AXAF COMMAND ACTION PROCEDURE

CAP #596:
DATE: 28 April 2000

ORIGINATOR: Plucinsky
COMMANDS CHECKED BY:
Time of CAP Execution (GMT): 2000:122:20:45

DESCRIPTION/RATIONALE

This CAP executes the third test of the new "Squeegy" mode on the S0 CCD. This CAP will execute only one science run. This run will clock the CCDs in "raw" mode (telemeter every pixel, not just the ones with X-ray events) using the new Squeegy clocking.

This test will be attempted during the 10ks period overlapping what is normally a CTI measurement on the out bound leg of the orbit. The FOT MPers have removed the commands to execute the normal ACIS CTI measurement and the OBSID update. There should be no conflict with the daily load therefore. However, the ACIS commanding in this CAP should cease before 23:19 when the daily load starts sending commands for the next ACIS science run.

We do expect the focal plane temperature to be at -120 C at the beginning of the pass at 122:20:45, since this is the first perigee passage in which the spacecraft will maneuver to a constant attitude which keeps the ACIS radiator more than 40 degrees from the earth. If the OC/CC can establish COM with the spacecraft before 20:45, it would add time to this measurement.

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 sordid nevertheless. The ACIS commanding should begin as soon as the focal plane temperature and radiation environment permit.

STEP	INSTRUCTIONS (Command/Script)	RESPONSE (TLM Verifier)
1	Uplink Loads:	
	1A_WS007_164.CLD	7021872
	1A_WS041_252.CLD	50391DC
	1A_XB000_250.CLD	417494C
	1A_XB001_251.CLD	A0E1874
	1A_WB008_132.CLD	15AF653
	1A_WB009_133.CLD	7F9FFE4
	1A_WB00A_134.CLD	A7C4AB1
	1A_WT053_137.CLD	506E274
	1A_W200B_159.CLD	499FB25
	1A_XT000_190.CLD	C421014
	1A_RS000_207.CLD	4022412
	1A_RH000_151.CLD	601EE12
	1A_AA000_191.CLD	502066E
	1A_RYFS0_211.CLD	F423E81
	1A_RZFS0_217.CLD	4424581
2	ACIS informs OC when FP temperature and EPHIN rates are appropriate to start.	

3	Change OBSID to 62889	
4	Enable and Activate SCS 164	WSVIDALLDN (cmdId = 1541)
5	Enable and Activate SCS 252	WSPOW0103F (cmdId = 2163)
6	Enable and Activate SCS 250	executeBep, XB1SLOMO02 (cmd ID = 2166)
7	Enable and Activate SCS 251	executeBep, XB1SLOMO03 (cmd ID = 2160)
8	Enable and Activate SCS 132	writeBep, WB00SQUEG1 (cmdId = 2890)
9	Enable and Activate SCS 133	writeBep, WB00SQUEG2 (cmdId = 2892)
10	Enable and Activate SCS 134	writeBep, WB00_16SQ (cmdId = 2895)
11	Enable and Activate SCS 137	loadTeBlock, WT00344014 (cmdId = 2926)
12	Enable and Activate SCS 159	load2dBlock, W20003F014 (cmdId = 2928)
13	Enable and Activate SCS 190	startScience (cmdId = 58)
14	If execution fails (immediate *scienceReport* with abnormal *terminationCode*), skip to step 23.	
15	Enable and Activate SCS 207	bepReadReply/Config (cmdId = 66)
16	Enable and Activate SCS 151	bepReadReply/Huffman (cmdId = 68)
17	ACIS confirms receipt of bias and data	dataTeBiasMap (cmdId = *any*)
18	ACIS confirms *fepTimestamp* increment of 0x528a0 (338080 decimal) per exposure	exposureTeFaint (cmdId = *any*)
19	collect data for ~ 3.0ks	
20	On bad data, go to step 21	
21	Enable and Activate SCS 191 at $\sim 23:05$	stopScience (cmdId = 1539)
22	ACIS confirms normal completion of science run	
23	Enable and Activate SCS 211	readPram (cmdId = 1613)
24	ACIS confirms receipt of PRAM dump	
25	Enable and Activate SCS 217	readSram (cmdId = 1602)
26	ACIS confirms receipt of SRAM dump	
27	Clear and Disable SCS 164, 252, 250, 251, 132, 133, 134, 137, 159, 190, 207, 151, 191, 211, & 217	

Approved:

Subsystem Engineer: | Flight Director:
TST Manager/Lead: | Program Manager:
SOT Lead: