AXAF COMMAND ACTION PROCEDURE

CAP #674:
DATE: 31 October 2000

ORIGINATOR: Y. Butt
COMMANDS CHECKED BY: Grant,Ford,Buehler,Fergason
Time of CAP Execution (GMT): 2000:318:12:00

DESCRIPTION/RATIONALE

This CAP executes the first test of the new "Cuckoo" 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 vanilla 16 row Squeegy and cuckoo clocking. This test will be referred to as Squeegy R11.

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 except the stop-science command and the OBSID update.

We do NOT expect the focal plane temperature to be at -120 C at the beginning of the pass.

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 nevertheless. The ACIS commanding should begin as soon as the radiation environment permits. As the load on which this r/t commanding will be overlaid is not yet existant, we do not have the exact obsid's numbers nor the precise times of their updates, nor the times of the stop-science commands. We will stop the cuckoo run in r/t at about 318:14:15, although a stop-science will (should) exist later in the load in case we lose comm.

At the end of the exercise we uplink and activate the same 2d window block the OFLS last had in it's history: W20004A014

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_WB018_134.CLD	C1B7540
	1A_WB019_135.CLD	1B61F5B
	1A_WB01A_136.CLD	321BD14
	1A_WT05F_137.CLD	72A3264
	1A_W2017_160.CLD	557671F
	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 EPHIN rates are appropriate to start.	
3	Change OBSID to XXXXX if necessary	
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, WBCUCKOO01 (cmdId =3621)
11	Enable and Activate SCS 135	writeBep, WBCUCKOO02 (cmdId =3622)
12	Enable and Activate SCS 136	writeBep, WBCUCKOO03 (cmdId =3619)
13	Enable and Activate SCS 137	loadTeBlock, WT0041F014 (cmdId =3625)
14	Enable and Activate SCS 160	load2dBlock, W200054014 (cmdId =3615)
15	Enable and Activate SCS 190	startScience (cmdId = 58)
16	If execution fails (immediate *scienceReport* with abnormal *terminationCode*), skip to step 25.	
17	Enable and Activate SCS 207	bepReadReply/Config (cmdId = 66)
18	Enable and Activate SCS 151	bepReadReply/Huffman (cmdId = 68)
19	ACIS confirms receipt of data	(dataTeRaw)
20	ACIS confirms *fepTimestamp* increment of 338144 decimal per exposure	(exposureTeRaw)
21	collect data for $\sim$ 3.0ks	
22	On bad data, go to step 23 IMMEDIATELY, and also do 25-32	
23	Enable and Activate SCS 191 at $\sim 14:15$	stopScience (cmdId = 1539)
24	ACIS confirms normal completion of science run	
25	Enable and Activate SCS 211	readPram (cmdId = 1613)
26	ACIS confirms receipt of PRAM dump; if dump fails re-do 25 ONCE more	
27	Enable and Activate SCS 217	readSram (cmdId = 1602)
28	ACIS confirms receipt of SRAM dump; if dump fails re-do 27 ONCE more	
29	Clear and Disable SCS 164, 252, 250, 251, 132, 133, 134, 135, 136, 137, 160, 190, 207, 151, 191, 211, & 217	
30	Uplink: 1A_W2016_161.CLD	W20004A014 checksum=EE8E4C1
31	Enable and Activate SCS 161	load2dBlock, W20004A014 (cmdId =3183)
32	Clear and Disable SCS 161	

Approved:

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