

IMPACT LET Beacon Packet

APID 24Dh (589 decimal)

NOTE: Byte order here is as the packet is created in SEP-Central. GSEs may see swapped byte-pairs depending on the byte-order of transmission from SEP-Central to the GSE.

2/19+14/2004 Version B

Module	Item	Length (bytes)	Description
Primary header.			
SYSTEM	0 0 0 0 1 0 1 0	1	Version=000, Type=0, Secondary Header=1, 11-bit APID = 24Dh
SYSTEM	0 1 0 0 1 1 0 1	1	LSB of APID
SYSTEM	1 1 c c c c c c	1	Packet Sequence Control. 11 indicates no grouping
SYSTEM	c c c c c c c c	1	14-bit APID source sequence count = 'c' - counts each APID separately.
SYSTEM	0 0 0 0 0 0 0 1	1	Application Data Field length (less 1) = 265 decimal
SYSTEM	0 0 0 0 1 0 0 1	1	
Secondary Header			
SYSTEM	Clock 0 (MSB)	1	Time stamp of the start of the accumulation interval for the beacon data
SYSTEM	Clock 1	1	
SYSTEM	Clock 2	1	
SYSTEM	Clock 3 (LSB)	1	
SYSTEM	Subsecs	1	
LET Beacon rates - 16-bit compressed per STEREO-CIT-003.9			
LET	H-1.8 (MSB)	1	Protons, 1.8 - 3.0 MeV (MSB)
LET	H-1.8 (LSB)	1	Protons, 1.8 - 3.0 MeV (LSB) (other 2-byte items below follow same byte order)
LET	H-3-A	2	Protons, A-side, 3.0 - 6.0 MeV/nuc.
LET	H-3-B	2	Protons, B-side, 3.0 - 6.0 MeV/nuc.
	H-6	2	Protons, 6 - 12 MeV
LET	4He-1.8	2	4He, 1.8 - 3.0 MeV/nuc.
LET	4He-3-A	2	4He, A-Side, 3.0 - 6.0 MeV/nuc.
LET	4He-3-B	2	4He, B-Side, 3.0 - 6.0 MeV/nuc.
LET	4He-6-A	2	4He, A-Side, 6.0 - 12 MeV/nuc.
LET	4He-6-B	2	4He, B-Side, 6.0 - 12 MeV/nuc.
LET	3He-1.8	2	3He, 1.8 - 3.0 MeV/nuc.
LET	3He-3	2	3He, 3.0 - 12 MeV/nuc.
LET	CNO-3	2	CNO, 3.0 - 6.0 MeV/nuc.
LET	CNO-6	2	CNO, 6.0 - 12 MeV/nuc.
LET	CNO-12	2	CNO, 12 - 27 MeV/nuc.
LET	Fe-3	2	Fe, 3.0 - 6.0 MeV/nuc.
LET	Fe-6	2	Fe, 6.0 - 12 MeV/nuc.
LET	Fe-12	2	Fe, 12 - 27 MeV/nuc.
LET	Fe-27	2	Fe, 27 - 52 MeV/nuc.
LET Beacon livetime, efficiency, thresholds			
LET	Livetime	2	Front-end Electronics Livetime counter (scaled from 24 to 16 bits per STEREO-CIT-003.9)
LET	Trigger Rate	2	16-bit compressed
LET	Hazard Rate	2	16-bit compressed
LET	Accepted Event Rate	2	16-bit compressed - (with or without PHA data? - TBR)
LET	Mode bits	2	TBR - dynamic threshold mode, other relevant status info
46 Total bytes for LET Beacon data			
LET	Spare	214	Unused space in packet
LET	Checksum byte	1	Sum of all 272 bytes should equal zero
		272	Total Length of the Packet