EADS Astrium HERSCHEL S/C	ACTIVITY SHEET	HP-2-ASED-SD-0286 Issue: 1	Page 1 of 14

Location : ESTEC	Title: Instrument Emergency Switch OFF Procedures for SVT1		
Facility : Class 100000	Model: FM	System: S/C	Date: 12/03/2008
	Test Conductor: S. Hamer		NCR Ref: N/A
CI No 125000	Prepared By: S. Hamer		CIL No: N/A

Scope:
This ACS details the activities to be performed in the event of a problem occurring during SVT1 instrument tests and ESOC-MOC/Instrument Responsible request switch-off of the designated instrument

Appendices:
1 - Activity Control Sheet: Session Record
2 – PACS Prime Switch OFF
3 – PACS Redundant Switch OFF
4 – SPIRE Prime Switch OFF
5 – SPIRE Redundant Switch OFF
6 – HIFI Prime Switch OFF
7 – HIFI Redundant Switch OFF
8 – Switch of S/C Commanding from ESOC to AIT-ESTEC
9 – Switch of S/C Commanding from AIT-ESTEC to ESOC

Ref 1: HP-2-ASED-TP-0216 - Lead Procedure for SVT1 S/C Start Configuration

EGSE CCS SW version: 2.0-1219	**On-Board S/W:** CDMS ASW: 3.1.3 ACMS ASW: 3.7
HPSDB: LI-1441 Issue 8draft1	

Facilities required:	SCOE cables connection: see Appendix 2	
Personnel required:	1 AIT eng, 1 Instrument Responsible 1 QA	
Safety and Hazards:	Emergency switch off designated Instrument on request from ESOC-MOC/Instrument Responsible	
NCR / Constraints:	Safety critical NCRs identified: None Blocking NCRs: None Instruments: PACS, SPIRE, HIFI S/C configuration: Ref 1	

Release AIT:	Release SE:	Release PA/Safety:	Sign off (PA/QC/Team Leader)
Release Floor Manager:			

No:	Activity	Proc/Drg/Result	Responsible & sign off
	EMERGENCY SWITCH OFF CALLS		
01	If not already done so, take back S/C commanding from ESOC-MOC as per Appendix 8		
02	**IF** PACS PRIME is to be switched OFF run, procedure in Appendix 2		
03	**IF** PACS REDUNDANT is to be switched OFF, run procedure in Appendix 3		
04	**IF** SPIRE PRIME is to be switched OFF, run procedure in Appendix 4		
05	**IF** SPIRE REDUNDANT is to be switched OFF, run procedure in Appendix 5		
06	**IF** HIFI PRIME is to be switched OFF, run procedure in Appendix 6		
07	**IF** HIFI REDUNDANT is to be switched OFF, run procedure in Appendix 7		
08	Once confirmed instrument concerned is switch OFF and all commanding completed, hand back S/C commanding to ESOC-MOC as per Appendix 9		
09	Fill in the session ID according to the sheet (Appendix 1)		

APPENDIX 1

Activity Control Sheet: Session Record

Session ID	Start Date/Time	End Date/Time	QA Approval

APPENDIX 2

PACS PRIME EMERGENCY SWITCH OFF

Step -No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
1.	From the HPCCS test conductor console start the test script to power OFF PACS Prime from SAFE: **P102999SCVT906_ASDISTPACS_PWR_OFF_N**					
2.	On HPCCS when prompted: "FM PACS Switch OFF in Warm or Cold conditions, FPU connected - Select NO to abort TS if not correct" Select **YES**	YES				
	Note: During switch off of PACS (5,2) TM event packets are expected					
3.	On HPCCS when all autonomous actions have been completed by the power on script P102999SCVT906_ASDISTPACS_PWR_OFF_N it will prompt: "Set Bus Profile Back to Original Setting?" Select **NO**	NO				
4.	At the prompt: "Bus Profile left unchanged" Select **OK** to continue	OK				
5.	Inform ESOC-MOC/PACS Responsible that PACS PRIME is OFF	OK				
6.	Return to main ACS step 8					

APPENDIX 3

PACS REDUNDANT EMERGENCY SWITCH OFF

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
1.	From the HPCCS test conductor console start the test script to power OFF PACS Redundant from SAFE: **P102999SCVT908_ASDISTPACS_PWR_OFF_R**					
2.	On HPCCS when prompted: "FM PACS Switch OFF in Warm or Cold conditions, FPU connected - Select NO to abort TS if not correct" Select **YES**	YES				
	Note: During switch off of PACS (5,2) TM event packets are expected					
3.	On HPCCS when all autonomous actions have been completed by the power on script P102999SCVT908_ASDISTPACS_PWR_OFF_R it will prompt: "Set Bus Profile Back to Original Setting?" Select **NO**	NO				
4.	At the prompt: "Bus Profile left unchanged" Select **OK** to continue	OK				
5.	Inform ESOC-MOC/PACS Responsible that PACS REDUNDANT is OFF	OK				
6.	Return to main ACS step 8					

APPENDIX 4

SPIRE PRIME EMERGENCY SWITCH OFF

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
1.	If not already running from the HPCCS start the test script: **ALL_SubscribeParams**	OK				
2.	Confirm that the HPCCS is connected to SPIRE I-EGSE, if not issue the command: **connect HSPIREEGSE**	CONNECTED				
3.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-PDET-OFF-P**	OK				
4.	Check that the Photometer detectors are switched off: PSWJFETSTAT PMLWJFETSTAT	0x3F/-/0 0x7F/-/0				
5.	Check that the Photometer LIAs are switched off: PLIABITSTAT	1/-/0				
6.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-PDET-OFF-P** completed execution, checks nominal and obtain confirmation to execute next step.	OK				
7.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-BSM-OFF-P**	OK				
8.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-BSM-OFF-P** completed execution and obtain confirmation to execute next step	OK				
9.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-SDET-OFF-P**	OK				
10.	Check that the Spectrometer detectors are switched off: SPECJFETSTAT	7/-/0				
11.	Check that the Spectrometer LIAs are switched off: SLIABITSTAT	1/-/0				

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
12.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SDET-OFF-P** completed execution, checks nominal and obtain confirmation to execute next step	OK				
13.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-SMEC-OFF-P**	OK				
14.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SMEC-OFF-P** completed execution and obtain confirmation to execute next step	OK				
15.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-MCU-OFF-P**	OK				
16.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-MCU-OFF-P** completed execution and obtain confirmation to execute next step	OK				
17.	From the HPCCS start the test script and wait for completion: **SPIRE-IST-COLD-SCU-OFF-P**	OK				
18.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SCU-OFF-P** completed execution and obtain confirmation to execute next step	OK				
19.	From the HPCCS test conductor console start the test script to power OFF SPIRE Prime: **S102999SCVT032_ASDCFTSPIR_PWR_OFF_P**	OK				
20.	On HPCCS when prompted: "SPIRE Switch OFF for CFT related tests in Hel/Hell conditions only - Select NO to abort TS if not correct" Select **YES**	YES				
	During Switch OFF of SPIRE the following (5,2) and (5,4) event messages on APID 1280 may be expected and do not indicate a problem: *a) EVID 1313 No_MCU_Response_Error* *b) EVID 21773 ALARM_LSMCU_DEAD*					

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
21.	On HPCCS when prompted: "Check Telemetry No Longer Updating - OK to continue" Check that parameters: THSK TM2N	Not refreshing Not incrementing		**AND: SA_1_559**		
22.	Select **OK** to continue	OK				
23.	On HPCCS when all autonomous actions have been completed by the power on script **S102999SCVT032_ASDCFTSPIR_PWR_OFF_P** it will prompt: "Bus profile left as SPIRE PRIME, change manually after if required - OK to continue"					
24.	Select **OK** to continue	OK				
25.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE PRIME is OFF**	OK				
26.	Return to main ACS step 8					

APPENDIX 5

SPIRE REDUNDANT EMERGENCY SWITCH OFF

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
1.	If not already running from the HPCCS start the test script: **ALL_SubscribeParams**	OK				
2.	Confirm that the HPCCS is connected to SPIRE I-EGSE, if not issue the command: **connect HSPIREEGSE**	CONNECTED				
3.	From the HPCCS start the test script: **SPIRE-IST-COLD-PDET-OFF-R**	OK				
4.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-PDET-OFF-R** completed execution and obtain confirmation to execute next step	OK				
5.	From the HPCCS start the test script: **SPIRE-IST-COLD-BSM-OFF-R**	OK				
6.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-BSM-OFF-R** completed execution and obtain confirmation to execute next step	OK				
7.	From the HPCCS start the test script: **SPIRE-IST-COLD-SDET-OFF-R**	OK				
8.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SDET-OFF-R** completed execution and obtain confirmation to execute next step	OK				
9.	From the HPCCS start the test script: **SPIRE-IST-COLD-SMEC-OFF-R**	OK				
10.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SMEC-OFF-R** completed execution and obtain confirmation to execute next step	OK				
11.	From the HPCCS start the test script: **SPIRE-IST-COLD-MCU-OFF-R**	OK				

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
12.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-MCU-OFF-R** completed execution and obtain confirmation to execute next step	OK				
13.	From the HPCCS start the test script: **SPIRE-IST-COLD-SCU-OFF-R**	OK				
14.	Inform ESOC-MOC/SPIRE Responsible that **SPIRE-IST-COLD-SCU-OFF-R** completed execution and obtain confirmation to execute next step	OK				
15.	From the HPCCS test conductor console start the test script to power OFF SPIRE Redundant: **S102999SCVT034_ASDCFTSPIR_PWR_OFF_R**	OK				
16.	On HPCCS when prompted: "SPIRE Switch OFF for CFT related tests in Hel/Hell conditions only - Select NO to abort TS if not correct" Select **YES**	YES				
	During Switch OFF of SPIRE the following (5,2) and (5,4) event messages on APID 1280 may be expected and do not indicate a problem: *c) EVID 1313 No_MCU_Response_Error* *d) EVID 21773 ALARM_LSMCU_DEAD*					
17.	On HPCCS when prompted: "Check Telemetry No Longer Updating - OK to continue" Check that parameters: THSK TM2N	Not refreshing Not incrementing		**AND: SA_1_559**		
18.	Select **OK** to continue	OK				
19.	On HPCCS when all autonomous actions have been completed by the power on script S102999SCVT034_ASDCFTSPIR_PWR_OFF_R it will prompt: "Bus profile left as SPIRE PRIME, change manually after if required - OK to continue"					
20.	Select **OK** to continue	OK				
21.	Inform ESOC-MOC/SPIRE Responsible that SPIRE REDUNDANT is OFF	OK				
22.	Return to main ACS step 8					

APPENDIX 6

HIFI PRIME EMERGENCY SWITCH OFF

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
1.	If not already running from the HPCCS start the test script: **ALL_SubscribeParams**	OK				
2.	Confirm that the HPCCS is connected to SPIRE I-EGSE, if not issue the command: **connect HHIFIEGSE**	CONNECTED				
3.	From the HPCCS test conductor console start the test script: **HIFIST_SFT_Nominal_off.warm**	OK				
4.	From the HPCCS test conductor console start the test script: **H102999SCVT016_ASDISTHIFI_PWR_OFF_P**	OK				
5.	On HPCCS when prompted: "FM HIFI Switch OFF for IST or SFT in Hel/Hell conditions with warm LOU - Select NO to abort TS if not correct" Select **YES**	YES				
6.	On HPCCS when all autonomous actions have been completed by the power on script H102999SCVT016_ASDISTHIFI_PWR_OFF_P it will prompt: "Set Bus Profile Back to Original Setting?" Select **NO**	NO				
7.	at the prompt: "Bus Profile left unchanged" Select **OK** to continue	OK				
8.	Inform ESOC-MOC/HIFI Responsible that HIFI PRIME is OFF	OK				
9.	Return to main ACS step 8					

APPENDIX 7

HIFI REDUNDANT EMERGENCY SWITCH OFF

Step-No.	Test-Step-Description	Nominal Value	Actual Value	Remarks	P	N
10.	If not already running from the HPCCS start the test script: **ALL_SubscribeParams**	OK				
11.	Confirm that the HPCCS is connected to SPIRE I-EGSE, if not issue the command: **connect HHIFIEGSE**	CONNECTED				
12.	From the HPCCS test conductor console start the test script: **HIFIST_SFT_Nominal_off.warm**	OK				
13.	From the HPCCS test conductor console start the test script: **H102999SCVT018_ASDISTHIFI_PWR_OFF_ R**	OK				
14.	On HPCCS when prompted: "FM HIFI Switch OFF for IST or SFT in Hel/Hell conditions with warm LOU - Select NO to abort TS if not correct" Select **YES**	YES				
15.	On HPCCS when all autonomous actions have been completed by the power on script H102999SCVT018_ASDISTHIFI_PWR_OFF_R it will prompt: "Set Bus Profile Back to Original Setting?" Select **NO**	NO				
16.	at the prompt: "Bus Profile left unchanged" Select **OK** to continue	OK				
17.	Inform ESOC-MOC/HIFI Responsible that HIFI REDUNDANT is OFF	OK				
18.	Return to main ACS step 8					

APPENDIX 8

SWITCH OF S/C TC CONTROL FROM ESOC-MOC TO AIT-ESTEC

1	When agreed and authorised to do so take TC control from ESOC-MOC by performing the following step.
2	**To switch TC commanding over to ESTEC:** GOTO TM/TC- DFE - From the pull down menu select **'Local Control Mode'** - Use the Password **' H-P '** - Open system control window - In TAB "EIU" apply the setting "TC Generation via Int. " - In TAB "EIU" apply the setting "EIU direct" - From the pull down menu select **'Remote Control Mode'**
	Switch of S/C TC control back to **ESTEC-AIT** complete, return to main ACS step 2

APPENDIX 9

SWITCH OF CONTROL FROM AIT-ESTEC TO ESOC MOC

1	Contact MOC using the VOICE INTERCOM and inform them as follows **MOC / AIV** *Wait for response and then report:* **"<INST NAME> Emergency Switch-off Complete, ready to switch TC control back to MOC.** **Please Confirm when to switch over"** *Wait for response* ..Acknowledge their response.. When MOC **Confirms** switch over , continue with the next steps

2	**To switch TC commanding over to ESOC:**
	
	GOTO TM/TC- DFE
	• From the pull down menu select
	   'Local Control Mode'
	• Use the Password **' H-P '**
	• Open system control window
	• In TAB "EIU" apply the setting "NDIU"
	• In TAB "EIU" apply the setting "NDIU via TC DEMOD"
	• From the pull down menu select
	   'Remote Control Mode'

3	Contact MOC and inform them as follows **MOC / AIV** *Wait for response and then report:* **TC Switchover to MOC Completed, Please verify.** When MOC has send the connection test TC successfully, TC commanding for MOC is verified.
	Switch of S/C TC control back to **ESOC-MOC** complete, return to main ACS step 9