#409

IMP H & J

HOUPLY AVERAGED SOLAR PLASMA
72-073A-02A
73-078A-02A

1-2 MINUTE RESOLUTION PLASMA PARAMETER DATA
73-078A-02G

FINE RESOLUTION PLASMA DATA FROM MIT
(1-MIN PLASMA PARAMETER)
73-078A-02L

IMP-H & J

HOURLY AVG. SOLAR PLASMA
INTERPLANETARY HOURLY AVG.

72-073A-02A
73-078A-02A

THESE DATA SETS HAVE BEEN RESTORED. THERE WERE ORIGINALLY FIVE 9-TRACK 6250 BPI TAPES, WRITTEN IN EBCDIC. THERE IS ONE RESTORED TAPE WRITTEN IN ASCII. SINCE THE TAPES WERE ORIGINALLY RESTORED, FILES 2-9 OF THE DATA HAVE BEEN REPLACED. THERE ARE NO D NUMBERS FOR FILES 2-9 DUE TO THE FACT THAT THE DATA WAS RECEIVED ELECTRONICALLY. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. FILE ONE IS IMP-H DATA AND FILES 2-9 ARE IMP-J DATA. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON AN IBM 9021 COMPUTER. THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBER AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR004836	DS004836	D030506	1	01/03/76 - 01/24/77
			2	11/04/73 - 12/30/75
			3	01/03/76 - 12/13/78
			4	01/12/79 - 12/31/81
			5	01/01/82 - 12/31/84
			6	01/01/85 - 12/31/87
			7	01/01/88 - 12/31/90
			8	01/01/91 - 12/31/93
			9	01/01/94 - 01/14/94

REQ. AGENT	RAND NO.	ACQ. AGENT
CMP	RC8205	DJH
RSH		DAC
DHG		

IMP H & J

HOURLY AVERAGED SOLAR PLASMA DATA

72-073A-02A (IMP H)

73-078A-02A (IMP J)

This data set consists of ~~8~~ 5 tapes. D-30506 is ~~7~~ 9 track, ~~800~~ 6250 BPI, BCD with 2 files, a logical recordsize of 106 bytes and blocksize of 10600 bytes. The tape contains data from both IMP H (file 2) and IMP J (file 1). The remaining tapes in this data set are 9 track, 6250 bpi, EBCDIC, with one file, logical record length of 430 bytes, and blocksize of 4300 bytes. The 'D' and 'C' numbers and time spans follow.

D#	C#	Time Span
D-30506	C-19498	01/01/76 - 03/19/77 (File 1/IMP J) 01/03/76 - 01/24/77 (File 2/IMP H)
D-64143	C-24185	12/28/81 - 07/13/84
D-73713	C-25931	02/19/83 - 11/14/86
D-76480	C-26667	11/14/86 - 10/18/87
D-79317	C-27101	10/19/87 - 11/28/88

The tape characteristics for D-30506, C-19498:

TRACKS = ~~7~~ 9 TRACK
DENSITY = ~~800 BPI~~ 6250
RECFM = FB
LRECL = 106 BYTES
BLKSIZE = 10600 BYTES
TRTCH = ET

The tape characteristics for D-64143:

TRACKS = 9 TRACK
DENSITY = 6250 BPI
RECFM = FB
LRECL = 430 BYTES
BLKSIZE = 4300 BYTES

The tape characteristics for C-24185:

TRACKS = 9 TRACK
DENSITY = 1600 BPI
RECFM = FB
LRECL = 430 BYTES
BLKSIZE = 4300 BYTES

Format is as follows: (GOOD ONLY FOR D-30506)

ITEM	TYPE	VARIABLE	
1	A4	S/C NAME (IMP-7 OR IMP-8)	
2	I4	YEAR	
3	I4	DAY OF YEAR (JAN. 1 = DAY 1)	
4	I4	HOUR (0 - 23)	
5	F10.3	SPEED	Average
6	F10.3		Standard deviation
7	F10.3		Number of values averaged
8	F10.3	DENSITY	"
9	F10.3		
10	F10.3		
11	F10.3	THERMAL SPEED	"
12	F10.3		
13	F10.3		

IMP Hourly Average MIT Plasma Tape Format

73-078A-02A

	ITEM	TYPE	VARIABLE		UNITS
	1	A4	S/C Name		----
	2	I4	Year (i.e. 1974)		----
	3	I4	Day (Jan 1 = day 1)		----
	4	I4	Hour (0 to 23)		----
	5	F10.3	Bulk Speed	Average	km/sec
	6	F10.3	"	Standard Deviation	km/sec
	7	F10.3	"	Number of values averaged	----
	8	F10.3	Density	Average	cm^{-3}
	9	F10.3	"	Standard Deviation	cm^{-3}
	10	F10.3	"	Number of values averaged	----
	11	F10.3	Thermal	Average	km/sec
	12	F10.3	Speed	Standard Deviation	km/sec
	13	F10.3	"	Number of values averaged	----
	14	F10.3	Flux	Average	$cm^{-2}sec^{-1}$
	15	F10.3	"	Standard Deviation	$cm^{-2}sec^{-1}$
	16	F10.3	"	Number of values averaged	----
	17	F10.3	Thermal	Average	----
	18	F10.3	Speed/Bulk	Standard Deviation	----
	19	F10.3	Speed	Number of values averaged	----
	20	F10.3	E-W Angle	Average	degrees
	21	F10.3	(+ from	Standard Deviation	degrees
	22	F10.3	West)	Number of values averaged	----
	23	F10.3	N-S Angle	Average	degrees
	24	F10.3	(+ from	Standard Deviation	degrees
	25	F10.3	South)	Number of values averaged	----
	26	F10.3	V_t	Average	km/sec
	27	F10.3	"	Standard Deviation	km/sec
	28	F10.3	"	Number of values averaged	----
	29	F10.3	V_n	Average	km/sec
	30	F10.3	"	Standard Deviation	km/sec
	31	F10.3	"	Number of values averaged	----
	32	F12.3	(-45,45)	Average	$\#/cm^2sec$
	33	F12.3	S/C	Standard Deviation	$\#/cm^2sec$
	34	F12.3	Longitude	Number of values averaged	----
Flux	35	F12.3	(45,135)	Average	$\#/cm^2sec$
in 4	36	F12.3	S/C	Standard Deviation	$\#/cm^2sec$
Sectors	37	F12.3	Longitude	Number of values averaged	----
	38	F12.3	(135,-135)	Average	$\#/cm^2sec$
	39	F12.3	S/C	Standard Deviation	$\#/cm^2sec$
	40	F12.3	Longitude	Number of values averaged	----
	41	F12.3	(-135,-45)	Average	$\#/cm^2sec$
	42	F12.3	S/C	Standard Deviation	$\#/cm^2sec$
	43	F12.3	Longitude	Number of values averaged	----

INPUT PARAMETERS ARE: ED FL=1=1

55 0045

IMP-8 73-078A-02A
D- 64143 C-24185
12/28/81 - 7/13/84

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 TAPE NO.    1                FILE NO.    1
 RECORD    1                  LENGTH    4300
IMP81981 362  16 0.388E+03 0.308E+02 0.270E+02 0.134E+02 0.375E+01 0.270E+02 0.471E+02 0.159E+02 0.
270E+02 0.501E+04 0.141E+04 0.270E+02 0.121E+00 0.401E-01 0.270E+02-0.714E+01 0.840E+01 0.270E+02 0
.968E+01 0.744E+01 0.270E+02 0.463E+02 0.560E+02 0.270E+02 0.621E+02 0.495E+02 0.270E+02    0.148E+0
9    0.642E+09    0.460E+02    0.815E+07    0.549E+08    0.460E+02    0.815E+07    0.549E+08    0.460E+02
 0.857E+07    0.576E+08    0.460E+02IMP81981 362  17 0.390E+03 0.791E+01 0.340E+02 0.127E+02 0.163E+0
1 0.340E+02 0.481E+02 0.939E+01 0.340E+02 0.491E+04 0.667E+03 0.340E+02 0.123E+00 0.243E-01 0.340E+
02 0.479E+01 0.182E+01 0.340E+02 0.619E+01 0.239E+01 0.340E+02-0.324E+02 0.126E+02 0.340E+02 0.418E
+02 0.160E+02 0.340E+02    0.132E+09    0.502E+09    0.370E+02    0.101E+08    0.612E+08    0.370E+02    0
.306E+08    0.186E+09    0.370E+02    0.106E+08    0.643E+08    0.370E+02IMP81981 362  18 0.408E+03 0.10
2E+02 0.350E+02 0.818E+01 0.159E+01 0.350E+02 0.457E+02 0.527E+01 0.350E+02 0.329E+04 0.613E+03 0.3
50E+02 0.112E+00 0.134E-01 0.350E+02 0.536E+01 0.102E+01 0.350E+02 0.685E+01 0.259E+01 0.350E+02-0.
378E+02 0.726E+01 0.350E+02 0.485E+02 0.185E+02 0.350E+02    0.495E+08    0.695E+08    0.360E+02    0.6
44E+05    0.137E+03    0.360E+02    0.644E+05    0.137E+03    0.360E+02    0.676E+05    0.150E+03    0.360E
+02IMP81981 362  19 0.417E+03 0.125E+02 0.300E+02 0.660E+01 0.123E+01 0.300E+02 0.518E+02 0.156E+02
 0.300E+02 0.271E+04 0.563E+03 0.300E+02 0.124E+00 0.351E-01 0.300E+02 0.370E+01 0.202E+01 0.300E+0
2 0.847E+01 0.456E+01 0.300E+02-0.265E+02 0.145E+02 0.300E+02 0.614E+02 0.333E+02 0.300E+02    0.211
E+09    0.103E+10    0.320E+02    0.354E+08    0.200E+09    0.320E+02    0.117E+08    0.658E+08    0.320E+0
2    0.123E+08    0.691E+08    0.320E+02IMP81981 362  21 0.416E+03 0.105E+02 0.700E+01 0.633E+01 0.158
E+01 0.700E+01 0.406E+02 0.138E+02 0.700E+01 0.259E+04 0.643E+03 0.700E+01 0.977E-01 0.338E-01 0.70
0E+01 0.391E+01 0.194E+01 0.700E+01 0.787E+01 0.541E+01 0.700E+01-0.278E+02 0.136E+02 0.700E+01 0.5
69E+02 0.399E+02 0.700E+01    0.309E+08    0.461E+07    0.700E+01    0.644E+05    0.108E+03    0.700E+01
  0.644E+05    0.108E+03    0.700E+01    0.677E+05    0.691E+02    0.700E+01IMP81981 362  22 0.418E+03 0
.709E+01 0.140E+02 0.634E+01 0.152E+01 0.140E+02 0.418E+02 0.134E+02 0.140E+02 0.263E+04 0.635E+03
0.140E+02 0.997E-01 0.309E-01 0.140E+02 0.328E+01 0.195E+01 0.140E+02 0.519E+01 0.495E+01 0.140E+02
-0.237E+02 0.141E+02 0.140E+02 0.377E+02 0.363E+02 0.140E+02    0.310E+09    0.116E+10    0.170E+02
0.220E+08    0.903E+08    0.170E+02    0.151E+08    0.619E+08    0.170E+02    0.603E+08    0.248E+09    0.1
70E+02IMP81981 362  23 0.420E+03 0.157E+02 0.170E+02 0.742E+01 0.115E+01 0.170E+02 0.398E+02 0.708E
+01 0.170E+02 0.310E+04 0.531E+03 0.170E+02 0.946E-01 0.164E-01 0.170E+02 0.486E+01 0.141E+01 0.170
E+02 0.127E+01 0.543E+01 0.170E+02-0.354E+02 0.104E+02 0.170E+02 0.938E+01 0.395E+02 0.170E+02    0.
342E+08    0.400E+07    0.170E+02    0.644E+05    0.143E+03    0.170E+02    0.644E+05    0.143E+03    0.170
E+02    0.676E+05    0.111E+03    0.170E+02IMP81981 363    0 0.414E+03 0.123E+02 0.200E+01 0.877E+01 0.
228E+01 0.200E+01 0.431E+02 0.274E+01 0.200E+01 0.364E+04 0.105E+04 0.200E+01 0.104E+00 0.354E-02 0
.200E+01 0.221E+01 0.184E+01 0.200E+01 0.284E+01 0.216E+01 0.200E+01-0.158E+02 0.129E+02 0.200E+01
0.207E+02 0.162E+02 0.200E+01    0.374E+08    0.793E+07    0.200E+01    0.644E+05    0.640E+02    0.200E+
01    0.644E+05    0.640E+02    0.200E+01    0.676E+05    0.0          0.200E+01IMP81981 363    7 0.576E+0
3 0.961E+01 0.240E+02 0.194E+02 0.242E+01 0.240E+02 0.902E+02 0.160E+02 0.240E+02 0.111E+05 0.143E+
04 0.240E+02 0.157E+00 0.277E-01 0.240E+02 0.273E+01 0.189E+01 0.240E+02 0.786E+01 0.191E+01 0.240E
+02-0.270E+02 0.188E+02 0.240E+02 0.785E+02 0.187E+02 0.240E+02    0.470E+09    0.219E+10    0.370E+02
   0.137E+08    0.832E+08    0.370E+02    0.101E+08    0.612E+08    0.370E+02    0.107E+08    0.643E+08
0.370E+02IMP81981 363  11 0.606E+03 0.349E+01 0.180E+02 0.194E+02 0.697E+00 0.180E+02 0.650E+02 0.8
68E+01 0.180E+02 0.117E+05 0.433E+03 0.180E+02 0.107E+00 0.145E-01 0.180E+02-0.239E+01 0.644E+00 0.
180E+02 0.376E+01 0.159E+01 0.180E+02 0.252E+02 0.683E+01 0.180E+02 0.397E+02 0.168E+02 0.180E+02
 0.117E+09    0.515E+07    0.180E+02    0.644E+05    0.878E+02    0.180E+02    0.644E+05    0.878E+02    0.
180E+02    0.676E+05    0.0          0.180E+02

 TAPE NO.    1                FILE NO.    1
 RECORD    772                LENGTH    860
IMP81984 195    6 0.430E+03 0.832E+01 0.700E+01 0.426E+02 0.320E+01 0.700E+01 0.393E+02 0.304E+01 0.
700E+01 0.183E+05 0.124E+04 0.700E+01 0.914E-01 0.672E-02 0.700E+01-0.256E+01 0.102E+01 0.700E+01-0
.789E+00 0.182E+01 0.700E+01 0.193E+02 0.777E+01 0.700E+01-0.590E+01 0.138E+02 0.700E+01    0.235E+0
9    0.139E+09    0.800E+01    0.646E+05    0.726E+02    0.800E+01    0.646E+05    0.726E+02    0.800E+01
 0.678E+05    0.593E+02    0.800E+01IMP81984 195    7 0.427E+03 0.799E+01 0.180E+02 0.429E+02 0.452E+0
1 0.180E+02 0.517E+02 0.728E+01 0.180E+02 0.183E+05 0.211E+04 0.180E+02 0.121E+00 0.157E-01 0.180E+
02-0.202E+01 0.220E+01 0.180E+02-0.374E+00 0.284E+01 0.180E+02 0.150E+02 0.163E+02 0.180E+02-0.289E
+01 0.209E+02 0.180E+02    0.181E+09    0.159E+08    0.180E+02    0.646E+05    0.176E+03    0.180E+02    0
.646E+05    0.176E+03    0.180E+02    0.678E+05    0.164E+03    0.180E+02

***** JOB DONE.
$WEO LPS
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D-30506
Trk, 800, BCD, 25 files
IMP. 7 + 8

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$JOB  13:32:16
$NOP ********* LIST OF X-424 ************
$ASS IN MS5
$EXEC LIST BS

INPUT PARAMETERS ARE:  BC FL=1=1 2

 TAPE NO.  1          FILE NO.   1
 RECORD    1          LENGTH   10600
IMP81976   1  13   0.0      0.0      0.0      0.0      0.0      0.0      0.0      0.0
  0.0  IMP81976   3   1   329.729    19.814    13.000     9.825     2.158    13.000    56.046     7
.923    13.000IMP81976   3   2   313.342    25.880    10.000    10.683     3.811    10.000    55.04
8    16.745    10.000IMP81976   3   3   335.732    24.301    18.000    20.580     7.115    18.000
  53.604     9.564    18.000IMP81976   3   4   339.731     4.200    15.000    27.795     4.714     1
5.000    55.636     6.843    15.000IMP81976   3   5   341.583     5.768    35.000    21.509     5.5
82    35.000    53.565     8.355    35.000IMP81976   3   6   339.751    15.460    10.000    20.486
   5.993    10.000    59.022    13.333    10.000IMP81976   3   7   340.427    15.644    12.000
15.865     4.689    12.000    58.101    17.715    12.000IMP81976   3   8   402.966    16.652    11.
000    13.515     3.025    11.000    75.953    12.500    11.000IMP81976   3   9   412.524    10.997
   16.000    26.001     2.882    16.000    86.407    11.507    16.000IMP81976   3  10   436.016
 26.294    22.000    25.713     9.403    22.000    92.146    37.180    22.000IMP81976   3  11   453
.924    23.645    12.000    19.733     6.156    12.000    98.138    20.204    12.000IMP81976   3   1
2   531.383    30.639    19.000    17.092     9.868    19.000    65.699    15.895    19.000IMP81976
   3  13   512.242    19.510    30.000    13.694     2.822    30.000    89.815    29.017    30.000I
MP81976   3  14   472.438    15.173    23.000    12.428     2.198    23.000    89.687    24.556
23.000IMP81976   3  15   466.183    19.317    24.000     8.439     2.428    24.000    86.011    21.
146    24.000IMP81976   3  16   486.419    34.124    29.000    11.706     7.232    29.000   106.210
  112.818    29.000IMP81976   3  17   518.292    30.845    21.000    19.221     4.884    21.000
 86.840    24.034    21.000IMP81976   3  18   546.527    19.797    49.000    15.781     7.679    49
.000    78.716    29.170    49.000IMP81976   3  19   536.037    14.852    51.000    14.434     2.90
6    51.000    69.155     9.930    51.000IMP81976   3  20   535.859    13.278    51.000    13.510
   1.859    51.000    65.578     8.919    51.000IMP81976   3  21   525.049    22.508    22.000     1
7.262     9.172    22.000    72.738    26.258    22.000IMP81976   3  22   525.552     6.416    26.0
00    11.609     1.565    26.000    58.110     5.761    26.000IMP81976   3  23   521.185     9.080
   52.000    13.760     4.535    52.000    60.588     3.627    52.000IMP81976   4   0   509.323
24.057    41.000    15.349     5.093    41.000    67.886    16.069    41.000IMP81976   4   1   509.
185    10.700    51.000    11.181     3.889    51.000    51.551     8.730    51.000IMP81976   4   2
  504.313    13.875    50.000    12.276     4.565    50.000    58.462    20.499    50.000IMP81976
   4   3   508.459    18.817    42.000    10.545     4.719    42.000    54.058    16.141    42.000IM
P81976   4   4   504.236    12.821    50.000    11.746     5.372    50.000    54.408    15.275     5
0.000IMP81976   4   5   528.967    19.069    50.000     8.761     1.591    50.000    51.306    10.2
96    50.000IMP81976   4   6   543.257    12.169    52.000     8.903     1.475    52.000    49.130
   5.276    52.000IMP81976   4   7   519.616    17.280    55.000     9.350     2.227    55.000
53.835     9.782    55.000IMP81976   4   8   515.670    19.165    48.000     8.923     2.654    48.
000    53.245    19.360    48.000IMP81976   4   9   503.436    10.920    50.000     8.562     1.080
   50.000    44.744     6.611    50.000IMP81976   4  10   514.974     9.622    51.000     7.643
  0.715    51.000    49.014     5.165    51.000IMP81976   4  11   507.373     9.995    41.000     7
.389     1.124    41.000    41.306     7.803    41.000IMP81976   4  12   511.605     8.363    45.00
0     7.882     1.041    45.000    44.259     8.690    45.000IMP81976   4  13   517.756    11.105
  46.000     8.053     1.209    46.000    44.178     9.179    46.000IMP81976   4  14   531.626     1
1.488    40.000     8.826     0.481    40.000    49.437     2.842    40.000IMP81976   4  15   530.2
77    13.063    40.000     9.235     0.584    40.000    49.231     4.957    40.000IMP81976   4  16
  521.521    10.823    39.000     9.109     1.236    39.000    50.908     9.259    39.000IMP81976
 4  17   534.647    16.007    49.000     9.510     1.218    49.000    54.575     5.399    49.000IMP
81976   4  18   519.427    11.201    45.000     9.843     1.466    45.000    54.330    10.733    45
.000IMP81976   4  19   531.051    10.823    56.000     8.902     0.940    56.000    53.150     5.35
6    56.000IMP81976   4  20   536.050    15.716    47.000     8.147     0.465    47.000    53.145
   5.687    47.000IMP81976   4  21   522.740    12.144    46.000     7.734     1.096    46.000     4
9.829    10.004    46.000IMP81976   4  22   539.490    17.082    43.000     7.094     0.679    43.0
00    46.628     4.191    43.000IMP81976   4  23   529.877    10.366    25.000     6.995     0.998
   25.000    46.085     4.178    25.000IMP81976   5   0   531.390    16.458    48.000     6.732
 0.747    48.000    44.279     3.475    48.000IMP81976   5   1   514.538    13.335    41.000     6.
733     1.416    41.000    44.381     7.148    41.000IMP81976   5   2   519.785    14.477    44.000
     7.365     2.156    44.000    44.139    11.227    44.000IMP81976   5   3   520.228    14.259
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REQ. AGENT	RAND NO.	ACQ. AGENT
DHG	V0309	DAC
SAR	V0348	JHK
SAR	V0352	JHK

IMP J

1-2 MINUTE RESOLUTION PLASMA PARAMETER DATA

73-078A-02G

This data set consists of five tapes, created on an IBM 360. The format is 9-track, 6250 BPI, ASCII. They have one file each. The 'D' and 'C' numbers and time span are as follows:

D#	C#	TIME SPAN
D-68313	C-25075	10/31/73 - 02/20/75
D-74124	C-26187	01/06/77 - 04/11/78
D-74123	C-26186	04/12/78 - 09/02/82
D-74125	C-26188	02/17/83 - 12/10/85
D-74596	C-26284	12/11/85 - 10/18/87
D-79751	C-27527	10/19/87 - 05/16/89

NOTE: THIS DATASET (73-078A-02G) HAS FULL ORBIT COVERAGE; IT DOES NOT CONTAIN SOLAR WIND TIMES ONLY.

September 1986

IMP TAPE FORMAT DESCRIPTION

Type of Tape: SPectrum Analysis Tape (SPAT)

Content: Fine time resolution plasma parameters for IMP 8. Only tracking mode, non-tracking mode or acquistition mode spectra are used.

Origin: Generated by program IMPANAL with a formatted write using DD UNIT=T6250,LABEL=(,BLP),DCB=(BLKSIZE=9500,LRECL=190, RECFM=FB,OPTCD=Q)

Format: 9 track; odd parity; 6250 BPI; written in ASCII.

1. Tape terminates with a double end of file; there is no internal file structure.

2. There are 50 logical records per tape block; each block is 9500 bytes long.

3. Each logical record is 23 items (190 bytes) long (written in 8I5, 15E10.3 format):

Item	Name	Description
1	MODE	analyzed spectrum flag (1 = AQM, 2 = TM, 3 = NTM)
2 •	IYR	4 digit year
3 •	IDOY	day of year (Jan. 1 = 1)
4 •	IHR	hour of day (0 to 23)
5 •	IMIN	minute of hour (0 to 59)
6 •	ISEC	second of minute (0 to 59)
7	IMP	spacecraft number (7 or 8)
8	ITYP	spectrum type (1 = Tracking Mode Spectrum, 3 = Non-Tracking Mode, 4 = Acquisition Mode Spectrum)
9	FLUXS	(or "VINT") flux from (-45, 45) s/c longitude
10 •	VFIT	bulk speed in s/c frame from either 3 point fit
11	VEST	to Maxwellian or method of moments (see IMPANAL) (at M.I.T. we generally use the fits)
12	FLUXY	(or "WINT") flux from (45, 135) s/c longitude
13 •	WFIT	thermal speed (ref. VFIT)
14	WEST	
15	FLUXAS	(or "DINT") flux from (135, -135) s/c longitude
16 •	DFIT	density (ref. VFIT)
17	DEST	

Item	Name	Description
18	FLUXAY	(or "AINT") flux from (-135, -45) s/c longitude
19	ALFRAC	(or "AFIT") = + 100.0; alpha fraction; ratio of alpha current to proton peak current
20	AEST	N/S flow angle (positive from south) using nominal spin axis orientation
21	PEAK	(or "BINT") 4 digit peak flag (see IMPANAL)
22 23	BFIT BEST	E/W flow angle (positive from west) (ref. VFIT)

NOTE** That, owing to different gain shifts in the electrons associated with the two semicircular Faraday cup collector plates, there is offset in the apparent solar wind flow latitude. For the period 1977 through 1989, this offset has been approximately constant at about 5 degrees positive. This 5.0 should be substracted from the flow latitude values contained on these tapes to get the "true" flow latitudes.

(JHK, 10/89)

```
$EXE TPLIST HS
INPUT PARAMETERS ARE:  AS FL=1=1 1 1 1

 TAPE NO.   1                FILE NO.   1
 RECORD   1                  LENGTH   9500
    1 1973  304   20   10   27   8   4 0.204E+08 0.321E+03 0.344E+03 0.667E+05 0.599E+02 0.106E+0
3 0.667E+05 0.364E+01 0.527E+01 0.701E+05 0.367E+00 0.195E+02 0.111E+04 0.960E+01 0.124E+02    1 19
73  304   20   23   39   8   4 0.256E+08 0.329E+03 0.408E+03 0.670E+05 0.441E+02 0.128E+03 0.670E
+05 0.206E+01 0.600E+01 0.704E+05 0.144E+00 0.173E+02 0.111E+04 0.144E+02 0.152E+02    2 1973  304
   20   26   8   8   1 0.157E+08 0.0        0.389E+03 0.667E+05 0.0        0.844E+02 0.667E+05 0.0
       0.408E+01 0.701E+05 0.363E+00 0.184E+02 0.811E+04-0.100E+03 0.137E+02    2 1973  304   20   2
6   37   8   1 0.181E+08 0.0        0.0        0.667E+05 0.0        0.0        0.667E+05 0.0        0.
0        0.701E+05-0.100E+03-0.100E+03 0.711E+04-0.100E+03-0.100E+03    2 1973  304   20   27   8
   8   1 0.159E+08 0.0        0.0        0.667E+05 0.0        0.0        0.667E+05 0.0        0.0
0.701E+05-0.100E+03-0.100E+03 0.511E+04-0.100E+03-0.100E+03    2 1973  304   20   27   40   8   1
 0.167E+08 0.0        0.0        0.667E+05 0.0        0.667E+05 0.0        0.0        0.701E+0
5-0.100E+03-0.100E+03 0.411E+04-0.100E+03-0.100E+03    2 1973  304   20   28   9   8   1 0.163E+
08 0.0        0.0        0.667E+05 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E
+03-0.100E+03 0.621E+04-0.100E+03-0.100E+03    2 1973  304   20   28   37   8   1 0.164E+08 0.0
       0.336E+03 0.667E+05 0.0        0.768E+02 0.667E+05 0.0        0.490E+01 0.701E+05 0.437E+00 0.16
8E+02 0.621E+04-0.100E+03 0.144E+02    2 1973  304   20   29   7   8   1 0.148E+08 0.0        0.0
       0.557E+05 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.
421E+04-0.100E+03-0.100E+03    2 1973  304   20   29   35   8   1 0.155E+08 0.318E+03 0.332E+03 0
.667E+05 0.563E+02 0.713E+02 0.667E+05 0.371E+01 0.467E+01 0.701E+05 0.275E+00 0.147E+02 0.511E+04
0.134E+02 0.146E+02    2 1973  304   20   30   4   8   1 0.149E+08 0.0        0.0        0.667E+05
 0.0        0.0        0.657E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.611E+04-0.100E+0
3-0.100E+03    2 1973  304   20   30   32   8   1 0.147E+08 0.0        0.0        0.667E+05 0.0
   0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.221E+04-0.100E+03-0.100E
+03    2 1973  304   20   31   2   8   1 0.139E+08 0.0        0.0        0.667E+05 0.0        0.0
       0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.811E+04-0.100E+03-0.100E+03    2
 1973  304   20   31   30   8   1 0.146E+08 0.0        0.0        0.667E+05 0.0        0.0        0.6
67E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.611E+04-0.100E+03-0.100E+03    1 1973  3
04   20   45   2   8   4 0.255E+08 0.318E+03 0.336E+03 0.667E+05 0.556E+02 0.970E+02 0.667E+05 0
.440E+01 0.714E+01 0.701E+05 0.511E+00 0.102E+02 0.111E+04 0.208E+02 0.196E+02    3 1973  304   20
 49   39   8   3 0.667E+05 0.321E+03 0.342E+03 0.667E+05 0.644E+02 0.951E+02 0.667E+05 0.535E+01
 0.730E+01 0.701E+05 0.491E+00-0.100E+03 0.111E+04 0.210E+02 0.222E+02    1 1973  304   20   54   3
9   8   4 0.239E+08 0.340E+03 0.358E+03 0.667E+05 0.105E+03 0.886E+02 0.667E+05 0.686E+01 0.589E+
01 0.701E+05 0.167E+00 0.770E+01 0.111E+04 0.220E+02 0.210E+02    2 1973  304   20   57   14   8
 1 0.171E+08 0.0        0.347E+03 0.667E+05 0.0        0.719E+02 0.667E+05 0.0        0.501E+01 0.701
E+05 0.382E+00 0.475E+01 0.911E+04-0.100E+03 0.201E+02    2 1973  304   20   57   42   8   1 0.17
0E+08 0.0        0.328E+03 0.667E+05 0.0        0.703E+02 0.667E+05 0.0        0.524E+01 0.701E+05 0.2
15E+00 0.569E+01 0.611E+04-0.100E+03 0.202E+02    2 1973  304   20   58   12   8   1 0.180E+08 0.
0        0.0        0.667E+05 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0
.100E+03 0.511E+04-0.100E+03-0.100E+03    2 1973  304   20   58   40   8   1 0.187E+08 0.0
0.0        0.667E+05 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03
 0.611E+04-0.100E+03-0.100E+03    2 1973  304   20   59   9   8   1 0.172E+08 0.0        0.0
 0.667E+05 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.711E+
04-0.100E+03-0.100E+03    2 1973  304   20   59   37   8   1 0.168E+08 0.0        0.319E+03 0.667E
+05 0.0        0.689E+02 0.667E+05 0.0        0.524E+01 0.701E+05 0.214E+00 0.443E+01 0.711E+04-0.100
E+03 0.213E+02    2 1973  304   21   0   7   8   1 0.193E+08 0.0        0.0        0.667E+05 0.0
       0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.111E+03-0.100E+03-0.1
00E+03    2 1973  304   21   0   35   8   1 0.194E+08 0.0        0.0        0.667E+05 0.0        0.
0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.131E+04-0.100E+03-0.100E+03
   2 1973  304   21   1   4   8   1 0.178E+08 0.0        0.315E+03 0.667E+05 0.0        0.676E+02
0.667E+05 0.0        0.568E+01 0.701E+05 0.284E+00 0.686E+01 0.911E+04-0.100E+03 0.199E+02    2 1973
 304   21   1   32   8   1 0.180E+08 0.0        0.0        0.667E+05 0.0        0.0        0.667E+0
5 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.211E+04-0.100E+03-0.100E+03    2 1973  304
21   2   2   8   1 0.199E+08 0.295E+03 0.311E+03 0.667E+05 0.552E+02 0.674E+02 0.667E+05 0.469E
+01 0.614E+01 0.701E+05 0.299E+00 0.722E+01 0.221E+04 0.225E+02 0.206E+02    1 1973  304   21   6
   7   8   4 0.219E+08 0.321E+03 0.337E+03 0.667E+05 0.587E+02 0.940E+02 0.667E+05 0.393E+01 0.58
4E+01 0.701E+05 0.347E+00 0.713E+01 0.111E+04 0.199E+02 0.180E+02    1 1973  304   21   11   16
8   4 0.212E+08 0.315E+03 0.317E+03 0.667E+05 0.493E+02 0.802E+02 0.667E+05 0.401E+01 0.587E+01 0.
701E+05 0.204E+00 0.766E+01 0.111E+04 0.187E+02 0.173E+02    3 1973  304   23   17   43   8   3 0
.667E+05 0.443E+03 0.453E+03 0.667E+05 0.143E+03 0.970E+02 0.667E+05 0.431E+01 0.320E+01 0.701E+05
0.719E-01-0.100E+03 0.111E+04 0.225E+02 0.225E+02    3 1973  304   23   21   52   8   3 0.179E+07
```

Imp. of
1-2 Min. Resolution
Plasma Parameter Data
73-078A-02G
D-68313, C-25075
10/31/73 - 02/20/75

```
 0.0        0.0        0.597E+06 0.0        0.0        0.169E+07 0.0        0.0        0.720E+06-0.100E+0
3-0.100E+03 0.102E+04-0.100E+03-0.100E+03     3 1973  304   23   26    7    8    3 0.667E+05 0.0
   0.0        0.667E+05 0.0        0.0        0.304E+07 0.0        0.0        0.142E+07-0.100E+03-0.100E
+03 0.0       -0.100E+03-0.100E+03     3 1973  304   23   28    9    8    3 0.667E+05 0.302E+03 0.303
E+03 0.667E+05 0.297E+02 0.267E+02 0.667E+05 0.359E+00 0.390E+00 0.701E+05-0.100E+03-0.100E+03 0.11
1E+04 0.225E+02 0.233E+02     3 1973  304   23   30   10    8    3 0.667E+05 0.491E+03 0.498E+03 0.6
67E+05 0.900E+02 0.916E+02 0.667E+05 0.175E+01 0.173E+01 0.701E+05 0.693E-01-0.100E+03 0.111E+04 0.
225E+02 0.225E+02     3 1973  304   23   32   15    8    3 0.667E+05 0.517E+03 0.519E+03 0.667E+05 0
.515E+02 0.505E+02 0.667E+05 0.123E+01 0.110E+01 0.701E+05-0.100E+03-0.100E+03 0.111E+04 0.225E+02
0.217E+02     3 1973  304   23   34   17    8    3 0.667E+05 0.338E+03 0.343E+03 0.667E+05 0.476E+02
 0.544E+02 0.667E+05 0.762E+00 0.923E+00 0.701E+05-0.100E+03-0.100E+03 0.111E+04 0.225E+02 0.225E+0
2    3 1973  304   23   36   20    8    3 0.667E+05 0.0        0.436E+03 0.667E+05 0.0        0.464E+
02 0.667E+05 0.0        0.724E-01 0.701E+05-0.100E+03-0.100E+03 0.778E+04-0.100E+03 0.225E+02     3 1
973  304   23   38   29    8    3 0.667E+05 0.0        0.0        0.667E+05 0.0        0.0        0.667
E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.0       -0.100E+03-0.100E+03     3 1973  304
   23   42   32    8    3 0.667E+05 0.377E+03 0.379E+03 0.667E+05 0.297E+02 0.260E+02 0.583E+07 0.1
63E+01 0.142E+01 0.333E+07-0.100E+03-0.100E+03 0.111E+04-0.238E+02-0.149E+02     3 1973  304   23
44   40    8    3 0.667E+05 0.398E+03 0.412E+03 0.667E+05 0.971E+02 0.107E+03 0.667E+05 0.341E+01 0
.421E+01 0.701E+05 0.308E-01-0.100E+03 0.111E+04 0.225E+02 0.225E+02     3 1973  304   23   46   40
   8    3 0.670E+05 0.400E+03 0.426E+03 0.670E+05 0.138E+03 0.131E+03 0.670E+05 0.427E+01 0.458E+01
 0.704E+05 0.517E+00-0.100E+03 0.111E+04 0.225E+02 0.225E+02     3 1973  304   23   48   49    8
3 0.667E+05 0.403E+03 0.401E+03 0.667E+05 0.832E+02 0.837E+02 0.667E+05 0.190E+01 0.225E+01 0.701E+
05-0.100E+03-0.100E+03 0.111E+04 0.225E+02 0.217E+02     3 1973  304   23   50   55    8    3 0.667E
+05 0.398E+03 0.386E+03 0.667E+05 0.483E+02 0.812E+02 0.667E+05 0.681E+00 0.101E+01 0.701E+05 0.839
E-01-0.100E+03 0.111E+04 0.225E+02 0.225E+02     3 1973  304   23   52   55    8    3 0.667E+05 0.46
3E+03 0.434E+03 0.667E+05 0.572E+02 0.835E+02 0.667E+05 0.220E+01 0.288E+01 0.701E+05-0.100E+03-0.1
00E+03 0.111E+04 0.225E+02 0.225E+02     3 1973  304   23   54   55    8    3 0.667E+05 0.394E+03 0.
408E+03 0.567E+05 0.873E+02 0.128E+03 0.667E+05 0.206E+01 0.331E+01 0.701E+05-0.100E+03-0.100E+03 0
.111E+04 0.225E+02 0.225E+02     3 1973  305    0   11   19    8    3 0.667E+05 0.333E+03 0.325E+03
0.667E+05 0.609E+02 0.418E+02 0.667E+05 0.528E+00 0.459E+00 0.701E+05-0.100E+03-0.100E+03 0.111E+04
 0.225E+02 0.225E+02     3 1973  305    0   13   19    8    3 0.667E+05 0.0        0.0        0.667E+0
5 0.0        0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.0       -0.100E+
03-0.100E+03     3 1973  305    0   17   22    8    3 0.667E+05 0.0        0.0        0.667E+05 0.0
   0.0        0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.0       -0.100E+03-0.100
E+03     3 1973  305    0   21   29    8    3 0.667E+05 0.0        0.0        0.667E+05 0.0        0.0
       0.667E+05 0.0        0.0        0.701E+05-0.100E+03-0.100E+03 0.0       -0.100E+03-0.100E+03

 TAPE NO.   1            FILE NO.   1
 RECORD   9965           LENGTH   380
    2 1975   51   13   19   14    8    1 0.572E+08 0.439E+03 0.438E+03 0.661E+05 0.363E+02 0.351E+0
2 0.661E+05 0.127E+02 0.119E+02 0.694E+05-0.100E+03 0.878E+00 0.111E+04 0.596E+01 0.592E+01     2 19
75   51   13   20   12    8    1 0.582E+08 0.440E+03 0.438E+03 0.661E+05 0.357E+02 0.343E+02 0.661E
+05 0.129E+02 0.121E+02 0.694E+05-0.100E+03 0.148E-02 0.111E+04 0.596E+01 0.592E+01

***** JOB DONE.
$WEO LPS
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$$
$ASS IN HT1
$EXE TPNRCF BS
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PRINTED IN U.S.A.

REQ. AGENT	ACQ. AGENT
CMW	JHK

IMP-J

FINE RESOLUTION PLASMA DATA FROM MIT

73-078A-02L

This data set consists of 8 magnetic tapes. The tapes were written on 9-track, 6250 bpi, in ASCII format, and labeled. The backup "C" tape is a low density 8mm cartridge, containing all 223 files. The first 3 physical files on each "D" tapes are the README documentations. The D and C numbers and time spans are as follows:

D#	C#	FILES	LABEL	TIME SPAN
D-108257		36	FR73-5	11/04/73 - 12/30/75
D-108258		37	FR76-8	01/03/76 - 12/13/78
D-108259		24	FR7981	01/12/79 - 12/31/81
D-108260		22	FR82-4	01/01/82 - 12/31/84
D-108261		29	FR85-7	01/01/85 - 12/31/87
D-108262		32	FR8890	01/01/88 - 12/31/90
D-108263		29	FR9193	01/01/91 - 12/31/93
D-108264		14	FR9495	01/01/94 - 05/05/95
	C-032362	223	FR-IMP	11/04/73 - 05/05/95

IMP-J Fine Resolution Plasma Data from MIT

Word	Format	Definition
1	1X,I1	mode of instrument (2=tracking)
2	I5	year
3	I4	day of year (January 1 = 1)
4	I3	hour
5	I3	minute
6	I3	second
7	2X,F14.7,5X	decimal year
8	F8.2	spacecraft position in: xse
9	F8.2	" " ": yse
10	F8.2	" " ": zse
11	F8.2	" " ": ysm
12	F8.2	" " ": zsm
13	1X,F7.1*	speed (km/s)##
14	1X,F7.1*	Vx (x-component of velocity, km/s)
15	1X,F7.1*	Vy (y-component of velocity, km/s)#
16	1X,F7.1*	Vz (z-component of velocity, km/s)
17	1X,F6.1**	thermal speed (km/s)
18	1X,F6.1**	density (#/cc)
19	1X,G10.3***	E/W angle (degrees)##
20	1X,G10.3***	N/S angle (degrees ##

* if value = +/-9999., format is 1X,F7.0
** if value = +/-9999., format is 1X,F6.0
*** if value = +/-9999., format is 1X,G10.4
# aberration due to Earth's motion is removed
computed using Vx, Vz, and the aberration-corrected Vy

These data were retrieved from MIT via FTP by NSSDC. They are in files on VAX labeled tapes. The files contain ASCII records arranged in columns, with headings at the top of each file. The following notes (1-10) are taken directly from MIT's World Wide Web site.

1) These are only our 'best' parameters. A value of 9999. means that we couldn't calculate them. If you're desperate, we can give you less accurate parameters for specific times, but caveat emptor... The parameters are based on a convected, isotropic Maxwellian model.

2) We use the convention Jan. 1 = DOY 1. Please note that the decimal year is double precision, e.g. 1994.xxxxxxx where xxxxxxx is fraction of year.

3) All velocity coordinates are in GSE, meaning +x toward Sun, +z towards the North, perpendicular to the (Earth's) ecliptic, y for a right-hand system (+y in the direction opposite to Earth's motion). Everything is in km/s. Effects due to the orbital motion of Earth are removed.

4) Thermal speed is the most probable thermal speed (i.e., the square root of [2kT/m(proton)]). To convert thermal speed to temperature in eV, multiply 0.0052 by the square of the thermal speed.

[To convert to temperature in degrees Kelvin, multiply 60.5 by the square of the thermal speed - NSSDC/JHK]

5) The angles are in degrees. Azimuth is E/W, with each meaning 'from the (E/W),' while elevation is N/S with the same meaning. For signs, positive azimuth angle means flow from the W; positive elevation angle means flow from the S. If we don't get good angles, you don't get any velocity components. Fine resolution data for the speed, velocity components and angles are not available in these cases. The aberration in velocity due to Earth's motion around the Sun has been removed.

6) The spacecraft trajectory values (xse, yse, zse, ysm, zsm) are in units of Earth radii.

7) The field labeled "md" refers to the spacecraft mode and is probably unimportant to you.

8) For papers and presentations using these data, please acknowledge that you received them from the MIT Space Plasma Physics Group. Please feel free to contact us if you have questions about any parameters.

9) Please send us a copy of papers, presentations, et cetera using these data.

10) If you have any questions, please contact

Pamela A. Milligan pam@space.mit.edu Karolen I. Paularena kip@space.mit.edu Dr. Alan J. Lazarus ajl@space.mit.edu

ASCII LIST OF bt1014

D-108361
Physical File: 4

FILE 11 RECORD 1 18300 BYTES

```
0097****** Please read the AAA_README_IMP8 file in this directory before using these data! ******00040186md year doy hr min sec  de
cimal year        xse      yse      zse      ysm      zsm          speed    Vx       Vy       Vz       thermal speed    density     E/W an
gle        N/S angle  00040187 2 1985   1 13 12 55    1985.0015086        32.57   -5.04    0.97   -4.95    1.40          695.8  -685
.1   -20.2  -119.9          60.0          4.2          -1.69              -9.92    0187 2 1985   1 13 19 46    1985.0015216        32
.59   -4.97    1.01   -4.88    1.41          676.2  -663.8    1.2  -128.5          59.6          3.8          0.103          -11.
0    0187 2 1985   1 13 22 50    1985.0015275        32.60   -4.93    1.03   -4.84    1.42          710.3  -688.4   -37.9  -171.2
      62.2          4.5          -3.16              -13.9    0187 2 1985   1 13 23 49    1985.0015293        32.61   -4.92    1.04
-4.83    1.42          702.4  -690.7   -34.5  -122.8          49.6          3.7          -2.86          -10.1    0187 2 1985   1 1
3 24 51    1985.0015313        32.61   -4.91    1.04   -4.82    1.42          700.3  -687.9   -28.6  -128.1          48.7          3
.6          -2.38          -10.5    0187 2 1985   1 13 25 53    1985.0015333        32.62   -4.90    1.05   -4.81    1.42
702.2  -693.1   -30.8  -108.6          48.6          4.0          -2.55          -8.90    0187 2 1985   1 13 26 26    1985.001534
3        32.62   -4.89    1.05   -4.81    1.42          705.9  -695.3   -32.3  -117.8          55.0          3.9          -2.66
      -9.60    0187 2 1985   1 13 27 25    1985.0015362        32.62   -4.88    1.06   -4.80    1.42          709.1  -698.6   -33.9
 -116.6          59.3          4.0          -2.78              -9.47    0187 2 1985   1 13 28 25    1985.0015381        32.62   -4.87
    1.07   -4.79    1.43          687.0  -672.5   -25.8  -138.2          64.2          4.2          -2.20          -11.6    0187 2
 1985   1 13 30 23    1985.0015418        32.63   -4.85    1.08   -4.77    1.43          701.5  -688.8   -38.9  -127.1          59.8
          4.5          -3.23          -10.4    0187 2 1985   1 13 32 25    1985.0015457        32.64   -4.83    1.09   -4.74    1.
43          696.5  -688.1   -13.3  -106.8          50.6          3.5          -1.11          -8.82    0187 2 1985   1 13 33 28
1985.0015477        32.64   -4.82    1.10   -4.73    1.44          689.5  -678.5   -3.4  -123.0          55.5          4.2          -
0.290          -10.3    0187 2 1985   1 13 34 26    1985.0015495        32.65   -4.81    1.10   -4.72    1.44          702.1  -692
.7   -16.0  -113.2          50.7          3.7          -1.32              -9.28    0187 2 1985   1 13 34 58    1985.0015505        32
.65   -4.80    1.11   -4.72    1.44          785.1  -766.7   -23.8  -167.5          64.1          3.4          -1.78          -12.
3    0187 2 1985   1 13 35 32    1985.0015516        32.65   -4.79    1.11   -4.71    1.44          715.6  -698.5   -32.2  -152.3
      59.9          4.1          -2.64              -12.3    0187 2 1985   1 13 36 30    1985.0015535        32.65   -4.78    1.12
-4.70    1.44          732.2  -703.2   -34.4  -201.2          67.2          4.5          -2.80          -15.9    0187 2 1985   1 1
3 37 33    1985.0015555        32.66   -4.77    1.12   -4.69    1.45          728.0  -702.0   -30.0  -190.6          75.2          4
.7          -2.45          -15.2    0187 2 1985   1 13 38 36    1985.0015575        32.66   -4.76    1.13   -4.68    1.45
704.9  -694.3   -24.6  -119.2          51.8          3.8          -2.03          -9.73    0187 2 1985   1 13 39 34    1985.001559
3        32.67   -4.75    1.13   -4.67    1.45          718.9  -704.3   -28.4  -141.3          61.6          4.2          -2.31
      -11.3    0187 2 1985   1 13 40 37    1985.0015613        32.67   -4.74    1.14   -4.66    1.45          703.5  -691.7   -28.2
 -125.0          55.0          3.9          -2.34          -10.2    0187 2 1985   1 13 42 38    1985.0015651        32.68   -4.72
    1.15   -4.64    1.46          713.0  -698.6   -26.5  -140.3          58.6          4.0          -2.17          -11.3    0187 2
 1985   1 13 44 40    1985.0015690        32.68   -4.70    1.17   -4.62    1.46          710.3  -698.2   -29.0  -127.1          54.5
          3.9          -2.38          -10.3    0187 2 1985   1 13 45 45    1985.0015711        32.69   -4.68    1.17   -4.61    1.
46          701.6  -689.1   -26.9  -129.5          48.9          3.9          -2.23          -10.6    0187 2 1985   1 13 53 38
1985.0015861        32.72   -4.60    1.22   -4.52    1.48          721.1  -705.4   -38.5  -144.6          64.7          4.8
-3.13          -11.6    0187 2 1985   1 13 54 37    1985.0015879        32.72   -4.59    1.23   -4.51    1.48          715.4  -700
.5   -49.1  -137.1          54.0          4.4          -4.01              -11.0    0187 2 1985   1 13 55 42    1985.0015900        32
.72   -4.58    1.23   -4.50    1.48          710.5  -692.8   -36.0  -153.8          55.0          4.3          -2.97          -12.
5    0187 2 1985   1 13 56 41    1985.0015919        32.73   -4.56    1.24   -4.49    1.48          732.7  -710.4   -29.0  -177.1
      62.5          4.7          -2.34              -14.0    0187 2 1985   1 13 57 43    1985.0015938        32.73   -4.55    1.25
-4.48    1.49          742.2  -711.8   -28.9  -208.2          57.3          3.7          -2.33          -16.3    0187 2 1985   1 1
3 58 44    1985.0015958        32.74   -4.54    1.25   -4.47    1.49          717.8  -701.2   -38.7  -148.9          53.0          4
.1          -3.16          -12.0    0187 2 1985   1 14  0 45    1985.0015996        32.74   -4.52    1.27   -4.45    1.49
730.6  -709.7   -40.6  -168.5          74.6          5.0          -3.28          -13.3    0187 2 1985   1 14  1 46    1985.001601
5        32.75   -4.51    1.27   -4.44    1.49          731.0  -704.8   -31.2  -191.2          72.6          4.5          -2.53
      -15.2    0187 2 1985   1 14  2 46    1985.0016034        32.75   -4.50    1.28   -4.43    1.50          719.6  -703.0   -22.0
 -152.3          65.9          4.2          -1.79              -12.2    0187 2 1985   1 14  3 45    1985.0016053        32.75   -4.49
    1.28   -4.42    1.50          714.1  -699.1   -36.2  -140.6          52.5          4.1          -2.97          -11.4    0187 2
 1985   1 14  6 52    1985.0016112        32.76   -4.45    1.30   -4.39    1.51          738.8  -721.0   -30.6  -158.0          71.0
          4.8          -2.43          -12.4    0187 2 1985   1 14  7 52    1985.0016131        32.77   -4.44    1.31   -4.38    1.
51          744.2  -722.7   -33.9  -174.4          72.8          4.9          -2.69          -13.6    0187 2 1985   1 14  8 51
1985.0016150        32.77   -4.43    1.31   -4.37    1.51          726.8  -708.4   -39.9  -157.5          69.0          4.8
-3.23          -12.5    0187 2 1985   1 14  9 51    1985.0016169        32.77   -4.42    1.32   -4.36    1.51          731.5  -705
.7   -43.4  -187.5          62.1          4.4          -3.52              -14.8    0187 2 1985   1 14 11 25    1985.0016199        32
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1985.0016524 32.84 -4.22 1.43 -4.18 1.56 689.3 -674.8 -25.5 -138.4 71.7 4.5
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