PIONEER VENUS

EUV_FLUX, BOWSHOCK & INONPAUSE

78-051A-00I,01E

REQ. AGENT	ACQ. AGENT
CMW	DKB

PIONEER VENUS

EUV_FLUX, BOWSHOCK & IONOPAUSE DATA PERIAPSIS

78-051A-00I,01E

This data set consists of 1 magnetic tape. The tape is VAX labeled (PVOETP) ASCII, 1600 bpi, 9 track, with 6 data files. The C tape is on a 6250 magnetic tape. The D and C numbers and time span are a follows:

D#	C#	TIME SPAN	FILE	DATA	ID
D-85879	C-29106	12/05/78 - 01/17/92	1	BOWSHOCK CROSSINGS	-00I
		12/05/78 - 01/22/92	2	IONOPAUSE CROSSINGS	-01E
			3	ORBIT.FOR	
			4	ORBIT.PVD	
			5	READ_ME_FIRST.DOC	
		12/05/78 - 01/27/92	6	TOTAL_EUV_FLUX_AS	

```
FAST ANALYSIS OF TAPE AND RECOVERY -- FATAR   VER 4.3.5   -- INNOVATION DATA PROCESSING  AUTHORIZED   6/08/93   PAGE   1

FATS070 CONTROL CARD TABLE SIZE IS  20480 BYTES

FATAR CONTROL CARDS

   1--     ANALYZE BLP,LABELS=NO,RETRY=256,MAXTERR=90000,MAXERR=9000,KEEP,
           VERIFY                                                                    ***CONTINUATION CARD***
   2--     PRINT LF=1,B=ALL,L=20000
   3--     PRINT LF=2,B=ALL,L=20000
   4--     PRINT LF=3,B=ALL,L=20000
   5--     PRINT LF=4,B=ALL,L=20000
   6--     PRINT LF=5,B=ALL,L=20000
   7--     PRINT LF=6,B=ALL,L=20000

FATS071 TAPE BUFFER SIZE IS 65535 BYTES
```

D-85879

~~C-397~~

C-29106

```
                                  CHARACTERISTICS OF THE TAPE TO BE ANALYZED
                                          UNIT  SERIAL  DEN  TRTCH
                                           491  CMW003  6250

                                            FATAR DETAIL REPORT

 BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
 NUMBER DISPL   BLOCK TYPE                      (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

* * * * * * *  START FILE        1
```

Start Time: 12/05/78

File: 1

```
     1  2032  PRINT REQUESTED          0      1                      ORBIT  DATE PERIAPSIS                          INBOUND
      +00080                           CROSSING                                  OUTBOUND CROSSING                      HH
      +00160                          :MM:SS      SECS  HH:MM:SS     LAT  LST     ALT     SZA       SECS  HH:MM:SS     LAT
      +00240                           LST    ALT    SZA             1  78339  15:11:12      51512  14:18:32   43.9  5.4
      +00320                           12044.  100.2          0   0: 0: 0     0.0  0.0      0.     0.0          2  78340  14
      +00400                          :21:42     49079  13:37:59   49.1  5.8  9899.   96.4          0   0: 0: 0     0.0
      +00480                           0.0     0.     0.0          3  78341  14:31:46      50202  13:56:42   56.3  6.3  77
      +00560                          25.   91.3          0   0: 0: 0     0.0  0.0      0.     0.0          4  78342  14:40:
      +00640                          12     49872  13:51:12   45.1  5.8 11284.   96.2      57078  15:51:18  -67.8  2.0
      +00720                           16416.  109.1          7  78345  15: 4:10      52054  14:27:34   55.1  6.5  8133.
      +00800                            89.3     57354  15:55:54  -74.0  0.7 11952.  104.6          8  78346  15:11:51
      +00880                                0   0: 0: 0     0.0  0.0      0.     0.0      57986  16: 6:26  -72.8  1.1 126
      +00960                          40.  105.4          9  78347  15:19:28      53562  14:52:42   66.6  7.5  5512.   84
      +01040                          .3          0   0: 0: 0     0.0  0.0      0.     0.0         10  78348  15:28:58     5
      +01120                          4027  15: 0:27   63.3  7.6  5983.   83.3          0   0: 0: 0     0.0  0.0      0.
      +01200                             0.0         11  78349  15:38:23      54499  15: 8:19   61.3  7.5  6402.   83.2
      +01280                             59090  16:24:50  -74.6  0.2 10656.  103.8         12  78350  15:47:36      54526
      +01360                            15: 8:46   52.6  7.0  8720.   85.3      60618  16:50:18  -70.3  2.3 14549.  105
      +01440                          .2         14  78352  16: 5:40      55859  15:30:59   56.4  7.4  7629.   82.5     6
      +01520                          0753  16:52:33  -74.6  0.6 10768.  103.5         15  78353  16:14:34      56635  15
      +01600                          :43:55   60.7  7.9  6557.   80.8      61496  17: 4:56  -73.9  1.3 11628.  103.5
      +01680                               16  78354  16:23:22          0   0: 0: 0     0.0  0.0      0.     0.0      62161
      +01760                            17:16: 1  -73.2  1.7 12183.  103.6         17  78355  16:31:58      57756  16: 2:
      +01840                          36   62.1  8.2  6213.   79.2      62111  17:15:11  -74.9  0.2  9843.  103.0
      +01920                           18  78356  16:40:26      58203  16:10: 3   60.9  8.2  6486.   78.7      62608  17
      +02000                          :23:28  -74.9  0.3  9797.  102.9

     2  2010  PRINT REQUESTED                 19  78357  16:48:46      58894  16:21:34   64.6  8.7  5627.   77.7
      +00080                           63249  17:34: 9  -74.8  0.9 10393.  102.8         20  78358  16:57: 1      59374
      +00160                          16:29:34   64.4  8.8  5695.   77.3      63476  17:37:56  -74.8  0.1  9256.  102.8
      +00240                                21  78359  17: 5:12          0   0: 0: 0     0.0  0.0      0.     0.0      645
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/
NUMBER DISPL   BLOCK TYPE
                                  1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
                                           (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)
      +01280
      +01360                            0   0: 0: 0    0.0  0.0     0.    0.0     4720  91312   0:47:13      1242
      +01440                       0:20:42   70.2 13.1  5455.   71.6         0   0: 0: 0    0.0  0.0     0.     0
      +01520                   .0     4721  91313   0:46:58      1529   0:25:29   63.4 14.3  4168.   68.1
      +01600                          0   0: 0: 0    0.0  0.0     0.    0.0     4722  91314   0:46:42      1174   0
      +01680                   :19:34   70.9 13.2  5612.   72.5      5934   1:38:54  -55.1  3.1 11892.  114.5
      +01760                       4723  91315   0:46:26      1266   0:21: 6   69.0 13.7  5148.   71.6         0
      +01840                          0: 0: 0    0.0  0.0     0.    0.0     4724  91316   0:46: 9      1013   0:16:
      +01920                   53   72.7 12.8  6163.   74.1         0   0: 0: 0    0.0  0.0     0.    0.0     4
      +02000                   725  91317   0:45:52      1182   0:19:42   70.0 13.8  5363.   72.7         0   0
                               : 0: 0    0.0  0.0     0.    0.0

  193  2010  PRINT REQUESTED
      +00080                           4726  91318   0:45:34      1249   0:20:49   68.3 14.2  5002.   72.4
      +00160                       6195   1:43:15  -52.0  3.7 13178.  111.9     4727  91319   0:45:17      1122
      +00240                   0:18:42   70.4 13.9  5471.   73.6      3417   0:56:57  -56.4 18.7  1888.   91.9
      +00320                       4728  91320   0:44:59      1257   0:20:57   67.4 14.6  4816.   72.9
      +00400                   0   0: 0: 0    0.0  0.0     0.    0.0     4731  91323   0:44: 5      286   0:
      +00480                   4:46   74.7 10.7  8736.   78.0         0   0: 0: 0    0.0  0.0     0.    0.0
      +00560                   4732  91324   0:43:46      978   0:16:18   71.4 14.2  5700.   75.5         0
      +00640                   0: 0: 0    0.0  0.0     0.    0.0     4733  91325   0:43:28      1154   0:19:14
      +00720                      67.8 15.1  4865.   75.4         0   0: 0: 0    0.0  0.0     0.    0.0     473
      +00800                   6  91328   0:42:32      563   0: 9:23   74.7 12.9  7166.   77.2         0   0:
      +00880                   0: 0    0.0  0.0     0.    0.0     4737  91329   0:42:14      858   0:14:18   7
      +00960                   1.8 14.6  5818.   77.3         0   0: 0: 0    0.0  0.0     0.    0.0     4739  9
      +01040                   1331   0:41:37      638   0:10:38   73.9 13.9  6607.   77.7         0   0: 0: 0
      +01120                      0.0  0.0     0.    0.0     4740  91332   0:41:19      392   0: 6:32   75.0
      +01200                   12.9  7584.   77.7         0   0: 0: 0    0.0  0.0     0.    0.0     4741  91333
      +01280                      0:41: 1      713   0:11:53   72.7 14.7  6130.   78.5      5270   1:27:50  -5
      +01360                   8.6  4.9 10595.   98.7     4743  91335   0:40:26      535   0: 8:55   74.1 14.2
      +01440                      6746.   78.6         0   0: 0: 0    0.0  0.0     0.    0.0     4744  91336   0
      +01520                   :40: 9      670   0:11:10   72.6 15.0  6092.   79.6      5227   1:27: 7  -58.5
      +01600                    5.2 10631.   96.1     4745  91337   0:39:52      771   0:12:51   70.9 15.7  55
      +01680                   82.   80.6     5008   1:23:28  -60.8  5.2  9804.   96.0     4746  91338   0:39:
      +01760                   36         0   0: 0: 0    0.0  0.0     0.    0.0     4839   1:20:39  -62.7  5.1
      +01840                      9170.   95.9     4747  91339   0:39:19      745   0:12:25   70.7 15.9  5555.
      +01920                      81.6         0   0: 0: 0    0.0  0.0     0.    0.0     4748  91340   0:39: 4
      +02000                      408   0: 6:48   74.2 14.5  6937.   79.7      5032   1:23:52  -59.9  5.5 101
                               00.   93.3

  194  1088  PRINT REQUESTED
      +00080                           4749  91341   0:38:49      610   0:10:10   72.2 15.7  6003.   81.6
      +00160                       4711   1:18:31  -63.7  5.3  8829.   94.1     1
      +00240                   PERIAPSIS                    INBOUND CROSSING                          ORBIT  DATE
      +00320                    OUTBOUND CROSSING                HH:MM:SS      SECS  HH:MM:SS    LAT  LST
      +00400                   ALT    SZA      SECS  HH:MM:SS    LAT  LST    ALT    SZA          4751  91343   0
      +00480                   :38:20       584   0: 9:44   72.1 15.9  5991.   82.5         0   0: 0: 0    0.0
      +00560                    0.0    0.    0.0     4752  91344   0:38: 6      483   0: 8: 3   73.1 15.6  63
      +00640                   66.   82.0         0   0: 0: 0    0.0  0.0     0.    0.0     4775  92002   0:35:
      +00720                   46         0   0: 0: 0    0.0  0.0     0.    0.0     3637   1: 0:37  -73.8  4.9
      +00800                      5021.   92.8     4779  92006   0:35:51         0   0: 0: 0    0.0  0.0     0.
      +00880                       0.0      3603   1: 0: 3  -73.8  5.1  4853.   92.2     4788  92015   0:36:23
      +00960                         0   0: 0: 0    0.0  0.0     0.    0.0     3772   1: 2:52  -72.8  7.0  54
      +01040                   41.   84.4     4790  92017   0:36:32         0   0: 0: 0    0.0  0.0     0.    0
                               .0     3832   1: 3:52  -72.3  7.5  5659.   82.1
```

Stop Time:

01/17/92

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                    (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

* * * * * * *  END OF FILE      1  -- FILE CONTAINED     194 BLOCKS                                                    File: 2

* * * * * * *  START FILE       2                                  Start Time

    1  2032   PRINT REQUESTED          0      1                      ORBIT  DATE PERIAPSIS                                INBOUND
     +00080                            CROSSING                                   OUTBOUND CROSSING                        HH
     +00160                           :MM:SS       SECS  HH:MM:SS    LAT  LST    ALT    SZA       SECS  HH:MM:SS    LAT
     +00240                            LST    ALT    SZA                 1  78339  15:11:12      54409  15: 6:49   39.7 15.6
     +00320                              601.   63.4     54884  15:14:44    1.5 16.4   522.   66.2          2  78340  14
     +00400                           :21:42     51276  14:14:36   52.1 15.2   832.   66.4     52130  14:28:50  -15.8
     +00480                           16.8   834.   72.9          3  78341  14:31:46     51971  14:26:11   45.9 15.6   5
     +00560                           79.   66.2     52690  14:38:10  -13.0 16.9   687.   73.7          4  78342  14:40:
     +00640                           12     52272  14:31:12   59.6 14.9  1110.   69.5     53271  14:47:51  -18.7 17.1
     +00720                              867.   77.1          5  78343  14:48:14          0   0: 0: 0    0.0  0.0     0.
     +00800                              0.0     54021  15: 0:21  -35.3 17.6  1748.   84.6          7  78345  15: 4:10
     +00880                              53897  14:58:17   47.4 16.0   592.   71.1     54627  15:10:27  -13.0 17.3   6
     +00960                           45.   79.6          8  78346  15:11:51     54307  15: 5: 7   51.0 15.9   714.   71
     +01040                           .9     55204  15:20: 4  -21.1 17.6   956.   83.8          9  78347  15:19:28     5
     +01120                           4912  15:15:12   39.9 16.5   386.   74.1     55530  15:25:30  -12.3 17.5   600.
     +01200                             82.2         10  78348  15:28:58     55333  15:22:13   51.1 16.1   708.   74.0
     +01280                              56157  15:35:57  -16.0 17.7   742.   85.3         11  78349  15:38:23     56025
     +01360                             15:33:45   41.8 16.6   423.   75.5     56592  15:43:12   -6.0 17.6   441.   84
     +01440                           .3        12  78350  15:47:36     56335  15:38:55   58.7 15.9  1032.   75.6     5
     +01520                           7290  15:54:50  -17.1 17.9   778.   88.7         13  78351  15:56:41     57098  15
     +01600                           :51:38   43.7 16.7   469.   77.7     57773  16: 2:53  -12.5 18.0   621.   89.1
     +01680                                14  78352  16: 5:40     57567  15:59:27   48.9 16.6   623.   78.2     58333
     +01760                             16:12:13  -14.1 18.1   672.   91.0         16  78354  16:23:22     58526  16:15:
     +01840                           26   56.0 16.5   896.   79.1     59532  16:32:12  -23.6 18.5  1052.   96.3
     +01920                            17  78355  16:31:58          0   0: 0: 0    0.0  0.0     0.    0.0     60045  16
     +02000                           :40:45  -23.5 18.6  1044.   97.6

    2  2010   PRINT REQUESTED                18  78356  16:40:26     59684  16:34:44   46.7 17.2   549.   83.1
     +00080                            60525  16:48:45  -21.7 18.7   959.   98.7         19  78357  16:48:46     59988
     +00160                           16:39:48   59.8 16.5  1080.   81.2     61082  16:58: 2  -25.4 18.9  1137.  100.9
     +00240                                20  78358  16:57: 1     60552  16:49:12   55.6 17.0   873.   83.1     615
     +00320                           85  17: 6:25  -26.0 19.0  1162.  102.4         21  78359  17: 5:12     61012  16:5
     +00400                           6:52   57.6 16.9   967.   83.5     62079  17:14:39  -26.1 19.1  1170.  103.8
     +00480                              22  78360  17:13:23     61587  17: 6:27   52.0 17.4   729.   86.1     62471
     +00560                           17:21:11  -19.5 19.1   869.  104.3         23  78361  17:21:31     62123  17:15:23
     +00640                              48.7 17.6   611.   88.3     62977  17:29:37  -20.7 19.2   921.  106.0         2
     +00720                           4  78362  17:29:35     62502  17:21:42   55.9 17.4   888.   87.0     63532  17:3
     +00800                           8:52  -25.5 19.4  1139.  107.9         25  78363  17:37:40     63060  17:31: 0   5
     +00880                           1.0 17.7   690.   89.6     63752  17:42:32   -6.2 19.2   444.  106.9         26  7
     +00960                           8364  17:45:41     63395  17:36:35   60.3 17.3  1109.   86.9     64448  17:54: 8
     +01040                             -22.1 19.6   985.  110.6         27  78365  17:53:40     63925  17:45:25   57.2
     +01120                           17.6   953.   89.1     65005  18: 3:25  -27.2 19.8  1233.  112.3         28  79001
     +01200                             18: 1:37     64388  17:53: 8   58.1 17.6   996.   89.6     65151  18: 5:51   -
     +01280                           3.1 19.4   377.  111.1         30  79003  18:17:24     65228  18: 7: 8   64.1 17.3
     +01360                             1330.   88.2     66402  18:26:42  -25.7 20.1  1136.  116.4         31  79004  18
     +01440                           :22:26          0   0: 0: 0    0.0  0.0     0.    0.0     66662  18:31: 2  -22.7
     +01520                           20.1  1009.  117.9         32  79005  18:27:21     65790  18:16:30   65.8 17.3  14
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                        (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

      +00160                           MM:SS     LAT  LST     ALT     SZA       SECS  HH:MM:SS     LAT  LST     ALT     SZA
      +00240                                 4751  91343    0:38:20       1941    0:32:21    18.7 19.4    959.  110.5
      +00320                             0    0: 0: 0     0.0  0.0      0.     0.0      4754  91346    0:37:40       1789    0:
      +00400                           29:49    26.3 19.5  1220.  112.0          0    0: 0: 0     0.0  0.0      0.     0.0
      +00480                             4757  91349    0:37: 6       1530    0:25:30    39.6 19.5  1885.  109.3          0
      +00560                             0: 0: 0     0.0  0.0      0.     0.0      4760  91352    0:36:39       1756    0:29:1
      +00640                           6    24.4 20.2  1153.  121.5       2718    0:45:18   -46.0 21.8  1347.  122.7      47
      +00720                           61  91353    0:36:31       1813    0:30:13    20.0 20.4  1007.  125.1          0    0:
      +00800                            0: 0     0.0  0.0      0.     0.0      4762  91354    0:36:25       1946    0:32:26
      +00880                            9.9 20.7    758.  130.9       2597    0:43:17   -39.2 21.8  1080.  127.6      4768
      +00960                           91360    0:35:56       1524    0:25:24    35.9 20.8  1681.  124.9          0    0: 0:
      +01040                           0     0.0  0.0      0.     0.0      4772  91364    0:35:48       1848    0:30:48    14.3
      +01120                            21.7    853.  144.4          0    0: 0: 0     0.0  0.0      0.     0.0      4776  9200
      +01200                           3    0:35:47       1362    0:22:42    43.8 21.4  2187.  126.4       2661    0:44:21   -
      +01280                           45.8 23.6  1329.  130.6      4778  92005    0:35:50       1240    0:20:40    49.6 21.
      +01360                           3  2643.  122.5       2759    0:45:59   -51.3  0.0  1602.  125.5      4779  92006
      +01440                           0:35:51       1578    0:26:18    32.3 22.0  1496.  139.9          0    0: 0: 0     0.0
      +01520                             0.0     0.     0.0      4781  92008    0:35:56       1166    0:19:26    52.9 21.5  2
      +01600                           950.  121.1          0    0: 0: 0     0.0  0.0      0.     0.0      4783  92010    0:36
      +01680                           : 2        997    0:16:37    59.1 21.2  3652.  115.4          0    0: 0: 0     0.0  0.
      +01760                           0     0.     0.0      4785  92012    0:36: 9       1595    0:26:35    32.4 22.7  1487.
      +01840                             145.1       2634    0:43:54   -42.9  0.4  1186.  133.8      4787  92014    0:36:18
      +01920                                1277    0:21:17    49.2 22.3  2601.  128.7          0    0: 0: 0     0.0  0.0
      +02000                             0.     0.0

  108   594  PRINT REQUESTED                   4788  92015    0:36:23          0    0: 0: 0     0.0  0.0      0.     0.0
      +00080                             2830    0:47:10   -53.6  1.3  1704.  121.4      4790  92017    0:36:32       1550
      +00160                           0:25:50    36.4 23.1  1685.  144.0       2681    0:44:41   -44.6  1.0  1236.  130.8
      +00240                                4792  92019    0:36:41       1904    0:31:44    14.0 23.9    807.  168.3      27
      +00320                           21    0:45:21   -46.6  1.3  1314.  127.9      4794  92021    0:36:50       1273    0:2
      +00400                           1:13    50.8 23.0  2727.  129.8          0    0: 0: 0     0.0  0.0      0.     0.0
      +00480                            4795  92022    0:36:54       1435    0:23:55    43.7 23.4  2138.  137.8          0
      +00560                            0: 0: 0     0.0  0.0      0.     0.0

* * * * * * *  END OF FILE      2  -- FILE CONTAINED     108 BLOCKS

* * * * * * *  START FILE        3

    1  2048  PRINT REQUESTED                 C  THIS SUBROUTINE CALCULATES THE ALTITUDE,LATITUDE,LONGITUDE    C  SOLA
      +00080                           R ZENITH ANGLE AND HOUR TIME FOR THE PIONEER VENUS SPACECRAFT ♦  C  A SPECIAL AD
      +00160                           DED FEATURE IS A CALCULATION OF THE SPACECRAFT ATTITUDE    C  AS WELL ♦  C  THE
      +00240                           PROGRAM OBTAINS ITS ORBIT ELEMENTS FROM A FILE CALLED ORBIT.PVD    C  NOTE THAT
      +00320                           IN TWO PLACES THE PROGRAM WILL REQUIRE AN ANNUAL UPDATE    C  THE FIRST PLACE IS
      +00400                            WHERE AN ESTIMATE IS MADE OF THE ORBIT NUMBER    C   BASED UPON THE DATE AND TI
      +00480                           ME.    C   ADD NEW LINES HERE AND MODIFY THEM AS NECESSARY SO THAT THE    C   ES
      +00560                           TIMATE REMAINS AS CLOSE AS POSSIBLE.    C   A GOOD PROCEDURE IS TO NOTE THE AVER
      +00640                           AGE PERIOD OF THE ORBIT    C   IN SECONDS FOR THE YEAR AT HAND.    C   THIS NUMB
      +00720                           ER IS DIVIDED INTO THE NUMBER OF SECONDS SINCE THE START .  C   OF THE YEAR AND
      +00800                           THE THE ORBIT NUMBER AT THE START OF YEAR IS ADDED.    C   AT PRESENT A WHOLE YE
      +00880                           AR CAN BE EASILY ACCOMODATED WITH A SINGLE ♦  C   LINE.  IF THE ORBIT EVER BEGIN
      +00960                           S TO CHANGE PERIOD RAPIDLY IT NAY BE    C   NECESSARY TO BREAK IT UP INTO HALF O
      +01040                           R QUARTER YEARS.    C  THE ARGUMENTS ARE AS FOLLOWS    C   ID IS THE YEAR AND DA
```

Stop Time:
01/22/92

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                        (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

       +00800                          0 .EQ. 80)VLONG=VLONG-277.03456            IF(ID/1000 .EQ. 81)VLONG=VLONG-94.8123
       +00880                          3            IF(ID/1000 .EQ. 82)VLONG=VLONG-274.0716            IF(ID/1000 .EQ. 83
       +00960                          )VLONG=VLONG-93.3308            IF(ID/1000 .EQ. 84)VLONG=VLONG-272.59006
       +01040                            IF(ID/1000 .EQ. 85)VLONG=VLONG-90.36784            IF(ID/1000 .EQ. 86)VLONG=VLO
       +01120                          NG-269.6271            IF(ID/1000 .EQ. 87)VLONG=VLONG-88.8863            IF(ID/100
       +01200                          0 .EQ. 88)VLONG=VLONG-268.1456            IF(ID/1000 .EQ. 89)VLONG=VLONG-85.92338
       +01280                            IF(ID/1000 .EQ. 90)VLONG=VLONG-265.18264            IF(ID/1000 .EQ. 91
       +01360                          )VLONG=VLONG-84.44184            IF(ID/1000 .EQ. 92)VLONG=VLONG-263.70114     C
       +01440                           THE ABOVE SHOULD BE ENOUGH            VLONG=VLONG+1.48148148*(MOD(ID,1000)+IT/864
       +01520                          000.)            IF(VLONG .LT.-180.)VLONG=VLONG+360.            IF(VLONG .GT.180.)VL
       +01600                          ONG=VLONG-360.            IF(VLONG .GT. 180)VLONG=VLONG-360.     C    NOW DO THE TW
       +01680                          O SUN RELATED ITEMS  IE THE  SOLAR ZENITH ANGLE AND     C    THE HOUR ANGLE
       +01760                              SZA= (S(1)*P(1)+S(2)*P(2)+S(3)*P(3))/PMAG            HOUR=12.-(LONG-(1.85E-5*T
       +01840                          +SUNLON))/15.            IF(HOUR .GT. 24.) HOUR=HOUR-24.            IF(HOUR .LT.0.)
       +01920                          HOUR=HOUR+24.            IF(ABS(SZA).GT.1.)SZA=SZA/ABS(SZA)      127 SZA=57.2958*A
       +02000                          COS(SZA)

     6  2048  PRINT REQUESTED                        CT=AMOD((T+IPER-TSPIN)*SPIN,6.283185)            ST=SIN(CT)
       +00080                           CT=COS(CT)            DO 130 I=1,3            X(I)=CT*XX(I)+ST*YY(I)            Y(I)=
       +00160                          -ST*XX(I)+CT*YY(I)            Z(I)=ZZ(I)      130 CONTINUE            RETURN
       +00240                            END            SUBROUTINE ORBMRG            REAL INC,LAN,MU            INTEGER*4 IOR
       +00320                          B            COMMON/ORB/IFIRST,TAU,ECC,TP,INC,SMA,ARP,LAN            COMMON/ORBCOM/I
       +00400                          ORB,T,ALT,CLAT,CLON,VLAT,VLONG,SZA,HOUR,VEL,            1 POS(3),V(3),XX(3),YY(3),Z
       +00480                          (3),S(3)            DATA RAD/57.29578/,MU/3.248588E14/            IF(IFIRST.EQ.1) GO
       +00560                           TO 10     C      TYPE *,IFIRST,TAU,ECC,TP,INC,SMA,ARP,LAN            INC=INC/RAD
       +00640                                SMA=SMA*1.E3            ARP=ARP/RAD            LAN=LAN/RAD            CLAN=COS(
       +00720                          LAN)            CARP=COS(ARP)            CINC=COS(INC)            LAN=SIN(LAN)
       +00800                            ARP=SIN(ARP)            INC=SIN(INC)            AP=CLAN*CARP-LAN*CINC*ARP
       +00880                           BP=-CLAN*ARP-LAN*CINC*CARP            CP=LAN*CARP+CLAN*CINC*ARP            DP=-LAN*
       +00960                          ARP+CLAN*CINC*CARP            EP= INC*ARP            FP=INC*CARP            P=SMA*(1.-
       +01040                          ECC**2)            10 TTP=6.283185*(T)/TAU            E=TTP            IFIRST=1     C
       +01120                          TYPE *,TTP,P            DO 20 I=1,5     C      TYPE *,E            E=(ECC*(SIN(E)-E*CO
       +01200                          S(E))+TTP)/(1.-ECC*COS(E))            20 CONTINUE            R=SMA*(1.-ECC*COS(E))
       +01280                                THETA=ACCC((P-R)/(R*ECC))            THETA=SIGN(THETA,TTP)            CTHETA=CO
       +01360                          S(THETA)            STHETA=SIN(THETA)     C      TYPE *,R,THETA            X=R*CTHETA
       +01440                                  Y=R*STHETA            RTDOT=(1.+ECC*CTHETA)*SQRT(MU/P)            RDOT=ECC*
       +01520                          SQRT(MU/P)*STHETA            POS(1)=(AP*X+BP*Y)*.001            POS(2)=(CP*X+DP*Y)*.
       +01600                          001            POS(3)=(EP*X+FP*Y)*.001            VX=(RDOT*CTHETA-RTDOT*STHETA)
       +01680                                VY=RDOT*STHETA+RTDOT*CTHETA            V(1)=AP*VX+BP*VY            V(2)=CP*VX+D
       +01760                          P*VY            V(3)=EP*VX+FP*VY            CLAT=ASSS(POS(3)*1000./R)*RAD            C
       +01840                          LON=ATAN2(POS(2),POS(1))*RAD            VEL=SQRT(V(1)**2+V(2)**2+V(3)**2)
       +01920                           ALT=R/1000.-6052.            RETURN            END            FUNCTION ASSS(X)
       +02000                              Y=ABS(X)            ASSS=ATAN2(Y,SQRT(1.-Y**2))

     7   240  PRINT REQUESTED            0            IF(X.LT.0)ASSS=-ASSS            RETURN            END            FUNCTIO
       +00080                          N ACCC(X)            Y=ABS(X)            IF(Y .GT. 1.)Y=1.            ACCC=ATAN2(SQRT(
       +00160                          1.-Y**2),Y)            IF(X.LT.0.)ACCC=3.1415926-ACCC            RETURN            END

* * * * * * *  END OF FILE      3  -- FILE CONTAINED       7 BLOCKS

* * * * * * *  START FILE       4
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                    (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

     1  2048  PRINT REQUESTED           2  UH   D 0 H  Uə&Q C C D   Bq= H  G    D  UH         # əi  2  IH  wD   H8_Və8
      +00080                           Ce3 Dq  B ( H  ¬ R  D uIHR     MC33 ə   2  LH RGD   H  Wə   C   D)  B   Hq u
      +00160                           DfFLH I    4    ə ; 2  NHfL4D   Hm Wə   Cd  D   B   H    ff D  NH A         ə
      +00240                           2  PH .3Dw  H  Wə   C x DH  B   H       Df PH +  f      ə&  2  RH  2DB  Hw Wə
      +00320                           C q DH  B{  H     p D  RH        ff ə q 2  SH  )D   H  Wə¢  C S|D\  BR  H
      +00400                           D  SH|   33     ə E 2  UH  )DF6 H  Wə;  C d D   Bq= H     z DRXUH     #     ə #
      +00480                           2  WH   D%  H7 Wə   C¢ |D n Bq= H       D 'WH u      ff ə   2  YHa  Dm' H  Wə
      +00560                           C   D   B z HP      D  YH       A)\ ə   2  ¢H   D-  H  Wə   C¢¢ D   B Q Hi
      +00640                           D= ¢H    { JAH  ə3# 2  ¬H}  D K H  WəG  C I D   Bff Hp      D  ¬H       A33 ə;
      +00720                           2   H69 Df  H+ Wə   C : D   B z H       D k H .    "Bff ə   2  bH T D J H  Wə
      +00800                           C ? D)  B z H       D)<bHəS  ff C G ə   2  dH{j Dy  H5 Wə3  C54 D)  B\  H
      +00880                           D  aH      }B   ə   2  fH z D  H3 Wə   C   D   Bq= H     z Dq fHəs     Bff ə K
      +00960                           2  hH   DV  H  WəT  C 8 D   B\  H       D\ hH w   k C   ə E 2  jH}z D'q H4 Wə
      +01040                           C + D   B   H    {  D  jH s     C   ə A 2  lH|n D E H  Wə}  C 8 D{  B\  He   \
      +01120                           D PlHMi   G BH  ə < 2  nHə! D   HT Wə   C l D   B   H2   =  DH|nH Z     Bq= əV5
      +01200                           2  pH H D   HE WəL  C36 D{  B   Hs      D3 pH_G     B   ə=, 2  rH 3 D   H  Wə
      +01280                           C l D{  B   H       D  rH (     C   ə # 2  tH   D   H  Wə   CH9 D   B   H  #
      +01360                           D{ tH|    u C z ə   2  uH   Dw  H  Wə   C   DH  B   HP (  Q DffuH      w    əx
      +01440                           2  wH   D A HZ Wə   C J D   B\  H  ,  ( D 7wH           ə   2  yH{  D 6 Hu Wə
      +01520                           C L D   B\  H9 / )\ D  wH6g   Q  )\ ə   2  {H   D P H  Wə   C S D   B z H- 3 33
      +01600                           D  {H&        p ə4  4  }H   D   Hi Wə   C ¢ D   B z Hv 6 ff D= }H }   u B   ə
      +01680                           4   HT_ D   H  Wəv  C d D=  B z H  : q= D)  H W  )\ B\  ə   4   H   D   H  Wə
      +01760                           C 0 D)  B\  H  <    D L H<   3 ,C   ə   4   Hnl DB  HY Wə   C   D   B Q H Yə
      +01840                           Dq  H +  H bBq= ə c 4   H   D   H  Wə   C   D   Bq= H WB \  D   H       BH  ə N
      +01920                           4   H W D   Hz Wə   C   D   Bq= H VE    D   H W     B   ə G 4   H   D   H& Wə
      +02000                           C   D   B ( HDVH  Q D\  H    q  Bff ə ?¬¬¬¬¬¬¬¬

     2  2048  PRINT REQUESTED           4   H2} D G H {Wə   C<  D   B{  H UJ q= D   H    3  B{  ə79 4   Hv  D   HK{WəW
      +00080                           C   D   B{  H TL    D 1 H       B   ə 1 4   H  #D  H {Wə   C   D   B   H TN R
      +00160                           D   H=      B   ə:; 4   H 0 D , H qWə   C   Dq  B   H EP    D3  H..  \  Bff ə
      +00240                           4   H   D 9 H qWəQ  C   D   B   H DQ    D   H       B Q əə  4   H 5 D\o HYpWə
      +00320                           C   D   B   H BS 33 D{t H 2     C{  ə?  4   HI  D   H oWə   C   D   B   H AU
      +00400                           D E H       C   ə   4   H 8#D Q HloWə(  C . D   B   HYAU    D   H 3     C   ə
      +00480                           4   H1 'D   H9oWə   C,? D   B   H AW =  D   H       C   ə   4   H 7 DoR H aWə'
      +00560                           CGb D   B G H +W    D   H-4     #C ( ə   4   HS  D G H  WəH  C o D   B G H )X  Q
      +00640                           Df  H!     0C   ə   4   HN  D \ H _WəP  C   D   B33 H 'X    D W Ha     2C   əG
      +00720                           4   H u DZ  Ha_WəH  C1  D   B   H &X    D ' HLr    4C   ə"  4   H1 #D  H _Wə
      +00800                           C8  D   B=  Hz&X    D   H      6C   ə#  4   H I(DbP H ¬Wə   C   D   B   H &X
      +00880                           D   HiE    9C33 ə   4   H  ,DB  H ¬Wə   C   D   BH  H %X    DR  HN     ;C   ə
      +00960                           4   H   D   H KWə   C&  D   BR  H  X  Q D g H    H  C   ə+  4   H   Dw> HdJWə
      +01040                           C   D   B   H} W    DR8 HC¢  q  C k ə   4   H   D   H IWə   C   D   B\  H  W =
      +01120                           D   H       C   ə t 4   H$  D   H IWə   C   D\  B z HY V ff D   H    {  C   ə
      +01200                           4   H:9#D   H HWəF  CM  D\  Bff H  U    D   H 7  =  C L ə B  4   H} (DD  H HWə
      +01280                           C%* D   B Q H  S    D w H       C\  ə   4   H  -D  HsHWə   C 7 D{  Bq= HI R \
      +01360                           ə   H     z Cff ə" 4   H/  D   H 3Wə t  C d D   B   H  P    AH  H    {  C   ə8_
      +01440                           4   H ' D   HR-Wə6  C b D)  B{  H  0 )\rA\  H #  ff C G ə W 4   H\B D   H +Wə
      +01520                           C h D   B{  H7 M  p A   H >  H  Dq  ə 0 4   H ¢ D   H *WəE  CHv DH  B   H  J H
      +01600                           A   H W  q  D E əoE 4   H t|DR  H *Wə   C   D   B   HS H    Bq= H o     D)  əg<
      +01680                           4   H& &D)  H *Wə   C   D   B   H| F ff$B ( HT   {  D c ə 2 4   H  +D  Hf*Wə+
      +01760                           C   D   B   H  C   =B   H     z D   əS% 4   H   DL  H  Wə   C=  DH  B   H  A  G
      +01840                          WB   H    \ ) \  əD, 4   H   DB  HH Wə   C(  D3  B   H? > { qB   H      'D ə əu#
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                        (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

  151  2048   PRINT REQUESTED          h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +00080                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +00160                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +00240                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +00320                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +00400                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +00480                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +00560                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +00640                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +00720                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +00800                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +00880                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +00960                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +01040                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +01120                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +01200                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +01280                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +01360                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +01440                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +01520                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +01600                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +01680                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +01760                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +01840                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i
     +01920                           h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +02000                           C  +    B   H    )\KD   F       D n ?i --------

  152   240   PRINT REQUESTED          h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val
     +00080                           C  +    B   H    )\KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\
     +00160                          KD   F       D n ?i  h   E   D#+ Hv Val  C  +    B   H    )\KD   F       D n ?i

* * * * * * *  END OF FILE      4  -- FILE CONTAINED     152 BLOCKS

* * * * * * *  START FILE        5

    1  2030   PRINT REQUESTED              (  This tape contains files which will consist of tables of Solar EUV Daily
     +00080                              ♦  Values, and Ionopause and Bowshock crossings.  Additionally, a FORTRAN .  s
     +00160                             ubroutine and data file for calculating attitude and orbit information    has be
     +00240                             en supplied.  The files after this one are described below.        Solar EUV Dai
     +00320                             ly Values:          File name: TOTAL_EUV_FLUX_AS_IPE.DAT      .  This file contai
     +00400                             ns the average spin maximum level of the photoelectron  .  emission current, Ipe
     +00480                             , from the PVO OETP radial probe measured about 1  <  hour before periapsis. Thi
     +00560                             s represents the photoelectron current at the     point in the spin cycle when t
     +00640                             he probe is presenting it full crosssection to     the Sun. The Ipe values are g
     +00720                             iven in units of 10**-9 amperes. The data cover  (  the interval from orbit inje
     +00800                             ction (Dec. 4, 1978) through the latest data  (  available.  Ipe can be converte
     +00880                             d into the total solar EUV flux using the     conversion equations given by Brac
     +00960                             e et al., J. Geophys. Res., 93, 7282, 1988.      The conversion is given by the
     +01040                             equation,                          VEUV = 1.53 x 10**11 Ipe   (photons/cm2/
     +01120                             s)     (  These data have been found useful in the identification and study of t
     +01200                             he  |  effects of EUV variations on the ion production and electron heating rate
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                      (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

      +01280                           s  <  in the ionosphere. Thus the measurements are correlated with changes in  |
      +01360                             the density and temperature of the ionosphere (Elphic et al, Geophys. Res.  &
      +01440                           Lettr., 11, 124,1984), the height of bowshock formation, and changes in the  <
      +01520                           density and temperature of the thermosphere (Mahajan et al, J. Geophys.     Res
      +01600                           ., 95, 1091, 1990).        Ionopause and Bow Shock Crossings         File names:
      +01680                             IONOPAUSE.DAT and BOWSHOCK.DAT        These files contains the ionopause and b
      +01760                           owshock crossing times and     locations. These features are easily identified a
      +01840                           s sharp density gradients in  &  the high resolution electron current measuremen
      +01920                           ts (Theis et al., Adv. Space     Res., 1, 47, 1980).  These files contain the UT
      +02000                           , altitude, latitude, SZA and

    2  2007  PRINT REQUESTED            P      local time of each crossing.  The ionopause crossing times are read from
      +00080                            the  +  pass plots with an accuracy of a few seconds. Dayside ionopause crossin
      +00160                           gs     are available only prior to 1981 when periapsis was low enough to  <  enc
      +00240                           ounter the dayside ionosphere.  Nightside ionopauses were identified     through
      +00320                           out the mission, since the nightside ionosphere nearly always  .  extended above
      +00400                            the altitude of periapsis between about 20 hrs and 0400     hrs.         The bo
      +00480                           w shock crossings are read from plots having lower temporal  |  resolution, so t
      +00560                           he error in shock location may be several tens of seconds.     Rapid shock movem
      +00640                           ents often produced multiple shock crossings within  .  the same Venus passage.
      +00720                            Thus more than one crossing may be identified     for a given inbound or outbou
      +00800                           nd shock passage.         Orbit and Attitude calculation subroutines:        Fil
      +00880                           e name:  ORBIT.FOR and data file ORBIT.PVD         This subroutine contains with
      +00960                           in adequate documention to allow for it (  to be easily included within a user p
      +01040                           rogram.  Some care needs to be taken (  to assure that FORTRAN IO UNIT number 8
      +01120                           is available for this subroutine.            High Resolution OETP Measurements
      +01200                                 File name:  OUT1001.BCK  This file is the only file on a tape which ◊
      +01280                                    should accompany the tape with the smaller table data sets
      +01360                              and orbit program.  The files may be recovered from the                tape u
      +01440                           sing the BACKUP utility.          |  These files contain the OETP measurements of
      +01520                            Ne with the highest available  (  spatial resolution. These measurements are no
      +01600                           t based upon the fitting of  (  voltampere curves, as are the measurements given
      +01680                            in the UADS file. Since     curve fitting allows correction for spacecraft pote
      +01760                           ntial and other sources of     error, these measurement may not be as accurate a
      +01840                           s the UADS Ne  +  measurements, especially at low densities (< 100/cc).  Instead
      +01920                           , they come  .  from the electron saturation current at the end of each voltage
      +02000                           sweep,

    3   431  PRINT REQUESTED            •      which is measured about 10 times more frequently than voltampere  <  cur
      +00080                           ves are recovered. Depending upon the telemetry data rate available,  (  the hig
      +00160                           h resolution measurements may be separated by typically from 1 to     8 seconds.
      +00240                                 ◊  If any questions occur or difficulties are encountered please contact:
      +00320                              Robert F. Theis    Code 910    NASA/GSFC    Greenbelt, Md. 20771    (301)-28
      +00400                           6-3620    FAX    (301)-286-3460

* * * * * *  END OF FILE      5  -- FILE CONTAINED       3 BLOCKS

* * * * * * *  START FILE      6

    1  2018  PRINT REQUESTED            S       Dates 78339-78348  Orbits     1-  10 ipe   0.00  0.00  0.00  0.00  0.00
      +00080                                0.00  0.00  0.00  0.00  0.00     Dates 78349-78358  Orbits    11-  20 ipe   0.
      +00160                           00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00     Dates 78359-79003
```

FATAR DETAIL REPORT

```
BLOCK  LNGTH/  MESSAGE/                1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
NUMBER DISPL   BLOCK TYPE                        (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

       +00160                          63 11.63 11.58  0.00 11.69 11.53 11.53 11.47 12.07 11.79     Dates 91363-92007
       +00240                          Orbits  4771-4780 ipe  11.47 11.32 11.63 11.74 11.47 11.63 11.74 11.69 11.96 12.
       +00320                          29    Dates 92008-92017  Orbits  4781-4790 ipe  12.29 12.29 12.58 12.76 12.76 1
       +00400                          2.87 12.58 12.52 12.41 12.13    Dates 92018-92027  Orbits  4791-4800 ipe  12.35
       +00480                           12.29 11.96 11.90 11.69 11.47 11.42 11.58 11.90 11.85

* * * * * * *  END OF FILE      6  -- FILE CONTAINED      26 BLOCKS

* * * * * * *  START FILE       7

* * * * * * *  END OF FILE      7  -- FILE CONTAINED       0 BLOCKS
```

01/27/92

FATS020 ANALYSIS TERMINATED AT TAPEMARK SEQUENCE

FINAL TOTALS

FILES READ	BLOCKS READ	BYTES READ	FEET READ	TEMP ERRS	PERM ERRS	FILES WRITTEN	BLOCKS WRITTEN
6	490	984265	25	0	0	0	0

FATAR TAPE SUMMARY FOR TAPE VOLUME -CMW003- AT DENSITY 6250 BPI 6/08/93

PHYS FILE	DATASET NAME (LAST 17 CHARS)	FILE SERIAL	FIL# VOL#	CRDATE	EXPDATE	REC-FM	LRECL BLKSZ	CREATING JOB&STEP	SEC	BLOCKS READ	BYTES READ	PERM TEMP	---BLOCKSIZES---- MIN	AVG	MAX	EST. FEET
1	ZMCOWFS1.R0021283									194	391K	0	1088	2015	2036	10
2	ZMCOWFS1.R0021283									108	216K	0	594	2000	2050	6
3	ZMCOWFS1.R0021283									7	12K	0	240	1778	2048	0
4	ZMCOWFS1.R0021283									152	309K	0	240	2036	2048	8
5	ZMCOWFS1.R0021283									3	4468	0	431	1489	2030	0
6	ZMCOWFS1.R0021283									26	51K	0	534	1961	2018	2
7	ZMCOWFS1.R0021283									0	0	0	0	0	0	0
	HIGHEST EXPIRATION ====>							TOTALS ====>		490	984K	0				26