

SWA Power Off HIS
File: IA-FCP-007.xls
Author: daniel lakey



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Procedure Summary

Objectives

Power Off SWA HIS

Summary of Constraints

This will turn off the Decontamination heaters, if they are currently on.

The following minimum delay between sending the DPU HPC Off command and switch off of the different SWA sensors LCLs shall be respected:

- HIS: 1 min

Spacecraft Configuration

Start of Procedure

End of Procedure

Reference File(s)

Input Command Sequences

Output Command Sequences

AIAF007A

AIAF007B

Referenced Displays

ANDs

GRDs

SLDs

(None)

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
22/02/2018		0.01	SWA Feb inputs, part 2	dlakey	M7
12/03/2018	0.2				M7
19/03/2018		0.02	Split HIS Power Off into 2 sequences (for SWA DPU and Platform LCL/Relay)	dlakey	M7
24/04/2018		0.03	Added constraints on power up/down timing	dlakey	M7
27/04/2018		1	Updates following comments from SWA 25/04/2018	dlakey	M7
18/06/2018	0.3				M7
17/09/2018		1.01	Moved to PFM DB	dlakey	M7

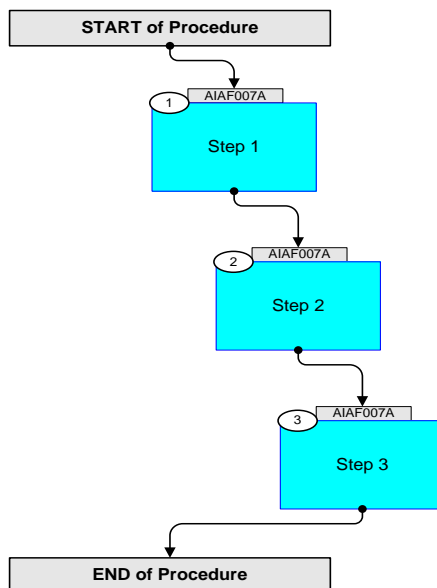
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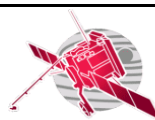


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Procedure Flowchart Overview



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Step	Label/Time	Activity/Remarks/Branch	CK	Display
Beginning of Procedure				
AIAF007A SWA Power Off HIS DP Beginning of Sequence SeqFlags [Crit/Plan/Stdalone/Sched] : NSYN TimeTag type : B				
1		Step 1 <i>Next step(s):</i> -> 2		
		Disable DPU HIS HB monitor		
	+00.00.00	Send SWA_TC_PARS_MON_DIS ZIA58064 SWA_TC_PARS_MON_DIS TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60452 NUM_OF_MON_ID = 1 <dec> PIA60449 MON_ID = HISHEARTB_MI		
2		Step 2 <i>Next step(s):</i> ->		
		Power down HIS for DPU to disable HIS SpaceWire		
	+00.00.01	Send SWA_TC_HIS_OFF ZIA58730 SWA_TC_HIS_OFF TC Control Flags: GBM IL DSE --Y NC ---		
AIAF007A End of Sequence				
AIAF007B SWA Power Off HIS Pr Beginning of Sequence SeqFlags [Crit/Plan/Stdalone/Sched] : NSYN TimeTag type : B				
3		Step 3		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
		OBC to switch power off to HIS Note; this will temporarily switch off the decontamination heaters, if on, as they share an LCL.		
		Nominally there should be an hour between the A and B sequence, to allow HIS to ramp down the HV Element		
	+00.00.00	Execute Telecommand ZCS2Z09W Decont. HIS A LCL Off TC Control Flags: GBM IL DSE --Y NC ---		
	+00.00.01	Execute Telecommand ZCS2Z09Y Decont. HIS B LCL Off TC Control Flags: GBM IL DSE --Y NC ---		
		Verify LCL & SSS status		
		Verify Telemetry NPWD0050 A_LCL3_09 Decon_HTR1 ST = OFF		(None)
		Verify Telemetry NPWT0050 B_LCL3_09 Decon_HTR1 ST = OFF		(None)
		Verify Relay Status		
		Note; these are only available in HPTM . Changes requested for availability in CSW 2.2.3_P2		
		Verify Telemetry NBCD0033 SWA-HIS Return_1 = Pos 1		(None)
		Verify Telemetry NBCD0043 SWA-HIS Return_2 = Pos 1		(None)
		Verify Telemetry NBCD0034 SWA-HIS Nominal = On		(None)

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
		Verify Telemetry NBCD1046 SWA-HIS Redundant = Off		(None)
		Switch off Relays		
		Set Relay switch positions SWA-HIS Return_1 = RB1_5_OFF SWA-HIS Return_2 = RB2_5_ON SWA-HIS Nominal = RB1_6_OFF SWA-HIS Redundant = RB2_6_OFF <i>Note; we switch off HIS Redundant to ensure clean configuration</i>		
	+00.00.01	Execute Telecommand ZCS2Z09D RIU SHP RB1_HIS_Rt1_P2 TC Control Flags: GBM IL DSE --Y NC ---		
	+00.00.01	Execute Telecommand ZCS2Z09E RIU SHP RB2_HIS_Rt2_P1 TC Control Flags: GBM IL DSE --Y NC ---		
	+00.00.01	Execute Telecommand ZCS2Z09H RIU SHP RB1_HIS_Nom_OFF TC Control Flags: GBM IL DSE --Y NC ---		
	+00.00.01	Execute Telecommand ZCS2Z09K RIU SHP RB2_HIS_Red_OFF TC Control Flags: GBM IL DSE --Y NC ---		
		Verify Relay Status		
		<i>Note; these are only available in HPTM. Changes requested for availability in CSW 2.2.3_P2</i>		
		Verify Telemetry NBCD0033 SWA-HIS Return_1 = Pos 2		(None)

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
		Verify Telemetry NBCD0043 SWA-HIS Return_2 = Pos 1		(None)
		Verify Telemetry NBCD0034 SWA-HIS Nominal = Off		(None)
		Verify Telemetry NBCD1046 SWA-HIS Redundant = Off		(None)
		Switch Relay Box LCLs back on		
	+00.00.01	Execute Telecommand ZCS2Z09V Decont. HIS A LCL On TC Control Flags: GBM IL DSE --Y NC ---		
		Verify LCL & SSS status		
		Verify Telemetry NPWD0050 A_LCL3_09 Decon_HTR1 ST = OFF		(None)
AIAF007B		End of Sequence		
End of Procedure				