

STEREO IMPACT Beacon Mode Telemetry
2001-11-7, REV3

Instrument	Measurement	Samples	Bytes / Time Res,		bps	Normal bps	Share of Beacon
			minute	sec			
SEP-SIT	He, 8E	8	8	60	1.07	240	5.76
	CNO, 8E	8	8	60	1.07		
	Fe, 8E	8	8	60	1.07		
SEP-SEPT	Electrons, 2 dir, 8E	16	16	60	2.13	60	1.44
	Ions, 2 dir, 8E	16	16	60	2.13		
SEP-LET	Protons, 2 dir, 8E	16	16	60	2.13	320	7.69
	He, 2 dir, 8E	16	16	60	2.13		
	CNO, 2 dir, 8E	16	16	60	2.13		
	Fe, 2 dir, 8E	16	16	60	2.13		
SEP-HET	Electrons, 8E	8	8	60	1.07	120	2.88
	Protons, 8E	8	8	60	1.07		
	He, 8E	8	8	60	1.07		
MAG	Vectors	3	36	10	4.80	192	4.61
STE	2 dir, 8E	16	16	60	2.13	64	1.54
SWEA	Moments	13	26	60	3.47	394	9.46
	PAD, 2E * 12 dir	24	24	60	3.20		
Instrument Status			15	60	2.00	36	0.86
Packet Overhead			11	60	1.47	84	2.02
Total		200	272		36.27	1510	36.27
One packet (272 bytes) per minute			272		36.27 bps		

Obsolete

SEP Beacon Data

11.30.01
ram

SEP Sensor	Species	(MeV or MeV/nuc		Geometry	Number of Directions	bps	Notes	
		E1	E2	Factor (cm2sr)				
SIT	He	0.02	0.04	0.3	1	0.27		
		0.08	0.16	0.3	1	0.27		
		0.32	0.64	0.3	1	0.27		
		1.29	2.56	0.3	1	0.27		
	CNO	0.02	0.04	0.3	1	0.27		
		0.08	0.16	0.3	1	0.27		
		0.32	0.64	0.3	1	0.27		
		1.29	2.56	0.3	1	0.27		
	Fe	0.02	0.04	0.3	1	0.27		
		0.08	0.16	0.3	1	0.27		
		0.32	0.64	0.3	1	0.27		
		1.29	2.56	0.3	1	0.27		
	Sum SIT						3.20	
SEPT	Electrons	0.02	0.05	0.2	4 separate	1.07	Anisotropy data for highest and lowest energies	
		0.05	0.1	0.2	4 summed	0.27		
		0.1	0.2	0.2	4 summed	0.27		
		0.2	0.4	0.2	4 separate	1.07		
	Ions (mostly protons)	0.02	0.1	0.24	4 separate	1.07		
		0.1	0.5	0.24	4 summed	0.27		
		0.5	2.5	0.24	4 summed	0.27		
	SEPT Status (1 bit/channel; 20 channels)		2.5	7	0.24	4 separate	1.07	
	Sum SEPT						5.87	bit1=>abnormal or overflow
	LET	Protons	1.4	3	4.5	2	0.53	front/back
3			6	4.5	1	0.27		
Helium		1.7	3	4.5	2	0.53	front/back	
		3	6	4.5	1	0.27		
3He		6	13	4.5	2	0.53	front/back	
		1.7	3.3	4.5	1	0.27		
CNO		3.3	13	4.5	1	0.27		
		3	6	4.5	1	0.27		
Fe		6	13	4.5	1	0.27		
		13	30	4.5	1	0.27		
		3	6	4.5	1	0.27		
		6	13	4.5	1	0.27		
Livetime H/He-Effic Z-Effic L1A-th L1B-th L2L2th		13	30	4.5	1	0.27		
		30	50	4.5	1	0.27		
							0.27	Livetime Counter
							0.27	Fraction of livetime (<1.0)
					0.27	" " " "		
					0.27	Lo/Hi thresholds, 15 detecto		
					0.27	Lo/Hi thresholds, 15 detecto		
					0.27	Lo/Hi thresholds, 12 detecto		
Sum LET						6.13		

SEP Sensor	Species	(MeV or MeV/nuc		Geometry	Number of Directions	bps	Notes	
		E1	E2	Factor (cm2sr)				
HET	Electrons	1	4	0.5	1	0.27		
		Protons	13	20	0.7	1	0.27	
			20	40	0.7	1	0.27	
	He	50	100	0.7	1	0.27		
		13	20	0.7	1	0.27		
		20	40	0.7	1	0.27		
	CNO	50	100	0.7	1	0.27		
		30	50	0.7	1	0.27		
		50	100	0.7	1	0.27		
	Fe	50	100	0.7	1	0.27		
							0.27	Livetime Counter
					0.27	stopping particles		

Pen. Effic.
HET status

0.27 penetrating particles
0.27 miscellaneous status bits
Sum HET

SEP Status

SIT/SEPT/LET/HET status
SEP Total DWC allocation