TABLE 1. Serial Telemetry Packet Format

Req	Word #	Field Name	Description
1-1	Word 0	Start of ACIS Telemetry Packet Indicator	This item starts each packet and is used to locate packets within the Science Frame telemetry stream. This value must be different from any hardware generated or spacecraft generated fill patterns and unlikely to appear within the science data. The value of this field in hexadecimal is 0x0736f4166 (“soAf”).
1-2	Word 1 Bits 0..9	Packet Data Count	This item describes the total number of 32-bit values contained in the packet, including the “Start of Packet indicator.” The minimum length of an ACIS telemetry packet is 2 long words (8 bytes). The maximum length of an ACIS telemetry packet is 1023 long words (i.e. 4092 bytes).
1-3	Word 1 Bits 10..15	Format Tag	This item identifies the format of the data contained within the packet. This field supports up to 64 formats.
1-4	Word 1 Bits 16..31	Sequence Number	This field identifies the packet emitted by the ACIS Science Instrument Software. This field wraps once every 65,536 packets. When combined with the Science Frame time-stamp, this value uniquely identifies each telemetry packet produced by the ACIS Science Instrument Software.This field allows the ground to determine the number of ACIS packets lost due to a telemetry drop-out condition.
1-5	Words 2 - (Packet Data Count - 1)	Data	This area contains the bulk of the packet’s data. The content and format of this data is identified by the Format Tag field described above.