

Nominal HPS switch OFF
 File: H_CRP_TCS_HPNO.xls
 Author: E. Picallo



Procedure Summary

Objectives

This procedure describes the steps needed to switch OFF a selected nominal Heater Protection Switches (HPSs) (from HPS1 to HPS9).

Nominally all the nominal HPS (1-9) are always ON.

Summary of Constraints

The selected nominal HPS is switched OFF through ASW TC(8,4,112,3); thus the status of the ASW function "PCDU Management" has to be "running".

Spacecraft Configuration

Start of Procedure

CDMU in default configuration;
 Nominal HPS ON.

End of Procedure

CDMU in default configuration;
 Nominal HPSs and the 6 heater control switches (HCSs) switched OFF.

Reference File(s)

Input Command Sequences

Output Command Sequences

HRTHPN01
 HRTHPN02
 HRTHPN03
 HRTHPN04
 HRTHPN05
 HRTHPN06
 HRTHPN07
 HRTHPN08
 HRTHPN09

Referenced Displays

ANDs **GRDs** **SLDs**
 WAHT1584
 WAHT2584

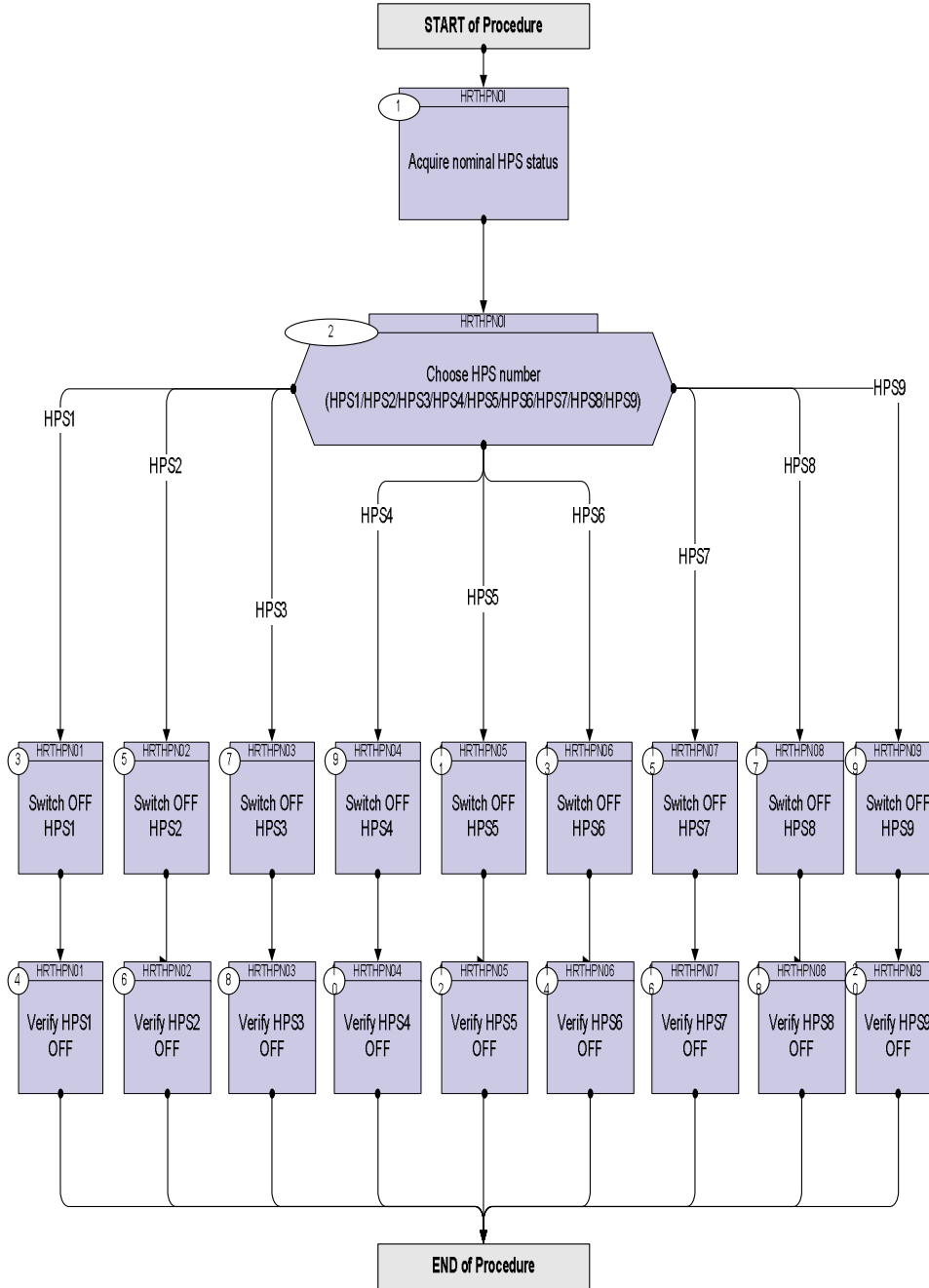
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
24/07/08	1	1	Created	E. Picallo	
08/12/08	2	2	display mode update	E. Picallo	

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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 : HRTHPNOI (Nom. HPS switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Acquire nominal HPS status		Next Step: 2
		Verify Telemetry GRP1_HPS_STS WM12G565		AND=WAHT1584
		Verify Telemetry GRP2_HPS_STS WM22G565		AND=WAHT1584
		Verify Telemetry GRP3_HPS_STS WM22H565		AND=WAHT1584
		Verify Telemetry GRP4_HPS_STS WM32G565		AND=WAHT1584
		Verify Telemetry GRP5_HPS_STS WM32H565		AND=WAHT1584
		Verify Telemetry GRP6_HPS_STS WM42G565		AND=WAHT1584
		Verify Telemetry GRP7_HPS_STS WM42H565		AND=WAHT2584
		Verify Telemetry GRP8_HPS_STS WM52G565		AND=WAHT2584
		Verify Telemetry GRP9_HPS_STS WM52H565		AND=WAHT2584
2		Choose HPS number (HPS1/HPS2/HPS3/HPS4/HPS5/HPS6/HPS7/HPS8/HPS9)		Next Step: HPS1 3 HPS2 5 HPS3 7 HPS4 9 HPS5 11 HPS6 13 HPS7 15 HPS8 17 HPS9 19
TC Seq. Name : HRTHPNO1 (Nom. HPS1 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
3		Switch OFF HPS1		Next Step: 4
		Execute Telecommand PcduswOffHps1 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 1	DCD27170	
4		Verify HPS1 OFF		Next Step: END
		Verify Telemetry GRP1_HPS_STS WM12G565	= OFF	AND=WAHT1584
TC Seq. Name : HRTHPN02 (Nom. HPS2 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
5		Switch OFF HPS2		Next Step: 6
		Execute Telecommand PcduswOffHps2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 2	DCD28170	
6		Verify HPS2 OFF		Next Step: END
		Verify Telemetry GRP2_HPS_STS WM22G565	= OFF	AND=WAHT1584
TC Seq. Name : HRTHPN03 (Nom. HPS3 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
7		Switch OFF HPS3		Next Step: 8

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">PcduSwOffHps3</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 3</i>	DCD29170	
8		Verify HPS3 OFF		Next Step: END
		Verify Telemetry <p style="text-align: center;">GRP3_HPS_STS WM22H565</p>	= OFF	AND=WAHT1584
<p><i>TC Seq. Name :HRTHPN04 (Nom. HPS4 switch OFF)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
9		Switch OFF HPS4		Next Step: 10
		Execute Telecommand <p style="text-align: right;">PcduSwOffHps4</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 4</i>	DCD30170	
10		Verify HPS4 OFF		Next Step: END
		Verify Telemetry <p style="text-align: center;">GRP4_HPS_STS WM32G565</p>	= OFF	AND=WAHT1584
<p><i>TC Seq. Name :HRTHPN05 (Nom. HPS5 switch OFF)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
11		Switch OFF HPS5		Next Step: 12

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand PcdSwOffHps5 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 5	DCD31170	
12		Verify HPS5 OFF		Next Step: END
		Verify Telemetry GRP5_HPS_STS WM32H565	= OFF	AND=WAHT1584
TC Seq. Name :HRTHPN06 (Nom. HPS6 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
13		Switch OFF HPS6		Next Step: 14
		Execute Telecommand PcdSwOffHps6 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 6	DCD32170	
14		Verify HPS6 OFF		Next Step: END
		Verify Telemetry GRP6_HPS_STS WM42G565	= OFF	AND=WAHT1584
TC Seq. Name :HRTHPN07 (Nom. HPS7 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
15		Switch OFF HPS7		Next Step: 16

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">PcduSwOffHps7</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 7</i>	DCD33170	
16		Verify HPS7 OFF		Next Step: END
		Verify Telemetry <p style="text-align: center;">GRP7_HPS_STS WM42H565</p>	= OFF	AND=WAHT2584
<p><i>TC Seq. Name :HRTHPN08 (Nom. HPS8 switch OFF)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
17		Switch OFF HPS8		Next Step: 18
		Execute Telecommand <p style="text-align: right;">PcduSwOffHps8</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 8</i>	DCD34170	
18		Verify HPS8 OFF		Next Step: END
		Verify Telemetry <p style="text-align: center;">GRP8_HPS_STS WM52G565</p>	= OFF	AND=WAHT2584
<p><i>TC Seq. Name :HRTHPN09 (Nom. HPS9 switch OFF)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
19		Switch OFF HPS9		Next Step: 20

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">PcduSwOffHps9</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 9</i>	DCD35170	
20		Verify HPS9 OFF		Next Step: END
		Verify Telemetry <p style="text-align: center;">GRP9_HPS_STS WM52H565</p>	= OFF	AND=WAHT2584
End of Procedure				