

TCS Commissioning Sequence of Activities
 File: H_COP_TCS_TCS0.xls
 Author: E. Picallo



Procedure Summary

Objectives

This procedure describes the TCS commissioning sequence of activities.

There is a Prime and Redundant TCS subsystem, and the basic Commissioning sequence is:

- TCS A Health Check
- TCS Class B Checks (STR)
- TCS A to TCS B Reconfiguration
- TCS B Functional and Performance Checks
- TCS B to TCS A Reconfiguration
- TCS Class B Checks (HIFI)

Summary of Constraints

This procedure is basically addressing the list of activities in TCS Commissioning providing a mapping between COP activities IDs and FOP procedures IDs.

The order in the steps execution of this procedure is not constraining TCS COP activities, being their execution possibly rescheduled according to the need.

Constraints on the different activities are reported in the dedicated procedures.

Spacecraft Configuration

Start of Procedure

Specified in the dedicated procedures

End of Procedure

Specified in the dedicated procedures

Reference File(s)

Input Command Sequences

Output Command Sequences

Referenced Displays

ANDs GRDs SLDs

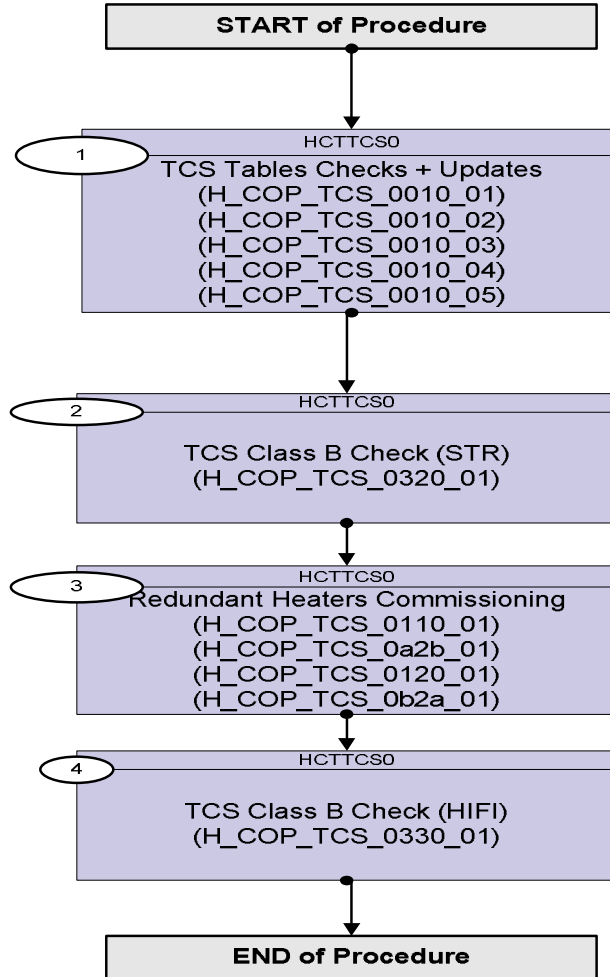
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
22/03/09		1	Created	E. Picallo	
24/03/09	2.2	2	call to H_LEO_TCS_FCCF added	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 : HCTTCS0 (TCS COP Sequence)</i> <i>TCS Commissioning Sequence of Activities</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
1		<p><i>TCS Tables Checks + Updates</i> <i>(H_COP_TCS_0010_01)</i> <i>(H_COP_TCS_0010_02)</i> <i>(H_COP_TCS_0010_03)</i> <i>(H_COP_TCS_0010_04)</i> <i>(H_COP_TCS_0010_05)</i></p>		Next Step: 2
		<p>The step #1.1 covers specifically the activity to restore the modified FCCT thresholds on launch pad to its default FCCT (in flight) values .</p> <p>The steps # 1.2 to 1.3 ara intended as a generic activity to cover all updates to on-board FCCT tables as a result of in-flight evolutions</p>		
		<p>Since all temperatures will evolve and stabilise to in-flight values at different rates, the activty H_COP_TCS_0010 has been inserted multiple times in the CoP timeline, once per day during early commissioning (the _xx at the end of the ID name is the instance number of the activity, it runs from _01 to _05 in the timeline in this case).</p> <p>The intention is to perform this activity regularly, and update the on-board values as and when required.</p>		
1.1		<p><i>Restore FCCT parameters in flight</i></p>		□
		<p>Execute Procedure: H_LEO_TCS_FCCF Restore FCCT parameters in flight</p>		
1.2		<p><i>TCS Subsystem Checkout</i></p>		□
		<p>Call TCS procedure H_FCP_TCS_CHECK (TCS Subsystem Checkout)</p>		
		<p>Execute Procedure: H_FCP_TCS_CHECK TCS Subsystem Checkout</p>		

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1.3		<i>TCS Tables Updates (if required)</i>		<input type="checkbox"/>
		As a result of the TCS Subsystem checkout the following procedures may be needed:		
		Call TCS procedure H_CRP_TCS_TCT (Thermal Control Table maintenance)		
		Execute Procedure: H_CRP_TCS_TCT Thermal Control Table maintenance		
		Call DHS procedure H_CRP_DHS_FCCT (FCCT parameter update)		
		Execute Procedure: H_CRP_DHS_FCCT FCCT parameter update		
2		<i>TCS Class B Check (STR)</i> <i>(H_COP_TCS_0320_01)</i>		Next Step: 3
		Call TCS COP procedure H_COP_TCS_TCS4		
		Execute Procedure: H_COP_TCS_TCS4 Class B thermal performance verification		
3		<i>Redundant Heaters Commissioning</i> <i>(H_COP_TCS_0110_01)</i> <i>(H_COP_TCS_0a2b_01)</i> <i>(H_COP_TCS_0120_01)</i> <i>(H_COP_TCS_0b2a_01)</i>		Next Step: 4
		Call TCS COP procedure H_COP_TCS_TCS2		
		Execute Procedure: H_COP_TCS_TCS2 Check redundant heaters		
4		<i>TCS Class B Check (HIFI)</i> <i>(H_COP_TCS_0330_01)</i>		Next Step: END
		Call TCS COP procedure H_COP_TCS_TCS4		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Procedure: H_COP_TCS_TCS4 Class B thermal performance verification		
End of Procedure				