AXAF COMMAND ACTION PROCEDURE

CAP #:847
DATE: 06 May 2003

ORIGINATOR: Joe DePasquale
COMMANDS CHECKED BY: R. Buehler, P. Plucinsky
Time of CAP Execution (GMT): 2003:128:12:20:00.000, 2003:128:20:10:01.285

DESCRIPTION/RATIONALE

This CAP is intended to be run in the event of complications with the observation of Sco X-1 (OBSID 3505). Sco X-1 is the brightest x-ray source in the sky and has the potential to severely damage the CCD's of the ACIS instrument if obsid 3505 is not executed exactly as planned. This CAP describes 3 cases in which SOT would want to manually command SCS107 or activate normal Sun mode to avoid damage to the instrument.

RESTRICTIONS/WARNINGS/NOTES/SCHEDULE REQT:

This observation requires COMM at the start of the science run in order to verify that all aspects of the observation are being executed as planned.

STEP	INSTRUCTIONS (Command/Script)	RESPONSE (TLM Verifier)
1	While in COMM (2003:128:12:20 - 128:14:50)	
1 a)	confirm that the SIM is at ACIS-S	
1 b)	confirm that HETG is inserted for OBSID 4063	
1 c)	If SIM NOT at ACIS-S and/or HETG NOT inserted, call telecon and consider activating SCS107	
2	While in COMM (128:20:10) during OBSID 3505:	
2 a)	verify HETG is inserted	
2 b)	If NOT able to verify HETG insertion, call telecon, consider activating SCS107	
2 c)	verify SIM is at 69656 +/- 4 (ACIS-S) with -15 mm Z-Sim, which	
2 d)	corresponds to a -15 mm Z-Sim offset from the nominal	
2 e)	If NOT able to verify SIM position, diagnose the problem as described in the Unsafe ACIS Procedure. Check for evidence of SIM stall: motor stall counter (3SMOTSTL) > 0 and/or motor overcurrent counter (3SMOTOC) > 0	
	If SIM stalled, call telecon and consider terminating mission SCS's and activating normal Sun mode	
	If no evidence of SIM stall, but SIM not in correct position call telecon, consider activating SCS107	
3	As ACIS collects event data, ACIS team will make detector image and:	
3 a)	verify that count rates are within expectations	
3 b)	verify that 0th order image is NOT on S3	
3 c)	If count rates > 2x's expected and/or if 0th order image is on S3, call telecon, consider activating SCS107	

Approved:

Subsystem Engineer:
FOT Manager/Lead:
SOT Lead:

Flight Director:
Program Manager: