1101	NOSUBT	1772	NOSWTT	2361	NOTHRN	1243	NOTING	1800	NOTINI	1381
NOTYTN	1294	NOWOPY	1254	NOXTR4	1239	NOZO M	1393	NUERR3	1131	NUFRMZ	1890	NULIN#	433
NULIN8	1025	NULINE	433	NUM 0	2820	NUM N	1316	NUM O	1374	NUM P	1351	NUMBER	2533
NUPOSZ	2302	NUSTM7	871	NUSTM<	883	NUSTMC	1022	NUSTME	852	NUSTMY	866	NUTYP3	842
NUTYPC	1063	NXBTM0	2755	NXBTM5	1604	NXBTMJ	83	NXBTMK	83	NXBTMM	83	NXBTMN	83
NXBTMO	83	NXBTMP	83	NXBTMQ	83	NXBTMR	83	NXBTMT	83	NXBTMX	83	NXBTMZ	83
NXGUYS	1210	NXGUYX	1977	NXTOPH	2052	NXTOPJ	86	NXTOPQ	86	NXTOPS	86	OBLIST	912
ODDBLK	1822	ODDSWK	2544	OFF 4	1433	OK %	1339	OK .	1122	OK 5	1068	OK F	1112
OKAY 0	2099	OKAY23	1042	OLDCDG	1385	ON 4	1436	ONCE 2	1155	ONE #	679	ONE A	2510
ONE B	2401	ONEADR	142	ONLY #	621	ONLY 7	621	OOPS1G	1828	OOPS2G	1972	OP 7	3064
OPMD Y	2700	OPNCK<	1663	OPS 0	2642	OPTM 7	1823	ORGVBI	2814	OTHER9	1421	OTHR29	1428
OUT #	478	OUT %	1533	OUT &	861	OUT *	861	OUT .	1320	OUT 0	2547	OUT 3	873
OUT 4	870	OUT 5	861	OUT 6	896	OUT A	2520	OUT F	1588	OUT G	1735	OUT H	1390
OUT I	2138	OUT J	2057	OUT K	2153	OUT L	1237	OUT M	1852	OUT N	1100	OUT O	1776
OUT R	1359	OUT U	870	OUT W	1139	OUT X	1988	OUT1 G	1685	OUT1 N	1484	OUT2 6	1001
OUT2 9	886	OUT2 R	1441	OUT3 9	981	OUT336	1020	OUTERX	1440	OUTERZ	1484	OUTPT7	1733
OVER M	1118	OVFLWJ	1973	OVFLWN	1645	OVFLWO	1671	PACK C	1295	PACK H	985	PACK J	1385
PACK2J	1425	PAKSWC	1807	PARAMA	686	PARAMH	686	PAREN0	1618	PARERT	1569	PAROKT	1584
PARSWT	2419	PART2Z	1858	PASS 0	1244	PASS J	2163	PASS K	2195	PASS O	1746	PASS W	1131
PASS X	1007	PAUSE3	1233	PAUSEE	1332	PCHCD/	838	PCHCD2	838	PCHTS2	984	PERIOD	154
PGCTR#	664	PGCTR7	664	PGCTR8	1467	PGET T	1424	PGNO A	2931	PHEW I	1954	PHEW K	1652
PHEW1K	1659	PHILF0	2815	PHIRT0	2816	PHSE1X	845	PHSE2N	937	PHSE2O	849	PHSE2P	849
PHSE2T	980	PHSE2X	845	PHSE3J	857	PHSE3N	1187	PHSE3O	849	PHSE3X	845	PHSE4N	1187
PICK C	1104	PKXT A	1969	PLACEM	1890	PLUS <	1544	PLUS Y	2492	PLUS11	1337	PLUS1L	1226
PLUSDF	160	PMOV 7	2039	PMOV M	1809	PMOV1C	1213	PMOV2C	1258	PMOV3E	1126	PNOT T	1479
POSTVQ	1486	PRDX B	938	PRED F	1694	PRED G	1826	PREP1Z	2447	PRESZK	2444	PRINT.	1257
PRINT8	971	PRINTE	1380	PRINTL	1094	PRMCDA	681	PRMSGA	1190	PRNTNT	250	PRNUMN	1562
PROBFB	1397	PROD H	2091	PRODL7	1963	PRTHDA	2267	PRTSW7	2936	PRTXT#	564	PRTXT7	564
PSKIPV	1174	PSUDON	1581	PULL1G	1409	PUNCHE	1375	PURE R	1131	PUT1 B	1595	PUT2 B	1606
PUT3 B	1617	PUT4 B	1628	PUT5 B	1639	PUT6 B	1650	PUT7 B	1661	PUTB I	2224	PUTC I	2438
PUTE M	1090	PUTMIX	1652	PUTN T	1998	PUTS X	1280	PXT /	855	PZ Y	1779	QUIT A	2233
QVERRG	1867	QVXT G	1905	RANDMJ	1075	RANDMN	964	RANDMO	1388	RDCNT2	1585	RDCNTA	837
RDCNTR	1631	RDITPE	1370	RDMSGG	1909	RDTAP2	1085	RDTAPE	1403	RDTAPR	1171	RDTPS2	931
RDTPX2	1252	RDXERB	1469	RDXT G	1947	READ 2	1074	READ E	1357	READ R	1160	READ2R	1011

REDUNG	1859	REFSWT	2518	REG %	1240	RELOCH	2081	RELOCR	1217	RELOKT	1672	RELXTR	1331
REMCKZ	1064	REMOVE	1484	REMV B	996	REPLCE	1314	REPLCV	1142	REPLST	2159	RESET0	2508
RESET1	893	RESETF	1191	RESETX	1068	RESETZ	1590	REST 1	865	RESTOI	1347	RESTRJ	1264
RESTRO	1545	RESTRX	1456	RETRN#	938	RETRN2	1070	RETRN4	1178	RETRN9	1176	RETRNT	995
RIGHT7	3088	RIGHTK	2442	RIGHTV	1106	RMVCMX	1817	RON Q	1387	ROOM Z	1361	ROUNDZ	1409
ROWS I	2767	RPLCED	881	RSTRX#	535	RSTRX7	535	RSTRX8	1128	RSX2 O	1161	RSX3 Z	1483
RTLFTK	1549	RTLFTN	1380	RTN 3	1118	RTN 5	1101	RTN2 J	1494	RTNA I	1093	RTNB I	1950
RTNLDZ	2356	RTP 6	209	RTPARI	2212	RTPARJ	1795	RTPARM	1369	RTPART	1541	RTPARX	1272
RTPXL6	930	RTR Z	1463	RTREVE	976	RU68 V	890	RUADR.	1114	RUADRX	1842	RUBADL	1178
RUCGTN	1229	RUCOM0	1228	RUCONK	1216	RUDIF%	1071	RUDUNX	922	RUDUPX	978	RUFIX.	1181
RUFIX0	2207	RUFN I	1487	RUINT0	1836	RUIO T	1352	RUOK %	1365	RUOK X	1897	RWD E	1425
S K	2342	SAUCEK	2700	SAUCEN	3200	SAUCEO	2600	SAUCEP	2700	SAUCEZ	856	SAV1 A	2838
SAV2 Y	2842	SAVE Z	1225	SAVE1G	1968	SAVE1N	1143	SAVE1X	2080	SAVE1Z	2413	SAVE2J	856
SAVE33	1616	SAVE3C	2003	SAVE5G	2143	SAVX2O	2057	SAVX37	2962	SAVX3Y	2689	SBR 1	1082
SBR Q	1494	SBR V	1131	SBR4 X	1212	SBR6 C	1161	SBRAYI	1743	SBSCR0	1347	SBSCRI	1583
SBVRT0	1890	SCAN J	873	SCAN K	986	SCAN Y	1382	SCAN2G	1609	SCAN2Y	1389	SCANRA	2070
SCFB B	1199	SCNBXT	2423	SCNDLV	873	SCNEQY	1216	SEEK J	981	SEEK O	1293	SEEK W	923
SEL A	1310	SEL B	1134	SEND %	1197	SEND 0	1912	SEND J	1272	SEND W	1169	SENLTE	1477
SENSEB	1260	SENSEM	1193	SERCH#	437	SET K	1266	SET1 T	1533	SET3 M	1624	SETN T	1122
SETP 9	1606	SETSWV	966	SETUP3	1084	SETUPK	1002	SETUPX	1634	SETWMM	1540	SETWMR	664
SETX1Z	1396	SETX2T	2260	SHIFTE	1026	SINFUN	903	SIX0 M	1952	SIXTNZ	1663	SKGBGV	1015
SKIP 0	1603	SKIP 1	1283	SKIP L	956	SKIP V	1186	SKIP Y	1880	SKIP21	1291	SKIPFH	1605
SKLOZI	1547	SKPSS2	920	SKPSW1	1522	SKPXC6	975	SKPXL2	1241	SKPXL6	988	SLASHA	1535
SLASHT	1636	SLIDEI	1415	SLIDEN	937	SLIDEU	1064	SLIDEW	1064	SLIDEX	942	SLIP X	893
SMALL.	901	SNDM2X	1523	SNDPTX	1001	SNDUMY	1128	SNGL 9	943	SNGL Q	1253	SNSE B	2432
SPACEG	878	SPACEX	2140	SPACEZ	1246	SPCL Q	1284	SPEC 9	1644	SPLITI	1656	SQRTFN	879
SQUEZZ	1971	SQUOZ<	1572	SQUOZO	1704	SQUOZW	959	START#	337	START%	859	START&	838
START*	838	START.	845	START0	1060	START1	337	START2	884	START3	838	START4	838
START5	838	START6	838	START7	838	START8	838	START9	842	START<	838	STARTA	838
STARTB	838	STARTC	1022	STARTD	838	STARTF	914	STARTG	1115	STARTH	931	STARTI	856
STARTJ	879	STARTK	877	STARTL	898	STARTM	864	STARTN	1205	STARTO	1210	STARTR	934
STARTS	916	STARTU	838	STARTW	854	STARTX	888	STARTY	838	START[	838	STATEM	1979
STLOCE	83	STMNOA	2822	STMNOE	1494	STO 0	913	STODDK	2264	STOP E	1336	STORE1	1237
STORE2	1271	STOREA	1364	STOREZ	853	STOTPR	1423	STREGZ	1926	STRIPM	1670	STRIPO	1414
STRX1Z	1635	SUB C	1096	SUB1 7	2728	SUB1 Y	2657	SUB2 K	1198	SUB3 7	2147	SUB5 Y	1190
SUBSC<	2199	SUBSCK	1176	SUBSCR	191	SUBSWI	2503	SUBSWK	2038	SUBTRI	2033	SUBTRJ	1131
SUBTRN	989	SUBTRO	1424	SUBXT7	2754	SV1 X	2063	SVORGG	1181	SVZN M	1981	SVZN X	2060
SW 1	1060	SW1 A	1332	SW1 I	1119	SW1 R	583	SW1 T	2418	SW2X2R	1266	SWAP 7	1575
SWCH N	1583	SWCHAI	956	SWCHAJ	1099	SWCHAK	2272	SWCHBI	1332	SWCHBJ	1731	SWCHCJ	1256
SWCHDJ	2076	SWCHEJ	943	SWCHFJ	1806	SWCHGJ	1739	SWCHSK	2243	SWCHXK	1390	SWCHZK	1404
SWEAT5	955	SWEATY	2254	SWIX2J	1594	SWLWP1	1156	SWM Y	2363	SWOFFX	1608	SWTCH%	1212
SWTCH2	1416	SWTCHQ	998	SWTCHX	1543	SYMB U	1032	SYMBLZ	1702	SYN2RI	1938	SYN2SI	2502
SYNER<	2122	SYNERF	1484	SYNERG	883	SYNERM	1755	SYNTXK	1784	SYS1 &	931	SYS1 *	975
SYS1 /	1417	SYS1 3	1661	SYS1 4	1614	SYS1 9	1758	SYS1 D	1112	SYS1 E	1567	SYS1 F	1845
SYS1 G	1979	SYS1 K	2601	SYS1 U	1324	SYS1 V	1271	SYS1 W	1256	SYS1 X	1265	SYS1 Z	1594
SYS2 1	1573	SYS2 6	1144	SYS2 G	2145	SYS2 H	2273	SYS2 O	1397	SYS2 P	1405	SYS2 Q	1549
SYS2 T	2599	SYS2 X	2197	SYS2 Z	1676	SYS3 N	1689	SYS3 X	1018	SYS4 J	2499	SYS4 N	1726
SYS5 L	1361	SYS6 S	2610	SYSC22	1612	SYSCG.	1469	SYSG 8	1470	SYSGM0	3091	SYSGM7	3103
SYSGM<	2768	SYSGMA	2999	SYSGMY	2873	SYSGMZ	2469	SYSGM[	1068	SYSL 5	1292	SYSMKC	1427
T1 #	498	T2 #	540	TABELZ	2499	TABLE7	2241	TABLEC	838	TABLEE	1197	TABLEK	2311
TABLEM	1945	TABLES	2329	TABLEZ	897	TAIL 0	2747	TAIL K	1837	TAKE M	1544	TALLYG	865
TAMAXT	2600	TAMR1T	1599	TAMROF	980	TAPE 9	1710	TBAD2R	1563	TBEGIN	1810	TBKFF1	1013
TBL1 Z	847	TBL2 Z	883	TBLADR	927	TBLR 7	2572	TBOOT#	553	TCLEAR	710	TEMP 0	2572
TEMP O	2136	TEMP2O	2139	TEN A	2536	TERM 1	1204	TEST %	1301	TEST .	1148	TEST H	1313
TEST J	1671	TEST K	1435	TEST M	932	TEST1B	1089	TEST1K	1016	TEST1Z	884	TEST2B	1102
TEST2K	1031	TEST2Q	1095	TEST2V	1068	TEST2Z	2443	TEST3Z	2444	TEST5Q	991	TEST5V	1033
TESTAZ	1570	TESTBZ	1590	TESTCZ	1610	THREEZ	838	THRU L	1045	TLGM 9	1282	TLU I	1240

TMPSZS	2540	TMS3 Z	1207	TOP %	1642	TOP M	914	TOP Q	1519	TOP R	1641	TOP2 Q	1522
TOTALA	2807	TOTALK	2428	TOVL A	1228	TPERM#	581	TPERR2	1102	TPERR6	284	TPERRR	1188
TPERX6	947	TPNAMM	1161	TRACKK	200	TRAP .	1359	TRAWMZ	1730	TRY2 M	1655	TRYITK	972
TSDUNH	1660	TST1 <	1172	TST1 G	1195	TSTCSZ	1814	TSTIOH	838	TSTNDA	1669	TSTWMZ	1400
TU I	2204	TUBIGH	1566	TUF 7	1328	TUF2 7	1344	TUKIT0	2493	TUNO 9	1638	TUNO I	1336
TUNO U	1225	TURN G	1592	TURN I	1858	TURN K	1994	TUSW I	2599	TWISTI	2097	TWISTK	1603
TWLV58	1043	TWO A	2513	TWO9 N	1275	TWO9 O	1332	TWO9 P	1307	TYPE 0	2870	TYPE1R	993
UNARY7	2672	UNDEFJ	1824	UNIQ F	1050	UNITS0	2819	UNITSK	1894	UNPAKA	1876	UNPAKN	1200
UNPAKO	1256	UNPAKP	1231	UNREFJ	965	UNREFN	1412	UNREFT	1361	UPDATZ	2204	UPLIMJ	848
UPLIMN	849	UPLIMO	848	UPLIMP	848	URFSWT	2550	VARBLI	1992	VARBLM	1283	VBLSWI	2779
VERSEI	2505	VSERRI	1036	VZONEI	2768	VZONEJ	2336	WCTR T	2495	WITCHM	1224	WK5 A	2653
WK5 O	2071	WK51 A	2648	WK51 O	2208	WKBK1Z	870	WKBK2Z	875	WKBK3Z	1668	WMSW Z	1613
WMTSTZ	1514	WORD #	680	WORDLI	2587	WORK 3	1598	WORK A	2425	WORK B	2397	WORK F	1690
WORK G	849	WORK I	2646	WORK J	2296	WORK K	2363	WORK O	2106	WORK U	893	WORK1M	1962
WORK34	1613	WORK3A	2834	WORK3C	1352	WORK3I	2597	WORK5J	853	WORK6A	2817	WORK9C	1820
WORRYL	968	WORRYM	1026	WORRYN	1321	WORRYY	1109	WOW K	2043	WP 1	1103	WPB 1	1152
WPCS 1	1497	WRAP N	1390	WRDMVZ	1393	WRONGX	1116	WRTAPE	1412	WTOTPE	1395	X1 %	89
X1 &	89	X1 *	89	X1 .	89	X1 0	89	X1 1	89	X1 3	89	X1 4	89
X1 5	89	X1 6	89	X1 7	89	X1 8	89	X1 9	89	X1 <	89	X1 B	89
X1 C	89	X1 D	89	X1 E	89	X1 F	89	X1 G	89	X1 H	89	X1 I	89
X1 J	89	X1 K	89	X1 L	89	X1 M	89	X1 N	89	X1 O	89	X1 P	89
X1 Q	89	X1 R	89	X1 S	89	X1 T	89	X1 U	89	X1 V	89	X1 W	89
X1 X	89	X1 Y	89	X1 Z	89	X2 %	94	X2 .	94	X2 0	94	X2 1	94
X2 3	94	X2 4	94	X2 5	94	X2 7	94	X2 9	94	X2 <	94	X2 C	94
X2 D	94	X2 E	94	X2 F	94	X2 G	94	X2 H	94	X2 I	94	X2 J	94
X2 K	94	X2 L	94	X2 M	94	X2 N	94	X2 O	94	X2 P	94	X2 Q	94
X2 R	94	X2 S	94	X2 T	94	X2 U	94	X2 V	94	X2 W	94	X2 X	94
X2 Y	94	X2 Z	94	X25 Z	1594	X3 %	99	X3 &	99	X3 *	99	X3 .	99
X3 0	99	X3 1	99	X3 3	99	X3 4	99	X3 5	99	X3 7	99	X3 8	99
X3 9	99	X3 <	99	X3 F	99	X3 G	99	X3 H	99	X3 I	99	X3 J	99
X3 K	99	X3 L	99	X3 M	99	X3 N	99	X3 O	99	X3 P	99	X3 Q	99
X3 R	99	X3 S	99	X3 T	99	X3 U	99	X3 V	99	X3 W	99	X3 X	99
X3 Y	99	X3 Z	99	X35 Z	1599	X3ANDI	7+X3	XABSVA	122	XATANF	121	XBEGIN	838
XCOMF1	117	XDOAD1	111	XDOAD2	112	XDOAD3	113	XDOINI	114	XDOSBS	116	XEUNTK	1683
XEXPON	157	XFIXFU	124	XFLTFU	125	XL1 #	89	XL1 7	89	XL1 A	89	XL1 C	89
XL1 E	89	XL2 #	94	XL2 A	94	XL2 C	94	XL2 E	94	XL2 T	94	XL3 #	99
XL3 7	99	XL3 A	99	XL3 C	99	XL3 E	99	XL3 T	99	XLINKF	139	XLINKS	840
XLINKW	185	XLOGFN	119	XNEGTF	123	XNOT T	1281	XOBLST	115	XPANDI	1726	XPMODY	2768
XPNETL	897	XPON Y	2767	XPONTK	2420	XSINFU	118	XSQRTF	126	XSUB Y	2513	XTPSW9	1757
XUSER1	127	XUSER2	128	XUSER3	129	XUSER4	130	XUSER5	131	XUSER6	132	XUSER7	133
XUSER8	134	XUSER9	135	XUSR10	136	XUSR11	137	XUSR12	138	XXPNTL	120	XXX #	0
XXX 7	0	XXX 8	0	XXX 9	1165	XXX T	0	XXXX C	0	XXXX E	0	YEAH M	1413
YESIOT	1291	YIPEE6	201	YUSER1	876	YUSER2	873	YUSER3	870	YUSER4	867	YUSER5	864
YUSER6	861	YUSER7	858	YUSER8	855	YUSER9	852	YUSR10	849	YUSR11	846	YUSR12	843
ZADD C	1442	ZERO #	637	ZERO 5	1162	ZERO M	1597	ZERO Y	2500	ZEROS#	641	ZEROZJ	2247
ZNA J	1929	ZON19O	1334	ZONCH<	2035	ZONE .	1243	ZONE 0	2829	ZONE C	1009	ZONE L	1080
ZONE N	1627	ZONE Z	886	ZONESH	2098	ZONESI	2602	ZONESJ	2250	ZONESN	1276	ZONESO	2015
ZONESP	1308	ZONESS	2497	ZONESX	2019								