

Restart telescope decontamination
File: H_CRP_SYS_DECC.xls
Author: E. Picallo



Procedure Summary

Objectives

This procedure is to be used to restart the decontamination function during Telescope cool down (commissioning) in the following cases:

When it has been stopped automatically by the OBSW due to one of the following anomalies:

- Continuity check failure
- CCU A or CCU B invalid

When it has been stopped by Ground following a recovery from a decontamination heater stuck ON failure (H_CRP_SYS_DECH)

Summary of Constraints

In case of heater line failure must be ensure that before restarting the decontamination, the heater masks have to be modified according to contingency procedure H_CRP_SYS_DECH step #35 (Modify heater masks).

In case decontamination was stopped due to continuity check failure, this threshold have to be modified before restarting the decontamination to prevent that it triggers again according to contingency procedure H_CRP_SYS_DECR step #6 (Modify continuity check threshold).

In case of a CCU invalid, a new thermistors triplet shall be selected to calculate the median temperature (acquired only from the healthy CCU). In this case, the telescope temperatures acquired from the invalid CCU are not valid and only the temperatures acquired from the healthy CCU shall be checked.

Spacecraft Configuration

Start of Procedure

Decontamination heating function stopped
CCU A/B Monit#2 and TCS diagnostic packets still enabled
Instruments OFF

End of Procedure

Decontamination heating function started

Reference File(s)

Input Command Sequences

Output Command Sequences

HRYDECC1
HRYDECC2

Referenced Displays

ANDs GRDs SLDs

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ZAZ9J999

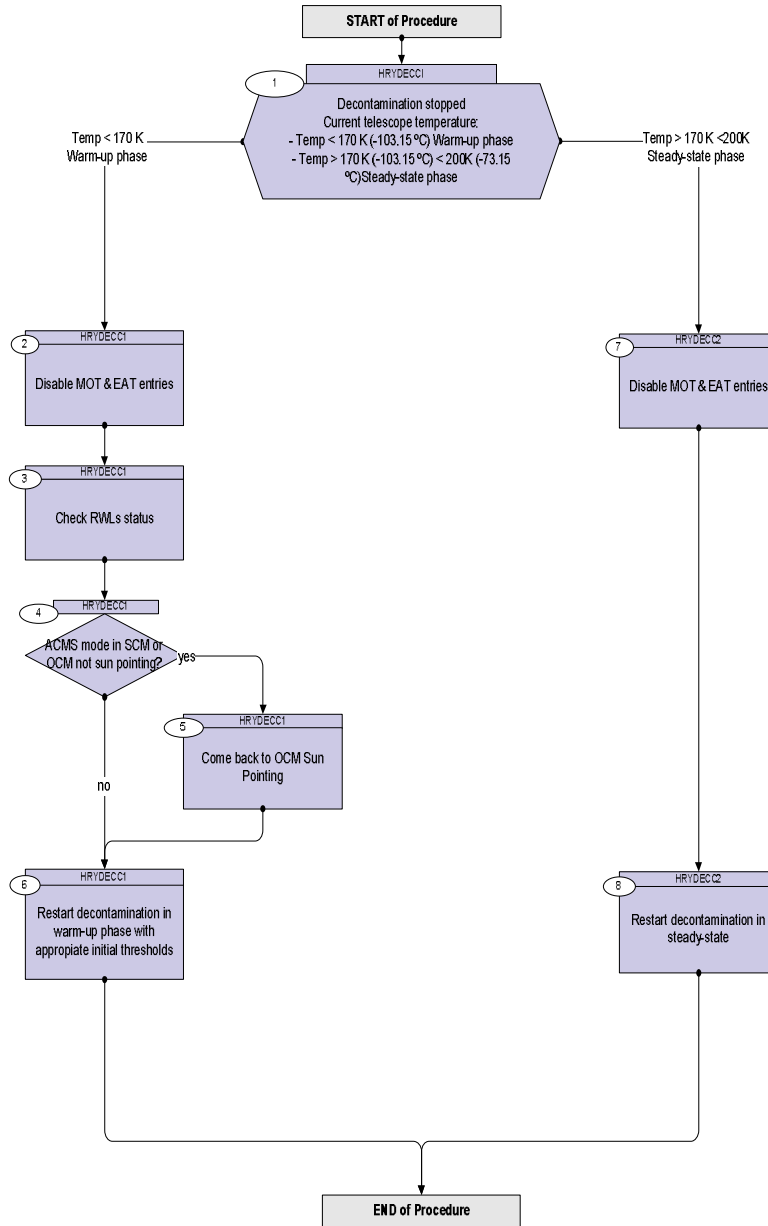
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
21/03/09	2.2	1	Created	E. Picallo	
02/04/09		2	Updated according to TAS-F Telescope decontamination new strategy & inputs for FOP	E. Picallo	
15/04/09	2.3	3	Decontamination lines used for M1 are 4, 6 & 7 update	E. Picallo	
01/05/09	2.4	4	TCs to disable MOT & EAT added In case of restart decont. during Steady-State call to H_COP_SYS_DEC2 used in order to set up heater mask in case of heater failure was detected Restart decont. after continuity check failure requires continuity threshold 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				
<p><i>TC Seq. Name : HRYDECCI (RestartDec COP)</i> Restart decontamination during Telescope cool down in COP</p> <p><i>TimeTag Type:</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
1		<p>Decontamination stopped Current telescope temperature: - Temp < 170 K (-103.15 °C) Warm-up phase - Temp > 170 K (-103.15 °C) < 200K (-73.15 °C) Steady-state phase</p>		<p>Next Step: Temp < 170 K Warm-up phase 2 Temp > 170 K <200K Steady-state phase 7</p>
1.1		<p>Verify telescope temperatures</p> <p style="text-align: center;">□</p>		
		<p>Check the telescope temperatures.</p> <p>Thermistors acquired by CCU A: - T331, T333, T335, T337 for M1 - T339, T341 for M2</p> <p>Thermistors acquired by CCU B: - T332, T334, T336, T338, T340 for M1 - T342 for M2</p> <p>WARNING: In case of a permanent CCU invalid, the telescope temperatures acquired from the invalid CCU are not valid and only the temperatures acquired from the healthy CCU shall be checked.</p> <p>The default thermal sensors to be used for M1 decontamination are TH A (T331), TH A' (T332), TH C (T335).</p> <p>The default thermal sensors to be used for M2 decontamination are TH X (T339), TH Y (T341), TH Z (T342).</p>		
1.1.1		<p>Verify M1 thermistors</p> <p style="text-align: center;">□</p>		
		<p>Verify on telescope; M1 THA ; T21-5 (A) PT1000_T331 KD253302</p>		AND=ZAZ9J999
		<p>Verify on telescope; M1 THA' ; T22-5 (A) PT1000_T333 KD254302</p>		AND=ZAZ9J999
		<p>Verify on telescope; M1 THC ; T23-5 (A) PT1000_T335 KD255302</p>		AND=ZAZ9J999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify on telescope; M1 THC' ; T24-5 (A) PT1000_T337 KD256302		AND=ZAZ9J999
		Verify on telescope; M1 THA'' ; T16-5 (B) PT1000_T332 KD248303		AND=ZAZ9J999
		Verify on telescope; M1 THB ; T17-5 (B) PT1000_T334 KD249303		AND=ZAZ9J999
		Verify on telescope; M1 THB' ; T18-5 (B) PT1000_T336 KD250303		AND=ZAZ9J999
		Verify on telescope; M1 THB'' ; T19-5 (B) PT1000_T338 KD251303		AND=ZAZ9J999
		Verify on telescope; M1 THC'' ; T20-5 (B) PT1000_T340 KD252303		AND=ZAZ9J999
1.1.2		Verify M2 thermistors		<input type="checkbox"/>
		Verify on telescope; M2 THX ; T25-5 (A) PT1000_T339 KD257302		AND=ZAZ9J999
		Verify on telescope; M2 THY ; T26-5 (A) PT1000_T341 KD258302		AND=ZAZ9J999
		Verify on telescope; M2 THZ ; T30-5 (B) PT1000_T342 KD262303		AND=ZAZ9J999
1.2		Telescope Temp < 170 K = -103.15 °C (re-start in Warm-up phase)		<input type="checkbox"/>
		Check if the telescope temperatures have decreased below 170 K (-103.15 °C)		
		Due to power constraints, the following pre-conditions are required to start the decontamination in warm-up and shall remain valid during the entire warm-up phase: - Spacecraft mode shall be: Either in SAM (Instruments OFF) or in NOM but with instruments OFF - ACMS shall be in SAM or OCM / Sun pointing (Z axis), with a Sun Aspect Angle < 1° - Battery shall be at 99% EOC with Vbatt > 25,32 V - RWLs biasing not activated		
1.3		Decontamination stopped during Steady-state phase with Temp > 170 K (-103.15°C) and < 200K (-73.15 °C)?		<input type="checkbox"/>

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		If the telescope temperatures is above 170 K (-103.15°C) AND lower than 200K (-73.15 °C), the decontamination can be restarted in steady-state conditions i.e. the power constraints are not applicable.																																									
<p><i>TC Seq. Name : HRYDECC1 (RestartDecT<170K COP)</i> <i>Restart telescope decont. when temp < 170K (-103.15 °C) in COP</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p><input type="checkbox"/></p>																																											
2		<i>Disable MOT & EAT entries</i>		Next Step: 3																																							
		WARNING: it is assumed that the MOT and EAT entries related to the decontamination are still enabled (the decontamination function was stopped automatically onboard). Note that the start of the decontamination function set the monitored median temperature to the default value 0xFFFF. Then, to prevent the MOT and EAT to be erroneously triggered, they must be disabled before restarting the decontamination and enabled again after it.																																									
2.1		<i>Disable Decontamination EAT entries</i>		<input type="checkbox"/>																																							
		<p>There are 10 entries defined in the EAT related to decontamination:</p> <table border="1"> <thead> <tr> <th>APID</th> <th>Event ID</th> <th>Action TC</th> </tr> </thead> <tbody> <tr> <td colspan="3">For M1</td> </tr> <tr> <td>16(CDMS)</td> <td>40976</td> <td>Switch OFF HPS1 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40977</td> <td>Switch OFF HPS6 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40978</td> <td>Switch OFF HPS10 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40979</td> <td>Switch OFF HPS15 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40980</td> <td>Switch OFF HPS17 TC(8,4,112,3)</td> </tr> <tr> <td colspan="3">For M2</td> </tr> <tr> <td>16(CDMS)</td> <td>40984</td> <td>Switch OFF HPS1 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40985</td> <td>Switch OFF HPS6 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40986</td> <td>Switch OFF HPS10 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40987</td> <td>Switch OFF HPS15 TC(8,4,112,3)</td> </tr> <tr> <td>16(CDMS)</td> <td>40988</td> <td>Switch OFF HPS17 TC(8,4,112,3)</td> </tr> </tbody> </table>	APID	Event ID	Action TC	For M1			16(CDMS)	40976	Switch OFF HPS1 TC(8,4,112,3)	16(CDMS)	40977	Switch OFF HPS6 TC(8,4,112,3)	16(CDMS)	40978	Switch OFF HPS10 TC(8,4,112,3)	16(CDMS)	40979	Switch OFF HPS15 TC(8,4,112,3)	16(CDMS)	40980	Switch OFF HPS17 TC(8,4,112,3)	For M2			16(CDMS)	40984	Switch OFF HPS1 TC(8,4,112,3)	16(CDMS)	40985	Switch OFF HPS6 TC(8,4,112,3)	16(CDMS)	40986	Switch OFF HPS10 TC(8,4,112,3)	16(CDMS)	40987	Switch OFF HPS15 TC(8,4,112,3)	16(CDMS)	40988	Switch OFF HPS17 TC(8,4,112,3)		
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		Execute Telecommand <p style="text-align: right;">DisableActions</p> Command Parameter(s) : <table border="0" style="width: 100%;"> <tr><td style="width: 40%;">N_Repetition</td><td style="width: 20%;">DH041170</td><td style="width: 40%;">10 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40976 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40977 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40978 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40979 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40980 <dec></td></tr> <tr><td colspan="3"> </td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40984 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40985 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40986 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40987 <dec></td></tr> <tr><td> APID_for_EAT_TC</td><td>DH236170</td><td>CDMS (Def)</td></tr> <tr><td> EventId</td><td>DH146170</td><td>40988 <dec></td></tr> </table> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Disable Actions TC(19,5)	N_Repetition	DH041170	10 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40976 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40977 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40978 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40979 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40980 <dec>				APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40984 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40985 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40986 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40987 <dec>	APID_for_EAT_TC	DH236170	CDMS (Def)	EventId	DH146170	40988 <dec>	DCT85170	
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2.2		Report EAT table to check the decontamination entries are disabled		<input type="checkbox"/>																																																																		
		Execute Telecommand <p style="text-align: right;">ReptEvtActTable</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report The contents of the event/action table TC(19,6)	DCT86170																																																																			
2.3		Disable Decontamination MOT entries		<input type="checkbox"/>																																																																		

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		<p>Execute Telecommand</p> <p style="text-align: right;">ArmDisableMon</p> <p>TC Control Flags :</p> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <p>Subsch. ID : 10 Det. descr. : Arm Disable On Board Monitoring, TC(8,4,106,1)</p>	DC54F170																																																																						
		<p>Execute Telecommand</p> <p style="text-align: right;">DisMonitOfParam_Templ</p> <p>Command Parameter(s) :</p> <table border="1"> <thead> <tr> <th>ParameterId</th> <th>MonitorId</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>DH041170</td><td></td><td>10 <dec></td></tr> <tr><td>DH042170</td><td></td><td>2048 <dec></td></tr> <tr><td>DH043170</td><td>216</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>217</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>218</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>219</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>220</td><td><dec></td></tr> <tr><td colspan="3"> </td></tr> <tr><td>DH042170</td><td>2049</td><td><dec></td></tr> <tr><td>DH043170</td><td>224</td><td><dec></td></tr> <tr><td>DH042170</td><td>2049</td><td><dec></td></tr> <tr><td>DH043170</td><td>225</td><td><dec></td></tr> <tr><td>DH042170</td><td>2049</td><td><dec></td></tr> <tr><td>DH043170</td><td>226</td><td><dec></td></tr> <tr><td>DH042170</td><td>2049</td><td><dec></td></tr> <tr><td>DH043170</td><td>227</td><td><dec></td></tr> <tr><td>DH042170</td><td>2049</td><td><dec></td></tr> <tr><td>DH043170</td><td>228</td><td><dec></td></tr> </tbody> </table> <p>TC Control Flags :</p> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <p>Subsch. ID : 10</p> <p>Det. descr. : TEMPLATE Disable Monitoring of Parameter, TC(12,2)</p>	ParameterId	MonitorId	Value	DH041170		10 <dec>	DH042170		2048 <dec>	DH043170	216	<dec>	DH042170	2048	<dec>	DH043170	217	<dec>	DH042170	2048	<dec>	DH043170	218	<dec>	DH042170	2048	<dec>	DH043170	219	<dec>	DH042170	2048	<dec>	DH043170	220	<dec>				DH042170	2049	<dec>	DH043170	224	<dec>	DH042170	2049	<dec>	DH043170	225	<dec>	DH042170	2049	<dec>	DH043170	226	<dec>	DH042170	2049	<dec>	DH043170	227	<dec>	DH042170	2049	<dec>	DH043170	228	<dec>	DCT27170	
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2.4		Report Monitoring List to check the decontamination entries are disabled		<input type="checkbox"/>
		Execute Telecommand <p style="text-align: center;">ReportMonitList</p> TC Control Flags : <p style="text-align: center;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report current monitoring list, TC(12,8) no appl. data	DC51F170	
3		Check RWLs status		Next Step: 4
		Due to power constraints, RWLs can be powered ON but in STBY (i.e. no RWL biasing ongoing and they can not be commanded) during the decontamination warm-up phase. (TBC)		
		Verify Telemetry <p style="text-align: center;">RWL1 power AE4P3002</p> <p style="text-align: center;">= OFF = ON</p>		AND=ZAZ9J999
		Verify Telemetry <p style="text-align: center;">RWL2 power AE4P4002</p> <p style="text-align: center;">= OFF = ON</p>		AND=ZAZ9J999
		Verify Telemetry <p style="text-align: center;">RWL3 power AE4P5002</p> <p style="text-align: center;">= OFF = ON</p>		AND=ZAZ9J999
		Verify Telemetry <p style="text-align: center;">RWL4 power AE4P6002</p> <p style="text-align: center;">= OFF = ON</p>		AND=ZAZ9J999
		Verify Telemetry <p style="text-align: center;">CurrentBiasAid AESM9002</p> <p style="text-align: center;">= Standby = Stopped</p>		AND=ZAZ9J999
		WARNING: In case of RWL biasing activated (i.e. RWL run-in procedure ongoing), then it can be stopped by using the TC AC082109 (Stop Function) with parameter Any Function ID = Biasing.		
4		ACMS mode in SCM or OCM not sun pointing?		Next Step: yes 5 no 6
		Verify Telemetry <p style="text-align: center;">AcmsMode AESMG002</p>		AND=ZAZ9J999
5		Come back to OCM Sun Pointing		Next Step: 6

Restart telescope decontamination
 File: H_CRP_SYS_DECC.xls
 Author: E. Picallo



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		NOTE: you can refer to H_FCP_AOC_3003 "Procedure for delta-V manoeuvres" to perform a transition to OCM. However, the last step to perform a delta-V is not needed in this case.		
		After commanding the OCM Sun pointing, verify the correct ACMS mode and S/C attitude		
		Verify Telemetry <div style="text-align: right;">AcmsMode AESMG002</div>	= OCM	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">AcmsSubstate AESMF002</div>	= OCM Pointing	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Sunvector X BRF AEUVX001</div>	approx. 0	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Sunvector Y BRF AEUVY001</div>	approx. 0	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Sunvector Z BRF AEUVZ001</div>	approx. 1	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Est ang rate X AESR7001</div>	~0 rd/s	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Est ang rate Y AESR8001</div>	~0 rd/s	AND=ZAZ9J999
		Verify Telemetry <div style="text-align: right;">Est ang rate Z AESR9001</div>	~0 rd/s	AND=ZAZ9J999
6		<i>Restart decontamination in warm-up phase with appropriate initial thresholds</i>		Next Step: END
		Call the nominal procedure H_COP_SYS_DEC2 to start the decontamination but taking into account the following remarks: 1) the CCU A and CCUB Monit#2 packets as well as the TCS diagnostic packet should be normally still enabled 2) the redundant HPSs should be still ON. (if no failure detected on decontamination heater lines related to HPS10HCS1, HPS15HCS1, HPS17HCS1 during H_CRP_SYS_DECH execution)		

Restart telescope decontamination
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>3) If the telescope temperatures are below 170 K (-103.15 °C), run the entire procedure as it is. Taking into account the following:</p> <p>i) In case of heater line failure must be ensure that before restarting the decontamination, the heater masks have to be modified according to contingency procedure H_CRP_SYS_DECH step #35 (Modify heater masks).</p> <p>Note: Using only 3 lines on M1 (lines 4, 6 and 7) and the 2 lines on M2 (lines 1 and 2), the peak consumption is ~360W.</p>		
		<p>ii) In case decontamination was stopped due to continuity check failure, this threshold have to be modified before restarting the decontamination to prevent that it triggers again according to contingency procedure H_CRP_SYS_DECR step #6 (Modify continuity check threshold).</p>		
		<p>4) In case of a CCU invalid, a new thermistors triplet is selected to calculate the median temperature (acquired only from the healthy CCU). In this case, the telescope temperatures acquired from the invalid CCU are not valid and only the temperatures acquired from the healthy CCU shall be checked.</p> <p>Thermistors acquired by CCU A: - T331, T333, T335, T337 for M1 - T339 ,T341 for M2</p> <p>Thermistors acquired by CCU B: - T332, T334, T336, T338, T340 for M1 - T342 for M2</p> <p>Note: The contingency procedure H_CRP_CCU_CCUR includes the modification of triplet thermistors used for decontamination (calling to contingency procedure H_CRP_SYS_DECP to perform a M1/2 Decontamination heating thermistors update)</p>		
		<p>Execute Procedure: H_COP_SYS_DEC2 Telescope decontamination during Telescope cool down</p>		
<p>TC Seq. Name :HRYDECC2 (RestartDecSteady COP) Restart decont. in steady-state when temp>170K= -103.15°C in COP</p> <p>TimeTag Type: Sub Schedule ID: <input type="checkbox"/></p>				
7		Disable MOT & EAT entries		Next Step: 8

Restart telescope decontamination
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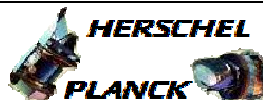
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		<p>WARNING: it is assumed that the MOT and EAT entries related to the decontamination are still enabled (the decontamination function was stopped automatically onboard). Note that the start of the decontamination set the monitored median temperature to the default value 0xFFFF. Then, to prevent the MOT and EAT to be erroneously triggered, they must be disabled before restarting the decontamination and enabled again after it.</p>																																																								
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Restart telescope decontamination
 File: H_CRP_SYS_DECC.xls
 Author: E. Picallo



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																																				
		Det. descr. : TEMPLATE Disable Actions TC(19,5)																																						
7.2		Report EAT table to check the decontamination entries are disabled		<input type="checkbox"/>																																				
		Execute Telecommand <p style="text-align: right;">ReptEvtActTable</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report The contents of the event/action table TC(19,6)	DCT86170																																					
7.3		Disable Decontamination MOT entries		<input type="checkbox"/>																																				
		There are 10 entries defined in the MOT related to decontamination: <table border="1"> <thead> <tr> <th>Parameter ID</th> <th>Monitoring ID</th> <th>Event ID</th> </tr> </thead> <tbody> <tr><td>M1 median temp (2048)</td><td>216</td><td>40976</td></tr> <tr><td>M1 median temp (2048)</td><td>217</td><td>40977</td></tr> <tr><td>M1 median temp (2048)</td><td>218</td><td>40978</td></tr> <tr><td>M1 median temp (2048)</td><td>219</td><td>40979</td></tr> <tr><td>M1 median temp (2048)</td><td>220</td><td>40980</td></tr> <tr><td>M2 median temp (2049)</td><td>224</td><td>40984</td></tr> <tr><td>M2 median temp (2049)</td><td>225</td><td>40985</td></tr> <tr><td>M2 median temp (2049)</td><td>226</td><td>40986</td></tr> <tr><td>M2 median temp (2049)</td><td>227</td><td>40987</td></tr> <tr><td>M2 median temp (2049)</td><td>228</td><td>40988</td></tr> </tbody> </table>	Parameter ID	Monitoring ID	Event ID	M1 median temp (2048)	216	40976	M1 median temp (2048)	217	40977	M1 median temp (2048)	218	40978	M1 median temp (2048)	219	40979	M1 median temp (2048)	220	40980	M2 median temp (2049)	224	40984	M2 median temp (2049)	225	40985	M2 median temp (2049)	226	40986	M2 median temp (2049)	227	40987	M2 median temp (2049)	228	40988					
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		Execute Telecommand <p style="text-align: right;">ArmDisableMon</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : Arm Disable On Board Monitoring, TC(8,4,106,1)	DC54F170																																					
		Execute Telecommand <p style="text-align: right;">DisMonitOfParam_Templ</p> Command Parameter(s) : <table border="1"> <thead> <tr> <th>ParameterId</th> <th>MonitorId</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>DH041170</td><td>10</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>216</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>217</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>218</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>219</td><td><dec></td></tr> <tr><td>DH042170</td><td>2048</td><td><dec></td></tr> <tr><td>DH043170</td><td>220</td><td><dec></td></tr> </tbody> </table>	ParameterId	MonitorId	Value	DH041170	10	<dec>	DH042170	2048	<dec>	DH043170	216	<dec>	DH042170	2048	<dec>	DH043170	217	<dec>	DH042170	2048	<dec>	DH043170	218	<dec>	DH042170	2048	<dec>	DH043170	219	<dec>	DH042170	2048	<dec>	DH043170	220	<dec>	DCT27170	
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		ParameterId DH042170 MonitorId DH043170 ParameterId DH042170 MonitorId DH043170 ParameterId DH042170 MonitorId DH043170 ParameterId DH042170 MonitorId DH043170 ParameterId DH042170 MonitorId DH043170 ParameterId DH042170 MonitorId DH043170 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Disable Monitoring of Parameter, TC(12,2)	2049 <dec> 224 <dec> 2049 <dec> 225 <dec> 2049 <dec> 226 <dec> 2049 <dec> 227 <dec> 2049 <dec> 228 <dec>	
7.4		Report Monitoring List to check the decontamination entries are disabled		<input type="checkbox"/>
		Execute Telecommand ReportMonitList TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Report current monitoring list, TC(12,8) no appl. data	DC51F170	
8		Restart decontamination in steady-state		Next Step: END
		Call the nominal procedure H_COP_SYS_DEC2 to start the decontamination but taking into account the following remarks: 1) the CCU A and CCUB Monit#2 packets as well as the TCS diagnostic packet should be normally still enabled 2) the redundant HPSs should be still ON. (if no failure detected on decontamination heater lines related to HPS10HCS1, HPS15HCS1, HPS17HCS1 during H_CRP_SYS_DECH execution)		
		3) If the telescope temperatures are above 170 K (-103.15 °C), run the entire procedure as it is. Taking into account the following: i) In case of heater line failure must be ensure that before restarting the decontamination, the heater masks have to be modified according to contingency procedure H_CRP_SYS_DECH step #35 (Modify heater masks). Note: Using only 3 lines on M1 (lines 4, 6 and 7) and the 2 lines on M2 (lines 1 and 2), the peak consumption is ~360W.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>ii) In case decontamination was stopped due to continuity check failure, this threshold have to be modified before restarting the decontamination to prevent that it triggers again according to contingency procedure H_CRP_SYS_DECR step #6 (Modify continuity check threshold).</p>		
		<p>4) In case of a CCU invalid, a new thermistors triplet is selected to calculate the median temperature (acquired only from the healthy CCU). In this case, the telescope temperatures acquired from the invalid CCU are not valid and only the temperatures acquired from the healthy CCU shall be checked.</p> <p>Thermistors acquired by CCU A: - T331, T333, T335, T337 for M1 - T339 ,T341 for M2</p> <p>Thermistors acquired by CCU B: - T332, T334, T336, T338, T340 for M1 - T342 for M2</p> <p>Note: The contingency procedure H_CRP_CCU_CCUR includes the modification of triplet thermistors used for decontamination (calling to contingency procedure H_CRP_SYS_DECP to perform a M1/2 Decontamination heating thermistors update)</p>		
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End of Procedure				