```
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

                         FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38                          PAGE    1

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

 101               JOB   FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38
 102               CTL   6611
 103         *
 104         * OPTIMIZATION OF TEMPORARY STORAGE AREAS TAKES PLACE.
 105         * THESE AREAS ARE ASSIGNED DEFINITE LOCATIONS IN STORAGE.
 106         *
 107         * ON ENTRY X1 IS AT THE BOTTOM OF THE BOTTOMMOST ASSIGNMENT
 108         * STATEMENT IN LOW CORE, X2 IS AT THE AT THE BOTTOM OF THE
 109         * BOTTOMMOST ASSIGNMENT STATEMENT IN HIGH CORE, AND X3 IS
 110         * THE BOTTOM OF THE BOTTOM OF THE BOTTOMMOST STATEMENT IN
 111         * HIGH CORE THAT IS NEITHER AN ASSIGNMENT NOR IF STATEMENT.
 112         *
 113         X1     EQU   89                                                      0089
 114         X2     EQU   94                                                      0094
 115         X3     EQU   99                                                      0099
 116         *
 117         * STUFF IN THE RESIDENT AREA
 118         *
 119         PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS                       0110
 120         GLOBER EQU   184  GLOBAL ERROR FLAG -- WM MEANS ERROR                0184
 121         SNAPSH EQU   333  CORE DUMP SNAPSHOT                                 0333
 122         IMOD   EQU   690  INTEGER MODULUS -- NUMBER OF DIGITS               0690
 123         MANTIS EQU   692  FLOATING POINT MANTISSA DIGITS                     0692
 124         LOADNX EQU   700  LOAD NEXT OVERLAY                                  0700
 125         CLEARL EQU   707  CS AT START OF OVERLAY LOADER                       0707
 126         *
 127               ORG   838                                                            0838
 128    838  BEGINN BCE   DONE,X2,.                                          8  0838  B S51 094 .          4
 129    846         SBR   SX2,0&X2                                          7  0846  H N31 0!0            4
 130    853         MN    0&X3                                              4  0853  D 0?0                4
 131    857         MN                                                      1  0857  D                    4
 132    858         SAR   SX3                                               4  0858  Q N34                4
 133    862         SBR   SX1,0&X1                                         7  0862  H N37 0|0            4
 134    869         MCW   86,S86                                           7  0869  M 086 N66            4
 135    876         MCW   MANTIS,NUMWID                                    7  0876  M 692 N40            5
 136    883         MN    KPZERO,NUMWID-2                                   7  0883  D N41 N38            5
 137    890         A     KP2,NUMWID  WASN'T THIS DONE A LONG TIME AGO?     7  0890  A N42 N40            5
 138    897         C     NUMWID,IMOD                                       7  0897  C N40 690            5
 139    904         BL    *&8                                               5  0904  B 916 T              5
 140    909         MCW   IMOD,NUMWID  NUMWID IS MAX(IMOD,MANTIS&4)         7  0909  M 690 N40            6
 141    916  LOOP   C     X2,SX3                                            7  0916  C 094 N34            6
 142    923         BE    ALMOST                                            5  0923  B S21 S              6
 143    928         MCW   WORK,WORK-1  FILL WORK WITH RECORD MARKS          7  0928  M M94 M93            6
 144    935  GETLES BCE   GOTLES,2&X2,<                                     8  0935  B 959 0!2 <          6
 145    943         SBR   X2                                                4  0943  H 094                6
 146    947         BCE   ENDSTM,1&X2,}                                     8  0947  B S10 0!1 } GMARK    7
 147    955         B     GETLES                                            4  0955  B 935                7
```

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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
148    959  GOTLES MN    4&X2,W3                                           7  0959  D 0!4 N45           7
149    966         MN                                                     1  0966  D                   7
150    967         MCW   KZERO                                           4  0967  M N46               7
151    971         BWZ   ZONEX3,4&X2,2                                   8  0971  V |16 0!4 2         7
152    979         A     KP100,W3                                        7  0979  A N49 N45           7
153    986         BWZ   ZONEX3,4&X2,S                                   8  0986  V |16 0!4 S         8
154    994         A     KP100,W3                                        7  0994  A N49 N45           8
155  1 001         BWZ   ZONEX3,4&X2,K                                   8  1001  V |16 0!4 K         8
156  1 009         A     KP100,W3                                        7  1009  A N49 N45           8
157  1 016  ZONEX3 MCW   W3,X3  4&X2 & &100*ZONE TO X3                   7  1016  M N45 099           8
158  1 023         A     X3                                              4  1023  A 099               9
159  1 027         A     W3,X3  TIMES 3                                  7  1027  A N45 099           9
160  1 034         BCE   GOTASG,5&X2,#                                   8  1034  B |60 0!5 #         9
161  1 042         MCW   WRKBOT&X3,X1                                    7  1042  M T?5 089           9
162  1 049         MCW   RM,WRKMID&X1                                    7  1049  M N50 LS8           9
163  1 056         B     NOTASG                                          4  1056  B |89               9
164  1 060  GOTASG MCM   WRKMID&1                                        4  1060  P L29              10
165  1 064         SAR   X1                                              4  1064  Q 089              10
166  1 068         MA    A13671,X1                                       7  1068  # N53 089          10
167  1 075         MCW   *-6,WRKMID&X1                                   7  1075  M |75 LS8          10
168  1 082         MCW   X1,WRKBOT&X3                                    7  1082  M 089 T?5          10
169  1 089  NOTASG ZA    X1,W7-4                                         7  1089  ? 089 N56          10
170  1 096         M     NUMWID,W7                                       7  1096  @ N40 N60          11
171  1 103         SW    W7-4                                            4  1103  , N56              11
172  1 107         MN    W7,4&X2  CONVERT W7 TO MACHINE ADDRESS          7  1107  D N60 0!4          11
173  1 114         MN                                                    1  1114  D                  11
174  1 115         MN                                                    1  1115  D                  11
175  1 116         SAR   *&4                                            4  1116  Q /23              11
176  1 120         MCW   0,X3                                           7  1120  M 000 099          11
177  1 127         MCW   KZERO                                          4  1127  M N46              12
178  1 131         A     X3                                              4  1131  A 099              12
179  1 135         MZ    ZONES&X3,4&X2                                   7  1135  Y MI8 0!4          12
180  1 142         CW                                                    1  1142  )                  12
181  1 143         SBR   *&7                                            4  1143  H /53              12
182  1 147         MZ    ZONES-1&X3,0                                    7  1147  Y MI7 000          12
183  1 154         CW    W7-4                                            4  1154  ) N56              12
184  1 158         MA    86,4&X2                                         7  1158  # 086 0!4          13
185  1 165         C     X1,W3B                                          7  1165  C 089 N63          13
186  1 172         BH    NOTBIG                                          5  1172  B /99 U            13
187  1 177         MCW   X1,W3B                                          7  1177  M 089 N63          13
188  1 184         MCW   4&X2,S86                                        7  1184  M 0!4 N66          13
189  1 191         BWZ   BIGTST,S86,2  UNDER 4K?                  V3M4   8  1191  V O10 N66 2        14
190  1 199  NOTBIG SBR   X2,3&X2                                        7  1199  H 094 0!3          14
191  1 206         B     GETLES                                          4  1206  B 935              14
192         *
193         * END OF STATEMENT.
194         *
195  1 210  ENDSTM SBR   X2,4&X2                                        7  1210  H 094 0!4          14
196  1 217         B     LOOP                                            4  1217  B 916              14
197         *
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
198         * ALMOST DONE
199         *
200  1 221  ALMOST  MCW   SX2,X3                                              7  1221  M N31 099           14
201  1 228          MCW   SX1,X1                                              7  1228  M N37 089           15
202  1 235          C     0&X1                                                4  1235  C 0|0               15
203  1 239          C                                                         1  1239  C                   15
204  1 240          SAR   X1                                                  4  1240  Q 089               15
205  1 244          MCW   S86,86                                              7  1244  M N66 086           15
206         *
207  1 251  DONE    BSS   SNAPSH,D                                           5  1251  B 333 D             15
208  1 256          SBR   CLEARL&3,GMWM                                       7  1256  H 710 O23           15
209  1 263          LCA   IO2,PHASID                                          7  1263  L N73 110           16
210  1 270          B     LOADNX                                              4  1270  B 700               16
211         *
212         * PROGRAM IS TOO BIG
213         *
214  1 274  TOOBIG  BW    NOTBIG,PRINTD                                       8  1274  V /99 M95 1         16
215  1 282          CS    332                                                 4  1282  / 332               16
216  1 286          CS                                                        1  1286  /                   16
217  1 287          MCW   ERROR2,270                                          7  1287  M O09 270           16
218  1 294          W                                                         1  1294  2                   16
219  1 295          SW    GLOBER,PRINTD                                       7  1295  , 184 M95           17
220  1 302          B     NOTBIG                                              4  1302  B /99               17
221         *
222  1 305  WRKBOT  EQU   *                                                      1305
223  1 355          DCW   @                                                 @   50  1355                      19
224                 ORG   2329                                                      2329
225  2 328  WRKMID  EQU   *                                                      2328
226  2 378          DCW   @                                                 @   50  2378                      21
227  2 428          DC    @                                                 @   50  2428                      23
228  2 478          DC    @                                                 @   50  2478                      25
229  2 494  WORK    DC    @               |@                                    16  2494                      25
230  2 495  PRINTD  DC    @ @  WM MEANS *TOO BIG* MESSAGE HAS BEEN PRINTED     1  2495                      25
231  2 497  KB9     DCW   @ 9@                                                2  2497                      25
232  2 498  ZONES   EQU   *&1                                                    2498
233  2 528          DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  31  2528                      26
234  2 531  SX2     DCW   #3                                                  3  2531                      26
235  2 534  SX3     DCW   #3                                                  3  2534                      26
236  2 537  SX1     DCW   #3                                                  3  2537                      27
237  2 540  NUMWID  DCW   #3                                                  3  2540                      27
238  2 541  KPZERO  DCW   @?@                                                 1  2541                      27
239  2 542  KP2     DCW   &2                                                  1  2542                      27
240  2 545  W3      DCW   #3                                                  3  2545                      27
241  2 546  KZERO   DCW   0                                                   1  2546                      27
242  2 549  KP100   DCW   &100                                               3  2549                      27
243  2 550  RM      DCW   @|@                                                 1  2550                      28
244  2 553  A13671  DSA   13671                                               3  2553  W7A                 28
245  2 560  W7      DCW   #7                                                  7  2560                      28
246  2 563  W3B     DCW   #3                                                  3  2563                      28
247  2 566  S86     DCW   #3                                                  3  2566                      28
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                        FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38                                PAGE    4

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

248  2 573  IO2    DCW   @I/O TWO@                                              7  2573                      28
249  2 609  ERROR2 DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@                36  2609                      29
250  2 610  BIGTST BWZ   TOOBIG,S86-2,2  UNDER 1K?                    V3M4      8  2610  V S74 N64 2         30
251  2 618         BIN   NOTBIG,                                      V3M4      5  2618  B /99               30
252  2 623  GMWM   DCW   @}@                                                   1  2623              GMARK   30
253                EX    BEGINN                                                         B 838               31
254                END                                                                  / 000 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
A13671	2553	ALMOST	1221	BEGINN	838	BIGTST	2610	CLEARL	707	DONE	1251	ENDSTM	1210
ERROR2	2609	GETLES	935	GLOBER	184	GMWM	2623	GOTASG	1060	GOTLES	959	IMOD	690
IO2	2573	KB9	2497	KP100	2549	KP2	2542	KPZERO	2541	KZERO	2546	LOADNX	700
LOOP	916	MANTIS	692	NOTASG	1089	NOTBIG	1199	NUMWID	2540	PHASID	110	PRINTD	2495
RM	2550	S86	2566	SNAPSH	333	SX1	2537	SX2	2531	SX3	2534	TOOBIG	1274
W3	2545	W3B	2563	W7	2560	WORK	2494	WRKBOT	1305	WRKMID	2328	X1	89
X2	94	X3	99	ZONES	2498	ZONEX3	1016						