OUTPUT 12

```
MEM. STRG. USED   02207
03700  THRU  06105
07000  THRU  07000

LOK     INSTR        L1ID                  LO

                     0        MAIN     PROG*1219B*FACT*OCT*67
                     1                 REMARK*1219B FACT MODIFIED FROM 1219 FACT
                     2                 REMARK*MAIN MEMORY TEST
03700   50 7201      3        MAIN     ENTICR*01
03701   46 3732      4                 STRAU*TEMP1                  SAVE INDEX
03702   44 5415      5                 STRAL*ALPARM                 SAVE INITIAL AL INPUT PARAMETER
03703   52 3737      6                 SLCL*IDEX                    000001
03704   44 3731      7                 STRAL*TEMP                   SAVE

03705   76 6012      10                RJP*TYPE                     TYPT AND TYPC SETUP
03706   12 5415      11                ENTAL*ALPARM                 INITIAL AL INPUT PARAMETER
03707   65 3711      12                JPALP*LOK+2                  NON N+1 BUFFER TERMINATION
03710   76 6065      13                RJP*IOSET                    N+1 BUFFER TERMINATION SETUP
03711   40 5320      14                CL*SRBANK                    PRESTORE SRBANK BANK BANK1
03712   40 5321      15                CL*BANK
03713   70 0001      16                ENTALK*0001
03714   44 5322      17                STRAL*BANK1

03715   32 3731      20                ENTB*TEMP                    CONSIDER CONTROL MEMORY SIZE
03716   13 3735      21                ENTALB*ITNAL
03717   44 4144      22                STRAL*WIRE3
03720   32 3732      23                ENTB*TEMP1                   CONSIDER MAIN MEMORY SIZE
03721   13 3737      24                ENTALB*IDEX
03722   44 5317      25                STRAL*BLMN
03723   12 3733      26                ENTAL*UNO                    SET UP TO TEST BANK 1 INITIALLY
03724   44 5377      27                STRAL*PAR                    LOWER LIMIT

03725   44 4644      30                STRAL*RWEX3                  LOWER LIMIT FOR RANDOM WORD
03726   12 3734      31                ENTAL*FNL                    UPPER LIMIT
03727   44 5400      32                STRAL*PAR1
03730   34 3747      33                JP*CRANK1
```

```
03731  00 0000    34        TEMP     0*0
03732  00 0000    35        TEMP1    0*0

03733  00 7777    36        UNO      00*7777
03734  01 7777    37        FNL      01*7777
03735  55 4120    40        ITNAL    IJP*WIRE
03736  12 4156    41                 ENTAL*WARE1
03737  00 0001    42        IDEX     00*0001
03740  00 0003    43                 00*0003
03741  00 0005    44                 00*0005
03742  00 0007    45                 00*0007

03743  00 0011    46                 00*0011
03744  00 0013    47                 00*0013
03745  00 0015    50                 00*0015
03746  00 0017    51                 00*0017
03747  50 7201    52        CRANK1   ENTICR*01          SET B TO 1
03750  50 5020    53                 SKP*20             SET KEY 4 TO SUPPRESS TYPEOUTS
03751  34 3753    54                 JP*HEAD            NOT SET-TYPE OUT
03752  34 4165    55                 JP*TEST            SET GO TO TEST

03753  30 3754    56        HEAD     TYPT*$CR$MAIN MEMORY TEST
03754  00 5416
03755  76 5541
03756  51 5600
03757  55 4555
03760  20 6271
03761  00 6445
03762  63 6477

03763  70 0001    57        HEAD1    ENTALK*1
03764  14 4021    60                 ADDAL*COUNT        UPDATE COUNT
03765  44 4021    61                 STRAL*COUNT
03766  02 4022    62                 CMAL*NUMB          FINISHED 10 CYCLES
03767  63 4165    63                 JPNOT*TEST         NOPE
03770  40 4021    64                 CL*COUNT           YES CLEAR COUNT FOR NEW START
03771  50 5020    65                 SKP*20             KEY 4, SET TO SUPPRESS TYPE OUTS
03772  34 3774    66                 JP*LOK+2

03773  34 4006    67                 JP*DOWN
03774  12 4023    70                 ENTAL*BAER         CHECK ERROR FLAG
```

```
03775  63 4012    71                JPALNZ*RECYL                    TYPEOUT RECYCLE
03776  30 3777    72        HEAD2   TYPT*$CR$END 10 CYCLES$CR$
03777  00 5416
04000  76 4556

04001  44 0021
04002  20 0043
04003  71 4354
04004  45 6376
04005  77 7777
04006  50 5610    73        DOWN    STOP*10                         END TEST
04007  50 5004    74        UP      SKP*04                          SET SKIP2 TO STAY IN TEST
04010  55 3677    75                IJP*MAIN-1                      NOT SET-EXIT

04011  34 3763    76                JP*HEAD1                        SET, GO TO CYCLE COUNT
04012  30 4013    77        RECYL   TYPT*$CR$RECYCLE
04013  00 5416
04014  76 6245
04015  43 7143
04016  54 4577
04017  40 4023    100               CL*BAER                         CLEAR ERROR FLAG
04020  34 4006    101               JP*DOWN

04021  00 0000    102       COUNT   0*0
04022  00 0013    103       NUMB    00*13
04023  00 0000    104       BAER    0*0
                  105       ERROUT  PROG*CASEY*8JUNE64
04024  00 0000    106       ERROUT  0*0                             ENTRY
04025  72 4116    107               STRICR*SF                       SAVE ICR
04026  50 7202    110               ENTICR*2                        SET B TO 2
04027  30 4030    111       ERR1    TYPT*$CR$ERROR

04030  00 5416
04031  76 4562
04032  62 2062
04033  77 7777
04034  30 4035    112       ERR2    TYPT*$CR$LAST ADDRESS 1ST ADDRESS   CORRECT INCORRECT
04035  00 5416
04036  76 5441
04037  63 6400
```

```
04040  41 4444
04041  62 4563
04042  63 0021
04043  63 6400
04044  41 4444
04045  62 4563

04046  63 0000
04047  00 4320
04050  62 6245
04051  43 6400
04052  51 5643
04053  20 6262
04054  45 4364
04055  77 7777

04056  70 7777    113              ENTALK*7777                    ERROR SET
04057  44 4023    114              STRAL*BAER                     ERROR FLAG
04060  30 4061    115      TL1     TYPC*$CR$*HERE* * * * * * *THERE* * * * * * * * *
04061  00 5652
04062  10 0076
04063  60 5410
04064  10 0000
04065  10 0000

04066  10 0000
04067  10 0000
04070  10 0000
04071  10 0000
04072  60 5411
04073  10 0000
04074  10 0000
04075  10 0000

04076  10 0000
04077  10 0000
04100  10 0000
04101  10 0000
04102  10 0000
04103  10 0000
04104  00 0000
```

```
04105  30 4106     116       TL2       TYPC*DIP* * * *DIP+1
04106  00 5652
04107  60 5406
04110  10 0000
04111  10 0000
04112  10 0000
04113  60 5407

04114  00 0000
04115  50 5604     117                 STOP*04                  STOP AFTER TYPEOUT
04116  50 7200     120       SF        ENTICR*0                 RESTORE B REG
04117  55 4024     121                 IJP*ERROUT               BACK
                   122       WIRE      PROG*MUELLER*10CT64
04120  00 0000     123       WIRE      0*0
04121  42 4156     124                 STRB*WARE1               CHECK FOR 128 CONTROL MEMORY
04122  12 4156     125                 ENTAL*WARE1

04123  02 4164     126                 CMAL*LARGST              IS B LARGE ENOUGH
04124  65 4155     127                 JPMLEQ*WURE3             YES EXIT
04125  12 4156     130                 ENTAL*WARE1              CHECK FOR B LESS THAN PIE
04126  02 4157     131                 CMAL*LEAST
04127  65 4132     132                 JPMLEQ*WIRE4
04130  32 4157     133                 ENTB*LEAST
04131  55 4120     134                 IJP*WIRE
04132  12 4156     135       WIRE4     ENTAL*WARE1              B IN CONTROL MEMORY

04133  53 4160     136                 SLCP*WARE2               B IN CONTROL MEMORY
04134  63 4137     137                 JPALNZ*WARE3             NO
04135  37 0100     140                 ENTBKB*0100              YES
04136  55 4120     141                 IJP*WIRE                 RETURN TO PROGRAM
04137  12 4156     142       WARE3     ENTAL*WARE1              CHECK FOR WIRED MEMORY
04140  53 4161     143                 SLCP*WIRE2               IS IT WIRE
04141  63 4144     144                 JPALNZ*WIRE3             NO
04142  37 0040     145                 ENTBKB*0040              YES

04143  55 4120     146                 IJP*WIRE                 RETURN TO MAIN PROG
04144  12 4156     147       WIRE3     ENTAL*WARE1              CHECK FOR 256 CONTROL MEMORY
04145  53 4162     150                 SLCP*WORE2               B IN 400
04146  63 4151     151                 JPALNZ*WORE3             NO
04147  37 0140     152                 ENTBKB*0140              YES ADD 140 TO B
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```
04150  55 4120   153                IJP*WIRE                RETURN TO MAIN PROG

04151  12 4156   154     WORE3      ENTAL*WARE1             B IN 600
04152  53 4163   155                SLCP*WURE2
04153  63 4155   156                JPALNZ*WURE3            NO
04154  37 0100   157                ENTBKB*0100
04155  55 4120   160     WURE3      IJP*WIRE                RETURN TO MAIN PROG
04156  00 0000   161     WARE1      0*0                     TEMP STORAGE FOR B
04157  00 0100   162     LEAST      00*0100
04160  00 0200   163     WARE2      00*0200                 MASK FOR LOWER CONTROL MEMORY

04161  00 0500   164     WIRE2      00*0500                 MASK FOR WIRED MEMORY
04162  00 0400   165     WORE2      00*0400                 MASK FOR LOWER 256 CONTROL MEMORY
04163  00 0600   166     WURE2      00*0600                 MASK FOR UPPER 256 CONTROL MEMORY
04164  00 0700   167     LARGST     00*0700
               170     TEST       PROG*CASEY*8JUNE64
04165  50 7201   171     TEST       ENTICR*01
04166  32 5377   172                ENTB*PAR                LOWER LIMIT TO B FOR HOLD ZEROS
04167  56 5400   173                BSK*PAR1                HAVE ALL ADDRESSES BEEN CLEARED

04170  34 4172   174                JP*HD0                  NO GO TO HOLD ZERO S/R
04171  34 4177   175                JP*HOCK                 YES CHECK FOR ZERO HOLD
04172  76 4120   176     HD0        RJP*WIRE                TEST FOR WIRE OR CONTROL
04173  50 7310   177                ENTSR*10
04174  41 0000   200                CLB*0                   SET ADDRESS TO ZERO
04175  75 5414   201                STRSR*JVW
04176  34 4167   202                JP*TEST+2               UPDATE ADDRESS
04177  32 5377   203     HOCK       ENTB*PAR

04200  56 5400   204                BSK*PAR1                HAVE ALL ADDRESSES BEEN CHECKED
04201  34 4203   205                JP*LOK+2                NO KEEP CHECKING
04202  34 4243   206                JP*HD1                  YES GO TO NEXT S/R
04203  76 4120   207                RJP*WIRE                TEST FOR WIRE OR CONTROL
04204  50 7310   210                ENTSR*10
04205  13 0000   211                ENTALB*0                ENTER ADDRESS INTO AL
04206  75 5414   212                STRSR*JVW
04207  63 4211   213                JPALNZ*LOK+2            CORRECT NO GO TO ERROR DISPLAY

04210  34 4200   214                JP*HOCK+1               YES KEEP CHECKING
04211  10 5401   215                ENTAU*PAT               ERROR CORRECT IN AU
04212  46 5406   216                STRAU*DIP               SAVE FOR TYPEOUT
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04213  44 5407    217            STRAL*DIP+1          SAVE FOR TYPEOUT
04214  50 5601    220            STOP*01              STOP KEY 0 FOR ERROR DISPLAY
04215  42 5410    221            STRB*HERE            SET FAILING ADDRESS IN AL

04216  12 5410    222            ENTAL*HERE           SAVE ADDRESS
04217  50 5601    223            STOP*01              DISPLAY ADDRESS IN AL
04220  50 5020    224            SKP*20               TYPEOUT SUPPRESSED
04221  76 4225    225            RJP*PROOF            NO GO TO ERROR TYPEOUT
04222  50 5001    226            SKP*01               SET SKIP KEY 0 TO REPEAT TEST
04223  34 4200    227            JP*HOCK+1            NOT SET CONTINUE TEST
04224  34 4165    230            JP*TEST              SET RECYCLE SR
04225  00 0000    231     PROOF  0*0

04226  42 5411    232            STRB*THERE           SAVE B COUNT
04227  56 5400    233            BSK*PAR1             KEEP CHECKING
04230  34 4233    234            JP*LOK+3             GO
04231  76 4024    235            RJP*ERROUT
04232  55 4225    236            IJP*PROOF            GO BACK TO SR
04233  76 4120    237            RJP*WIRE             CHECK FOR WIRED AND CONTROL MEMORY
04234  50 7310    240            ENTSR*10
04235  13 0000    241            ENTALB*0             ENTER CELL CONTENTS IN AL

04236  75 5414    242            STRSR*JVW
04237  02 5406    243            CMAL*DIP             IS IT CORRECT
04240  61 4231    244            JPEQ*PROOF+4         LAST ONE WRONG
04241  42 5411    245            STRB*THERE           YEP
04242  34 4227    246            JP*PROOF+2           FINISH THE CHECK
               247     HD1    PROG*CASEY*9JUNE64
04243  32 5377    250     HD1    ENTB*PAR             LIMIT TO B FOR HOLD ONES
04244  56 5400    251            BSK*PAR1             HAVE ALL ADDRESSES BEEN LOADED

04245  34 4247    252            JP*HLD1              NO GO TO LOAD S/R
04246  34 4255    253            JP*HICK              YES-CHECK LOAD
04247  76 4120    254     HLD1   RJP*WIRE             TEST FOR WIRE OR CONTROL
04250  12 5402    255            ENTAL*PAT1           ALL ONES
04251  50 7310    256            ENTSR*10
04252  45 0000    257            STRALB*0
04253  75 5414    260            STRSR*JVW
04254  34 4244    261            JP*HD1+1             GO BACK AND CHECK LOAD

04255  32 5377    262     HICK   ENTB*PAR             LOWER LIMIT TO B
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04256  56 5400    263            BSK*PAR1      HAVE ALL ADDRESSES BEEN CHECKED
04257  34 4261    264            JP*LOK+2      NO KEEP CHECKING
04260  34 4304    265            JP*HALT       YES-GO TO NEXT S/R
04261  76 4120    266            RJP*WIRE      TEST FOR WIRE OR CONTROL
04262  50 7310    267            ENTSR*10

04263  13 0000    270            ENTALB*0      ENTER ADDRESS INTO AL
04264  75 5414    271            STRSR*JVW
04265  02 5402    272            CMAL*PAT1     CHECK FOR CORRECT LOAD
04266  63 4270    273            JPNOT*LOK+2   INCORRECT GO TO EROR DISPLAY
04267  34 4256    274            JP*HICK+1     CORRECT CHECK NEXT ADDRESS
04270  10 5402    275            ENTAU*PAT1    CORRECT TO AU
04271  46 5406    276            STRAU*DIP     SAVE FOR TYPEOUT
04272  44 5407    277            STRAL*DIP+1   SAVE EROR FOR TYPEOUT

04273  50 5601    300            STOP*01       STOP KEY 0 FOR ERROR DISPLAY
04274  42 5410    301            STRB*HERE     SET FAILING ADDRESS IN AL
04275  12 5410    302            ENTAL*HERE    SAVE ADDRESS
04276  50 5601    303            STOP*01       DISPLAY ADDRESS IN AL
04277  50 5020    304            SKP*20        SET KEY 4 TO SUPPRESS TYPEOUTS
04300  76 4225    305            RJP*PROOF     NO GO TO ERROR TYPEOUT
04301  50 5001    306            SKP*01        SET SKIP KEY 0 TO REPEAT TEST
04302  34 4256    307            JP*HICK+1     CONTNUE TEST

04303  34 4243    310            JP*HD1        SET RECYCLE S/R
               311  HALT         PROG*CASEY*9JUNE64
04304  32 5377    312  HALT      ENTB*PAR
04305  56 5400    313            BSK*PAR1
04306  34 4310    314            JP*ALT1
04307  34 4316    315            JP*ATICK
04310  76 4120    316  ALT1      RJP*WIRE      TEST FOR WIRE OR CONTROL
04311  12 5403    317            ENTAL*PAL1

04312  50 7310    320            ENTSR*10
04313  45 0000    321            STRALB*0
04314  75 5414    322            STRSR*JVW
04315  34 4305    323            JP*HALT+1
04316  32 5377    324  ATICK     ENTB*PAR
04317  56 5400    325            BSK*PAR1
04320  34 4322    326            JP*LOK+2
04321  34 4345    327            JP*HALTO
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04322  76 4120     330          RJP*WIRE          TEST FOR WIRE AND CONTROL
04323  50 7310     331          ENTSR*10
04324  13 0000     332          ENTALB*0
04325  75 5414     333          STRSR*JVW
04326  02 5403     334          CMAL*PAL1
04327  63 4331     335          JPNOT*LOK+2

04330  34 4317     336          JP*ATICK+1
04331  10 5403     337          ENTAU*PAL1
04332  46 5406     340          STRAU*DIP
04333  44 5407     341          STRAL*DIP+1
04334  50 5601     342          STOP*01
04335  42 5410     343          STRB*HERE
04336  12 5410     344          ENTAL*HERE
04337  50 5601     345          STOP*01

04340  50 5020     346          SKP*20
04341  76 4225     347          RJP*PROOF
04342  50 5001     350          SKP*01
04343  34 4317     351          JP*ATICK+1
04344  34 4304     352          JP*HALT
                   353    HALTO PROG*CASEY*9JUNE64
04345  32 5377     354    HALTO ENTB*PAR
04346  56 5400     355          BSK*PAR1

04347  34 4351     356          JP*ALTO
04350  34 4357     357          JP*ATOCK
04351  76 4120     360    ALTO, RJP*WIRE          TEST FOR WIRE OR CONTROL
04352  12 5404     361          ENTAL*PALO
04353  50 7310     362          ENTSR*10
04354  45 0000     363          STRALB*0
04355  75 5414     364          STRSR*JVW
04356  34 4346     365          JP*HALTO+1

04357  32 5377     366    ATOCK ENTB*PAR
04360  56 5400     367          BSK*PAR1
04361  34 4363     370          JP*LOK+2
04362  34 4406     371          JP*TWPO
04363  76 4120     372          RJP*WIRE          CHECK FOR WIRE AND CONTROL
04364  50 7310     373          ENTSR*10
```

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04365  13 0000    374                ENTALB*0
04366  75 5414    375                STRSR*JVW
04367  02 5404    376                CMAL*PAL0
04370  63 4372    377                JPNOT*L0K+2
04371  34 4360    400                JP*AT0CK+1
04372  10 5404    401                ENTAU*PAL0
04373  46 5406    402                STRAU*DIP
04374  44 5407    403                STRAL*DIP+1

04375  50 5601    404                STOP*01
04376  42 5410    405                STRB*HERE
04377  12 5410    406                ENTAL*HERE
04400  50 5601    407                STOP*01
04401  50 5020    410                SKP*20
04402  76 4225    411                RJP*PR00F
04403  50 5001    412                SKP*01
04404  34 4360    413                JP*AT0CK+1

04405  34 4345    414                JP*HALT0
04406  32 5377    415    TWP0        ENTB*PAR
04407  10 4564    416    TWP1        ENTAU*AZER0S
04410  56 5400    417                BSK*PAR1
04411  34 4413    420                JP*L0K+2
04412  34 4463    421                JP*CHECK
04413  76 4120    422                RJP*WIRE
04414  42 4567    423                STRB*W0RK+1

04415  36 0000    424                ENTBK*0
04416  12 4567    425                ENTAL*W0RK+1
04417  52 4563    426                SLCL*TWPK2
04420  03 4572    427                CMALB*TwPA
04421  61 4425    430                JPEQ*L0K+4
04422  56 4562    431                BSK*TWPK1
04423  34 4420    432                JP*L0K-3
04424  34 4434    433                JP*TWP2

04425  42 4566    434                STRB*WURK
04426  12 4566    435                ENTAL*WORK
04427  50 4621    436                LSHAL*17D
04430  65 4433    437                JPALP*L0K+3
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04431  10 4564   440              ENTAU*AZEROS
04432  34 4434   441              JP*LOK+2

04433  10 4565   442              ENTAU*AONES
04434  32 4567   443     TWP2     ENTB*WORK+1
04435  50 7310   444              ENTSR*10
04436  47 0000   445              STRAUB*0
04437  47 0003   446              STRAUB*3
04440  47 0005   447              STRAUB*5
04441  47 0006   450              STRAUB*6
04442  75 5414   451              STRSR*JVW

04443  60 4446   452              JPAUZ*LOK+3
04444  10 4564   453              ENTAU*AZEROS
04445  34 4447   454              JP*LOK+2
04446  10 4565   455              ENTAU*AONES
04447  50 7310   456              ENTSR*10
04450  47 0001   457              STRAUB*1
04451  47 0002   460              STRAUB*2
04452  47 0004   461              STRAUB*4

04453  47 0007   462              STRAUB*7
04454  75 5414   463              STRSR*JVW
04455  37 0007   464              ENTBKB*7
04456  60 4461   465              JPAUZ*LOK+3
04457  10 4564   466              ENTAU*AZEROS
04460  34 4462   467              JP*LOK+2
04461  10 4565   470              ENTAU*AONES
04462  34 4410   471              JP*TWP1+1

04463  32 5377   472     CHECK    ENTB*PAR
04464  10 4564   473              ENTAU*AZEROS
04465  56 5400   474              BSK*PAR1
04466  34 4470   475              JP*LOK+2
04467  34 4560   476              JP*SWIT1
04470  76 4120   477              RJP*WIRE
04471  42 4567   500              STRB*WORK+1
04472  36 0000   501              ENTBK*0

04473  12 4567   502              ENTAL*WORK+1
04474  52 4563   503              SLCL*TWPK2
```

```
04475  03 4572    504            CMALB*TWPA
04476  61 4502    505            JPEQ*LOK+4
04477  56 4562    506            BSK*TWPK1
04500  34 4475    507            JP*LOK-3

04501  34 4511    510            JP*TWP4
04502  42 4566    511            STRB*WORK
04503  12 4566    512            ENTAL*WORK
04504  50 4621    513            LSHAL*17D
04505  65 4510    514            JPALP*LOK+3
04506  10 4564    515            ENTAU*AZEROS
04507  34 4511    516            JP*LOK+2
04510  10 4565    517            ENTAU*AONES

04511  46 4570    520     TWP4   STRAU*CORPAT
04512  12 4567    521            ENTAL*WORK+1
04513  52 4571    522            SLCL*K7
04514  61 4527    523            JPALZ*TWP4A
04515  71 7774    524            ADDALK*7774
04516  61 4527    525            JPALZ*TWP4A
04517  71 7775    526            ADDALK*7775
04520  61 4527    527            JPALZ*TWP4A

04521  71 7776    530            ADDALK*7776
04522  61 4527    531            JPALZ*TWP4A
04523  60 4526    532            JPAUZ*LOK+3
04524  10 4564    533            ENTAU*AZEROS
04525  34 4527    534            JP*LOK+2
04526  10 4565    535            ENTAU*AONES
04527  50 4722    536     TWP4A  LSHA*18D
04530  32 4567    537            ENTB*WORK+1

04531  50 7310    540            ENTSR*10
04532  03 0000    541            CMALB*0
04533  63 4537    542            JPNOT*TWP5
04534  75 5414    543            STRSR*JVW
04535  10 4570    544     TWP4B  ENTAU*CORPAT
04536  34 4465    545            JP*CHECK+2
04537  75 5414    546     TWP5   STRSR*JVW
04540  44 5406    547            STRAL*DIP
```

```
04541  50 7310    550                ENTSR*10
04542  11 0000    551                ENTAUB*0
04543  75 5414    552                STRSR*JVW
04544  46 5407    553                STRAU*DIP*1
04545  50 4722    554                LSHA*18D
04546  50 5601    555                STOP*01

04547  42 5410    556                STRB*HERE
04550  42 5411    557                STRB*THERE
04551  12 5410    560                ENTAL*HERE
04552  50 5601    561                STOP*01
04553  50 5020    562                SKP*20
04554  76 4024    563                RJP*ERROUT
04555  50 5001    564                SKP*1
04556  34 4535    565                JP*TWP4B

04557  34 4406    566                JP*TWP0
04560  76 5135    567    SWIT1       RJP*FLUSH1
04561  34 4617    570                JP*RWEX
04562  00 0025    571    TWPK1       25*
04563  00 7777    572    TWPK2       007777*
04564  00 0000    573    AZEROS      000000*
04565  77 7777    574    AONES       777777*
04566  00 0000    575    WORK        000000*

04567  00 0000    576                000000*
04570  00 0000    577    CORPAT      000000*
04571  00 0007    600    K7          000007*
04572  00 0100    601    TWPA        000100*
04573  00 0200    602                000200*
04574  00 0300    603                000300*
04575  00 0500    604                000500*
04576  00 0600    605                000600*

04577  00 1700    606                001700*
04600  00 2400    607                002400*
04601  00 2500    610                002500*
04602  00 3000    611                003000*
04603  00 3300    612                003300*
04604  00 4200    613                004200*
04605  00 4400    614                004400*
```

```
04606  00 4500     615                 004500*
04607  00 5200     616                 005200*
04610  00 5300     617                 005300*
04611  00 6300     620                 006300*
04612  00 6500     621                 006500*
04613  00 6600     622                 006600*
04614  00 7000     623                 007000*

04615  00 7100     624                 007100*
04616  00 7700     625                 007700*
               626                 PROG*MUELLER*29SEPT64
04617  12 4646     627     RWEX        ENTAL*RWEX7         PRESET INCREMENT COUNT
04620  44 4645     630                 STRAL*RWEX4
04621  12 5377     631                 ENTAL*PAR           SET UP LIMITS FOR
04622  44 4644     632                 STRAL*RWEX3         RECYCLING BANK
04623  12 4642     633     RWEX5       ENTAL*RWEX1         PRESTORE INST IN RW

04624  44 4656     634                 STRAL*RW21
04625  12 4643     635                 ENTAL*RWEX2         PRESTORE INST IN RW
04626  44 4703     636                 STRAL*RW22
04627  57 4645     637                 ISK*RWEX4           THROUGH
04630  34 4632     640                 JP*RWEX6            NO
04631  34 4763     641                 JP*LAST             YES
04632  12 4644     642     RWEX6       ENTAL*RWEX3         SET UP LOWER LIMIT OF TEST SEGMENT
04633  71 0001     643                 ADDALK*01

04634  44 4746     644                 STRAL*Rw14
04635  71 0777     645                 ADDALK*0777         SET UP UPPER LIMIT OF SEGMENT
04636  44 4744     646                 STRAL*RW12
04637  44 4644     647                 STRAL*RWEX3         SAVE FOR NEXT INCREMENT
04640  76 4647     650                 RJP*RW
04641  34 4623     651                 JP*RWEX5
04642  44 7000     652     RWEX1       STRAL*IMAGE
04643  02 7000     653     RWEX2       CMAL*IMAGE

04644  00 0000     654     RWEX3       0*0
04645  00 0000     655     RWEX4       0*0
04646  00 0006     656     RWEX7       00*0006
               657     RW          PROG*CASEY*29JUNE64
04647  00 0000     660     RW          0*0
```

```
04650  32 4746    661      RW1     ENTB*RW14          LOWER LIMIT TO B

04651  76 4120    662      RW2     RJP*WIRE           TEST FOR CONTROL AND WIRED MEMORY
04652  76 4750    663              RJP*RAN            GENERATE RANDOM NUMBER
04653  50 7310    664              ENTSR*10
04654  45 0000    665              STRALB*0           STORE PATTERN
04655  75 5414    666              STRSR*JVW
04656  44 7000    667      RW21    STRAL*IMAGE        STORE IMAGE
04657  12 4656    670              ENTAL*RW21         ADVANCE IMAGE ADDRESS
04660  71 0001    671              ADDALK*1

04661  44 4656    672              STRAL*RW21
04662  56 4744    673              BSK*RW12
04663  34 4651    674              JP*RW2             NO
04664  32 4746    675              ENTB*RW14          YES
04665  12 4742    676      RW3     ENTAL*RW10         RESTORE INDEX
04666  44 4743    677              STRAL*RW11
04667  50 7310    700      RW4     ENTSR*10           READ WORD 40 TIMES
04670  13 0000    701              ENTALB*0

04671  75 5414    702              STRSR*JVW
04672  57 4743    703              ISK*RW11
04673  34 4667    704              JP*RW4
04674  56 4744    705              BSK*RW12           PATTERN COMPLETE
04675  34 4665    706              JP*RW3             NO
04676  32 4746    707              ENTB*RW14          YES-VERIFY
04677  76 4120    710              RJP*WIRE           TEST FOR CONTROL AND WIRED MEMORY
04700  50 7310    711      RW6     ENTSR*10

04701  13 0000    712              ENTALB*0
04702  75 5414    713              STRSR*JVW
04703  02 7000    714      RW22    CMAL*IMAGE         IS WORD CORRECT
04704  63 4713    715              JPNOT*RW20         NO
04705  12 4703    716      RW07    ENTAL*RW22         ADVANCE COMPARISON ADDRESS
04706  71 0001    717              ADDALK*1
04707  44 4703    720              STRAL*RW22
04710  56 4744    721      RW7     BSK*RW12           YES-PATTERN COMPLETED

04711  34 4677    722              JP*RW6-1
04712  55 4647    723              1JP*RW             YES EXIT
04713  12 4703    724      RW20    ENTAL*RW22
```

```
04714  74 4715    725              STRADR*RW23
04715  10 0000    726     RW23     ENTAU*0          ERROR CORRECT IN AU
04716  46 5406    727              STRAU*DIP        SAVE FOR TYPEOUT

04717  50 7310    730              ENTSR*10
04720  13 0000    731              ENTALB*0         INCORRECT IN AL
04721  75 5414    732              STRSR*JVW
04722  44 5407    733              STRAL*DIP+1      SAVE FOR TYPEOUT
04723  50 5601    734              STOP*01          SET STOP 0 FOR ERROR DISPLAY
04724  42 4745    735              STRB*RW13        FAILING ADDRESS TO AL
04725  12 4745    736              ENTAL*RW13       FOR DISPLAY
04726  44 5410    737              STRAL*HERE       SAVE FOR TYPEOUT

04727  44 5411    740              STRAL*THERE      ONE ADDRESS
04730  50 5601    741              STOP*01          SET STOP 0 TO DISPLAY FAILING ADD
04731  50 5020    742              SKP*20           SET SKIP 4 TO SUPPRESS TYPEOUTS
04732  76 4024    743              RJP*ERROUT       NOT SET TYPEOUT
04733  50 5001    744              SKP*01           SET SKIP 0 TO REPEAT S/R
04734  34 4705    745              JP*RW07          NOT SET CONTINUE
04735  12 4642    746              ENTAL*RWEX1      RESET IMAGE STORAGE
04736  44 4656    747              STRAL*RW21

04737  12 4643    750              ENTAL*RWEX2
04740  44 4703    751              STRAL*RW22
04741  34 4650    752              JP*RW1
04742  00 0050    753     RW10     00*0050
04743  00 0050    754     RW11     0*50
04744  00 0777    755     RW12     0*777
04745  00 0000    756     RW13     0*0
04746  00 0000    757     RW14     0*0

04747  00 0200    760     RW15     0*200
               761     RAN      PROG*CASEY*29JUNE64
04750  34 0000    762     RAN      JP*0             RANDOM NUMBER GENERATOR
04751  12 4761    763     RAN1     ENTAL*RAN2
04752  24 4761    764              MULAL*RAN2
04753  26 4762    765              DIVA*RAN3
04754  62 4757    766              JPAUNZ*RAN4
04755  44 4761    767              STRAL*RAN2

04756  55 4750    770              IJP*RAN          STORE PATTERN
```

```
04757  46 4761    771     RAN4    STRAU*RAN2
04760  55 4750    772             IJP*RAN
04761  00 0703    773     RAN2    00*0703
04762  37 7775    774     RAN3    37*7775
                   775             REMARK*ADDRESSING STRUCTURE TEST

04763  12 5317    776     LAST    ENTAL*BLMN          BANK NUM WHERE MEMORY ENDS
04764  50 4614    777             LSHAL*12D
04765  14 5126    1000            ADDAL*LMSK          ACTUAL END OF MEMORY ADDR
04766  44 5132    1001            STRAL*LTEMPM        SAVE FOR LATER
04767  44 5125    1002            STRAL*LEND          SET END CHECK ADDR
04770  12 5321    1003            ENTAL*BANK          BANK NUM PROG IS IN
04771  50 4614    1004            LSHAL*12D           REPOSITION AND
04772  44 5127    1005            STRAL*LTEMP         SAVE

04773  71 1447    1006            ADDALK*INT2-1       ACTUAL BEG-OF-PROG(-1)ADDR
04774  44 5131    1007            STRAL*LTEMPI        SAVE FOR LATER
04775  12 5127    1010            ENTAL*LTEMP
04776  14 5126    1011            ADDAL*LMSK          ACTUAL END-OF-PROG BANK ADDR
04777  44 5130    1012            STRAL*LTEMPF        SAVE FOR LATER
05000  32 5130    1013            ENTB*LTEMPF         INIT B FOR STORING
05001  76 5017    1014            RJP*LASTR           STORE ADDR INTO CELLS BEYOND PROG
05002  12 5131    1015            ENTAL*LTEMPI

05003  44 5125    1016            STRAL*LEND          RESET END CHECK ADDR
05004  36 0700    1017            ENTBK*0700          RESET B FOR STORING
05005  76 5017    1020            RJP*LASTR           STORE ADDR INTO CELLS BEFORE PROG
05006  12 5132    1021    LASTA   ENTAL*LTEMPM
05007  44 5125    1022            STRAL*LEND          RESET END CHECK ADDR
05010  32 5130    1023            ENTB*LTEMPF         RESET B FOR CHECKING
05011  76 5030    1024            RJP*LACHK           CHECK CELLS AFTER PROGRAM
05012  12 5131    1025            ENTAL*LTEMPI

05013  44 5125    1026            STRAL*LEND          RESET END CHECK ADDR
05014  36 0700    1027            ENTBK*0700          RESET B FOR CHECKING
05015  76 5030    1030            RJP*LACHK           CHECK CELLS BEFORE PROGRAM
05016  34 5133    1031            JP*FLUSH            THROUGH
05017  00 0000    1032    LASTR   0*0
05020  42 5127    1033            STRB*LTEMP
05021  12 5127    1034            ENTAL*LTEMP         ADDR TO BE STORED
05022  50 7310    1035            ENTSR*010
```

```
05023  45 0000    1036            STRALB*0000          STORE OWN ADDR IN CELL
05024  75 5127    1037            STRSR*LTEMP
05025  56 5125    1040            BSK*LEND             ENUF STORES DONE YET
05026  34 5020    1041            JP*LASTR+1           NO
05027  55 5017    1042            IJP*LASTR            YES-EXIT
05030  00 0000    1043  LACHK     0*0

05031  50 7310    1044            ENTSR*010
05032  13 0000    1045            ENTALB*0000          CONTENTS OF CELL TO AL
05033  75 5127    1046            STRSR*LTEMP
05034  42 5127    1047            STRB*LTEMP
05035  02 5127    1050            CMAL*LTEMP           CONTENTS AGREE WITH ADDRESS
05036  61 5117    1051            JPEQ*LACHKC          YES
05037  10 5127    1052            ENTAU*LTEMP          NO-CORRECT VALUE TO AU
05040  46 5123    1053            STRAU*LCORR

05041  44 5124    1054            STRAL*LICORR         SAVE AU AND AL FOR TYPEOUT
05042  50 5601    1055            STOP*01              STOP TO DISPLAY IF KEY 0
05043  12 5127    1056            ENTAL*LTEMP          ADDRESS TO AL
05044  44 5122    1057            STRAL*LADD           SAVE FOR TYPEOUT
05045  50 5601    1060            STOP*01              STOP TO DISPLAY IF KEY 0
05046  50 5020    1061            SKP*020              SKIP 4 SET
05047  34 5051    1062            JP*LOK+2             NO
05050  34 5114    1063            JP*LACHKB            YES-SUPPRESS TYPEOUT

05051  44 4023    1064            STRAL*BAER           SET ERROR FLAG WITH ADDR(NEVER 0)
05052  30 5053    1065            TYPT*$CR$ERROR$CR$ADDRESS=
05053  00 5416
05054  76 4562
05055  62 2062
05056  76 4144
05057  44 6245
05060  63 6335

05061  77 7777
05062  30 5063    1066            TYPC*LADD
05063  00 5652
05064  60 5122
05065  00 0000
05066  30 5067    1067            TYPT*   CORRECT=
```

```
05067  00 5416
05070  00 0000
05071  43 2062
05072  62 4543
05073  64 3577
05074  30 5075   1070            TYPC*LCORR
05075  00 5652
05076  60 5123

05077  00 0000
05100  30 5101   1071            TYPT*   INCORRECT=
05101  00 5416
05102  00 0000
05103  51 5643
05104  20 6262
05105  45 4364
05106  35 7777

05107  30 5110   1072            TYPC*LICORR
05110  00 5652
05111  60 5124
05112  00 0000
05113  50 5604   1073            STOP*04          STOP FF TYPEOUT IF KEY 2
05114  50 5001   1074  LACHKB    SKP*01           SKIP 0 SET
05115  34 5117   1075            JP*LOK+2         NO
05116  34 4763   1076            JP*LAST          YES-RECYCLE TEST

05117  56 5125   1077  LACHKC    BSK*LEND         ENUF CHECKS DONE YET
05120  34 5031   1100            JP*LACHK+1       NO
05121  55 5030   1101            IJP*LACHK        YES-EXIT
05122  00 0000   1102  LADDR     000000*          HOLDS ADDRESS FOR TYPEOUT
05123  00 0000   1103  LCORR     000000*          HOLDS CORRECT DATA FOR TYPEOUT
05124  00 0000   1104  LICORR    000000*          HOLDS INCORRECT DATA FOR TYPEOUT
05125  00 0000   1105  LEND      000000*          HOLDS TEMP END ADDR FOR CHECK
05126  00 7777   1106  LMSK      007777*          MASK

05127  00 0000   1107  LTEMP     000000*          TEMP STORE
05130  00 0000   1110  LTEMPF    000000*          HOLDS ACTUAL END-OF-PROG(+1)ADDR
05131  00 0000   1111  LTEMPI    000000*          HOLDS ACTUAL END-OF-MEM ADDR
05132  00 0000   1112  LTEMPM    000000*          HOLDS ACTUAL BEG-OF-PROG(-1)ADDR
```

```
                    1113     FLUSH    PROG*CASEY*9JUNE64
05133  76 5135      1114     FLUSH    RJP*FLUSH1                 FLUSH MEMORY

05134  34 5323      1115              JP*RELO
                    1116     FLUSH1   PROG*MUELLER*24 SEPT 64
05135  00 0000      1117     FLUSH1   0*0                        SR ENTRANCE
05136  32 5377      1120              ENTB*PAR
05137  76 4120      1121              RJP*WIRE                   CHECK FOR CONTROL AND WIRED MEMORY
05140  56 5400      1122              BSK*PAR1
05141  34 5143      1123              JP*LOK+2
05142  34 5150      1124              JP*LOK+6

05143  12 5402      1125              ENTAL*PAT1
05144  50 7310      1126              ENTSR*10
05145  45 0000      1127              STRCB*0
05146  75 5414      1130              STRSR*JVW
05147  34 5137      1131              JP*FLUSH1+2
05150  32 5377      1132              ENTB*PAR
05151  76 4120      1133              RJP*WIRE                   CHECK FOR CONTROL AND WIRED MEMORY
05152  56 5400      1134              BSK*PAR1

05153  34 5155      1135              JP*LOK+2
05154  55 5135      1136              IJP*FLUSH1
05155  50 7310      1137              ENTSR*10
05156  41 0000      1140              CLB*0
05157  75 5414      1141              STRSR*JVW
05160  34 5151      1142              JP*LOK-7
                    1143     RSET     PROG*MUELLER*20 OCT 64
05161  12 5321      1144     RSET     ENTAL*BANK                 REFERENCE BANK NUMBER

05162  71 0001      1145              ADDALK*0001                SETBANK TO BANK1
05163  02 5317      1146              CMAL*BLMN                  DID PROG JUST TEST LAST BANK
05164  63 5227      1147              JPNOT*RSET6                NO
05165  44 5321      1150              STRAL*BANK
05166  50 4614      1151              LSHAL*14
05167  14 5225      1152              ADDAL*RSET5
05170  44 5222      1153              STRAL*RSET2
05171  40 5322      1154              CL*BANK1                   BANK1 EQUAL TO NEXT TESTED BANK

05172  70 7776      1155              ENTALK*7776
05173  44 5377      1156              STRAL*PAR                  SET LOWER LIMIT OF BANK ZERO
```

```
05174  44 4644   1157          STRAL*RWEX3     SET LOWER LIMIT FOR RWEX TEST
05175  12 5223   1160          ENTAL*RSET3     SET UPPER LIMIT FOR
05176  44 5400   1161          STRAL*PAR1      BANK ZERO
05177  12 5412   1162          ENTAL*CHEET     INITIALIZE WIRE ROUTINE

05200  44 4121   1163          STRAL*WIRE+1
05201  12 5320   1164          ENTAL*SRBANK    INCREMENT THE VALUE FOR
05202  71 0001   1165          ADDALK*0001     THE TRANSFER OF SR
05203  51 5224   1166          SLSET*RSET4
05204  44 5320   1167          STRAL*SRBANK
05205  70 0077   1170          ENTALK*0077
05206  50 4722   1171          LSHA*22
05207  12 5214   1172          ENTAL*RSET1+1

05210  04 5320   1173          SLSU*SRBANK
05211  44 5214   1174          STRAL*RSET1+1
05212  36 0000   1175          ENTBK*0         CLEAR B FOR TRANSFER
05213  13 0000   1176  RSET1   ENTALB*0        TRANS PROG TO LAST BANK
05214  50 7300   1177          ENTSR*0
05215  45 0000   1200          STRALB*0
05216  75 5320   1201          STRSR*SRBANK
05217  56 5405   1202          BSK*TOTAL

05220  34 5213   1203          JP*RSET1        NO CONTINUE TRANSFER
05221  55 5222   1204          IJP*RSET2       YES GO TO TRANSFERRED PROGRAM
05222  00 0000   1205  RSET2   0*0
05223  00 7777   1206  RSET3   00*7777
05224  00 0010   1207  RSET4   00*0010
05225  00 4165   1210  RSET5   00*TEST
05226  01 0000   1211  RSET12  01*0000
05227  12 5321   1212  RSET6   ENTAL*BANK      REFERENCE BANK NUMBER

05230  02 5317   1213          CMAL*BLMN       IS PROG IN LAST BANK
05231  63 5270   1214          JPNOT*RSET11    NO TRANSFER TO NEXT BANK
05232  40 5321   1215          CL*BANK         YES TRANSFER PROG TO BANK ZERO
05233  12 5321   1216          ENTAL*BANK      BANK 1 TESTED NEXT
05234  71 0001   1217          ADDALK*0001
05235  44 5322   1220          STRAL*BANK1
05236  12 5224   1221          ENTAL*RSET4     SET UP SPECIAL REG FOR
05237  44 5320   1222          STRAL*SRBANK    TRANS TO BANK ZERO
```

```
05240  12 5322   1223                ENTAL*BANK1          SET UP LOWER TEST LIMIT
05241  50 4614   1224                LSHAL*14
05242  71 7776   1225                ADDALK*7776          SET UP LOWER LIMIT FOR RWEX TEST
05243  44 4644   1226                STRAL*RWEX3
05244  44 5377   1227                STRAL*PAR
05245  12 5377   1230                ENTAL*PAR            SET UP UPPER TEST LIMIT

05246  14 5226   1231                ADDAL*RSET12
05247  44 5400   1232                STRAL*PAR1
05250  12 5413   1233                ENTAL*CHEET1         INITIALIZE WIRE ROUTINE
05251  44 4121   1234                STRAL*WIRE+1
05252  70 0077   1235                ENTALK*0077
05253  50 4722   1236                LSHA*22
05254  12 5261   1237                ENTAL*RSET7+1
05255  04 5320   1240                SLSU*SRBANK

05256  44 5261   1241                STRAL*RSET7+1
05257  36 0700   1242                ENTBK*700
05260  13 0000   1243   RSET7        ENTALB*0             INIT B FOR TRANSFER
05261  50 7300   1244                ENTSR*0
05262  45 0000   1245                STRALB*0
05263  75 5320   1246                STRSR*SRBANK
05264  56 5405   1247                BSK*TOTAL
05265  34 5260   1250                JP*RSET7

05266  55 5267   1251                IJP*RSET10
05267  00 3763   1252   RSET10       0*HEAD1
05270  71 0001   1253   RSET11       ADDALK*0001          SET UP BANK EQUAL TO NEXT PROG AREA
05271  44 5321   1254                STRAL*BANK
05272  71 0001   1255                ADDALK*0001
05273  44 5322   1256                STRAL*BANK1          SET BANK1 EQUAL TO NEXT TEST AREA
05274  12 5320   1257                ENTAL*SRBANK         SET SRBANK FOR TRANSFER TO NEXT BANK
05275  71 0001   1260                ADDALK*0001

05276  51 5224   1261                SLSET*RSET4
05277  44 5320   1262                STRAL*SRBANK
05300  12 5322   1263                ENTAL*BANK1          SET UP LOWER TEST LIMIT
05301  50 4614   1264                LSHAL*14             SET UP LOWER LIMIT FOR RWEX
05302  71 7776   1265                ADDALK*7776
05303  44 4644   1266                STRAL*RWEX3
05304  44 5377   1267                STRAL*PAR
```

```
05305  12 5377   1270            ENTAL*PAR
05306  14 5226   1271            ADDAL*RSET12
05307  44 5400   1272            STRAL*PAR1
05310  12 5413   1273            ENTAL*CHEET1
05311  44 4121   1274            STRAL*WIRE+1
05312  12 5321   1275            ENTAL*BANK
05313  50 4614   1276            LSHAL*14

05314  14 5225   1277            ADDAL*RSET5
05315  44 5222   1300            STRAL*RSET2
05316  34 5205   1301            JP*RSET1-6
05317  00 0000   1302  BLMN      0*0
05320  00 0000   1303  SRBANK    0*0
05321  00 0000   1304  BANK      0*0
05322  00 0001   1305  BANK1     00*0001
05323  50 5602   1306  REL0      STOP*02

05324  50 5002   1307            SKP*02
05325  34 5327   1310            JP*LOK+2
05326  34 4165   1311            JP*TEST
05327  10 5376   1312            ENTAU*REL02
05330  12 5322   1313            ENTAL*BANK1
05331  50 4614   1314            LSHAL*14
05332  44 5375   1315            STRAL*REL01
05333  04 5466   1316            SLSU*T$1+1

05334  44 5466   1317            STRAL*T$1+1
05335  04 5467   1320            SLSU*T$1+2
05336  44 5467   1321            STRAL*T$1+2
05337  04 5475   1322            SLSU*T$2+1
05340  44 5475   1323            STRAL*T$2+1
05341  04 5476   1324            SLSU*T$2+2
05342  44 5476   1325            STRAL*T$2+2
05343  04 5767   1326            SLSU*T$$1+1

05344  44 5767   1327            STRAL*T$$1+1
05345  04 5770   1330            SLSU*T$$1+2
05346  44 5770   1331            STRAL*T$$1+2
05347  04 6000   1332            SLSU*T$$2+1
05350  44 6000   1333            STRAL*T$$2+1
```

SET UP UPPER TEST LIMIT

INITIALIZE WIRE ROUTINE

SET UP IJP

TRANSFER
UPPER BANK NUMBER LIMIT STORAGE
STORAGE FOR SPECIAL REGISTER
STORAGE FOR LOCATION OF RUNNING PROGRAM
STORAGE FOR LOCATION OF TESTED BANK
SET STOP KEY1 TO STOP AT END OF THIS PORT

SET SKIP KEY 1 TO RETEST BANK

RETEST THIS BANK
SET UP BUFFER LIMITS
FOR PROGRAM AFTER TRANSFER

```
05351   04 6001     1334                SLSU*T$$2+2

05352   44 6001     1335                STRAL*T$$2+2
05353   04 4063     1336                SLSU*TL1+3
05354   44 4063     1337                STRAL*TL1+3
05355   04 4072     1340                SLSU*TL1+12
05356   44 4072     1341                STRAL*TL1+12
05357   04 4107     1342                SLSU*TL2+2
05360   44 4107     1343                STRAL*TL2+2
05361   04 4113     1344                SLSU*TL2+6
05362   44 4113     1345                STRAL*TL2+6
05363   04 3754     1346                SLSU*HEAD+1
05364   44 3754     1347                STRAL*HEAD+1
05365   44 3777     1350                STRAL*HEAD2+1
05366   44 4013     1351                STRAL*RECYL+1
05367   44 4030     1352                STRAL*ERR1+1
05370   44 4035     1353                STRAL*ERR2+1
05371   04 4061     1354                SLSU*TL1+1

05372   44 4061     1355                STRAL*TL1+1
05373   44 4106     1356                STRAL*TL2+1
05374   34 5161     1357                JP*RSET
05375   00 0000     1360     REL01      00*0000
05376   70 7777     1361     REL02      70*7777
05377   00 3434     1362     PAR        0*3434
05400   01 7777     1363     PAR1       01*7777
05401   00 0000     1364     PAT        0*0

05402   77 7777     1365     PAT1       77*7777
05403   52 5252     1366     PAL1       52*5252
05404   25 2525     1367     PAL0       25*2525
05405   00 7777     1370     TOTAL      00*7777
05406   00 0000     1371     DIP        0*0
05407   00 0000     1372                0*0
05410   00 0000     1373     HERE       0*0
05411   00 0000     1374     THERE      0*0

05412   42 4156     1375     CHEET      STRB*WARE1
05413   55 4120     1376     CHEET1     IJP*WIRE
05414   00 0000     1377     JVW        00*0000
```

TRANSFER PROG TO NEXT BANK
STORAGE
MASK

INSTRUCTIONS USED
IN WIRE ROUTINE

SHEET 359 REVISION C
SET-10163

```
05415  00 0000    1400     ALPARM   0*
                  1401              REMARK*TYPT FOR 1232 OR 1532
05416  00 0000    1402     TYPT     0*

05417  75 5460    1403              STRSR*T$PT20
05420  46 5506    1404              STRAU*T$PT3
05421  44 5507    1405              STRAL*T$PT4
05422  42 5510    1406              STRB*T$PT5
05423  70 0003    1407              ENTALK*3
05424  76 5471    1410              RJP*T$PT12
05425  32 5416    1411     T$PT1    ENTB*TYPT
05426  37 0001    1412              ENTBKB*1

05427  42 5416    1413              STRB*TYPT
05430  50 7310    1414              ENTSR*10
05431  11 0000    1415              ENTAUB*0
05432  50 7300    1416              ENTSR*0
05433  36 0002    1417              ENTBK*2
05434  70 0000    1420     T$PT2    ENTALK*0
05435  50 4706    1421              LSHA*6
05436  02 5511    1422              CMAL*T$PT6

05437  61 5451    1423              JPEQ*T$PT22
05440  71 0040    1424     RN00P    ADDALK*40
05441  02 5547    1425              CMAL*M136
05442  63 5446    1426              JPNOT*L0K+4
05443  70 0015    1427              ENTALK*15
05444  76 5462    1430              RJP*T$PT7
05445  70 0012    1431              ENTALK*12
05446  76 5462    1432              RJP*T$PT7

05447  73 5434    1433     T$PT21   BJP*T$PT2
05450  34 5425    1434              JP*T$PT1
05451  70 0001    1435     T$PT22   ENTALK*1
05452  76 5471    1436              RJP*T$PT12
05453  14 5416    1437              ADDAL*TYPT
05454  44 5416    1440              STRAL*TYPT
05455  10 5506    1441              ENTAU*T$PT3
05456  12 5507    1442              ENTAL*T$PT4

05457  32 5510    1443              ENTB*T$PT5
```

MODIFIED TO RJP*CONVER IF 1232 SELECTED F
CR-LF?
NO
CR

LF

```
05460  50 7300    1444     T$PT20   ENTSR*0
05461  55 5416    1445              IJP*TYPT
05462  00 0000    1446     T$PT7    0*
05463  76 5500    1447              RJP*T$PT13
05464  44 5513    1450              STRAL*T$PT11

05465  50 1200    1451     T$1      BUFOUT*CHAN*AD*1*T$PT11
05466  00 5513
05467  00 5513
05470  55 5462    1452              IJP*T$PT7
05471  00 0000    1453     T$PT12   0*
05472  76 5500    1454              RJP*T$PT13
05473  44 5513    1455              STRAL*T$PT11
05474  50 1300    1456     T$2      EXFCT*CHAN*AD*1*T$PT11

05475  00 5513
05476  00 5513
05477  55 5471    1457              IJP*T$PT12
05500  00 0000    1460     T$PT13   0*
05501  50 2300    1461     T$3      SKPFIN*CHAN
05502  34 5501    1462              JP*L0K-1
05503  50 2200    1463     T$4      SKPOIN*CHAN
05504  34 5503    1464              JP*L0K-1

05505  55 5500    1465              IJP*T$PT13
05506  00 0000    1466     T$PT3    0*
05507  00 0000    1467     T$PT4    0*
05510  00 0000    1470     T$PT5    0*
05511  00 0077    1471     T$PT6    77*
05512  00 0136    1472     T$PT61   0*136
05513  00 0000    1473     T$PT11   0*
05514  00 0000    1474     CONVER   0*

05515  42 5544    1475              STRB*COUNTR
05516  36 0000    1476              ENTBK*0
05517  71 0040    1477              ADDALK*40          ADD ASCII BIAS
05520  02 5547    1500              CMAL*M136          CR-LF
05521  63 5526    1501              JPNOT*L0K+5        NO
05522  70 0004    1502              ENTALK*4           CR
05523  76 5462    1503              RJP*T$PT7
05524  70 0003    1504              ENTALK*3           LF
```

```
05525  34 5542    1505          JP*CONV3
05526  44 5550    1506          STRAL*MDUM
05527  13 5551    1507    CONV1 ENTALB*CONST
05530  52 5545    1510          SLCL*CT177
05531  50 4211    1511          RSHAL*9
05532  02 5550    1512          CMAL*MDUM

05533  61 5540    1513          JPEQ*CONV2
05534  56 5546    1514          BSK*M76
05535  34 5527    1515          JP*CONV1
05536  12 5550    1516          ENTAL*MDUM
05537  50 5640    1517          STOP*40
05540  13 5551    1520    CONV2 ENTALB*CONST
05541  52 5511    1521          SLCL*TSPT6
05542  32 5544    1522    CONV3 ENTB*COUNTR

05543  55 5514    1523          IJP*CONVER
05544  00 0000    1524    COUNTR 0*
05545  17 7000    1525    CT177  177000*
05546  00 0100    1526    M76    000100*
05547  00 0136    1527    M136   000136*
05550  00 0000    1530    MDUM   0*
05551  10 1006    1531    CONST  101006*
05552  10 2007    1532           102007*

05553  10 3010    1533           103010*
05554  10 4011    1534           104011*
05555  10 5012    1535           105012*
05556  10 6013    1536           106013*
05557  10 7014    1537           107014*
05560  11 0015    1540           110015*
05561  11 1016    1541           111016*
05562  11 2017    1542           112017*

05563  11 3020    1543           113020*
05564  11 4021    1544           114021*
05565  11 5022    1545           115022*
05566  11 6023    1546           116023*
05567  11 7024    1547           117024*
05570  12 0025    1550           120025*
```

05571	12 1026	1551	121026*
05572	12 2027	1552	122027*
05573	12 3030	1553	123030*
05574	12 4031	1554	124031*
05575	12 5032	1555	125032*
05576	12 6033	1556	126033*
05577	12 7034	1557	127034*
05600	13 0035	1560	130035*
05601	13 1036	1561	131036*
05602	13 2037	1562	132037*
05603	01 5004	1563	015004*
05604	01 2003	1564	012003*
05605	13 7076	1565	137076*
05606	05 2050	1566	052050*
05607	04 7072	1567	047072*
05610	05 6075	1570	056075*
05611	04 0005	1571	040005*
05612	17 7077	1572	177077*
05613	06 0060	1573	060060*
05614	06 1061	1574	061061*
05615	06 2062	1575	062062*
05616	06 3063	1576	063063*
05617	06 4064	1577	064064*
05620	06 5065	1600	065065*
05621	06 6066	1601	066066*
05622	06 7067	1602	067067*
05623	07 0070	1603	070070*
05624	07 1071	1604	071071*
05625	05 0051	1605	050051*
05626	05 1040	1606	051040*
05627	05 3042	1607	053042*
05630	05 4056	1610	054056*
05631	05 5041	1611	055041*
05632	05 7074	1612	057074*
05633	07 2053	1613	072053*
05634	07 3073	1614	073073*

```
05635  07 4043   1615              074043*
05636  07 5044   1616              075044*

05637  07 6045   1617              076045*
05640  07 7054   1620              077054*
05641  10 0057   1621              100057*
05642  04 4047   1622              044047*
05643  05 2050   1623              052050*
05644  13 5046   1624              135046*
05645  13 4001   1625              134001*
05646  04 5002   1626              045002*

05647  04 2052   1627              042052*
05650  04 1055   1630              041055*
05651  13 6050   1631              136050*
                 1632              REMARK*TYPC FOR 1232 OR 1532
05652  00 0000   1633  TYPC        0*
05653  75 5743   1634              STRSR*T$PC20
05654  46 5745   1635              STRAU*T$PC12
05655  44 5746   1636              STRAL*T$PC13

05656  42 5747   1637              STRB*T$PC14
05657  70 0003   1640              ENTALK*3
05660  76 5774   1641              RJP*T$RG24          ENABLE KEYBOARD
05661  32 5652   1642  T$PC1       ENTB*TYPC           ADVANCE EXIT ADDR
05662  37 0001   1643              ENTBKB*1
05663  42 5652   1644              STRB*TYPC
05664  50 7310   1645              ENTSR*10
05665  11 0000   1646              ENTAUB*0            NEXT CODE WORD TO AU

05666  50 7300   1647              ENTSR*0             CLR SR ACTIVE
05667  70 0000   1650              ENTALK*0
05670  50 4703   1651              LSHA*3              CODE DIGIT TO AL
05671  61 5735   1652              JPALZ*T$PC11        ALL DONE IF ZERO
05672  44 5750   1653              STRAL*T$PC15        TEMP STORE
05673  32 5750   1654              ENTB*T$PC15
05674  35 5674   1655  T$PC2       JPD*T$PC2
05675  34 5712   1656              JP*T$PC3            KYBD COMMAND

05676  34 5724   1657              JP*T$PC4            A
05677  34 5730   1660              JP*T$PC6            A UPPER
```

```
05700  34 5726    1661              JP*T$PC5          A LOWER
05701  34 5732    1662              JP*T$PC7          B
05702  70 0000    1663              ENTALK*0          Y
05703  50 4717    1664              LSHA*17
05704  44 5750    1665              STRAL*T$PC15
05705  32 5750    1666              ENTB*T$PC15
05706  50 7310    1667              ENTSR*10
05707  11 0000    1670              ENTAUB*0          CONTENTS OF Y
05710  50 7300    1671              ENTSR*0
05711  34 5733    1672              JP*T$PC10
05712  70 0000    1673   T$PC3      ENTALK*0
05713  50 4717    1674              LSHA*15D
05714  61 5722    1675              UPALZ*T$PCSP
05715  70 0015    1676   T$$$1      ENTALK*15
05716  76 5763    1677              RJP*T$PC21
05717  70 0012    1700   T$$$2      ENTALK*12
05720  76 5763    1701              RJP*T$PC21
05721  34 5661    1702              JP*T$PC1
05722  70 0040    1703   T$PCSP     ENTALK*40
05723  34 5720    1704              JP*LOK-3
05724  10 5745    1705   T$PC4      ENTAU*T$PC12
05725  76 5751    1706              RJP*T$PC16        CONV 6 OCT DIGITS TO KYBD CO-TYPE
05726  10 5746    1707   T$PC5      ENTAU*T$PC13
05727  34 5733    1710              JP*T$PC10
05730  10 5745    1711   T$PC6      ENTAU*T$PC12
05731  34 5733    1712              JP*T$PC10
05732  10 5747    1713   T$PC7      ENTAU*T$PC14
05733  76 5751    1714   T$PC10     RJP*T$PC16
05734  34 5661    1715              JP*T$PC1
05735  70 0001    1716   T$PC11     ENTALK*1
05736  14 5652    1717              ADDAL*TYPC
05737  44 5652    1720              STRAL*TYPC
05740  10 5745    1721              ENTAU*T$PC12
05741  12 5746    1722              ENTAL*T$PC13
05742  32 5747    1723              ENTB*T$PC14
05743  50 7300    1724   T$PC20     ENTSR*0
```

```
05744  55 5652      1725                IJP*TYPC
05745  00 0000      1726      T$PC12    0*
05746  00 0000      1727      T$PC13    0*
05747  00 0000      1730      T$PC14    0*
05750  00 0000      1731      T$PC15    0*
05751  00 0000      1732      T$PC16    0*                CONVERT-TYPE 6'00CI(DIGITS)OCI'00'

05752  70 0005      1733                ENTALK*5
05753  44 5750      1734                STRAL*T$PC15
05754  70 0000      1735      T$PC17    ENTALK*0
05755  50 4703      1736                LSHA*3
05756  71 0060      1737                ADDALK*60                MAKE FIELD DATA DIGIT
05757  76 5763      1740                RJP*T$PC21               TYPE IT
05760  57 5750      1741                ISK*T$PC15               ARE 6 TYPED
05761  34 5754      1742                JP*T$PC17                NO

05762  55 5751      1743                IJP*T$PC16               YES
05763  00 0000      1744      T$PC21    0*                       SEND KYBD CODE IN AL
05764  76 6004      1745                RJP*T$PC25
05765  44 5773      1746                STRAL*T$PC23
05766  50 1200      1747      T$$1      BUFOUT*CHAN*AD*1*T$PC23
05767  00 5773
05770  00 5773
05771  76 6004      1750                RJP*T$PC25

05772  55 5763      1751                IJP*T$PC21
05773  00 0000      1752      T$PC23    0*
05774  00 0000      1753      T$PC24    0*                       DO KYBD FCT CODE
05775  76 6004      1754                RJP*T$PC25
05776  44 5773      1755                STRAL*T$PC23
05777  50 1300      1756      T$$2      EXFCT*CHAN*AD*1*T$PC23
06000  00 5773
06001  00 5773                          0*

06002  76 6004      1757                RJP*T$PC25
06003  55 5774      1760                IJP*T$PC24
06004  00 0000      1761      T$PC25    0*                       WAIT ON ACT FCT-DATA BUFS
06005  50 2300      1762      T$$3      SKPFIN*CHAN
06006  34 6005      1763                JP*LOK-1
06007  50 2200      1764      T$$4      SKPOIN*CHAN
06010  34 6007      1765                JP*LOK-1
```

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06011  55 6004    1766          IJP*T$PC25
                  1767  *REMARK*INSERT SELECTED I/O CHANNEL NUMBER
                  1770  *REMARK*IN ALL I/O COMMANDS.
                  1771  *REMARK*MODIFY FOR 1232/1532 INTERCHANGE
06012  00 0000    1772  TYPE    0*
06013  12 6415    1773          ENTAL*ALPARM                  INITIAL AL INPUT PARAMETER
06014  50 4203    1774          RSHAL*3                       CHANNEL NO. TO BITS 5-0

06015  52 6103    1775          SLCL*K1                       000037
06016  10 6104    1776          ENTAU*K2                      777700
06017  04 5465    1777          SLSU*T$1
06020  44 5465    2000          STRAL*T$1
06021  04 5474    2001          SLSU*T$2
06022  44 5474    2002          STRAL*T$2
06023  04 5501    2003          SLSU*T$3
06024  44 5501    2004          STRAL*T$3

06025  04 5503    2005          SLSU*T$4
06026  44 5503    2006          STRAL*T$4
06027  04 5766    2007          SLSU*T$$1
06030  44 5766    2010          STRAL*T$$1
06031  04 5777    2011          SLSU*T$$2
06032  44 5777    2012          STRAL*T$$2
06033  04 6005    2013          SLSU*T$$3
06034  44 6005    2014          STRAL*T$$3

06035  04 6007    2015          SLSU*T$$4
06036  44 6007    2016          STRAL*T$$4
06037  12 5415    2017          ENTAL*ALPARM                  INITIAL AL INPUT PARAMETER
06040  50 4612    2020          LSHAL*10D                     1232/1532 BIT TO BIT 0
06041  52 6105    2021          SLCL*K3                       000001
06042  74 6043    2022          STRADR*L0K+1

06043  36 0000    2023          ENTBK*0                       B IS 0 FOR 1232, 1 FOR 1532
06044  13 6055    2024          ENTALB*TYPE1                  TABLE OF MODIFIED INSTRUCTIONS

06045  44 5440    2025          STRAL*RN00P
06046  13 6057    2026          ENTALB*TYPE1+2
06047  44 5715    2027          STRAL*T$$$1
06050  13 6061    2030          ENTALB*TYPE1+4
06051  44 5717    2031          STRAL*T$$$2
```

```
06052  13 6063   2032                ENTALB*TYPE1+6

06053  44 5722   2033                STRAL*T$PCSP
06054  55 6012   2034                IJP*TYPE
           2035                      REMARK*TABLE OF 1232/1532 MODIFIED INSTRUCTIONS
06055  76 5514   2036     TYPE1      RJP*CONVER                    1232
06056  71 0040   2037                ADDALK*40                     1532
06057  70 0004   2040                ENTALK*04                     1232
06060  70 0015   2041                ENTALK*15                     1532
06061  70 0003   2042                ENTALK*03                     1232

06062  70 0012   2043                ENTALK*12                     1532
06063  70 0005   2044                ENTALK*05                     1232
06064  70 0040   2045                ENTALK*40                     1532
           2046                      REMARK*MODIFY OUTPUT AND EXF BUFFERS FOR N+1 TERMINATION
06065  00 0000   2047     IOSET      0*
06066  12 5467   2050                ENTAL*T$1+2
06067  71 0001   2051                ADDALK*1
06070  44 5466   2052                STRAL*T$1+1

06071  12 5476   2053                ENTAL*T$2+2
06072  71 0001   2054                ADDALK*1
06073  44 5475   2055                STRAL*T$2+1
06074  12 5770   2056                ENTAL*T$$1+2
06075  71 0001   2057                ADDALK*1
06076  44 5767   2060                STRAL*T$$1+1
06077  12 6001   2061                ENTAL*T$$2+2
06100  71 0001   2062                ADDALK*1

06101  44 6000   2063                STRAL*T$$2+1
06102  55 6065   2064                IJP*IOSET
06103  00 0037   2065     K1         000037*
06104  77 7700   2066     K2         777700*
06105  00 0001   2067     K3         000001*
07000  50 4700   2070     IMAGE      RES*1000                      IMAGE AREA
```

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