

Restore FCCT parameters in flight
File: H_LEO_TCS_FCCF.xls
Author: E. Picallo



Procedure Summary

Objectives

The aim of this procedure is to restore the in-flight limits in the FCCT after the launch, once each of the concerned lines reaches the expected temperature range.

The FCCT thresholds to be modified on launch pad and restored in-flight are indicated (in green) in the table annexed to the procedure.

Summary of Constraints

Some lines will reach the expected temperature quickly while other lines will need more time. This procedure shall be repeated as many times as required until all the FCCT limits have been restored to the flight values.

In order to avoid alarms on the launch pad, some FCCT limits need to be modified in the FCCT (with the current default thermal limits defined in the FCCT for flight, some alarms can be generated on ground by the thermal FDIR due to some units being too cold or too hot).

WARNING: before restoring the FCCT limits of any TCS line, make sure that the temperature is already stable within the required range.

Spacecraft Configuration

Start of Procedure

FDIR management function running

End of Procedure

FDIR management function running
FCCT limits restored to the flight values once the concerned line reaches expected temperature range

Reference File(s)

Input Command Sequences

Output Command Sequences

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HLTFCCF
 HLTFCCF1
 HLTFCCF2
 HLTFCCF3
 HLTFCCF4
 HLTFCCF5
 HLTFCCF6
 HLTFCCF7
 HLTFCCF8
 HLTFCCF9
 HLTFCCFA
 HLTFCCFB
 HLTFCCFC
 HLTFCCFD
 HLTFCCFE
 HLTFCCFF
 HLTFCCFG
 HLTFCCFH
 HLTFCCFI

Referenced Displays

ANDs	GRDs	SLDs
	ZGZ2B999	
	ZGZ2L999	
	ZGZ3B999	
	ZGZ2W999	
	ZGZ35999	
	ZGZ2F999	
	ZGZ2G999	
	ZGZ32999	
	ZGZ2Y999	
	ZGZ2M999	
	ZGZ2D999	
	ZGZ23999	
	ZGZ34999	
	ZGZ36999	
	ZGZ2H999	
	ZGZ2K999	
	ZGZ2P999	
	ZGZ2Q999	

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
05/03/09		1	Created	E. Picallo	

Status : Version 5 - Unchanged
 Last Checkin: 29/04/09

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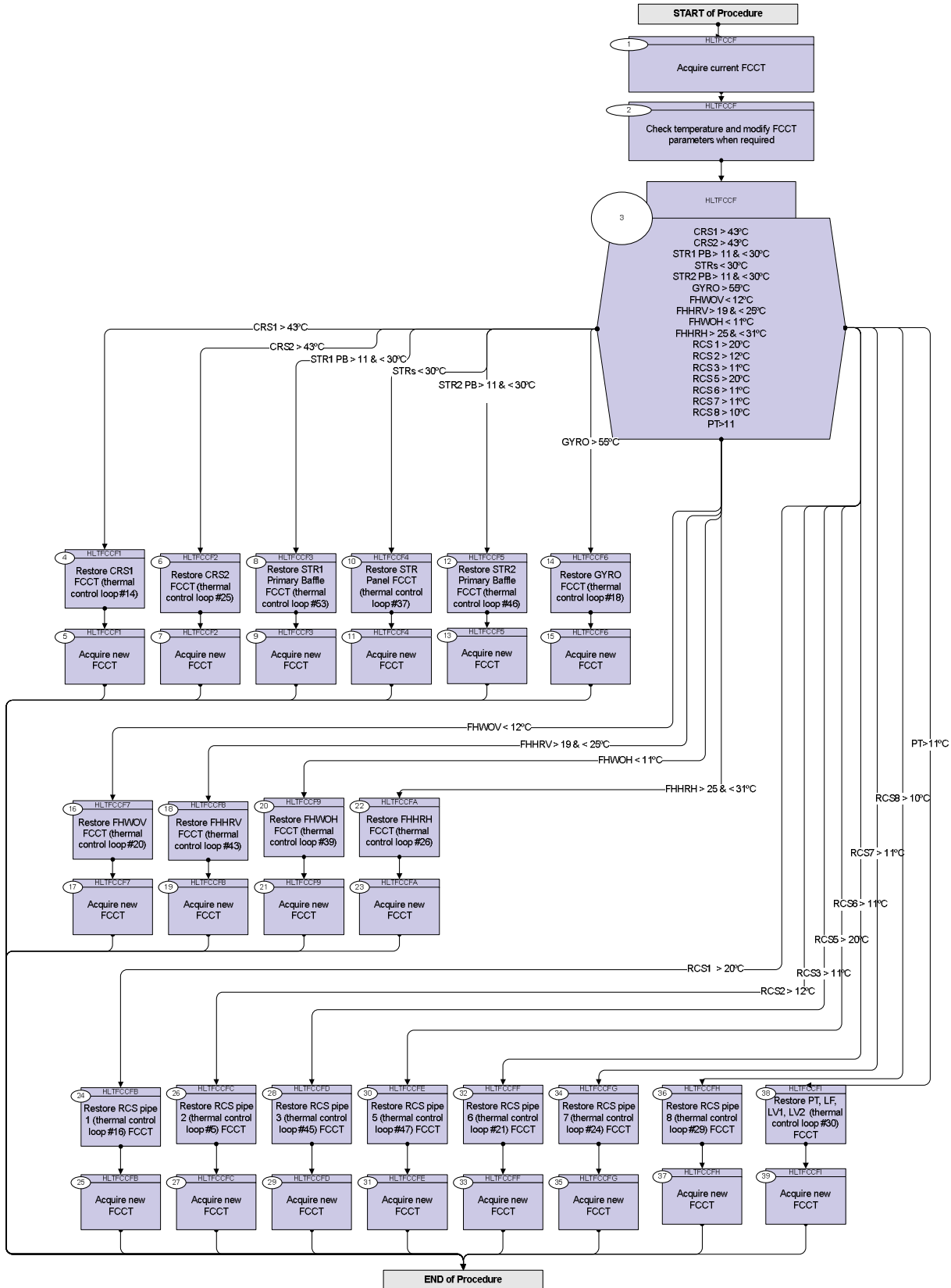


05/03/09	2.1	1.01	Validation : FCCT thresholds annex added	E. Picallo	
17/03/09		2	Warning: LOW NOP limit for STR-1 & 2 baffle should be -23°C on launch and should not be restored in-flight	E. Picallo	
24/03/09		3	Avg temperatures descriptions updated	E. Picallo	
25/03/09	2.2	4	RCS pipes Reference names updated	E. Picallo	
29/04/09	2.4	5	Database warning concerning STR1_PB and STR2_PB TCs deleted	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 : HLTFCCF (Restore Flight FCCT)				
TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Acquire current FCCT		Next Step: 2
1.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand <div style="text-align: right;">ReportFdirManagSts</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- --</div> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116)	DCN02170	
1.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details: <div style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0</div>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: <div style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0</div>	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0</div>	FcctRpt2	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
2		Check temperature and modify FCCT parameters when required		Next Step: 3
2.1		CRS 1 (thermal control loop #14)		<input type="checkbox"/>
		If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT		
		Verify Telemetry ATemp14_CRS_1 DEA85170		GRD=ZGZ2B999
		If Taverage > 43°C, then restore the in-flight default limits in the FCCT		
2.2		CRS 2 (thermal control loop #25)		<input type="checkbox"/>
		If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT		
		Verify Telemetry ATemp25_CRS_2 DEA90170		GRD=ZGZ2L999
		If Taverage > 43°C, then restore the in-flight default limits in the FCCT		
2.3		STR1 Primary Baffle (thermal control loop #53)		<input type="checkbox"/>
		If the parameters in the FCCT are still set to the launch values: FDIR LOW_OP = 8°C FDIR HIGH_NOP = 40°C FDIR HIGH_OP = 40 °C Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT		
		Verify Telemetry ATemp53_STR1_Baf DEAAC170		GRD=ZGZ3B999
		If Taverage > 11°C and < 30°C, then restore the in-flight default limits		

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2.4		<i>STR Panel (thermal control loop #37)</i>		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR HIGH_NOP = 40°C FDIR HIGH_OP = 40 °C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp37_STRs DEA9C170		GRD=ZGZ2W999
		If Taverage < 30°C, then restore the in-flight default limits in the FCCT		
2.5		<i>STR2 Primary Baffle (thermal control loop #46)</i>		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_OP = 8°C FDIR HIGH_NOP = 40°C FDIR HIGH_OP = 40 °C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp46_STR2_Baf DEAA5170		GRD=ZGZ35999
		If Taverage > 11°C and < 30°C, then restore the in-flight default limits in the FCCT		
2.6		<i>GYRO (thermal control loop #18)</i>		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp18_GYRO DEA89170		GRD=ZGZ2F999
		If Taverage > 55°C, then restore the in-flight default limits in the FCCT		
2.7		<i>FHWOV (thermal control loop #20)</i>		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>If the parameters in the FCCT are still set to the launch values: FDIR HIGH_NOP = 30°C FDIR HIGH_OP = 30°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp20_FHWOV DEA8B170</p>		GRD=ZGZ2G999
		<p>If Taverage < 12°C, then restore the in-flight default limits in the FCCT</p>		
2.8		<p><i>FHHRV (thermal control loop #43)</i></p>		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_OP = 8°C FDIR HIGH_NOP = 40°C FDIR HIGH_OP = 40 °C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp43_FHHRV DEAA2170</p>		GRD=ZGZ32999
		<p>If Taverage > 19°C and < 25°C, then restore the in-flight default limits in the FCCT</p>		
2.9		<p><i>FHWOH (thermal control loop #39)</i></p>		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR HIGH_NOP = 30°C FDIR HIGH_OP = 30°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp39_FHWOH DEA9E170</p>		GRD=ZGZ2Y999
		<p>If Taverage < 11°C, then restore the in-flight default limits in the FCCT</p>		
2.10		<p><i>FHHRH (thermal control loop #26)</i></p>		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_OP = 8°C FDIR HIGH_NOP = 40°C FDIR HIGH_OP = 40 °C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp26_FHHRH DEA91170</p>		GRD=ZGZ2M999
		<p>If Taverage > 25°C and < 31°C, then restore the in-flight default limits in the FCCT</p>		
2.11		RCS pipe 1 (thermal control loop #16)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp16_RCSPipe1 DEA87170</p>		GRD=ZGZ2D999
		<p>If Taverage > 20°C, then restore the in-flight default limits in the FCCT</p>		
2.12		RCS pipe 2 (thermal control loop #5)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp05_RCSPipe2 DEA7C170</p>		GRD=ZGZ23999
		<p>If Taverage > 12°C, then restore the in-flight default limits in the FCCT</p>		
2.13		RCS pipe 3 (thermal control loop #45)		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp45_RCSPipe3 DEAA4170		GRD=ZGZ34999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT		
2.14		RCS pipe 5 (thermal control loop #47)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp47_RCSPipe5 DEAA6170		GRD=ZGZ36999
		If Taverage > 20°C, then restore the in-flight default limits in the FCCT		
2.15		RCS pipe 6 (thermal control loop #21)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		Verify Telemetry ATemp21_RCSPipe6 DEA8C170		GRD=ZGZ2H999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT		
2.16		RCS pipe 7 (thermal control loop #24)		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp24_RCSPipe7 DEA8F170</p>		GRD=ZGZ2K999
		<p>If Taverage > 11°C, then restore the in-flight default limits in the FCCT</p>		
2.17		RCS pipe 8 (thermal control loop #29)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp29_RCSPipe8 DEA94170</p>		GRD=ZGZ2P999
		<p>If Taverage > 10°C, then restore the in-flight default limits in the FCCT</p>		
2.18		PT, LF, LV1, LV2 (thermal control loop #30)		<input type="checkbox"/>
		<p>If the parameters in the FCCT are still set to the launch values: FDIR LOW_NOP = 8°C FDIR LOW_OP = 8°C</p> <p>Then, check if the temperature has reached the expected value on flight to restore the limits in the FCCT</p>		
		<p>Verify Telemetry ATemp30_LV_1_2 DEA95170</p>		GRD=ZGZ2Q999
		<p>If Taverage > 11°C, then restore the in-flight default limits in the FCCT</p>		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
3		CRS1 > 43°C CRS2 > 43°C STR1 PB > 11 & < 30°C STRs < 30°C STR2 PB > 11 & < 30°C GYRO > 55°C FHWOV < 12°C FHHRV > 19 & < 25°C FHWOH < 11°C FHHRH > 25 & < 31°C RCS 1 > 20°C RCS 2 > 12°C RCS 3 > 11°C RCS 5 > 20°C		Next Step: CRS1 > 43°C 4 CRS2 > 43°C 6 STR1 PB > 11 & < 30°C 8 STRs < 30°C 10 STR2 PB > 11 & < 30°C 12 GYRO > 55°C 14 FHWOV < 12°C 16 FHHRV > 19 & < 25°C 18 FHWOH < 11°C 20 FHHRH > 25 & < 31°C 22 RCS1 > 20°C 24 RCS2 > 12°C 26 RCS3 > 11°C 28
		RCS 6 > 11°C RCS 7 > 11°C RCS 8 > 10°C PT>11		RCS5 > 20°C 30 RCS6 > 11°C 32 RCS7 > 11°C 34 RCS8 > 10°C 36 PT>11°C 38
TC Seq. Name :HLTFCCF1 (Restore CRS1 FCCT) Restore CRS1 FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
4		Restore CRS1 FCCT (thermal control loop #14)		Next Step: 5
		Verify Telemetry Atemp14_CRS_1 DEA85170 > 43.0 <dec>		GRD=ZGZ2B999
		If Taverage > 43°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_CRS_1_HPS3_HCS2 ZCL3A999 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : FCCT_CRS_1_HPS3_HCS2 CrCorrChkPar TC(8,4,116,17) Id=ChkId_32		
5		Acquire new FCCT		Next Step: END

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
5.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts TC Control Flags : Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
5.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name :HLTFCCF2 (Restore CRS2 FCCT) Restore CRS2 FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
6		Restore CRS2 FCCT (thermal control loop #25)		Next Step: 7

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry A Temp25_CRS_2 DEA 90170	> 43.0 <dec>	GRD=ZGZ2L999
		If Taverage > 43°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_CRS_2_HPS5_HCS1 <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : FCCT_CRS_2_HPS5_HCS1 CrCorrChkPar</i> <i>TC(8,4,116,17) Id=ChkId_43</i>	ZCL3L999	
7		Acquire new FCCT		Next Step: END
7.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : Report Fdir Management Status,</i> <i>TC(8,5,116)</i>	DCN02170	
7.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name :HLTFCCF3 (Restore STR1 PBFCCCT) Restore STR1 PB FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
8		Restore STR1 Primary Baffle FCCT (thermal control loop #53)		Next Step: 9
		Verify Telemetry A Temp53_STR1_Baf DE AAC170	> 11.0 <dec> < 30.0 <dec>	GRD=ZGZ3B999
		If Taverage > 11°C and < 30°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_STR1_PRBF_HPS9_HCS5 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : FCCT_STR1_PRBF_HPS9_HCS5 CrCorrChkPar TC(8,4,116,17) Id=ChkId_71	ZCL4D999	
9		Acquire new FCCT		Next Step: END
9.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
9.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCCF4 (Restore STRs FCCT) Restore STRs Panel FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
10		Restore STR Panel FCCT (thermal control loop #37)		Next Step: 11
		Verify Telemetry ATemp37_STRs DEA9C170	< 30.0 <dec>	GRD=ZGZ2W999
		If Taverage < 30°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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		Execute Telecommand <p style="text-align: right;">FCCT_STRs_HPS7_HCS1</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : FCCT_STRs_HPS7_HCS1 CrCorrChkPar</i> <i>TC(8,4,116,17) Id=ChkId_55</i>	ZCL3Y999	
11		Acquire new FCCT		Next Step: END
11.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand <p style="text-align: right;">ReportFdirManagSts</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- --</p> <i>Subsch. ID : 10</i> <i>Det. descr. : Report Fdir Management Status,</i> <i>TC(8,5,116)</i>	DCN02170	
11.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0</p>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0</p>	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name : HLTFCFF5 (Restore STR2 PB FCCT) Restore STR2 PB FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
12		Restore STR2 Primary Baffle FCCT (thermal control loop #46)		Next Step: 13
		Verify Telemetry ATemp46_STR2_Baf DEAA5170	> 11.0 <dec> < 30.0 <dec>	GRD=ZGZ35999
		If Taverage > 11°C and < 30°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand <div style="text-align: right;">FCCT_STR2_PRBF_HPS8_HCS4</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 10 Det. descr. : FCCT_STR2_PRBF_HPS8_HCS4 CrCorrChkPar TC(8,4,116,17) Id=ChkId_64	ZCL47999	
13		Acquire new FCCT		Next Step: END
13.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
13.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCFF6 (Restore Gyro FCCT) Restore Gyro FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
14		Restore GYRO FCCT (thermal control loop #18)		Next Step: 15
		Verify Telemetry ATemp18_GYRO DEA89170	> 55.0 <dec>	GRD=ZGZ2F999
		If Taverage > 55°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">FCCT_GYRO_HPS3_HCS6</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE ---Y -- ---</p> Subsch. ID : 10 Det. descr. : FCCT_GYRO_HPS3_HCS6 CrCorrChkPar TC(8,4,116,17) Id=ChkId_36	ZCL3E999	
15		Acquire new FCCT		Next Step: END
15.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand <p style="text-align: right;">ReportFdirManagSts</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE ---Y -- ---</p> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116)	DCN02170	
15.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details: <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0</p>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0</p>	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name :HLTFCCF7 (Restore FHWOV FCCT) Restore FHWOV FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
16		Restore FHWOV FCCT (thermal control loop #20)		Next Step: 17
		Verify Telemetry <div style="text-align: center;"> ATemp20_FHWOV DEA8B170 </div>	< 12.0 <dec>	GRD=ZGZ2G999
		If Taverage < 12°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand <div style="text-align: center;"> FCCT_FHWOV_HPS4_HCS2 </div> TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : FCCT_FHWOV_HPS4_HCS2 CrCorrChkPar TC(8,4,116,17) Id=ChkId_38	ZCL3F999	
17		Acquire new FCCT		Next Step: END
17.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand <div style="text-align: center;"> ReportFdirManagSts </div> TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116)	DCN02170	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
17.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details: <div style="text-align: right; margin-left: 400px;"> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0 </div>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: <div style="text-align: right; margin-left: 400px;"> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0 </div>	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right; margin-left: 400px;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name :HLTFCCF8 (Restore FHHRV FCCT) Restore FHHRV FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
18		Restore FHHRV FCCT (thermal control loop #43)		Next Step: 19
		Verify Telemetry <div style="text-align: center;"> Atemp43_FHHRV DEAA2170 </div>	> 19.0 <dec> < 25.0 <dec>	GRD=ZGZ32999
		If Taverage > 19°C and < 25°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand <div style="text-align: center;"> FCCT_FHHRV_HPS8_HCS1 </div> TC Control Flags : <div style="text-align: right; margin-left: 400px;"> GBM IL DSE --Y -- -- </div> Subsch. ID : 10 Det. descr. : FCCT_FHHRV_HPS8_HCS1 CrCorrChkPar TC(8,4,116,17) Id=ChkId_61	ZCL44999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
19		Acquire new FCCT		Next Step: END
19.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts TC Control Flags : Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- ---	DCN02170	
19.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name :HLTFCCF9 (Restore FHWOH FCCT) Restore FHWOH FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
20		Restore FHWOH FCCT (thermal control loop #39)		Next Step: 21
		Verify Telemetry A Temp39_FHWOH DEA9E170	< 11.0 <dec>	GRD=ZGZ2Y999
		If Taverage < 11°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_FHWOH_HPS7_HCS3	ZCL40999	
		TC Control Flags : GBM IL DSE --Y -- ---		
		Subsch. ID : 10 Det. descr. : FCCT_FHWOH_HPS7_HCS3 CrCorrChkPar TC(8,4,116,17) Id=ChkId_57		
21		Acquire new FCCT		Next Step: END
21.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts	DCN02170	
		TC Control Flags : GBM IL DSE --Y -- ---		
		Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116)		
21.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF Packet Details:	FdirMngRun	
		APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name :HLTFCCFA (Restore FHHRH FCCT) Restore FHHRH FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
22		Restore FHHRH FCCT (thermal control loop #26)		Next Step: 23
		Verify Telemetry ATemp26_FHHRH DEA91170	> 25.0 <dec> < 31.0 <dec>	GRD=ZGZ2M999
		If Taverage > 25°C and < 31°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_FHHRH_HPS5_HCS2 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : FCCT_FHHRH_HPS5_HCS2 CrCorrChkPar TC(8,4,116,17) Id=ChkId_44	ZCL3M999	
23		Acquire new FCCT		Next Step: END
23.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
23.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCFCB (RestoreRCSpipe1 FCCT) Restore RCS pipes (control loop 16) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
24		Restore RCS pipe 1 (thermal control loop #16) FCCT		Next Step: 25
		Verify Telemetry ATemp16_RCSPipe1 DEA87170	> 20.0 <dec>	GRD=ZGZ2D999
		If Taverage > 20°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand FCCT_RCS pipel_HPS3_HCS4 <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : FCCT_RCS pipel_HPS3_HCS4 CrCorrChkPar</i> <i>TC(8,4,116,17) Id=ChkId_34</i>	ZCL3C999	
25		Acquire new FCCT		Next Step: END
25.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : Report Fdir Management Status,</i> <i>TC(8,5,116)</i>	DCN02170	
25.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0</p>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0</p>	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name : HLTFCFC (RestoreRCSpipe2 FCCT) Restore RCS pipes (control loop 5) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
26		Restore RCS pipe 2 (thermal control loop #5) FCCT		Next Step: 27
		Verify Telemetry Atemp05_RCSPipe2 DEA7C170	> 12.0 <dec>	GRD=ZGZ23999
		If Taverage > 12°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand <div style="text-align: right;">FCCT_RCS pipe2_HPS1_HCS5</div> TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : FCCT_RCS pipe2_HPS1_HCS5 CrCorrChkPar TC(8,4,116,17) Id=ChkId_23	ZCL33999	
27		Acquire new FCCT		Next Step: END
27.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
27.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCCFD (RestoreRCSpipe3 FCCT) Restore RCS pipes (control loop 45) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
28		Restore RCS pipe 3 (thermal control loop #45) FCCT		Next Step: 29
		Verify Telemetry ATemp45_RCSPipe3 DEAA4170	> 11.0 <dec>	GRD=ZGZ34999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand FCCT_RCS pipe3_HPS8_HCS3 <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : FCCT_RCS pipe3_HPS8_HCS3 CrCorrChkPar</i> <i>TC(8,4,116,17) Id=ChkId_63</i>	ZCL46999	
29		Acquire new FCCT		Next Step: END
29.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : Report Fdir Management Status,</i> <i>TC(8,5,116)</i>	DCN02170	
29.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name : HLTFCFFE (RestoreRCSpipe5 FCCT) Restore RCS pipes (control loop 47) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
30		Restore RCS pipe 5 (thermal control loop #47) FCCT		Next Step: 31
		Verify Telemetry Atemp47_RCSPipe5 DEAA6170	> 20.0 <dec>	GRD=ZGZ36999
		If Taverage > 20°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand <div style="text-align: right;">FCCT RCS pipe5_HPS8_HCS5</div> TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : FCCT RCS pipe5_HPS8_HCS5 CrCorrChkPar TC(8,4,116,17) Id=ChkId_65	ZCL48999	
31		Acquire new FCCT		Next Step: END
31.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
31.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCFF (RestoreRCSpipe6 FCCT) Restore RCS pipes (control loop 21) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
32		Restore RCS pipe 6 (thermal control loop #21) FCCT		Next Step: 33
		Verify Telemetry ATemp21_RCSPipe6 DEA8C170	> 11.0 <dec>	GRD=ZGZ2H999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand FCCT_RCS pipe6_HPS4_HCS3 <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : FCCT_RCS pipe6_HPS4_HCS3 CrCorrChkPar</i> <i>TC(8,4,116,17) Id=ChkId_39</i>	ZCL3G999	
33		Acquire new FCCT		Next Step: END
33.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> <i>Det. descr. : Report Fdir Management Status,</i> <i>TC(8,5,116)</i>	DCN02170	
33.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name : HLTFCCFG (RestoreRCSpipe7 FCCT) Restore RCS pipes (control loop 24) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
34		Restore RCS pipe 7 (thermal control loop #24) FCCT		Next Step: 35
		Verify Telemetry ATemp24_RCSPipe7 DEA8F170	> 11.0 <dec>	GRD=ZGZ2K999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_RCS pipe7_HPS4_HCS6 TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : FCCT_RCS pipe7_HPS4_HCS6 CrCorrChkPar TC(8,4,116,17) Id=ChkId_42	ZCL3K999	
35		Acquire new FCCT		Next Step: END
35.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
35.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
TC Seq. Name : HLTFCCFH (RestoreRCSpipe8 FCCT) Restore RCS pipes (control loop 29) FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
36		Restore RCS pipe 8 (thermal control loop #29) FCCT		Next Step: 37
		Verify Telemetry ATemp29_RCSPipe8 DEA94170	> 10.0 <dec>	GRD=ZGZ2P999
		If Taverage > 10°C, then restore the in-flight default limits in the FCCT by sending the following TC		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand FCCT_RCS pipe8_HPS5_HCS5 <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> Det. descr. : FCCT_RCS pipe8_HPS5_HCS5 CrCorrChkPar TC(8,4,116,17) Id=ChkId_47	ZCL3R999	
37		Acquire new FCCT		Next Step: END
37.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> Det. descr. : Report Fdir Management Status, TC(8,5,116)	DCN02170	
37.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0</p>	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> <p style="text-align: right;">APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0</p>	FcctRpt1	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 Packet Details: <div style="text-align: right;"> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0 </div>	FcctRpt2	
TC Seq. Name : HLTFCCFI (RestorePT_LF_LV FCCT) Restore PT, LF, LV1, LV2 FCCT parameters in flight TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
38		Restore PT, LF, LV1, LV2 (thermal control loop #30) FCCT		Next Step: 39
		Verify Telemetry Atemp30_LV_1_2 DEA95170	> 11.0 <dec>	GRD=ZGZ2Q999
		If Taverage > 11°C, then restore the in-flight default limits in the FCCT by sending the following TC		
		Execute Telecommand FCCT_PTLFLV12_HPS5_HCS6 TC Control Flags : <div style="text-align: right;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 10 Det. descr. : FCCT_PTLFLV12_HPS5_HCS6 CrCorrChkPar TC(8,4,116,17) Id=ChkId_48	ZCL3S999	
39		Acquire new FCCT		Next Step: END
39.1		Send TC(8,5,116) to acquire the status of the function		<input type="checkbox"/>
		Report FDIR Management Status telecommand is used for requiring the status of the function as a telemetry packet. Default status of the function: "started".		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand ReportFdirManagSts <i>TC Control Flags :</i> Subsch. ID : 10 Det. descr. : Report Fdir Management Status, TC(8,5,116) GBM IL DSE --Y -- --	DCN02170	
39.2		Verify that three TM(8,6,116) have been received		<input type="checkbox"/>
		Verify Packet Reception (assumed FDIR function is started) TM 8-6-116 Fdir Management Status Report Running-Idle 0xFF <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29951 PI2: 0	FdirMngRun	
		Verify Packet Reception TM 8-6-116-1 FCCT contents report part 1 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29697 PI2: 0	FcctRpt1	
		Verify Packet Reception TM 8-6-116-2 FCCT contents report part 2 <i>Packet Details:</i> APID: 16 Type: 8 Subtype: 6 PI1: 29698 PI2: 0	FcctRpt2	
End of Procedure				

Restore FCCT parameters in flight

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HERSCHEL								
TCS Htr Line	HEATER location	Reference Unit	LOW FDIR Unit ON	LOW FDIR Unit OFF	HIGH FDIR Unit ON	HIGH FDIR Unit OFF	Control Loop index	FCCT CHK index
Line 01	Close to XPND1	XPND1	-12	-12	52	52		
Line 02	Close to XPND2	XPND2	-12	-12	52	52		
Line 03	Inside BATTERY	BATTERY	-2	-2	37	37		
Line 04	Tanks	TANKS	N/A	N/A	N/A	N/A		
Line 05	Close to FPSPU, FPDPU	FPSPU	-17	-25	47	47		
Line 06	Close to FPBOLC	FPBOLC	-17	-21	47	47		
Line 07	CRS 1	CRS 1	43 -> 8	43 -> 8	52	52	14	32
Line 08	Close to FPDECMEC	FPDECMEC	-17	-22	47	47		
Line 09	On RCS pipes	RCS PIPES	20 -> 8	20 -> 8	52	52	16	34
Line 10	Close to CCU,HSDCU,HSFCU	CCU	3	3	42	42		
Line 11	On RCS pipes	RCS PIPES	12 -> 8	12 -> 8	52	52	5	23
Line 12	Close to FHWOV	FHWOV	2	-20	12 -> 30	12 -> 30	20	38
Line 13	Close to FHHRV	FHHRV	19 -> 8	-25	25 -> 40	25 -> 40	43	61
Line 14	STR1 Primary Baffle	STR 1	11 -> 8	-23	30 -> 40	30 -> 40	53	71
Line 15	Close to FHWEV, FHICU	FHWEV	-2	-22	32	32		
Line 16	Close to FHWOH	FHWOH	1	-15	11 -> 30	11 -> 30	39	57
Line 17	Close to FHWEH	FHWEH	-2	-7	32	32		
Line 18	Close to FHHRH	FHHRH	25 -> 8	-22	31 -> 40	31 -> 40	26	44
Line 19	Close to FHLCU, FHIFH	FHLCU	8	-20	42	42		
Line 20	Close to FHLSU	FHLSU	8	-13	37	37		
Line 21	RWL2	RWL2	-2	-6	57	57		
Line 22	RWL4	RWL4	-2	-6	57	57		
Line 23	RWL1	RWL1	-2	-6	57	57		
Line 24	RWL3	RWL3	-2	-6	57	57		
Line 25	TANK +Y	TANK +Y	8	8	40	40		
Line 26	TANK -Y	TANK -Y	8	8	40	40		
Line 27	Close to STR's	STR panel	-3	-10	30 -> 40	30 -> 40	37	55
Line 28	Close to FHIFV	FHIFV	-12	-12	42	42		
Line 29	FCV A1A (*)	FCV A1A	8	8	90	90		
Line 30	FCV C2A (*)	FCV C2A	8	8	90	90		
Line 31	FCV C1A (*)	FCV C1A	8	8	90	90		
Line 32	FCV A2A (*)	FCV A2A	8	8	90	90		
Line 33	FCV C4A (*)	FCV C4A	8	8	90	90		
Line 34	FCV C3A (*)	FCV C3A	8	8	90	90		
Line 35	on RCS pipes	RCS PIPES	11 -> 8	11 -> 8	52	52	45	63
Line 36	STR2 Primary Baffle	STR 2	11 -> 8	-23	30 -> 40	30 -> 40	46	64
Line 37	on RCS PIPES	RCS PIPES	20 -> 8	20 -> 8	52	52	47	65
Line 38	Close to GYRO	GYRO	55 -> 8	55 -> 8	65	65	18	36
Line 39	FCV A1B (*)	FCV A1B	8	8	90	90		
Line 40	FCV C2B (*)	FCV C2B	8	8	90	90		
Line 41	FCV C1B (*)	FCV C1B	8	8	90	90		
Line 42	FCV A2B (*)	FCV A2B	8	8	90	90		
Line 43	FCV C4B (*)	FCV C4B	8	8	90	90		
Line 44	FCV C3B (*)	FCV C3B	8	8	90	90		
Line 45	on RCS Pipes	RCS PIPES	11 -> 8	11 -> 8	52	52	21	39
Line 46	on RCS Pipes	RCS PIPES	11 -> 8	11 -> 8	52	52	24	42
Line 47	on RCS Pipes	RCS PIPES	10 -> 8	10 -> 8	52	52	29	47
Line 48	on PT, LF, LV1, LV2	LV1	11 -> 8	11 -> 8	52	52	30	48
Line 49	CRS 2	CRS 2	43 -> 8	43 -> 8	52	52	25	43