

#348

PIONEER 8

67-123A-01C

HOURLY AVERAGED VECTORS ON TAPE

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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC
INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents To find associated documents you will need to know the document ID number and then click here.
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

PIONEER 7

PIONEER 8

HR. AVG. PLASMA PARAMETERS

HOURLY AVERAGED VECTORS ON TAPE

66-075A-03C SPHE-00127

67-123A-01C SPHE-00125

THESE DATA SETS HAVE BEEN RESTORED. THE ORIGINAL TAPES WERE 9-TRACK, 800 BPI AND 1600 BPI. THE TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR02871	DS02871	D06364	1	08/19/66 - 11/28/66 (PI07)
		D23793	2	12/17/67 - 12/30/69 (PI08)

REQ. AGENT
WTJ

RAND NO.
RC6223

ACQ. AGENT
JHK

PIONEER 8

HOURLY AVERAGED VECTORS ON TAPE

67-123A-01C

These data are contained on 1 9-track, 1600 BPI, single file, Binary magnetic tape generated on an IBM 360 computer.

Each physical record contains the hourly averages for one day, the record length 'L' is variable, $L=N*14+3$ where 'N' is the number of hourly averages in the day. The first three words of each physical record are the year, month and day, the remaining words are stored in a Matrix $14 \times N$ where each column of 14 words contains all the information for one hourly average. All these quantities are in a solar-ecliptic frame fo reference (X_{se} toward the sun) centered on the spacecraft. All field quantities are given in units of gammas.

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-23793	C-17909	12/17/67 - 12/30/69

<u>WORDS</u>	<u>DESCRIPTION</u>	<u>FORMAT</u>
1	Year	I
2	Month	I
3	Day	I
4	Hour (starting time) of the 1st average of the day	I
5	Number of 30 sec. averages in this hour	I
6	Number of individual data points in this hour	I
7	Hourly average of the X component of the magnetic field (spacecraft centered solar ecliptic coordinates)	F
8	Hourly average of the Y component of the magnetic field	F
9	Hourly average of the Z component of the magnetic field	F
10	Hourly average of individual magnetic field intensity	F
11	Standard deviation for X component	F
12	Standard deviation for Y component	F
13	Standard deviation for Z component	F
14	Hourly average of standard deviation δX of X component for 30 sec. averages	F
15	Hourly average of standard deviation δY of Y component for 30 sec. averages	F
16	Hourly average of standard deviation δZ of Z component for 30 sec. averages	F
17	Hourly average of $\{\delta X^2 + \delta Y^2 + \delta Z^2\}^{1/2}$	F
18-31	Same as 4-17, for 2nd average of day	
32-45	Same as 4-17, for 3rd average of day	
ETC		

12/17/67 - 12/30/69

ACTION / CR / SET QUALITY ASSIGNED TO TAPE FOR HEXDUMP 17:42:17
 ACTION / CR / ASSIGNED SI FOR DATA INPUT 17:47:25
 DATA INPUT 1 5

LINE	ADDRESS	LENGTH	NO BYTES	ADDRESS	LENGTH	NO BYTES	ADDRESS	LENGTH	NO BYTES
1	00007AF	000000C	00000011	000000A	0000007	00000AD	43F070A	417051E	C1659999
2	41172AF	41E147AE	4EE33533	40E4507A	40970A3B	408A7AE1	411FA5D7	0000000B	0000007E
3	41309999	41759999	C150472A	41A4142A	4117851E	408A51EB	4117AE14	40733333	40947AE1
4	41100000	00000000	0000007E	00000AF4	4142147A	415D70A5	C170E666	0000007E	0000007E
5	41720A3D	40A4A307E	40D270A3D	409C2E65	4118E65C	0000007E	0000007E	0000007E	40999999
6	4137AE14	4195E6B5	4112E6B5	40E6270A5	4117AE11	40999999	4075C28F	4170A3D7	417E0A3D
7	0000007E	00000AAC	418A43D7	41811EB8	3F2EF5C2	41E8AE14	409270A3D	41199999	40A3D70A
8	40999999	41A472AE	4118AE14	40E6B851	4191E6B5	407851EB	41842E65	41819999	41970A3
9	40F5C28F	414142AE	418D1EB8	40851EB8	419E0000	4118E61F	4132E666	00000010	0000007E
10	4157D70A	42E6E851	4091E6B5	4111C28F	40E40012	0000007E	40A8F5C2	4111EB8	00000015
11	412051EB	419C00C	412800C	417A5B7	47A651E	4124F5C2	41475C28	41599999	4123AE14
12	0000007E	00000AFB	4191E6B5	417A5B7	47A651E	4124F5C2	41475C28	41599999	4123AE14
13	411001E	41153533	41375533	40E5C28F	407EAE14	4136A851	41E1C28F	40E5C28F	417A147A
14	417E5533	4146A851	C1175C28	41A0A892	40C000C	419891EB	419891EB	419891EB	419891EB
15	41102E65	000001C	0000007E	0000007E	417451EB	414995C2	C1582E65	41A00000	4082E65C
16	40D70A3B	40927AE11	407AE147	40E451EB	0000007E	0000007E	0000007E	0000007E	41019999
17	013A89D1	4102E65C	40E6B851	41379999	411E0000	407B70A5	4091EB85	40E51EB	413CA5D7
18	00007AF	000000C	00000012	00000000	0000007E	00000AF4	41651EB8	4144F5C2	C145851E
19	4118EB77	4112E65C	412E685C	41999999	41E870A3D	411FC00C	0000007E	0000007E	0000007E
20	4117AE14	411A4EB8	41A2E65C	419A4F5C	4121E65C	412E685C	40E2E65C	40E2E65C	40E2E65C
21	41570A3	407B7AE1	408A5B70	412047AE	40A99999	0000007E	4153D70A	41291EB8	41291EB8
22	41570A3	407B7AE1	408A5B70	412047AE	40A99999	0000007E	4153D70A	41291EB8	41291EB8
23	4110A47A	4147E6B5	4153E6B5	41949999	415947AE	4091EB8	4091EB8	4091EB8	4091EB8
24	0000007E	00000AF4	412A56C2	C11CF5C2	41724F5C2	41A55C28	411A8E51	417A6666	407D70A3
25	409C2E65	40A5D70A	41111EB8	00000005	0000007E	00000AFB	412E6851	409E6B51	414A51EB
26	4116F5C2	41747AE1	4137E666	40E2E65C	40A4897E	411F5099	0000007E	0000007E	0000007E
27	411E6A5B	40E147AE	4138E666	410A45B7	42C91EB8	41075353	4116E147	4112E666	4112E666
28	4134F5C2	40E8E70A5	40E851EB	40F851EB	4117D70A	0000000C	C10A5B7	4210E666	412CA5D7
29	4137E666	4197E651E	417A51EB	41E270A5	42139999	412E6851	41211EB8	413C2E65	00000009
30	40A686B5	40F5F5C2	419E6B51	4210051E	42139999	4138AE14	411F0A3D	413451EB	4117AE11
31	4112D72A	41194000A	4113E6B5	40E4000A	4075C28F	413451EB	40C8F5C2	42135EB8	42174000
32	C215E6B5	4137AE14	413E147A	421747AE	4134C00C	41719999	4114F5C2	411AE147	411AE147
33	412C7AE1	000000C	0000007E	0000007E	0000007E	40E5147A	414451EB	421887AE	411ABE51
34	412E685C	4110A3B7	40E670A5	40E55353	4117AE11	0000007E	0000007E	0000007E	0000007E
35	L15301E6	42192147	40E4E147	41100000	41299999	40E4A3D7	4116E851	4116E851	000000DE
36	0000007E	00000AF5	C1FA007E	414451EB	C17CA5D7	4212A3D7	4142E666	415A147A	415A147A
37	40F0A8D7	411114E6	41189999	0000000F	0000007E	00000AF4	C1E11EB8	41811EB8	41811EB8
38	413C81EB	413E48E6	41AE6B51	411C51EB	417EBE51	41359999	0000007E	0000007E	0000007E
39	C212E666	417C51EB	C141307	421941EB	415E6A5B	41283E65	0000007E	0000007E	0000007E
40	4133E651	0000007E	00000AFB	00000AFB	C1E65C28	4172D70A	4188A3D7	41FD70A3	412E23D7
41	4110000	4110000	40C70A74	00000AFB	0000007E	0000007E	0000007E	0000007E	0000007E
42	C1E70A3	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
43	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
44	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
45	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
46	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
47	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
48	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
49	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
50	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
51	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
52	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
53	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
54	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
55	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
56	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
57	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
58	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
59	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E
60	4108000	41E630E1	417AE147	41979999	414970A3	40E40012	0000007E	0000007E	0000007E

FILE	# OF DATA RECORDS	# OF UNDEFINED RECORDS	# OF UNDEFINED ERRORS	# OF UNDEFINED RECORDS	# OF UNDEFINED ERRORS	# OF UNDEFINED RECORDS	# OF UNDEFINED ERRORS	# OF UNDEFINED RECORDS	# OF UNDEFINED ERRORS	# OF UNDEFINED RECORDS	# OF UNDEFINED ERRORS
720)	40E1147A	4144CCCC	40400000	40947AE1	409C28F5	40A9851E	403D70A3	403D70A3	403D70A3	403D70A3	403D70A3
730)	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1	40937AE1
740)	4040CCCC	40133333	40951E92	4051D051	40451E96	40647AE1	40999999	00000017	00000017	0000003C	0000007C
750)	41307AE1	4113AE14	411C85C2	41405B70	404A5B70	40835353	40999999	400E147A	403AE1147	404AF5C28	

SECTION 7 (PCP) PLEASE UNLOAD TAPE FOR HEADLINE 17:47:57
 9109 L)

```

0001 DIMENSION MAT(14,24),CAT(14,24),IV(39)
0002 EQUIVALENCE (MAT,DAT),(IV(4),MAT(1,1))
0003 FORMAT(/,5X,110)
0004 1001 FORMAT(1X318,1E5,1)
0005 1002 FORMAT(/, ENCL OF FILE*,10X,1RECORDS ARE*,15)
0006 NREC=0
0007 NE=14CC
0008 CALL LAM102(1,IV,NR,IEOF,4)
0009 IF(IEOF)2,3,2
0010 WRITE(3,1CC2)NREC
0011 CALL EXIT
0012 NREC=NREC+1
0013 IF(NREC.GT.20.AND.NREC.LT.674)GO TO 1
0014 MED=(NR/4-3)/14
0015 WRITE(3,1000) (IV(I),I=1,3)
0016 DO 4 K=1,MED
0017 WRITE(3,1001)(MAT(I,K),I=1,3),(DAT(J,K),J=4,14)
0018 GO TO 1
0019 END
    
```

reads the record
in output gives the record length in bytes

Each record contains the hourly averages for one day. The record length L is variable; $L = N * 14 + 3$, where N is the number of hourly averages in the day.

The first three words of the record (IV(1), IV(2), IV(3)) give respectively the year, the month, the day. The remaining words are stored in a matrix $14 \times N$, where each column of 14 words contains all the information for one hourly average, with the following meaning:

- 1) MAT(1,K) - hour (starting time) of the K -th average
- 2) MAT(2,K) - number of 30-sec. averages in this hour
- 3) MAT(3,K) - number of individual data points
- 4) DAT(4,K) - hourly average of X component of the magnetic field
- 5) DAT(5,K) - " " " "
- 6) DAT(6,K) - " " " "
- 7) DAT(7,K) - " " " "
- 8) DAT(8,K) - standard deviation for X component
- 9) DAT(9,K) - " " " "
- 10) DAT(10,K) - " " " "
- 11) DAT(11,K) - " " " "
- 12) DAT(12,K) - " " " "
- 13) DAT(13,K) - " " " "
- 14) DAT(14,K) - " " " "

Hourly average of standard deviation δX of X component for 30-sec. averages

" " of $\sqrt{\delta X^2 + \delta Y^2 + \delta Z^2}$

All these quantities are in a solar-elytic frame of reference (X_{SE} toward the Sun), centered on the spacecraft.

18	85	176	-3.0	3.1	4.5	7.4	1.3	2.1	2.0	0.4	0.2	0.4	0.8
19	120	255	-0.1	-0.5	1.3	5.8	3.6	3.9	2.5	0.4	0.4	0.4	0.8
20	58	123	3.6	-1.3	3.9	7.4	2.3	3.4	3.1	0.5	0.4	0.4	0.8
	1969												
4	102	12	-4.7	4.4	4.5	8.5	1.1	1.9	2.3	0.5	0.5	0.5	0.9
5	95	175	-3.4	4.6	2.8	7.8	1.2	2.0	3.5	0.4	0.5	0.5	0.9
6	111	181	-4.9	3.6	2.8	7.5	1.4	1.7	2.5	0.5	0.5	0.5	0.9
7	115	221	-3.6	1.3	-4.2	6.6	2.0	2.0	1.8	0.5	0.5	0.5	0.9
8	118	236	-0.2	7.5	3.0	9.6	2.8	2.5	3.6	0.4	0.6	0.5	0.9
9	84	243	-3.9	5.7	-C.8	8.3	2.6	3.5	1.5	0.4	0.5	0.5	0.8
10	117	159	-2.1	4.0	1.6	7.1	1.7	2.4	2.6	0.5	0.5	0.5	0.9
11	112	220	-6.4	-C.6	4.7	6.6	1.3	3.0	1.8	0.4	0.5	0.5	0.9
12	87	169	-6.2	2.0	0.7	6.9	0.4	1.2	0.9	0.5	0.4	0.4	0.7
13	81	169	-5.2	4.0	-1.2	7.6	0.3	0.9	0.6	0.5	0.4	0.3	0.8
14	120	253	-4.6	1.7	-0.5	5.7	0.5	1.2	0.7	0.5	0.3	0.2	0.5
15	120	255	-4.6	0.8	0.7	4.7	0.1	0.5	0.3	0.4	0.2	0.2	0.5
16	53	248	-4.0	C.6	C.9	4.4	0.3	0.7	0.3	0.4	0.2	0.2	C.5
17	110	110	-3.6	1.0	0.9	4.3	0.3	0.6	0.6	0.4	0.2	0.2	C.3
18	111	235	-3.2	C.5	1.6	4.3	0.3	1.1	0.4	0.4	0.2	0.2	C.3
19	120	251	-3.8	C.5	2.5	4.3	0.3	0.9	0.5	0.4	0.3	0.3	C.3
20	60	124	1.2	1.2	1.8	4.4	0.3	0.2	0.3	0.4	0.2	0.2	0.6

END OF FILE RECORDS ARE 654