

PACS\_Start\_Autonomy\_Function\_17\_OBS  
 File: H\_COP\_PAC\_A002.xls  
 Author: R. Biggins



## Procedure Summary

### Objectives

This procedure enables Autonomy Function 17 which will immediately trigger an OBCP to switch OFF PACS

- Trigger the EVENT\_BOL\_V\_PWR event
- Verify that the OBCP has correctly triggered
- Reset PACS TC routing
- Re-enable EAT entry (6)
- Enable PACS MTL subschedule

Based on procedure:  
 PACS\_Start\_Autonomy\_Function\_17\_OBS\_16\_10\_2007\_01

### Summary of Constraints

This procedure should be executed as part of the FDIR commissioning test

### Spacecraft Configuration

#### Start of Procedure

PACS is in SAFE Mode

- All PACS units powered on and connected

#### End of Procedure

PACS is OFF

- All PACS units powered off
- UIU table shows PACS units ON (since PACS is turned on immediately)

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HCPA002

### Referenced Displays

ANDs      GRDs      SLDs  
 ZAZ97999

### 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	
07/01/09		3	- New step added (step 5) to enable TC routing	R. Biggins	

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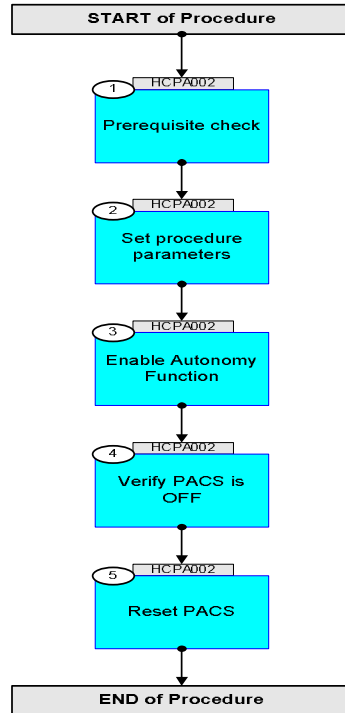


			Update to include proper recovery actions after OBCP triggered: - Reset PACS TC routing - Re-enable MTL subschedule - Re-enable EAT entry 6 (PACS Power Cycle)		
21/01/09		4		R. Biggins	
21/01/09		5	Added some CDMU TC verification details	S. Manganelli	
22/01/09	2	6	Updates made to step 5 - time tags updated - comments updated	R. Biggins	
02/04/09		7	Final updates before flight - Summary updated - TC flags updated - Procedure description/title updated	R. Biggins	
02/04/09	2.3	7.01	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=+00.00.00 UT=+00.00.00	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_V_PWR ENABLE	
	ET=+00.00.01 UT=+00.00.01	DMC_SET_OBSID  DMC_SET_OBSID  Command Parameter(s) : OBSERVATION_ID           PP069420  Subsch. ID : 90 Det. descr. : SET OBSID IN DMC	PC078420  00000000 <hex>	
	ET=+00.00.00 UT=+00.00.00	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>	
4		Verify PACS is OFF		Next Step: 5
4.1		Nominal instrument LCLs		<input type="checkbox"/>
		Verify: DPU LCL status PacsD_N_L41_S           WM72B565	= OFF	AND=ZAZ97999
		Verify: SPU LCL status PacsS_N_L35_S           WM52A565	= OFF	AND=ZAZ97999
		Verify: BOLC LCL status PacsB_N_L27_1S       WM82D565	= OFF	AND=ZAZ97999
		Verify: Dec/Mec1 LCL status PacsMec1_L65_1S       WM52E565	= OFF	AND=ZAZ97999
4.2		Redundant instrument LCLs		<input type="checkbox"/>
		Verify: DPU LCL status PacsD_R_L42_S           WM42B565	= OFF	AND=ZAZ97999
		Verify: SPU LCL status PacsS_R_L36_S           WM62A565	= OFF	AND=ZAZ97999



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
5.2		Re-enable EAT entry 6		<input type="checkbox"/>
		NOTE: The OBCP disables EAT entry 6 for both prime and redundant units and does not re-enable it. This must be done to ensure the continued safety of PACS		
	ET+=00.00.00 UT+=00.00.00	Execute Telecommand  <b>EnableActions</b>  Command Parameter(s) : <b>N_Repetition</b> DH041170 <b>APID_for_EAT_TC</b> DH236170 <b>EventId</b> DH146170 <b>APID_for_EAT_TC</b> DH236170 <b>EventId</b> DH146170  TC Control Flags :  <b>GBM IL DSE</b> --Y -- ---  Subsch. ID : 10 Det. descr. : TEMPLATE Enable Actions TC(19,4)	DCT84170	
		Request a dump of EAT and verify status of the entries on the ground model.		
	ET+=00.00.03 UT+=00.00.03	Execute Telecommand  <b>ReptEvtActTable</b>  Subsch. ID : 10 Det. descr. : TEMPLATE Report The contents of the event/action table TC(19,6)	DCT86170	
5.3		Re-enable MTL Subschedule		<input type="checkbox"/>
	ET+=00.00.00 UT+=00.00.00	Execute Telecommand  <b>EnableRelOfTcs_Templ</b>  Command Parameter(s) : <b>N_Repetition</b> DH041170 <b>SubscheduleId</b> DH053170 <b>M_nrOfApid</b> DH054170 <b>APID_for_TC_11-x</b> DH235170  TC Control Flags :  <b>GBM IL DSE</b> --Y -- ---  Subsch. ID : 10 Det. descr. : TEMPLATE EnableReleaseOfTcs, TC(11,1)	DCT22170	
		The following TC requests a subschedule status dump.  Check on the OBQM model that the subschedule id=90 is enabled.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.03 UT=+00.00.03	Execute Telecommand  RetStatusOfCmdSchedule  Subsch. ID : 10 Det. descr. : ReportStatusOfCmdSchedule, TC(11,18)	DC89F170	
<b>End of Procedure</b>				