```
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 -- PHASES 00-02                                      PAGE   1

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

101                JOB   FORTRAN COMPILER -- PHASES 00-02
102                CTL   6611
103         *
104         * SNAPSHOT, SYSTEM MONITOR, AND LOADER PHASE.
105         *
106         * READ AND STORE THE SOURCE PROGRAM, IN REVERSE ORDER, STARTING
107         * AT THE TOP OF CORE, WITH BLANKS REMOVED EXCEPT WITHIN
108         * HOLLERITH FIELDS IN FORMAT STATEMENTS.  EACH STATEMENT BEGINS
109         * WITH 000.  FORMAT STATEMENTS THEN HAVE F, WHILE OTHERS HAVE R.
110         * THEN THE LABEL, IF ANY, FOLLOWED BY A COLON.  THE END OF EACH
111         * STATEMENT IS MARKED BY A GROUP MARK WITH A WORD MARK.  AFTER
112         * THE LAST CARD, A STOP STATEMENT IS INSERTED.
113         *
114                ORG   81                                                  0081
115     86         DC    @     @                             6  0086                        4
116     89  X1     DCW   @000@                               3  0089                        4
117         XXXXX1 EQU   X1       FOR USE IN SFX REGIONS        0089
118     91         DC    @00@                                2  0091                        4
119     94  X2     DCW   @000@                               3  0094                        4
120         XXXXX2 EQU   X2       FOR USE IN SFX REGIONS        0094
121     96         DC    @00@                                2  0096                        4
122     99  X3     DCW   @000@                               3  0099                        4
123         XXXXX3 EQU   X3       FOR USE IN SFX REGIONS        0099
124    104         DC    @0     @                            5  0104                        4
125    110  PHASID DCW   @LOADER@  PHASE ID, FOR SNAPSHOT     6  0110                        4
126    111         DCW   #1   WM CLEARED IF DO STATEMENT APPEARS             1  0111        5
127    112         DCW   #1   WM CLEARED IF DO STATEMENT APPEARS             1  0112        5
128    113         DCW   #1   WM CLEARED IF DO STATEMENT APPEARS             1  0113        5
129    114         DCW   #1   WM CLEARED WHEN AN I/O LIST OF DO IS PROCESSED 1  0114        5
130    115         DCW   #1   WM CLEARED IF I/O LIST AND NOT LIMITED FORMAT  1  0115        5
131    116  SUBSCR DCW   #1   WM CLEARED IF SUBSCRIPT CODE NEEDED            1  0116        5
132    117  SERIES DCW   #1   NEED SERIES ROUTINE IF NO WM                   1  0117        5
133    118  SINCOS DCW   #1   SAW SINF OR COSF IF NO WM                      1  0118        6
134    119  LOGF   DCW   #1   SAW LOGF IF NO WM                              1  0119        6
135    120  EXPF   DCW   #1   SAW EXPF IF NO WM                              1  0120        6
136    121         DCW   #1   SAW ATANF IF NO WM                            1  0121        6
137    122  SAWABS DCW   #1   SAW ABSF IF NO WM                              1  0122        6
138    123  SAWNEG DCW   #1   SAW NEGATION OPERATOR (UNARY MINUS) IF NO WM   1  0123        6
139    124  XFIXF  DCW   #1   SAW XFIXF IF NO WM                            1  0124        6
140    125  FLOATF DCW   #1   SAW FLOATF IF NO WM                            1  0125        7
141    126         DCW   #1   SAW SQRTF IF NO WM                            1  0126        7
142    127         DCW   #1   SAW USER FUNCTION R IF NO WM                   1  0127        7
143    128         DCW   #1   SAW USER FUNCTION U IF NO WM                   1  0128        7
144    129         DCW   #1   SAW USER FUNCTION P IF NO WM                   1  0129        7
145    130         DCW   #1   SAW USER FUNCTION W IF NO WM                   1  0130        7
146    131         DCW   #1   SAW USER FUNCTION Y IF NO WM                   1  0131        7
147    132         DCW   #1   SAW USER FUNCTION Z IF NO WM                   1  0132        8
```

FORTRAN COMPILER -- PHASES 00-02   PAGE   2

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

148  133         DCW   #1  SAW USER FUNCTION J IF NO WM                 1  0133                      8
149  134         DCW   #1  SAW USER FUNCTION K IF NO WM                 1  0134                      8
150  135         DCW   #1  SAW USER FUNCTION L IF NO WM                 1  0135                      8
151  136         DCW   #1  SAW USER FUNCTION M IF NO WM                 1  0136                      8
152  137         DCW   #1  SAW USER FUNCTION D IF NO WM                 1  0137                      8
153  138         DCW   #1  SAW USER FUNCTION H IF NO WM                 1  0138                      8
154  139         DCW   #1  SAW XLINKF IF NO WM                          1  0139                      9
155  142  NEGAR2 DCW   #3  LOOKS LIKE NEGARY -- SEE PHASE 20            3  0142                      9
156  145  TBLBOT DCW   #3  ONE BELOW NUMBERS, FORMATS, I/O LISTS        3  0145                      9
157  148  SEQTAB DCW   #3  BOTTOM OF SEQUENCE NUMBER TABLE - 2          3  0148                      9
158  151  DOCNT  DCW   #3  COUNT OF DO STATEMENTS                       3  0151                      9
159  154  BOTFMT DCW   #3  BOTTOM OF FORMAT STRINGS OR NUMBER TABLE - 1 3  0154                      9
160  157  NEGAR3 DCW   #3  LOOKS LIKE NEGARY -- SEE PHASE 20            3  0157                      9
161  160  ARYSIZ DCW   #3  TOTAL ARRAY SIZE & 2                         3  0160                     10
162  163  NEGARY DCW   #3  16000 - ARYSIZ                              3  0163                     10
163  180         DC    #17                                            17  0180                     10
164  183  NSTMTS DCW   #3  NUMBER OF STATEMENTS, INCLUDING GENERATED STOP 3 0183                    10
165  184  GLOBER DC    #1  GLOBAL ERROR FLAG -- WM MEANS ERROR          1  0184                     10
166  185  GOTXL  DCW   #1  XLINKF WAS REFERENCED IF NO WM               1  0185                     10
167  188  RELTAB DCW   #3  RELOCATABLE FUNCTION TABLE ENTRY ADDRESSES   3  0188                     10
168  191  SUBENT DCW   #3  ENTRY TO SUBSCRIPT ROUTINE                   3  0191                     10
169  194  ARYTOP DCW   #3  TOP OF ARRAYS IN OBJECT CODE                 3  0194                     10
170  195         DC    #1                                              1  0195                     10
171  199         DCW   @V3M0@                                          4  0199                     11
172           ORG   333                                                        0333
173       *
174       * SNAPSHOT ROUTINE
175       *
176           SFX   S                                            S
177  333  SNAPSH SBR   EXIT&3                                       S   4  0333  H 567             12
178  337         SBR   SXX&6                                        S   4  0337  H 408             12
179  341         MCW   KZ3,ADR5-2  START FIVE-DIGIT ADDRESS AT ZERO S   7  0341  M 661 656         12
180  348         MCW   XXXXX3,SX3&6                                 S   7  0348  M 099 415         12
181  355         MCW   XXXXX1,SX1&6                                 S   7  0355  M 089 422         12
182  362         SBR   XXXXX1,1                                     S   7  0362  H 089 001         12
183  369         SBR   XXXXX3,202                                   S   7  0369  H 099 202         13
184  376         CS    332                                          S   4  0376  / 332             13
185  380         CS                                                 S   1  0380  /                 13
186  381         MCW   PHASID,210                                   S   7  0381  M 110 210         13
187  388         BSS   SKIP,F                                       S   5  0388  B 621 F           13
188       *
189       * PRINT A HEADER
190       *
191  393         CC    1                                            S   2  0393  F 1               13
192  395         MCW   XXXXX2,250                                   S   7  0395  M 094 250         13
193  402  SXX    SBR   216,0     RETURN ADDRESS WAS STORED IN B      S   7  0402  H 216 000         14
194  409  SX3    SBR   256,0     X3 WAS STORED IN B                  S   7  0409  H 256 000         14
195  416  SX1    SBR   244,0     X1 WAS STORED IN B                  S   7  0416  H 244 000         14
196  423         W                                                  S   1  0423  2                 14
197  424         CC    K                                            S   2  0424  F K               14
```

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

198   426           ZA   KP2,W2A                                        S   7  0426  ? 662 664           14
199   433  CLEARH CS     332                                            S   4  0433  / 332               14
200   437           CS                                                  S   1  0437  /                   15
201   438           CC   J                                              S   2  0438  F J                 15
202   440           MCW  ADR5,306    FIVE-DIGIT ADDRESS                 S   7  0440  M 658 306           15
203   447           MCW                                                 S   1  0447  M                   15
204   448           SBR  LOOP&6                                         S   4  0448  H 465               15
205   452           MCW  K9,W2B-1                                       S   7  0452  M 665 668           15
206   459  LOOP    MCW  W2B-1,000                                       S   7  0459  M 668 000           15
207   466           MCW  DOTS                                           S   4  0466  M 651               16
208   470           SBR  LOOP&6                                         S   4  0470  H 465               16
209   474           A    KM10,W2B    ADD I0 = -10                       S   7  0474  A 667 669           16
210   481           BWZ  LOOP,W2B-1,2  NO ZONE IN COUNTER HIGH DIGIT?   S   8  0481  V 459 668 2         16
211   489           A    KP1,ADR5-2  BUMP HUNDREDS DIGIT OF ADDRESS     S   7  0489  A 670 656           16
212   496           W                                                  S   1  0496  2                   16
213   497  GET     SW   0&X3        MOVE DATA AND WM TO PRINT AREA      S   4  0497  , 0?0               16
214   501           MCW  0&X1,0&X3                                      S   7  0501  M 0|0 0?0           17
215   508           BW   DOWM,0&X1   SKIP CLEARING PRINT AREA WM        S   8  0508  V 520 0|0 1         17
216   516           CW   0&X3                                          S   4  0516  ) 0?0               17
217   520  DOWM    C    XXXXX1,TOPCOR  DONE?                            S   7  0520  C 089 688           17
218   527           BU   CONT        NO                                S   5  0527  B 568 /             17
219   532           W                                                  S   1  0532  2                   17
220   533           WM                                                 S   2  0533  2 )                 17
221   535  RX1     MCW  SX1&6,XXXXX1   RESTORE INDEX REGS               S   7  0535  M 422 089           18
222   542           MCW  SX3&6,XXXXX3                                   S   7  0542  M 415 099           18
223   549           CS   332                                            S   4  0549  / 332               18
224   553           CS                                                  S   1  0553  /                   18
225   554           BSS  HALT,G                                         S   5  0554  B 563 G             18
226   559           B    EXIT                                           S   4  0559  B 564               18
227   563  HALT    H                                                    S   1  0563  .                   18
228   564  EXIT    B    0-0                                             S   4  0564  B 000               19
229   568  CONT    SBR  XXXXX1,1&X1                                     S   7  0568  H 089 0|1           19
230   575           BCE  BUMP3,XXXXX3-2,2                               S   8  0575  B 632 097 2         19
231   583           SBR  XXXXX3,201                                     S   7  0583  H 099 201           19
232   590           W                                                  S   1  0590  2                   19
233   591           WM                                                 S   2  0591  2 )                 19
234   593           A    KP1,W2A                                        S   7  0593  A 670 664           19
235   600           C    W2A,KP15                                       S   7  0600  C 664 672           20
236   607           BU   CLEARH                                         S   5  0607  B 433 /             20
237   612           S    W2A                                            S   4  0612  S 664               20
238   616           CCB  CLEARH,1                                       S   5  0616  F 433 1             20
239   621  SKIP    MCW  XQTD,220                                        S   7  0621  M 680 220           20
240   628           W    RX1                                            S   4  0628  2 535               20
241   632  BUMP3   A    KP1,XXXXX3                                      S   7  0632  A 670 099           20
242   639           B    GET                                            S   4  0639  B 497               21
243   651  DOTS    DCW  @9........@                                     S   9  0651                      21
244   653           DCW  @9-@                                           S   2  0653                      21
245   658  ADR5    DCW  00000       FIVE DIGIT ADDRESS                  S   5  0658                      21
246   661  KZ3     DCW  000                                            S   3  0661                      21
247   662  KP2     DCW  &2                                             S   1  0662                      21
```

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

248    664 W2A    DCW   #2                                         S   2  0664                       21
249    665 K9     DCW   9                                          S   1  0665                       22
250    667 KM10   DCW   @I0@                                       S   2  0667                       22
251    669 W2B    DCW   #2                                         S   2  0669                       22
252    670 KP1    DCW   &1                                         S   1  0670                       22
253    672 KP15   DCW   &15                                        S   2  0672                       22
254    680 XQTD   DCW   @EXECUTED@                                 S   8  0680                       22
255            SFX              END OF SNAPSHOT ROUTINE
256         *
257         * STORAGE FOR PARAMETER CARD
258         *
259            DA    1X19                                                 0681   0699
260    685 PWORD       5    THE WORD PARAM                                0685           SBFLD
261    688 TOPCOR      8    TOP CORE ADDRESS FROM PARAM CARD               0688           SBFLD
262    690 IMOD       10    INTEGER MODULUS -- NUMBER OF DIGITS           0690           SBFLD
263    692 MANTIS     12    FLOATING POINT MANTISSA DIGITS                0692           SBFLD
264    693 CONDNS     13    P FOR CONDENSED DECK                          0693           SBFLD
265    694 SNAPSW     14    S FOR SNAPSHOT                                0694           SBFLD
266    695 C1410      15    T IF RUN ON 1410 IN 1401 COMPATIBILITY MODE   0695           SBFLD
267    696 FMTSW      16    X FOR NO FORMAT, L FOR LIMITED FORMAT         0696           SBFLD
268         *               BLANK FOR ORDINARY, A FOR A CONVERSION
269    699 PARAM      19    PARAMETER CARD IS STORED HERE                 0699           SBFLD
270         *
271         * LOAD NEXT OVERLAY
272         *
273            SFX   L                                             L
274    700 LOADNX MCW   CLRBOT-2,K999-2  SET CLEAR END HIGH DIGIT  L   7  0700  M 831 828            23
275    707 CLEARL CS    0-0                                        L   4  0707  / 000                23
276    711        SBR   CLEARL&3                                   L   4  0711  H 710                23
277    715        C     CLEARL&3,K999                              L   7  0715  C 710 830            23
278    722        BU    CLEARL                                     L   5  0722  B 707 /              23
279    727        SW    CLRWM&4                                    L   4  0727  , 758                23
280    731        MCW   CLEARL&3,CLRWM&6                           L   7  0731  M 710 760            23
281    738        CW    CLRWM&4                                    L   4  0738  ) 758                24
282    742 CLRL   C     CLRWM&6,CLRBOT                             L   7  0742  C 760 833            24
283    749        BE    CDOVLY     LOAD THE OVERLAY                L   5  0749  B 769 S              24
284    754 CLRWM  LCA   BLANK,0    CLEAR WITH BLANK AND WORD MARK  L   7  0754  L 834 000            24
285    761        SBR   CLRWM&6                                    L   4  0761  H 760                24
286    765        B     CLRL                                       L   4  0765  B 742                24
287    769 CDOVLY R     40         CARD OVERLAY UNLESS NOP         L   4  0769  1 040                24
288    773 RDAGIN MCW   EINIT,ECOUNT  INITIALIZE ERROR COUNT       L   7  0773  M 835 837            25
289    780 TPREAD RTW   1,BEGINN   LOAD OVERLAY FROM TAPE          L   8  0780  L %U1 838 R          25
290    788        BER   TPERR      ERROR?                          L   5  0788  B 797 L              25
291    793        B     BEGINN     NO, RUN THE OVERLAY             L   4  0793  B 838                25
292    797 TPERR  BSP   1                                          L   5  0797  U %U1 B              25
293    802        S     ONE,ECOUNT                                 L   7  0802  S 836 837            25
294    809        BWZ   TPREAD,ECOUNT,B  STILL POSITIVE?           L   8  0809  V 780 837 B          26
295    817        H     3333,3333  TOO MANY TAPE ERRORS            L   7  0817  . C33 C33            26
296    824        B     RDAGIN     READ AGAIN                      L   4  0824  B 773                26
297    830 K999   DSA   999                                        L   3  0830  999                  26
```

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

298   833 CLRBOT DCW   #3        ADDRESS TO CLEAR DOWN TO       L   3  0833                     26
299   834 BLANK  DCW   #1                                       L   1  0834                     26
300   835 EINIT  DCW   &9        INITIAL ERROR COUNT            L   1  0835                     26
301   836 ONE    DCW   &1                                       L   1  0836                     27
302   837 ECOUNT DCW   #1                                       L   1  0837                     27
303          SFX             END OF LOAD NEXT OVERLAY ROUTINE
304        *
305        * START HERE
306        *
307   838 BEGINN BCE   CARD,1,   BEING LOADED FROM CARDS?           8  0838  B 853 001          27
308   846          MCW   NOP,CDOVLY  TURN OFF CARD OVERLAY          7  0846  M N49 769          27
309   853 CARD   CS    80                                          4  0853  / 080              27
310   857          SW    1,GM                                       7  0857  , 001 N29          27
311   864          SW    81,84                                      7  0864  , 081 084          27
312   871          CS    332                                        4  0871  / 332              28
313   875          CS                                               1  0875  /                  28
314        *
315        * READ AND CHECK PARAMETER CARD
316        *
317   876          R               READ PARAMETER CARD             1  0876  1                  28
318   877          LCA   19,PARAM  SAVE IT                          7  0877  L 019 699          28
319   884          C     PARAM-14,KPARAM  IS IT A PARAMETER CARD?   7  0884  C 685 N54          28
320   891          BU    NOPARM    NO, ANNOUNCE ERROR               5  0891  B L24 /            28
321   896          SW    73        SET WORD MARKS FOR               4  0896  , 073              28
322   900          SW    6,7         FORTRAN MARGINS                7  0900  , 006 007          29
323   907          SW    TOPCOR-2                                   4  0907  , 686              29
324   911          MCW   80,PWORD                                   7  0911  M 080 685          29
325        *
326        * DETERMINE THIS MACHINE'S CORE SIZE, COMPARE IT TO
327        * SIZE ON PARAMETER CARD
328        *
329   918          CS    0-0                                        4  0918  / 000              29
330   922          SBR   CORSIZ                                     4  0922  H N57              29
331   926          MCW   TOPCOR,TOCONV                              7  0926  M 688 N60          29
332   933          B     ADCONV    COVERT TOPCOR TO FIVE DIGITS     4  0933  B Y76              29
333   937          MCW   CONVTD,TOP5                                7  0937  M N65 O53          30
334   944          MCW   CORSIZ,TOCONV                              7  0944  M N57 N60          30
335   951          B     ADCONV    CONVERT CORSIZ TO FIVE DIGITS    4  0951  B Y76              30
336   955          MCW   CONVTD,COR5                                7  0955  M N65 O48          30
337   962          A     KP1,TOP5  TOP ADDR + 1 = SIZE              7  0962  A N66 O53          30
338   969          A     KP1,COR5  COR ADDR + 1 = SIZE              7  0969  A N66 O48          30
339   976          CS    332                                        4  0976  / 332              31
340   980          CS                                               1  0980  /                  31
341   981          CC    1                                          2  0981  F 1                31
342   983          CS    332                                        4  0983  / 332              31
343   987          CS                                               1  0987  /                  31
344   988          MCW   STMSG,228  START FORTRAN COMPILATION MSG   7  0988  M N94 228          31
345   995          W                                               1  0995  2                  31
346   996          CC    J                                          2  0996  F J                32
347   998          MCW   TOP5,231                                   7  0998  M O53 231          32
```

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

348  1 005         MCW  SPSIZE     SPECIFIED SIZE                    4  1005  M O20              32
349  1 009         W                                                1  1009  2                  32
350  1 010         CS   235                                          4  1010  / 235              32
351  1 014         MCW  COR5,228                                     7  1014  M O48 228          32
352  1 021         MCW  ACTSIZ     ACTUAL SIZE                       4  1021  M O43              32
353  1 025         BCE  BIGNUF,C1410,T  COMPILING FOR 1410 COMPATIBILITY?  8  1025  B |96 695 T   33
354  1 033         W                                                1  1033  2                  33
355  1 034         C    COR5,TOP5                                    7  1034  C O48 O53          33
356  1 041         BH   PSGTM      PRINT SPEC SIZE GT MACH SIZE      5  1041  B |77 U            33
357  1 046         C    TOP5,K3900  COMPARE TOP TO 3900              7  1046  C O53 O58          33
358  1 053         BL   BIGNUF                                       5  1053  B |96 T            33
359  1 058         CC   J                                            2  1058  F J                33
360  1 060         CS   332                                          4  1060  / 332              34
361  1 064         CS                                                1  1064  /                  34
362  1 065         MCW  SIZERR,218  MACHINE SIZE ERROR               7  1065  M O76 218          34
363  1 072         W                                                1  1072  2                  34
364  1 073         B    USEACT                                       4  1073  B |89              34
365  1 077 PSGTM   MCW  SGTM,267  SPEC. SIZE GT MACH. SIZE MSG       7  1077  M P22 267          34
366  1 084         MCW  SGTM2      REST OF THE MESSAGE               4  1084  M P43              34
367  1 088         W                                                1  1088  2                  35
368  1 089 USEACT  MCW  CORSIZ,TOPCOR  USE ACTUAL SIZE               7  1089  M N57 688          35
369  1 096 BIGNUF  MCW  TOPCOR,CLEARD&3                              7  1096  M 688 /06          35
370             *
371             * CLEAR FROM TOP OF THIS MACHINE'S MEMORY DOWN TO DOWNTO
372             *
373  1 103 CLEARD  CS   0-0                                          4  1103  / 000              35
374  1 107         SBR  CLEARD&3                                     4  1107  H /06              35
375  1 111         C    CLEARD&3,DOWNTO                              7  1111  C /06 P46          35
376  1 118         BU   CLEARD                                       5  1118  B /03 /            35
377             *
378  1 123         R                                                1  1123  1                  36
379  1 124         MZ   *-6,AZONE  SET A ZONE AFTER CARD STORAGE AREA  7  1124  Y /24 N01        36
380  1 131         MZ   *-6,INTRST&7   SET A ZONE IN BCE D-MODIFIER   7  1131  Y /31 X07          36
381  1 138         MZ   *-6,BLNKOK&7     ,,                          7  1138  Y /38 Z80          36
382  1 145         MZ   *-6,INTCHR-1   ADD A ZONE TO INTERESTING CHARS  7  1145  Y /45 L87        36
383  1 152         MCW  PREFIX,CARD1-1  SET DEFAULT PREFIX           7  1152  M N33 M28          36
384  1 159         MCW  TOPCOR,*&4                                   7  1159  M 688 /69          37
385  1 166         CW   0-0                                          4  1166  ) 000              37
386  1 170         SBR  MVCHAR&6                                     4  1170  H T70              37
387             *
388             * PROCESS NEXT CARD
389             *
390  1 174 RDLOOP  BW   MOVECD,FLAG                                  8  1174  V S11 Q28 1        37
391  1 182         BCE  DONE,1,:                                     8  1182  B !70 001 :        37
392             *
393             * NO SYSTEM AFTER END CARD
394             *
395  1 190 NOSYS   CC   1                                            2  1190  F 1                37
396  1 192         CS   332                                          4  1192  / 332              37
397  1 196         CS                                                1  1196  /                  38
```

                        FORTRAN COMPILER -- PHASES 00-02   PAGE   7

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

398 1 197   MCW   MSG1,270   7 1197 M P87 270   38
399 1 204   W   1 1204 2   38
400 1 205   CC   1   2 1205 F 1   38
401 1 207 HALT1 H   HALT1   4 1207 . S07   38
402   *
403   * MOVE CARD TO SAVE AREA
404   *
405 1 211 MOVECD MCW   72,CARD72   MOVE CARD TO SAVE AREA   7 1211 M 072 N00   38
406 1 218   MCW   1 1218 M   38
407 1 219   MCW   1 1219 M   39
408 1 220   BCE   DONE,CARD1,:   8 1220 B !70 M29 :   39
409 1 228 C12T   BIN   PRTHDG, UNCONDITIONAL AT FIRST, BECOMES BCV 5 1228 B K67   39
410 1 233 AFTHDG CS   300   4 1233 / 300   39
411 1 237   CS   1 1237 /   39
412 1 238   MCW   72,283   MOVE CARD TO PRINT AREA   7 1238 M 072 283   39
413 1 245   MCW   6,215   7 1245 M 006 215   39
414 1 252   BCE   LSTCMT,CARD1,C   PRINT NOW IF COMMENT 8 1252 B L58 M29 C   40
415 1 260 CRD1SW B   NOTCNT BECOMES NOP AFTER FIRST CARD   4 1260 B V46   40
416 1 264   BCE   NOTCNT,CARD6,0   8 1264 B V46 M34 0   40
417 1 272   BCE   NOTCNT,CARD6,   8 1272 B V46 M34   40
418   *
419   * CONTINUATION CARD
420   *
421 1 280   A   KP1,CNTCNT   BUMP CONTINUATION COUNT 7 1280 A N66 Q24   40
422 1 287   BCE   CNTOK,CNTCNT-1,0 NINE OR FEWER?   8 1287 B T02 Q23 0   41
423 1 295   MCW   CNTMSG,300   PUT ERROR MSG IN PRINT AREA 7 1295 M Q02 300   41
424 1 302 CNTOK W   LIST THE CARD   1 1302 2   41
425 1 303   MCW   CARD7A,SVCHAR&3   SET SAVE CHAR ADDR TO COL 7 7 1303 M N06 T13   41
426   *
427   * PROCESS THE CARD (NOTCNT COMES BACK HERE)
428   *
429 1 310 SVCHAR MCW   0-0,CHAR   SAVE A CHARACTER   7 1310 M 000 Q31   41
430 1 317   SW   SVCHAR&1   4 1317 , T11   41
431 1 321   A   K1,SVCHAR&3   BUMP ADDR OF CHAR TO SAVE 7 1321 A N10 T13   42
432 1 328   CW   SVCHAR&1   4 1328) T11   42
433 1 332 CRD2SW NOP   BLNKOK   BRANCH IF COPYING EVERYTHING 4 1332 N Z73   42
434 1 336   BCE   SVCHAR,CHAR,   SKIP BLANKS   8 1336 B T10 Q31   42
435 1 344   MCW   CHAR,*&8   7 1344 M Q31 T58   42
436 1 351   BCE   INTRST,INTCHR,0   8 1351 B X00 L88 0   42
437   CHAIN 5   MACRO
438   BCE   1 1359 B   GEN   42
439   BCE   1 1360 B   GEN   43
440   BCE   1 1361 B   GEN   43
441   BCE   1 1362 B   GEN   43
442   BCE   1 1363 B   GEN   43
443 1 364 MVCHAR MCW   CHAR,0   7 1364 M Q31 000   43
444 1 371   SBR   MVCHAR&6   4 1371 H T70   43
445 1 375 BUMPNS A   KP1,NCHAR   BUMP CHARACTER COUNTER 7 1375 A N66 Q07   43
446 1 382   C   MVCHAR&6,BOTCOR CORE FULL OF SOURCE CODE? 7 1382 C T70 Q10   44
447 1 389   BE   BIGSRC   5 1389 B K33 S   44

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

448  1 394  CRD3SW BCE   HOLLER,CHAR,H                                     8 1394  B X51 Q31 H         44
449  1 402  CRD4SW NOP   BRANCH,CRD3SW                                     7 1402  N Q11 T94           44
450         *
451  1 409  TEST7  C     SVCHAR&3,CARD7A   AT COLUMN 7?                    7 1409  C T13 N06           44
452  1 416  CRD5SW BU    SVCHAR                                            5 1416  B T10 /             44
453  1 421         SW    MVCHAR&4                                          4 1421  , T68               45
454  1 425  CRD6SW MCW   MVCHAR&6,X2                                       7 1425  M T70 094           45
455  1 432         CW    MVCHAR&4                                          4 1432  ) T68               45
456  1 436         MCW   NOP2,CRD6SW                                       7 1436  M N28 U25           45
457  1 443         MCW   NOP2,CRD5SW                                       7 1443  M N28 U16           45
458  1 450         A     K10,COLCNT                                        7 1450  A N36 N03           45
459  1 457         BCE   COL3,COLCNT-1,5    THREE COLUMNS DONE?            8 1457  B W69 N02 5         46
460  1 465         SW    FLAG                                              4 1465  , Q28               46
461  1 469         BWZ   SVCHAR,COLCNT-1,2  MORE THAN SEVEN COLUMNS DONE?  8 1469  V T10 N02 2         46
462  1 477         MCW   BRNCH2,CRD5SW                                     7 1477  M N11 U16           46
463  1 484         MCW   0&X2,WORK7                                        7 1484  M 0!0 N20           46
464  1 491         C     KFMT,WORK7  FORMAT% ?                             7 1491  C N27 N20           47
465  1 498         BU    SVCHAR                                            5 1498  B T10 /             47
466         *
467         * PROCESS A FORMAT STATEMENT
468         *
469  1 503         MCW   BRANCH,CRD3SW                                     7 1503  M Q11 T94           47
470  1 510         MCW   0&X3,WORK6                                        7 1510  M 0?0 Q17           47
471  1 517         MCW   KF,WORK6-3                                        7 1517  M Q18 Q14           47
472  1 524         MCW   WORK6,0&X3                                        7 1524  M Q17 0?0           48
473  1 531         B     SVCHAR                                            4 1531  B T10               48
474         *
475  1 535  SLASH  MCW   KAT,CHAR    CONVERT SLASH TO AT-SIGN             7 1535  M Q19 Q31           48
476  1 542         B     MVCHAR                                            4 1542  B T64               48
477         *
478         * NOT A CONTINUATION CARD
479         *
480  1 546  NOTCNT MCW   NOP,CRD1SW                                        7 1546  M N49 S60           48
481  1 553         A     KP1,NSTMT                                         7 1553  A N66 Q22           48
482  1 560         MCW   NOP,CRD3SW                                        7 1560  M N49 T94           49
483  1 567         MCW   NOP,CRD4SW                                        7 1567  M N49 U02           49
484  1 574         MCW   5,211     MOVE LABEL TO PRINT AREA               7 1574  M 005 211           49
485  1 581         S     CNTCNT     CLEAR CONTINUATION COUNT              4 1581  S Q24               49
486  1 585         MCW   NOP,CRD2SW                                        7 1585  M N49 T32           49
487  1 592         MCS   NSTMT,203  MOVE STATEMENT COUNT TO PRINT AREA    7 1592  Z Q22 203           49
488  1 599         W                                                      1 1599  2                   50
489  1 600         SW    MVCHAR&4                                          4 1600  , T68               50
490  1 604         MCW   MVCHAR&6,MVCHR2&6                                 7 1604  M T70 W28           50
491  1 611         CW    MVCHAR&4                                          4 1611  ) T68               50
492  1 615         MCW   MOVE,CRD6SW                                       7 1615  M N37 U25           50
493  1 622  MVCHR2 LCA   GM,0                                              7 1622  L N29 000           50
494  1 629         SBR   X3         SAVE ADDRESS OF FIRST CHAR STORED     4 1629  H 099               50
495  1 633         SBR   MVCHAR&6                                          4 1633  H T70               51
496  1 637         MCW   COLON,CARD6  COLON AFTER LABEL, IF ANY           7 1637  M N34 M34           51
497  1 644         MCW   BRNCH2,CRD5SW                                     7 1644  M N11 U16           51
```

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

498  1 651         MCW   K20,COLCNT   INITIALIZE COLUMN COUNTER          7  1651  M N13 N03            51
499  1 658         MCW   SAVE2A,SVCHAR&3                                  7  1658  M N09 T13            51
500  1 665         B     SVCHAR                                          4  1665  B T10                51
501             *
502  1 669  COL3   C     0&X2,KEND  END CARD?                            7  1669  C 0!0 Q27            52
503  1 676         BU    SVCHAR                                          5  1676  B T10 /              52
504  1 681         CW    FLAG                                            4  1681  ) Q28                52
505  1 685         B     SVCHAR                                          4  1685  B T10                52
506             *
507  1 689  AT     MCW   KMINUS,CHAR  CONVERT AT SIGN TO MINUS           7  1689  M Q29 Q31            52
508  1 696         B     MVCHAR                                          4  1696  B T64                52
509             *
510          * SAW AN INTERESTING CHARACTER
511             *
512  1 700  INTRST BCE   TESTLC,CHAR,    TEST FOR A ZONE                 8  1700  B L73 Q31            52
513  1 708         BCE   TESTLC,CHAR,|   RECORD MARK                     8  1708  B L73 Q31 |          53
514  1 716         BCE   SLASH,CHAR,/                                    8  1716  B V35 Q31 /          53
515  1 724         BCE   AT,CHAR,@                                       8  1724  B W89 Q31 @          53
516  1 732         MCW   KSTAR,300                                       7  1732  M Q30 300            53
517  1 739         MCW   PROCD                                           4  1739  M N48                53
518  1 743         MCW   CHAR                                            4  1743  M Q31                53
519  1 747         B     MVCHAR                                          4  1747  B T64                54
520             *
521          * CHARACTER IS H, PROBABLY HOLLERITH
522             *
523  1 751  HOLLER MCW   MVCHAR&6,X1                                     7  1751  M T70 089            54
524  1 758         MCW   NOP,CRD3SW                                      7  1758  M N49 T94            54
525  1 765         MCW   NOP,CRD4SW                                      7  1765  M N49 U02            54
526  1 772         MCW   BRANCH,CRD2SW                                   7  1772  M Q11 T32            54
527  1 779         MCW   4&X1,HCOUNT  REMEMBER, SOURCE IS STORED BACKWARD 7  1779  M 0|4 Q34           54
528  1 786         BCE   AT2,HCOUNT-1,@                                  8  1786  B Y02 Q33 @          55
529  1 794         BWZ   NZHM1,HCOUNT-1,2                                8  1794  V Y17 Q33 2          55
530  1 802  AT2    MCW   HCOUNT-2,HCOUNT  ONE DIGIT OF HOLLERITH COIUNT  7  1802  M Q32 Q34            55
531  1 809         MCW   KZ2                                             4  1809  M Q36                55
532  1 813         B     TEST7                                           4  1813  B U09                55
533             *
534          * NO ZONE AT HCOUNT-1
535             *
536  1 817  NZHM1  BCE   AT3,HCOUNT,@                                    8  1817  B Y33 Q34 @          55
537  1 825         BWZ   NZH,HCOUNT,2                                    8  1825  V Y51 Q34 2          56
538  1 833  AT3    MCW   HCOUNT-2,HCOUNT                                 7  1833  M Q32 Q34            56
539  1 840         MCW   KZ1,HCOUNT-2                                    7  1840  M Q37 Q32            56
540  1 847         B     TEST7                                           4  1847  B U09                56
541             *
542          * NO ZONE AT HCOUNT.  REVERSE THE DIGITS
543             *
544  1 851  NZH    MCW   HCOUNT,WORKH1                                   7  1851  M Q34 Q38            56
545  1 858         MCW   HCOUNT-2,HCOUNT                                 7  1858  M Q32 Q34            57
546  1 865         MCW   WORKH1,HCOUNT-2                                 7  1865  M Q38 Q32            57
547  1 872         B     TEST7                                           4  1872  B U09                57
```

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

548         *
549         * CONVERT ADDRESS TO FIVE DIGITS
550         *
551                SFX   C                                        C
552 1 876  ADCONV SBR   EXIT&3                                   C   4  1876  H Z72              57
553 1 880         S     CNVW2A                                   C   4  1880  S Q40              57
554 1 884         S     CNVW2B                                   C   4  1884  S Q42              57
555 1 888         MZ    TOCONV,CNVW2A-1                          C   7  1888  Y N60 Q39          57
556 1 895         MZ    TOCONV-2,CNVW2B-1                        C   7  1895  Y N58 Q41          58
557 1 902  LOOP1  BWZ   LOOP2,CNVW2B-1,2                         C   8  1902  V Z21 Q41 2        58
558 1 910         A     CNVKA0,CNVW2B                            C   7  1910  A Q44 Q42          58
559 1 917         B     LOOP1                                    C   4  1917  B Z02              58
560 1 921  LOOP2  BWZ   LP2X,CNVW2A-1,2                          C   8  1921  V Z40 Q39 2        58
561 1 929         A     CNVKQ4,CNVW2A                            C   7  1929  A Q46 Q40          59
562 1 936         B     LOOP2                                    C   4  1936  B Z21              59
563 1 940  LP2X   A     CNVW2B-1,CNVW2A                          C   7  1940  A Q41 Q40          59
564 1 947         MCW   TOCONV,CONVTD                            C   7  1947  M N60 N65          59
565 1 954         MCW   CNVW2A                                   C   4  1954  M Q40              59
566 1 958         ZA    CONVTD                                   C   4  1958  ? N65              59
567 1 962         MZ    *-4,CONVTD  CLEAR ZONE IN OUTPUT         C   7  1962  Y Z64 N65          60
568 1 969  EXIT   B     0-0                                      C   4  1969  B 000              60
569                SFX
570         *
571 1 973  BLNKOK BCE   TESTLC,CHAR,   TEST FOR A ZONE               8  1973  B L73 Q31          60
572 1 981         S     KP1,HCOUNT                                   7  1981  S N66 Q34          60
573 1 988         C     HCOUNT,PZE  HOLLERITH COUNT DOWN TO ZERO?    7  1988  C Q34 Q49          60
574 1 995         BU    MVCHAR     NOPE, JUST MOVE THE CHARACTER     5  1995  B T64 /            60
575 2 000         MCW   MOVE2,CRD4SW                                 7  2000  M Q50 U02          61
576 2 007         MCW   NOP2,CRD2SW                                  7  2007  M N28 T32          61
577 2 014         MCW   SVCHAR&3,X1                                  7  2014  M T13 089          61
578 2 021         C     0&X1,COMMA                                   7  2021  C 0|0 Q51          61
579 2 028         BE    MVCHAR                                       5  2028  B T64 S            61
580 2 033         MCW   MVCHAR&6,*&7                                 7  2033  M T70 !46          62
581 2 040         MCW   0,0                                          7  2040  M 000 000          62
582 2 047         MCW   COMMA                                        4  2047  M Q51              62
583 2 051         SBR   MVCHAR&6                                     4  2051  H T70              62
584 2 055         A     KP1,NCHAR                                    7  2055  A N66 Q07          62
585 2 062         B     BUMPNS                                       4  2062  B T75              62
586 2 066         B     MVCHAR                                       4  2066  B T64              62
587         *
588         * FINISHED READING THE SOURCE DECK
589         *
590 2 070  DONE   MCW   MVCHAR&6,X1                                  7  2070  M T70 089          63
591 2 077         LCA   GM,0&X1                                      7  2077  L N29 0|0          63
592 2 084         SBR   X1                                          4  2084  H 089              63
593 2 088         CC    1                                           2  2088  F 1                63
594 2 090         CS    332                                         4  2090  / 332              63
595 2 094         CS                                               1  2094  /                  63
596 2 095         MCS   NCHAR,205                                    7  2095  Z Q07 205          63
597 2 102         MCW   MSGCHR,222                                   7  2102  M Q67 222          64
```

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

598  2 109         W                                              1 2109  2                      64
599  2 110         CC    J                                        2 2110  F J                     64
600  2 112         MCW   NSTMT,NSTMTS                             7 2112  M Q22 183               64
601  2 119         LCA   STOP,0&X1                                7 2119  L Q78 0|0               64
602  2 126         SBR   X1                                       4 2126  H 089                   64
603  2 130         SW    2&X1                                     4 2130  , 0|2                   64
604  2 134         A     KP1,NSTMTS                               7 2134  A N66 183               65
605  2 141         BCE   NOTBIG,3000,                             8 2141  B J53 ?00               65
606  2 149         B     BIGSRC                                   4 2149  B K33                   65
607  2 153  NOTBIG SBR   CLEARL&3,2999                            7 2153  H 710 R99               65
608  2 160         SBR   CLRBOT,BEGINN   CHANGE ADDRESS TO CLEAR DOWN TO   7 2160  H 833 838      65
609  2 167         BSS   SNAPSH,C                                 5 2167  B 333 C                 65
610  2 172         LCA   SCANR1,PHASID   SCANNER                  7 2172  L Q85 110               66
611  2 179         CS    80        GET                            4 2179  / 080                   66
612  2 183         SW    1,40        READY                        7 2183  , 001 040               66
613  2 190         SW    47,54         FOR                        7 2190  , 047 054               66
614  2 197         SW    61,68           CARD                     7 2197  , 061 068               66
615  2 204         SW    72              OVERLAY                  4 2204  , 072                   66
616  2 208         BCE   LOADNX,CDOVLY,N  RUNNING FROM TAPE?      8 2208  B 700 769 N             67
617  2 216         R                                              1 2216  1                       67
618  2 217         C     7,SCANR2                                 7 2217  C 007 Q92               67
619  2 224         BE    LOADNX                                   5 2224  B 700 S                 67
620  2 229         B     NOSYS                                    4 2229  B /90                   67
621       *
622       * SOURCE PROGRAM TOO BIG
623       *
624  2 233  BIGSRC CS    332                                      4 2233  / 332                   67
625  2 237         CS                                             1 2237  /                       67
626  2 238         CC    1                                        2 2238  F 1                     68
627  2 240         MCW   MSG2,270                                 7 2240  M R28 270               68
628  2 247         W                                              1 2247  2                       68
629  2 248         CC    1                                        2 2248  F 1                     68
630  2 250         BCE   HALT2,CDOVLY,1  RUNNING FROM CARDS?      8 2250  B K63 769 1             68
631  2 258         RWD   1            NO, REWIND THE TAPE         5 2258  U %U1 R                 68
632  2 263  HALT2  H     HALT2                                    4 2263  . K63                   68
633       *
634       * PRINT LISTING PAGE HEADING
635       *
636  2 267  PRTHDG CC    1                                        2 2267  F 1                     69
637  2 269         MCW   KAT,C12T&4   CHANGE TO BCV               7 2269  M Q19 S32               69
638  2 276         CS    299                                      4 2276  / 299                   69
639  2 280         A     K1,PAGNUM                                7 2280  A N10 R31               69
640  2 287         MCS   PAGNUM,299                               7 2287  Z R31 299               69
641  2 294         MCW   KPAGE,295                                7 2294  M R39 295               69
642  2 301         MCW   80                                       4 2301  M 080                   69
643  2 305         W                                              1 2305  2                       70
644  2 306         CS    299                                      4 2306  / 299                   70
645  2 310         MCW   PAGHDG,234                               7 2310  M M23 234               70
646  2 317         W                                              1 2317  2                       70
647  2 318         CC    J                                        2 2318  F J                     70
```

```
                        FORTRAN COMPILER -- PHASES 00-02                                          PAGE   12


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

 648  2 320         B     AFTHDG                                       4  2320  B S33                  70
 649           *
 650           * NO PARAMETER CARD
 651           *
 652  2 324  NOPARM CC    1                                            2  2324  F 1                    70
 653  2 326         CS    332                                          4  2326  / 332                  71
 654  2 330         CS                                                 1  2330  /                      71
 655  2 331         MCW   MSG3,270                                     7  2331  M R68 270              71
 656  2 338         W                                                  1  2338  2                      71
 657  2 339         CC    1                                            2  2339  F 1                    71
 658  2 341         BCE   HALT3,CDOVLY,1  RUNNING FROM CARDS?          8  2341  B L54 769 1            71
 659  2 349         RWD   1              NO, REWIND THE TAPE           5  2349  U %U1 R                71
 660  2 354  HALT3  H     HALT3                                        4  2354  . L54                  72
 661           *
 662           * LIST COMMENT CARD
 663           *
 664  2 358  LSTCMT MCW   FINAL,203                                    7  2358  M R71 203              72
 665  2 365         MCW   5,211                                        7  2365  M 005 211              72
 666  2 372         W                                                  1  2372  2                      72
 667  2 373  TESTLC BLC   DONE                                         5  2373  B !70 A                72
 668  2 378         R                                                  1  2378  1                      72
 669  2 379         B     RDLOOP                                       4  2379  B /74                  72
 670           *
 671  2 388  INTCHR DCW   @$@/|  @  INTERESTING CHARACTERS             6  2388                         73
 672  2 423  PAGHDG DCW   @ SEQ   STMNT     FORTRAN STATEMENT@        35  2423                         74
 673           *
 674           * CARD SAVE AREA
 675           *
 676           DA    1X78                                                2424   2501
 677           SAVE2         2                                             2425           SBFLD
 678           CARD1         6                                             2429           SBFLD
 679           CARD6        11                                             2434           SBFLD
 680           CARD7        12                                             2435           SBFLD
 681           CARD72       77                                             2500           SBFLD
 682           AZONE        78                                             2501           SBFLD
 683           *
 684           * CONSTANTS AND WORK AREAS
 685           *
 686  2 503  COLCNT DCW   #2                                           2  2503                         75
 687  2 506  CARD7A DSA   CARD7  ADDRESS OF COLUMN 7 IN SAVE AREA      3  2506  M35                    75
 688  2 509  SAVE2A DSA   SAVE2                                        3  2509  M25                    75
 689  2 510  K1     DCW   1                                            1  2510                         75
 690  2 511  BRNCH2 DC    @B@                                          1  2511                         75
 691  2 513  K20    DC    20                                           2  2513                         75
 692  2 520  WORK7  DCW   #7                                           7  2520                         75
 693  2 527  KFMT   DCW   @%TAMROF@  'FORMAT%' SPELLED BACKWARD        7  2527                         75
 694  2 528  NOP2   DC    @N@                                          1  2528                         75
 695  2 529  GM     DC    @}@                                          1  2529           GMARK         75
 696  2 533  PREFIX DCW   @000R@     DEFAULT STATEMENT PREFIX -- ARITHMETIC  4  2533                   75
 697  2 534  COLON  DCW   @:@                                          1  2534                         76
```

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

698  2 536  K10    DCW  10                                                2   2536                      76
699  2 537  MOVE   DC   @M@                                               1   2537                      76
700  2 548  PROCD  DCW  @ PROCESSED @                                    11   2548                      76
701  2 549  NOP    NOP                                                    1   2549  N                   76
702  2 554  KPARAM DCW  @PARAM@                                           5   2554                      76
703  2 557  CORSIZ DCW  #3         ACTUAL MACHINE SIZE (TOP ADDR)         3   2557                      76
704  2 560  TOCONV DCW  #3         ADDRESS TO BE CONVERTED TO FIVE DIGITS 3   2560                      76
705  2 565  CONVTD DCW  #5         ADDRESS CONVERTED TO FIVE DIGITS       5   2565                      77
706  2 566  KP1    DCW  &1                                                1   2566                      77
707  2 594  STMSG  DCW  @START OF FORTRAN COMPILATION@                   28   2594                      77
708  2 620  SPSIZE DCW  @MACHINE SIZE SPECIFIED IS @                     26   2620                      78
709  2 643  ACTSIZ DCW  @ACTUAL MACHINE SIZE IS @                        23   2643                      79
710  2 648  COR5   DCW  #5         CORSIZ AS FIVE DIGITS                  5   2648                      79
711  2 653  TOP5   DCW  #5         TOPCOR AS FIVE DIGITS                  5   2653                      79
712  2 658  K3900  DCW  03900                                            5   2658                      79
713  2 676  SIZERR DCW  @MACHINE SIZE ERROR@                            18   2676                      80
714  2 722  SGTM   DCW  @SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@ 46   2722                      82
715  2 743  SGTM2  DCW  @ERROR - MACHINE SIZE @                          21   2743                      82
716  2 746  DOWNTO DSA  2999                      DCW  @R99@             3   2746  R99                   82
717  2 787  MSG1   DCW  @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@      41   2787                      84
718  2 802  CNTMSG DCW  @CONTINUE CD ERR@                               15   2802                      84
719  2 807  NCHAR  DCW  #5         NUMBER OF CHARACTERS                   5   2807                      84
720  2 810  BOTCOR DSA  3000       BOTTOM OF SPACE TO STORE PROGRAM       3   2810  ?00                  84
721  2 811  BRANCH DCW  @B@                                               1   2811                      84
722  2 817  WORK6  DCW  #6                                                6   2817                      85
723  2 818  KF     DCW  @F@                                               1   2818                      85
724  2 819  KAT    DCW  @@@                                               1   2819                      85
725  2 822  NSTMT  DCW  #3         NUMBER OF STATEMENTS                   3   2822                      85
726  2 824  CNTCNT DCW  #2         COUNT OF CONTINUATION CARDS            2   2824                      85
727  2 827  KEND   DCW  @DNE@      END SPELLED BACKWARD                   3   2827                      85
728  2 828  FLAG   DCW  #1         WORD MARK IS A FLAG                    1   2828                      85
729  2 829  KMINUS DCW  @-@                                               1   2829                      86
730  2 830  KSTAR  DCW  @*@                                               1   2830                      86
731  2 831  CHAR   DCW  #1         CHARACTER FROM INPUT                   1   2831                      86
732  2 834  HCOUNT DCW  #3         HOLLERITH COUNT                        3   2834                      86
733  2 836  KZ2    DCW  00         TWO ZEROS                             2   2836                      86
734  2 837  KZ1    DCW  0                                                 1   2837                      86
735  2 838  WORKH1 DCW  #1         WORK SPACE FOR HOLLERITH COUNT         1   2838                      86
736  2 840  CNVW2A DCW  #2         WORK SPACE FOR ADDRESS CONVERSION      2   2840                      87
737  2 842  CNVW2B DCW  #2         WORK SPACE FOR ADDRESS CONVERSION      2   2842                      87
738  2 844  CNVKA0 DCW  @A0@       CONSTANT FOR ADDRESS CONVERSION        2   2844                      87
739  2 846  CNVKQ4 DCW  @?4@       CONSTANT FOR ADDRESS CONVERSION        2   2846                      87
740  2 849  PZE    DCW  &000       PLUS ZERO                             3   2849                      87
741  2 850  MOVE2  MCW                                                    1   2850  M                   87
742  2 851  COMMA  DCW  @,@                                               1   2851                      87
743  2 867  MSGCHR DCW  @INPUT CHARACTERS@                              16   2867                      88
744  2 878  STOP   DCW  @ }POTS:R000@  STOP SPELLED BACKWARD, ETC.       11   2878                      88
745  2 885  SCANR1 DCW  @SCANNER@                                         7   2885                      88
746  2 892  SCANR2 DCW  @SCANNER@                                         7   2892                      89
747  2 928  MSG2   DCW  @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@           36   2928                      90
```

FORTRAN COMPILER -- PHASES 00-02   PAGE   14

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

748 2 931 PAGNUM DCW   #3   3 2931   90
749 2 939 KPAGE   DCW   @   PAGE @   8 2939   91
750 2 968 MSG3   DCW   @MESSAGE 3 - NO PARAMETER CARD@   29 2968   91
751 2 971 FINAL   DCW   #3   3 2971   92
752   ORG   2999   2999
753 2 999 GMWM   DCW   @}@   1 2999   GMARK   93
754   END   BEGINN   / 838 080

FORTRAN COMPILER -- PHASES 00-02   PAGE   15

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ACTSIZ	2643	ADCONV	1876	ADR5S	658	AFTHDG	1233	ARYSIZ	160	ARYTOP	194	AT	1689
AT2	1802	AT3	1833	AZONE	2501	BEGINN	838	BIGNUF	1096	BIGSRC	2233	BLANKL	834
BLNKOK	1973	BOTCOR	2810	BOTFMT	154	BRANCH	2811	BRNCH2	2511	BUMP3S	632	BUMPNS	1375
C12T	1228	C1410	695	CARD	853	CARD1	2429	CARD6	2434	CARD7	2435	CARD72	2500
CARD7A	2506	CDOVLY	769	CHAR	2831	CLEARD	1103	CLEARH	433	CLEARL	707	CLRBOT	833
CLRLL	742	CLRWML	754	CNTCNT	2824	CNTMSG	2802	CNTOK	1302	CNVKA0	2844	CNVKQ4	2846
CNVW2A	2840	CNVW2B	2842	COL3	1669	COLCNT	2503	COLON	2534	COMMA	2851	CONDNS	693
CONTS	568	CONVTD	2565	COR5	2648	CORSIZ	2557	CRD1SW	1260	CRD2SW	1332	CRD3SW	1394
CRD4SW	1402	CRD5SW	1416	CRD6SW	1425	DOCNT	151	DONE	2070	DOTSS	651	DOWMS	520
DOWNTO	2746	ECOUNT	837	EINITL	835	EXITC	1969	EXITS	564	EXPF	120	FINAL	2971
FLAG	2828	FLOATF	125	FMTSW	696	GETS	497	GLOBER	184	GM	2529	GMWM	2999
GOTXL	185	HALT1	1207	HALT2	2263	HALT3	2354	HALTS	563	HCOUNT	2834	HOLLER	1751
IMOD	690	INTCHR	2388	INTRST	1700	K1	2510	K10	2536	K20	2513	K3900	2658
K999L	830	K9S	665	KAT	2819	KEND	2827	KF	2818	KFMT	2527	KM10S	667
KMINUS	2829	KP1	2566	KP15S	672	KP1S	670	KP2S	662	KPAGE	2939	KPARAM	2554
KSTAR	2830	KZ1	2837	KZ2	2836	KZ3S	661	LOADNX	700	LOGF	119	LOOP1C	1902
LOOP2C	1921	LOOPS	459	LP2XC	1940	LSTCMT	2358	MANTIS	692	MOVE	2537	MOVE2	2850
MOVECD	1211	MSG1	2787	MSG2	2928	MSG3	2968	MSGCHR	2867	MVCHAR	1364	MVCHR2	1622
NCHAR	2807	NEGAR2	142	NEGAR3	157	NEGARY	163	NOP	2549	NOP2	2528	NOPARM	2324
NOSYS	1190	NOTBIG	2153	NOTCNT	1546	NSTMT	2822	NSTMTS	183	NZH	1851	NZHM1	1817
ONEL	836	PAGHDG	2423	PAGNUM	2931	PARAM	699	PHASID	110	PREFIX	2533	PROCD	2548
PRTHDG	2267	PSGTM	1077	PWORD	685	PZE	2849	RDAGIN	773	RDLOOP	1174	RELTAB	188
RX1S	535	SAVE2	2425	SAVE2A	2509	SAWABS	122	SAWNEG	123	SCANR1	2885	SCANR2	2892
SEQTAB	148	SERIES	117	SGTM	2722	SGTM2	2743	SINCOS	118	SIZERR	2676	SKIPS	621
SLASH	1535	SNAPSH	333	SNAPSW	694	SPSIZE	2620	STMSG	2594	STOP	2878	SUBENT	191
SUBSCR	116	SVCHAR	1310	SX1S	416	SX3S	409	SXXS	402	TBLBOT	145	TEST7	1409
TESTLC	2373	TOCONV	2560	TOP5	2653	TOPCOR	688	TPERRL	797	TPREAD	780	USEACT	1089
W2AS	664	W2BS	669	WORK6	2817	WORK7	2520	WORKH1	2838	X1	89	X2	94
X3	99	XFIXF	124	XQTDS	680	XXXXX1	89	XXXXX2	94	XXXXX3	99		