

Corrected 11/27/20 Y.I. Won

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Mariner 5 Hourly Averaged Proton Plasma Parameters

Data format description for Interplanetary Ion Plasma Probe 1-h Plasma Parameters merged with Triaxial low-field Magnetometer Field Vectors

NSSDC Data Set ID: PSFP-00023
 Old NSSDC ID: 67-060A-030B

There is only one file in this data set, dr004825_f00001.phys.reformatted.txt:

File format : Fixed-width, ASCII text
 Total file size : 942,420 bytes
 Record count : 2780
 Record length : 339 bytes (338 bytes plus a one-byte line-feed character as the record terminator)
 Items (fields) per record: 35
 Zero-based starting byte of each field in a record: 0, 4, 8, 12, 24, 34, 44, 54, 64, 74, 84, 94, 104, 114, 124, 134, 144, 154, 164, 174, 184, 194, 204, 214, 224, 234, 244, 254, 264, 274, 284, 288, 302, 316, 330

The physical record format is "3I4, 28(E10.2), I4, 3E14.6", which is also the recommended print format. Data values in all fields are right justified. The following table describes the contents of each field.

ITEM	Description	Format	Units	Notes
1	Year	I4	year	
2	Day of year	I4	days	January 1 = 1
3	Hour of day	I4	hours	0-23
4	Proton bulk speed	E10.2	km/h	
5*	standard deviation of 4	E10.2	km/h	
6	Proton number density	E10.2	/cc	
8	Most probable thermal speed	E10.2	km/sec	
10	Flow angles in Solar Ecliptic frame (EW)	E10.2	degrees	Positive indicates flows coming from West of the Sun
12	Flow angles out of Solar Ecliptic frame (NS)	E10.2	degrees	Positive indicates flows coming from North of the Sun
14	Transverse velocity (VT) in Solar Equatorial frame	E10.2	km/sec	
16	Transverse velocity (VN) in Solar Equatorial frame	E10.2	km/sec	
18	Flux	E10.2	km/sec/cc	Bulk speed x Number density
20	Magnetic field component BR in ecliptic Coord	E10.2	nT	
22	Magnetic field component BT in ecliptic Coord	E10.2	nT	
24	Magnetic field component BN in ecliptic Coord	E10.2	nT	
26	Magnetic field magnitude	E10.2	nT	
28	Magnetic field component BT in equatorial Coord	E10.2	nT	
30	Magnetic field component BN in equatorial Coord	E10.2	nT	
32	Number of observations in the one hour interval	I4		
33	Spacecraft X coordinate in solar ecliptic frame (XSE)	E14.6	km	
34	Spacecraft Y coordinate in solar ecliptic frame (YSE)	E14.6	km	
35	Spacecraft Z coordinate in solar ecliptic frame (ZSE)	E14.6	km	

- * Odd-numbered items (fields) from 5 to 31 are the standard deviations for each even-numbered item from 4 to 30. Each standard deviation has the same unit as its even-numbered item.
- ** For solar ecliptic frame, the origin is at the sun, XSE points at the vernal equinox, ZSE points along the ecliptic north pole, and YSE completes the right-handed coordinate system.