

PACS_Start_Autonomy_Function_14_OBS
 File: H_COP_PAC_A001.xls
 Author: R. Biggins



Procedure Summary

Objectives

This procedure enables Autonomy Function 14 which will immediately trigger an OBCP to return to Safe Mode

- Trigger the EVENT_BOL_T_FPU event
- Ensure that the OBCP triggers correctly
- Reset PACS TC routing
- Enable PACS MTL subschedule

Based on procedure:
 PACS_Start_Autonomy_Function_14_OBS (v1)

Summary of Constraints

Spacecraft Configuration

Start of Procedure

PACS is in any mode

- All PACS units are powered on and connected

End of Procedure

PACS is in SAFE Mode

- All PACS units are powered on and connected

Reference File(s)

Input Command Sequences

Output Command Sequences

HCPA001

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZ98999

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
23/07/08	1	1	Created	R. Biggins	
13/11/08		2	Updates due to initial testing - New step (1) added for prerequisite check - Initial OBSID value changed to FP	R. Biggins	
21/01/09		3	Update to include proper recovery actions after OBCP triggered: - Reset PACS TC routing - Re-enable MTL subschedule	R. Biggins	
21/01/09		4	Added some CDMU TC verification details	S. Manganeli	
22/01/09	2	5	Updates made to step 5 - time tags updated - comments updated	R. Biggins	

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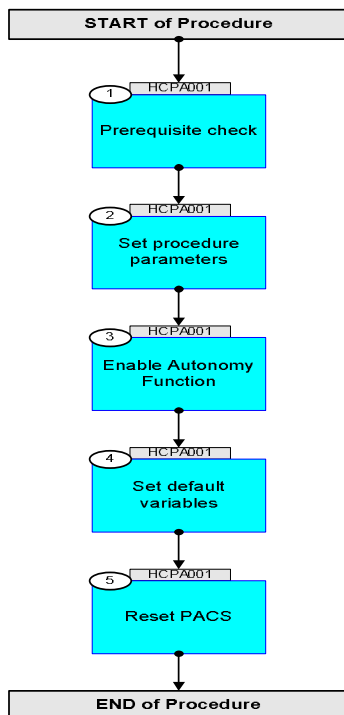


			Final updates before flight <input type="checkbox"/>		
02/04/09		6	- Summary updated <input type="checkbox"/>	R. Biggins	
			- TC flags updated <input type="checkbox"/>		
			- Procedure description/title updated		
02/04/09	2.3	6.01	Validation : Editorial updates	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DPU_SET_FUNCT DPU_SET_FUNCT Command Parameter(s) : DPU_INT_FUNCT_ID PP007380 ENABLE_DISABLE PP006380 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : ENABLE OR DISABLE A DPU INTERNAL FUNCTION	PC005380 EVENT_BOL_T_FPU ENABLE	
		Verify Telemetry DP_TM_RATE PM049380	= SAFE	AND=ZAZ98999
4		Set default variables		Next Step: 5
	ET=+00.00.00 UT=+00.00.00	DMC_SET_OBSID DMC_SET_OBSID Command Parameter(s) : OBSERVATION_ID PP069420 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : SET OBSID IN DMC	PC078420 00000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	DMC_SET_BBID DMC_SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID PP070420 Subsch. ID : 90 Det. descr. : SET BBID IN DMC	PC079420 40000000 <hex>	
		NOTE: The TM showing the OBSID/BBID is not downlinked in SAFE Mode		
5		Reset PACS		Next Step: END
5.1		Reset PACS TC routing		□
		NOTE: The CDMU will disable the RT after no TM is received and so the RT must be re-initialised.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																
	ET=+00.00.00 UT=+00.00.00	Execute Telecommand EnableDisableTcRouting Command Parameter(s) : <table border="0"> <tr> <td>TC_APID</td> <td>DH044161</td> <td>PACS</td> </tr> <tr> <td>TC_SRC</td> <td>DH045161</td> <td>Gnd-LoPrio</td> </tr> <tr> <td>EOD</td> <td>DH009161</td> <td>ENABLED</td> </tr> </table> TC Control Flags : <table border="0"> <tr> <td></td> <td>GBM IL DSE</td> </tr> <tr> <td></td> <td>--Y -- ---</td> </tr> </table> Subsch. ID : 10 Det. descr. : Enable/Disable TC Routing	TC_APID	DH044161	PACS	TC_SRC	DH045161	Gnd-LoPrio	EOD	DH009161	ENABLED		GBM IL DSE		--Y -- ---	DC006161				
TC_APID	DH044161	PACS																		
TC_SRC	DH045161	Gnd-LoPrio																		
EOD	DH009161	ENABLED																		
	GBM IL DSE																			
	--Y -- ---																			
		Verify the TC success by requesting and inspecting the TC routing report																		
	ET=+00.00.03 UT=+00.00.03	Execute Telecommand ReportTcRoutingFilter Subsch. ID : 10 Det. descr. : Report TC Routing Filter	DC807180																	
		It should be verified that the TC routing for PACS is enabled, i.e. the following values are set: TC_APID - PACS (1152) TC_SRC - Gnd-LoPrio EOD - Enabled This should be verified on the VPD																		
		Verify Packet Reception TC Routing Filter Report Packet Details: <table border="0"> <tr> <td>APID:</td> <td>16</td> </tr> <tr> <td>Type:</td> <td>8</td> </tr> <tr> <td>Subtype:</td> <td>6</td> </tr> <tr> <td>PI1:</td> <td>2566</td> </tr> <tr> <td>PI2:</td> <td>41</td> </tr> </table> (8,6)-0802	APID:	16	Type:	8	Subtype:	6	PI1:	2566	PI2:	41								
APID:	16																			
Type:	8																			
Subtype:	6																			
PI1:	2566																			
PI2:	41																			
5.2		Re-enable MTL Subschedule		<input type="checkbox"/>																
	ET=+00.00.00 UT=+00.00.00	Execute Telecommand EnableRelOfTcs_Templ Command Parameter(s) : <table border="0"> <tr> <td>N_Repetition</td> <td>DH041170</td> <td>1 <dec> (Def)</td> </tr> <tr> <td>SubscheduleId</td> <td>DH053170</td> <td>90 <dec></td> </tr> <tr> <td>M_nrOfApid</td> <td>DH054170</td> <td>1 <dec> (Def)</td> </tr> <tr> <td>APID_for_TC_11-x</td> <td>DH235170</td> <td>PACS</td> </tr> </table> TC Control Flags : <table border="0"> <tr> <td></td> <td>GBM IL DSE</td> </tr> <tr> <td></td> <td>--Y -- ---</td> </tr> </table> Subsch. ID : 10 Det. descr. : TEMPLATE EnableReleaseOfTcs, TC(11,1)	N_Repetition	DH041170	1 <dec> (Def)	SubscheduleId	DH053170	90 <dec>	M_nrOfApid	DH054170	1 <dec> (Def)	APID_for_TC_11-x	DH235170	PACS		GBM IL DSE		--Y -- ---	DCT22170	
N_Repetition	DH041170	1 <dec> (Def)																		
SubscheduleId	DH053170	90 <dec>																		
M_nrOfApid	DH054170	1 <dec> (Def)																		
APID_for_TC_11-x	DH235170	PACS																		
	GBM IL DSE																			
	--Y -- ---																			

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		The following TC requests a subschedule status dump. Check on the OBQM model that the subschedule id=90 is enabled.		
	ET=+00.00.03 UT=+00.00.03	Execute Telecommand RetStatusOfCmdSchedule <i>Subsch. ID : 10</i> Det. descr. : ReportStatusOfCmdSchedule, TC(11,18)	DC89F170	
End of Procedure				