

Immediate switch OFF (Nominal)
 File: H_CRP_PAC_NSIF.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to immediately switch OFF the nominal PACS units:

- Disable PACS related OBCPs
- Disable RT interrogations
- Switch off DPU
- Re-enable PACS related OBCPs

Summary of Constraints

This procedure should only be executed if the normal switch off procedure (H_FCP_PAC_NSOF) cannot be run

Spacecraft Configuration

Start of Procedure

PACS in any mode

End of Procedure

PACS powered OFF

Reference File(s)

Input Command Sequences

Output Command Sequences

HRPNSIF

Referenced Displays

ANDs	GRDs	SLDs
ZAZ97999		
ZAZA0999		

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
09/11/2007		1	Created	R. Biggins	
18/01/2008		2	Update due to initial testing against the simulator: - TCs updated due to new DB	R. Biggins	
27/05/2008	1	3	Updates due to SVT-1 testing: - TC to disable/enable FDIR removed - TCs added to disable/enable OBCPs - TC to disable RT interrogations moved directly before DPU switch off - Comments added/updated - Flags updated - AND updated for all TM parameters	R. Biggins	
23/10/2008		4	Updates due to new procedures from industry - TC DC005161 database definition updated - New step added to update UIU table	R. Biggins	

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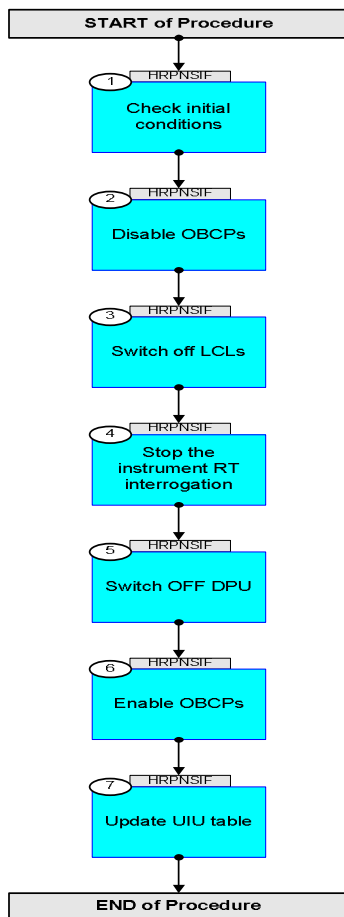


10/12/2008		5	Updates due to testing - TC DCT85170 corrected to DCT84170 in step 6 - Time tags added to TCs in steps 2-4 - Flags updated	R. Biggins	
13/01/2009	2	6	Update due to new database - TC DCT85170 updated due to new definitions (step 2 and 6)	R. Biggins	
04/03/2009	2.1	6.01	Validation : Updates due to SVT-2/SOVT-2 testing - Summary updated	R. Biggins	
18/08/2009		7	- TCs to disable and enable OBCPs updated - TC added to verify OBCP state	R. Biggins	
24/09/2009	2.5	8	- Enable EAT entry TC updated	R. Biggins	
19/11/2010	3.1	9	UIU table TCs updated to ensure 4 minute delay before PACS switch-on	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
TC Seq. Name :HRPNSIF (Immediate OFF (Nom))				
TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Check initial conditions		Next Step: 2
1.1		Nominal instrument LCLs		<input type="checkbox"/>
		Verify: DPU LCL status PacsD_N_L41_S WM72B565 = ON		AND=ZAZ97999
		Verify: SPU LCL status PacsS_N_L35_S WM52A565 = ON or OFF		AND=ZAZ97999
		Verify: BOLC LCL status PacsB_N_L27_1S WM82D565 = ON or OFF		AND=ZAZ97999
		Verify: Dec/Mec1 LCL status PacsMec1_L65_1S WM52E565 = ON or OFF		AND=ZAZ97999
2		Disable OBCPs		Next Step: 3
	ET=+ UT=+00.00.00	Execute Telecommand DisableActions Command Parameter(s) : N_Repetition DH041170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170	DCT85170	
		APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TEMPLATE Disable Actions TC(19,5)	CDMS (Def) AC <hex> CDMS (Def) BA <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.05	Execute Telecommand ReptEvtActTable <i>Subsch. ID : 10</i> Det. descr. : TEMPLATE Report The contents of the event/action table TC(19,6)	DCT86170	
		View the OEAD to ensure that the correct OBCPs have been disabled		
3		<i>Switch off LCLs</i>		Next Step: 4
		Sending this TC will generate the following TM(5,1) packets: EVENT_REPORT_2_18 - HK DPU SOFT EVENT_REPORT_8_15 - COUNTER Error EVENT_REPORT_3_31 - 1355 Timeout The following TM(5,2) packets are also expected: EXCEPTION_REPORT_0_25 - PACS NOMINAL OFF		
	ET=+ UT=+00.00.00	Switch off SPU LCL SwOff_PacsS_N_L35 <i>Subsch. ID : 10</i> Det. descr. : PCDU: TC(8,4,112,3) PACS SPU Nom - switch LCL_35 off	DC35B170	
		Verify: SPU LCL status PacsS_N_L35_S WM52A565	= OFF	AND=ZAZ97999
		Sending this TC will generate the following TM(5,1) packets: EVENT_REPORT_2_18 - HK DPU SOFT EVENT_REPORT_8_15 - COUNTER Error EVENT_REPORT_3_7 - SS Stopped The following TM(5,2) packets are also expected: EXCEPTION_REPORT_0_25 - PACS NOMINAL OFF		
	ET=+ UT=+00.00.00	Switch off BOLC LCL SwOff_PacsB_N_L27 <i>Subsch. ID : 10</i> Det. descr. : PCDU: TC(8,4,112,3) PACS BOLC Nom-switch LCL_27 off	DC27B170	
		Verify: BOLC LCL status PacsB_N_L27_1S WM82D565	= OFF	AND=ZAZ97999
	ET=+ UT=+00.00.00	Switch off DECMEC LCL SwOff_PacsDecMec1_L65 <i>Subsch. ID : 10</i> Det. descr. : PCDU: TC(8,4,112,3) PACS DEC/MEC1 - switch LCL_65 off	DC65B170	
		Verify: Dec/Mec1 LCL status PacsMec1_L65_1S WM52E565	= OFF	AND=ZAZ97999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
4		Stop the instrument RT interrogation		Next Step: 5
	ET=+ UT=+00.00.00	Execute Telecommand ConfiguresSDBFDIR Command Parameter(s) : RTA DH011161 M0 DH030161 M1 DH031161 M2 DH032161 M3 DH033161 M4 DH034161 M5 DH035161 M6 DH036161 M7 DH037161 F0 DH018161 F1 DH019161 F2 DH020161 F3 DH021161 F4 DH022161 F5 DH023161 F6 DH024161 F7 DH025161 M12 DH051161 M_C DH043161 M8 DH038161 M9 DH039161 M10 DH040161 M11 DH041161 F12 DH050161 CNT DH042161 F8 DH026161 F9 DH027161 F10 DH028161 F11 DH029161 Subsch. ID : 10 Det. descr. : Configure SDB FDIR	DC005161 PACS A Update status Ignore Flag Ignore Flag Ignore Flag Update status Ignore Flag Ignore Flag Ignore Flag OFF Alive Well TC Well TM Invalid Non-vital NOMINAL ON Ignore Flag Ignore CNT Ignore Flag Ignore Flag Ignore Flag ENABLED LoopCnt1 Bus A Healthy Healthy DISABLED	
		Wait up to 1 minute for the generation of the D_H_Hk_P64 packet from the CDMU (APID = 18)		
		Verify Telemetry PACSA_OnOff DED2G161	= OFF	AND=ZAZ97999
		Verify Telemetry PACSA_ValidInv DED2K161	= Invalid	AND=ZAZ97999
5		Switch OFF DPU		Next Step: 6
	ET=+ UT=+00.00.00	Switch off DPU LCL Swoff_PacsD_N_L41 Subsch. ID : 10 Det. descr. : PCDU: TC(8,4,112,3) PACS DPU Nom - switch LCL_41 off	DC41B170	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify: DPU LCL status PacsD_N_L41_S WM72B565	= OFF	AND=ZAZ97999
6		<i>Enable OBCPs</i>		Next Step: 7
	ET=+ UT=+00.00.00	Execute Telecommand EnableActions Command Parameter(s) : N_Repetition DH041170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170	DCT84170	
		APID_for_EAT_TC DH236170 EventId DH146170 APID_for_EAT_TC DH236170 EventId DH146170 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Enable Actions TC(19,4)	CDMS (Def) AC <hex> CDMS (Def) BA <hex>	
	ET=+ UT=+00.00.05	Execute Telecommand ReptEvtActTable Subsch. ID : 10 Det. descr. : TEMPLATE Report The contents of the event/action table TC(19,6)	DCT86170	
		View the OEAD to ensure that the correct OBCPs have been enabled		
7		<i>Update UIU table</i>		Next Step: END
	ET=+ UT=+00.04.00	Execute Telecommand H_FdirMarkUnitOff_Templ Command Parameter(s) : H_ConfStsUnitId DHZ00170	DC91H159 PacsBolc	
		Subsch. ID : 10 Det. descr. : TEMPLATE FDIR: Mark Unit OFF, TC(8,4,116,25), Herschel Version		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	Execute Telecommand H_FdirMarkUnitOff_Templ Command Parameter(s) : H_ConfStsUnitId DHZ00170 Subsch. ID : 10 Det. descr. : TEMPLATE FDIR: Mark Unit OFF, TC(8,4,116,25), Herschel Version	DC91H159 PacsDec	
	ET=+ UT=+00.00.01	Execute Telecommand H_FdirMarkUnitOff_Templ Command Parameter(s) : H_ConfStsUnitId DHZ00170 Subsch. ID : 10 Det. descr. : TEMPLATE FDIR: Mark Unit OFF, TC(8,4,116,25), Herschel Version	DC91H159 PacsDpu	
		Verify Telemetry PacsBolc1FuncSt DEL54171	= Off	AND=ZAZA0999
		Verify Telemetry PacsDeclFuncSts DEL44171	= Off	AND=ZAZA0999
		Verify Telemetry PacsDpuFuncSts DEL50171	= Off	AND=ZAZA0999
End of Procedure				