CHANDRA COMMAND ACTION PROCEDURE

CAP #652:
DATE: 12 September 2000

ORIGINATOR: Yousaf Butt
COMMANDS CHECKED BY: Grant, Buehler
Time of CAP Execution (GMT): 2000:259:19:40

DESCRIPTION/RATIONALE

This CAP executes the tenth r/t test of the not-so-new "Squeegy" mode, now on the I0 CCD in raw mode. The plan is for just one science run:

- I0 16 row full-frame RAW mode Squeegy, 24 row exclude window, 24 initial frame flushes

There is no need to re-load a new 2D-window block at the conclusion of the science run since the last one used by the OFLS is W20004A014 at 2000:257:04:00, identical to the one used here.

This test will be attempted during the 10ks period overlapping a CTI measurement on the inbound leg of the orbit. The FOT MPers have removed the commands to execute the normal ACIS CTI measurement from the load except for the OBSID update to 61923 at 2000:259:17:06 and the stopScience command at 2000:259:22:42.

The exact start time of the first science run depends on the focal plane temperature and the radiation environment. We expect COM at 259:19:40 and the OBSID update occurs at 2000:259:17:06. The beginning of the pass could be used to quickly dump the SSR and uplink the loads. We hope to begin the first science run as soon as possible after 249:19:40 IF conditions allow.

**NOTE: IF COMM IS AVAILABLE AS EARLY AS 259:17:06 WE COULD USE THE EXTRA SCIENCE TIME ALSO, SINCE SIM IS TRANSLATED 2HRS EARLY TO HRC-S IN THE RAD RECOVERY LOAD.

RESTRICTIONS/WARNINGS/NOTES/SCHEDULE REQT:

This commanding will be interleaved upon the daily load. There should be no potential conflicts except with ACIS (see discussion above), but the operators should be cognizant and soigné nevertheless. The ACIS commanding should begin as soon as the focal plane temperature and radiation environment permit. The science run will be stopped by a stopScience from the daily load at 259:22:42.

STEP	INSTRUCTIONS (Command/Script)	RESPONSE (TLM Verifier)
1	Uplink Loads:	
	1A_WS007_164.CLD	7021872
	1A_WS044_200.CLD	6035D1F
	1A_XB003_201.CLD	C17187F
	1A_XB001_251.CLD	A0E1874
	1A_WB00C_134.CLD	E5B0858
	1A_WB009_133.CLD	7F9FFE4
	1A_WB017_135.CLD	5E6F6F0
	1A_WB00E_155.CLD	52E8479
	1A_WT05E_136.CLD	C6612E6
	1A_W2016_161.CLD	EE8E4C1
	1A_XT000_190.CLD	C421014

	1A_RS000_207.CLD	4022412
	1A_RH000_151.CLD	601EE12
	1A_AA000_191.CLD	502066E
	1A_RYFI0_211.CLD	7023EE7
	1A_RZFI0_217.CLD	80245E7
2	ACIS alerts OC when FP temperature and EPHIN rates are appropriate to start the first run ($\sim 259:19:50$).	
3	At 259:17:06 daily load ALREADY changed OBSID to 61923 *BUT CHECK*	
4	Enable and Activate SCS 164	WSVIDALLDN (cmdId = 1541)
5	Enable and Activate SCS 200	WSPOW0013F (cmdId = 2980)
6	Enable and Activate SCS 201	executeBep, XB1SLOMOI0 (cmd ID = 2978)
7	Enable and Activate SCS 251	executeBep, XB1SLOMO03 (cmd ID = 2160)
8	Enable and Activate SCS 134	writeBep, WB00SQUEG3 (cmdId = 2967)
9	Enable and Activate SCS 133	writeBep, WB00SQUEG2 (cmdId = 2892)
10	Enable and Activate SCS 135	writeBep, WBTSTSQG1A (cmdId = 3225)
11	Enable and Activate SCS 155	writeBep, WB24_FLUSH (cmdId = 2971)
12	Enable and Activate SCS 136	loadTeBlock, WT003AF014 (cmdId = 3222)
13	Enable and Activate SCS 161	load2dBlock, W20004A014 (cmdId = 3183)
14	Enable and Activate SCS 190	startScience (cmdId = 58)
15	If execution fails (immediate *scienceReport* with abnormal *terminationCode*), skip to step 24.	
16	Enable and Activate SCS 207	bepReadReply/Config (cmdId = 66)
17	Enable and Activate SCS 151	bepReadReply/Huffman (cmdId = 68)
18	ACIS confirms receipt of bias and data	dataTeBiasMap (cmdId = *any*)
19	ACIS confirms *fepTimestamp* increment of 0x528e0 (338144 decimal) per exposure	exposureTeFaint (cmdId = *any*)
20	collect data for $\sim$ 10.0ks	
21	However, on bad data, skip IMMEDIATELY to step 22 - no particular need to rouse FD	
22	Enable and Activate SCS 191	stopScience (cmdId = 1539)
23	ACIS confirms normal completion of science run	
24	Enable and Activate SCS 211	readPram (cmdId = 1613)
25	ACIS confirms receipt of PRAM dump	
26	Enable and Activate SCS 217	readSram (cmdId = 1602)
27	ACIS confirms receipt of SRAM dump	
28	Clear and Disable SCSs 164, 200, 201, 251, 134, 133, 135, 155, 136, 161, 190, 207, 151, 191, 211, 217	
29	Wait for Stop-Science from load at 259:22:42	

Approved:

Subsystem Engineer: Flight Director:

TST Manager/Lead: Program Manager:

SOT Lead: