```
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
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                     FORTRAN COMPILER -- REPLACE PHASE ONE -- PHASE 51                               PAGE   1

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

101                JOB   FORTRAN COMPILER -- REPLACE PHASE ONE -- PHASE 51
102                CTL   6611
103        *
104        * OBJECT-TIME INSTRUCTIONS WHICH REFERENCE STATEMENT NUMBERS
105        * ARE CORRECTED TO THE OBJECT-TIME ADDRESSES OF THE
106        * STATEMENT.  SUBSCRIPT STRINGS ARE CLEANED UP.
107        *
108        X1     EQU   89                                              0089
109        X2     EQU   94                                              0094
110        X3     EQU   99                                              0099
111        *
112        * STUFF IN THE RESIDENT AREA
113        *
114        PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS               0110
115        SUBSCR EQU   116  WM CLEARED IF SUBSCRIPT CODE NEEDED        0116
116        SEQTAB EQU   148  BOTTOM OF SEQUENCE NUMBER TABLE - 2        0148
117        BOTFMT EQU   154  BOTTOM OF FORMAT STRINGS OR NUMBER TABLE - 1  0154
118        NEGARY EQU   163  16000 - ARYSIZ                             0163
119        SNAPSH EQU   333  CORE DUMP SNAPSHOT                         0333
120        LOADNX EQU   700  LOAD NEXT OVERLAY                          0700
121        CLEARL EQU   707  CS AT START OF OVERLAY LOADER              0707
122        LOADXX EQU   793  EXIT FROM OVERLAY LOADER                   0793
123        CLRBOT EQU   833  BOTTOM OF CORE TO CLEAR IN OVERLAY LOADER  0833
124        *
125        * RUNTIME ROUTINES
126        *
127        ARITF  EQU   700 ARITHMETIC INTERPRETER                      0700
128        *
129                ORG   838                                                    0838
130        LOADDD EQU   *&1          LOAD ADDRESS                       0838
131    838 BEGINN MCW   X3,SX3                                       7  0838  M 099 S49          4
132    845        MCW   SEQTAB,*&7                                   7  0845  M 148 858          4
133    852        MCW   KGREAT,0                                     7  0852  M S50 000          4
134    859        MCW   BOTFMT,X2                                    7  0859  M 154 094          4
135    866        MCW   KGREAT,1600                                  7  0866  M S50 W00          4
136    873 GETSUB BCE   GETSB2,0&X2,$  WITHIN TEN OF TOP OF SUBSCRIPT?  8  0873  B 915 0!0 $        5
137    881        CHAIN 9                                                                 MACRO
138               BCE                                               1  0881  B            GEN     5
139               BCE                                               1  0882  B            GEN     5
140               BCE                                               1  0883  B            GEN     5
141               BCE                                               1  0884  B            GEN     5
142               BCE                                               1  0885  B            GEN     5
143               BCE                                               1  0886  B            GEN     5
144               BCE                                               1  0887  B            GEN     6
145               BCE                                               1  0888  B            GEN     6
146               BCE                                               1  0889  B            GEN     6
147    890 BOTEX  BCE   BOTTOM,0&X2,>  GREATER SIGN BELOW CODE?        8  0890  B |15 0!0 >        6
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                    FORTRAN COMPILER -- REPLACE PHASE ONE -- PHASE 51                              PAGE    2

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

 148    898          CHAIN 9                                                             MACRO
 149                 BCE                                             1 0898  B           GEN      6
 150                 BCE                                             1 0899  B           GEN      6
 151                 BCE                                             1 0900  B           GEN      6
 152                 BCE                                             1 0901  B           GEN      7
 153                 BCE                                             1 0902  B           GEN      7
 154                 BCE                                             1 0903  B           GEN      7
 155                 BCE                                             1 0904  B           GEN      7
 156                 BCE                                             1 0905  B           GEN      7
 157                 BCE                                             1 0906  B           GEN      7
 158    907          SBR   X2                                       4 0907  H 094                7
 159    911          B     GETSUB                                   4 0911  B 873                8
 160    915  GETSB2  BCE   SUBTOP,0&X2,$   TOP OF SUBSCRIPT?         8 0915  B 931 0!0 $          8
 161    923          SBR   X2                                       4 0923  H 094                8
 162    927          B     GETSB2                                   4 0927  B 915                8
 163    931  SUBTOP  MN    0&X2                                     4 0931  D 0!0                8
 164    935          SAR   X2                                       4 0935  Q 094                8
 165    939          BCE   SUBBOT,0&X2,$   WITHIN 16 OF BOTTOM OF SUBSCRIPT? 8 0939  B 966 0!0 $   8
 166    947          CHAIN 15                                                            MACRO
 167                 BCE                                             1 0947  B           GEN      9
 168                 BCE                                             1 0948  B           GEN      9
 169                 BCE                                             1 0949  B           GEN      9
 170                 BCE                                             1 0950  B           GEN      9
 171                 BCE                                             1 0951  B           GEN      9
 172                 BCE                                             1 0952  B           GEN      9
 173                 BCE                                             1 0953  B           GEN      9
 174                 BCE                                             1 0954  B           GEN     10
 175                 BCE                                             1 0955  B           GEN     10
 176                 BCE                                             1 0956  B           GEN     10
 177                 BCE                                             1 0957  B           GEN     10
 178                 BCE                                             1 0958  B           GEN     10
 179                 BCE                                             1 0959  B           GEN     10
 180                 BCE                                             1 0960  B           GEN     10
 181                 BCE                                             1 0961  B           GEN     11
 182    962          B     GETSUB                                   4 0962  B 873               11
 183    966  SUBBOT  CW    SUBSCR                                   4 0966  ) 116               11
 184    970  DEC3    MN    0&X2                                     4 0970  D 0!0               11
 185    974          MN                                             1 0974  D                   11
 186    975          MN                                             1 0975  D                   11
 187    976          SAR   X2                                       4 0976  Q 094               11
 188    980          SW    1&X2                                     4 0980  , 0!1               12
 189    984          BCE   DEC1,0&X2,$                              8 0984  B |03 0!0 $          12
 190    992          MZ    *-4,2&X2                                 7 0992  Y 994 0!2           12
 191    999          B     DEC3                                     4 0999  B 970               12
 192  1 003  DEC1    MN    0&X2                                     4 1003  D 0!0               12
 193  1 007          SAR   X2                                       4 1007  Q 094               12
 194  1 011          B     GETSUB                                   4 1011  B 873               12
 195  1 015  BOTTOM  MCW   APASS2,BOTEX&3                           7 1015  M S53 893           13
 196  1 022          MCW   X3,X2                                    7 1022  M 099 094           13
 197  1 029          B     GETSUB                                   4 1029  B 873               13
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SEQ PG LIN  LABEL  OP   OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

198  1 033  PASS2X BCE  DONE,0&X3,                                         8  1033  B S10 0?0            13
199  1 041         MCW  X3,LINK&6                                          7  1041  M 099 /37            13
200  1 048         C    0&X3                                               4  1048  C 0?0               13
201  1 052         SBR  X2                                                 4  1052  H 094               14
202  1 056         SBR  X3                                                 4  1056  H 099               14
203  1 060         BCE  TARITF,1&X3,|   TOP OF ARITHMETIC ASSIGNMENT       8  1060  B /74 0?1 |          14
204  1 068  TESTWM BW   PASS2X,4&X2                                        8  1068  V |33 0!4 1          14
205  1 076         BWZ                                                     1  1076  V                   14
206  1 077         BWZ                                                     1  1077  V                   14
207  1 078         BM   NOLINK,3&X2                                        8  1078  V /42 0!3 K          14
208  1 086         C    4&X2,A277X3                                        7  1086  C 0!4 S56           15
209  1 093         BE   PASS2X                                             5  1093  B |33 S             15
210  1 098         BWZ  ADDLNK,3&X2,B                                      8  1098  V /17 0!3 B         15
211  1 106  BUMPX2 SBR  X2,3&X2                                            7  1106  H 094 0!3           15
212  1 113         B    TESTWM                                            4  1113  B |68               15
213  1 117  ADDLNK MCW  4&X2,X1   WHY NOT JUST MA 4&X2,LINK&6 ???           7  1117  M 0!4 089           15
214  1 124         MZ   *-6,*&6   X1 TAG                                    7  1124  Y /24 /36           16
215  1 131  LINK   SBR  4&X2,0                                             7  1131  H 0!4 000           16
216  1 138         B    BUMPX2                                            4  1138  B /06               16
217  1 142  NOLINK MCW  4&X2,X1                                            7  1142  M 0!4 089           16
218  1 149         MA   NEGARY,X1                                          7  1149  # 163 089           16
219  1 156         MCW  0&X1,X1                                            7  1156  M 0|0 089           16
220  1 163         MCW  X1,4&X2                                            7  1163  M 089 0!4           17
221  1 170         B    BUMPX2                                            4  1170  B /06               17
222  1 174  TARITF BW   *&5,2&X3   NEED TO LOOK FOR BRANCH TO ARITF?        8  1174  V /86 0?2 1         17
223  1 182         B    PASS2X                                             4  1182  B |33               17
224  1 186  FARITF C    0&X3   FIND THE BRANCH TO ARITF                   4  1186  C 0?0               17
225  1 190         SBR  X3                                                 4  1190  H 099               17
226  1 194         C    4&X3,BARITF&3   BRANCH TO ARITHMETIC INTERPRETER?   7  1194  C 0?4 S60           17
227  1 201         BE   PASS2X         YES                                 5  1201  B |33 S             18
228  1 206         B    FARITF         NO, LOOK AGAIN                     4  1206  B /86               18
229  1 210  DONE   MCW  SX3,X3                                             7  1210  M S49 099           18
230  1 217         BSS  SNAPSH,C                                           5  1217  B 333 C             18
231  1 222         SBR  LOADXX&3,934                                       7  1222  H 796 934           18
232  1 229         SBR  CLEARL&3,GMWM                                      7  1229  H 710 S71           18
233  1 236         LCA  LOAD52,PHASID                                      7  1236  L S70 110           19
234  1 243         B    LOADNX                                            4  1243  B 700               19
235  1 249  SX3    DCW  #3                                                 3  1249                       19
236  1 250  KGREAT DCW  @>@  GREATER THAN SIGN                             1  1250                       19
237  1 253  APASS2 DSA  PASS2X                                             3  1253  |33                 19
238  1 256  A277X3 DSA  277&X3                                             3  1256  2G7                 19
239  1 257  BARITF B    ARITF                                             4  1257  B 700               19
240  1 270  LOAD52 DCW  @LOAD 52B&C@                                      10  1270                       20
241  1 271  GMWM   DCW  @}@                                               1  1271            GMARK       20
242                ORG  201                                                          0201
243     203        DSA  LOADDD     LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM    3  0203  838                 21
244                EX   BEGINN                                                      B 838               22
245                END                                                              / 000 080
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FORTRAN COMPILER -- REPLACE PHASE ONE -- PHASE 51   PAGE   4

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
A277X3	1256	ADDLNK	1117	APASS2	1253	ARITF	700	BARITF	1257	BEGINN	838	BOTEX	890
BOTFMT	154	BOTTOM	1015	BUMPX2	1106	CLEARL	707	CLRBOT	833	DEC1	1003	DEC3	970
DONE	1210	FARITF	1186	GETSB2	915	GETSUB	873	GMWM	1271	KGREAT	1250	LINK	1131
LOAD52	1270	LOADDD	838	LOADNX	700	LOADXX	793	NEGARY	163	NOLINK	1142	PASS2X	1033
PHASID	110	SEQTAB	148	SNAPSH	333	SUBBOT	966	SUBSCR	116	SUBTOP	931	SX3	1249
TARITF	1174	TESTWM	1068	X1	89	X2	94	X3	99				