4.19_V2.0 RADIATION BELT ENTRY PROCEDURE

Last Revised: June 29, 1999
Filename: radbelt_entry

BRIEF FUNCTIONAL DESCRIPTION:

This procedure is intended to be used during the normal science mission to prepare the ACIS instrument for passage through the radiation belts. It is expected that the previous science run will have been halted by a "Stop Science" command included in the daily command load and scheduled at the appropriate time by the OFLS SW. Nevertheless, since it is no harm to the instrument to send this command twice, this command is sent again in this procedure. After that the video board power is turned off to protect some radiation sensitive components.

The sequence of actions will be:

1. issue a Stop Science Run command
2. turn off the video board power

ASSUMED INSTRUMENT STATE:

Assumes the instrument is on and has just completed a science run.

SPECIAL INITIAL CONDITIONS:

None.

OPERATIONAL CONSTRAINTS/CAUTIONS:

CARD ACIS-R-007

REFERENCES:

CHANGE HISTORY:

V1.2

- added commandEcho for all SW command packets
- added dumpSysConfig command in step 2.2

V2.0

- ACIS Team signed-off version
- fixed typo in "Assumed Instrument State"

Table 1: **Radiation Belt Entry Procedure**

Step #	Title (Revision 4.19_V2.0)	Time Req (m)	Command Description	Command Mnemonic	Telemetry Description	Telemetry Mnemonic	Expected Value	Units
1.0	Send redundant stop science run cmd							
1.1	send stop science	0.1	stopScience	AA00000000				
2.0	Turn off the video boards							
2.1	Power off video boards	1	changeConfigSetting	WSVIDALLDN				
2.2	dump system config.	0.1	dumpSysConfig	RS_0000001				
	Total Time	1.2						

Table 2: (CONT) **Radiation Belt Entry Procedure**

Step #	Telemetry EGSE	Other Verifier	Crit	Description	Notes	RT Con	Tlm Fmt	Min Alt	SIM Pos
1.0									
1.1	Check cmdResult = 1			commandEcho 1539			1or2	60k	
2.0									
2.1	Check cmdResult == OK commandEcho 1541		A				1or2	60k	
2.2	Check cmdResult == OK commandEcho 66		B				1or2		