

OBCP for Packet Store Cat reports generation
 File: H_FCP_DHS_PKST.xls
 Author: S. Manganelli



Procedure Summary

Objectives

To install, run, stop or remove the OBCP to generate periodic packet store catalog reports.

Summary of Constraints

None

Spacecraft Configuration

Start of Procedure Any

End of Procedure

Reference File(s)

Input Command Sequences

Output Command Sequences

HFDPKSTX
 HFDPKST1
 HFDPKST4
 HFDPKST2
 HFDPKST3
 HFDPKSTY

Referenced Displays

ANDs	GRDs	SLDs
ZAZAI999		(None)
ZAD24999		
ZAZAQ999		
ZAZ41999		
ZAZ0A999		

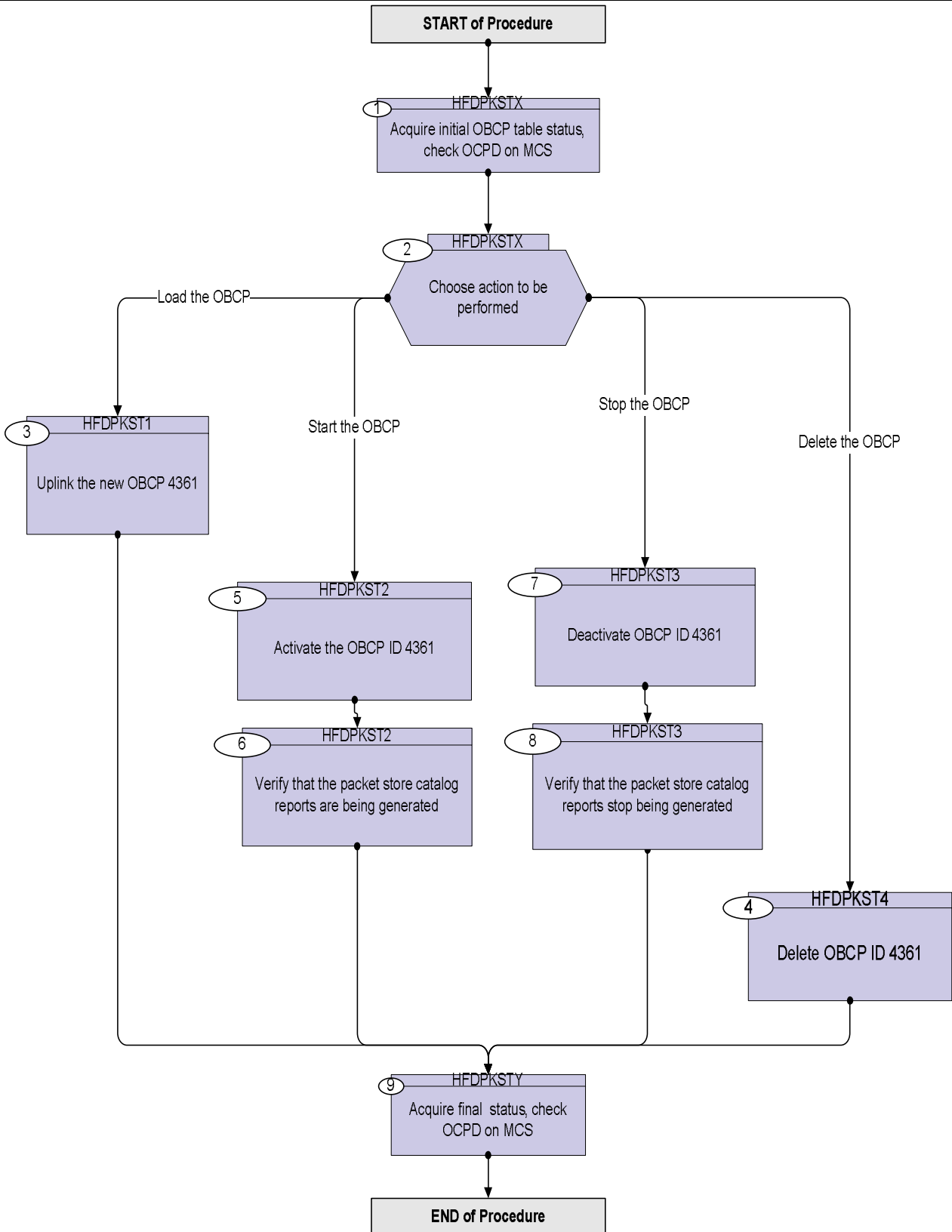
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
30/04/2010		1	Created	S. Manganelli	
02/06/2010	3.1	2	Fixed DB issue with OBCP TC verification stages	S. Manganelli	

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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 : HFDPKSTX (Check OBCP status) TimeTag Type: Sub Schedule ID: <input type="checkbox"/>				
1		Acquire initial OBCP table status, check OCPD on MCS		Next Step: 2
		Execute Telecommand <div style="text-align: right;">ReptOnBoardObcps</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- --</div> Subsch. ID : 10 Det. descr. : TEMPLATE Report list of on-board OBCPs TC(18,8)	DCT76170	
		Verify Status of OBCP Function <div style="text-align: right;">ObcpSts</div> <div style="text-align: right;">DEH36170</div>	= Running	AND=ZAZAI999
		Verify Telemetry <div style="text-align: right;">ObcpFreeChunks</div> <div style="text-align: right;">DE888170</div>	At least 2	AND=ZAD24999
2		Choose action to be performed		Next Step: Load the OBCP 3 Delete the OBCP 4 Start the OBCP 5 Stop the OBCP 7
TC Seq. Name : HFDPKST1 (Load PktStore OBCP) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
3		Uplink the new OBCP 4361		Next Step: 9
3.1		Ensure OBCP management function is running.		<input type="checkbox"/>
		Verify Telemetry <div style="text-align: right;">ObcpSts</div> <div style="text-align: right;">DEH36170</div>	= Running	(None)
3.2		Upload OBCP		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">packet store cat OBCP 1</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : packet store catalogue OBCP 1	XC394991	
		Execute Telecommand <p style="text-align: right;">packet store cat OBCP 2</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : packet store catalogue OBCP 2	XC395991	
		Execute Telecommand <p style="text-align: right;">packet store cat OBCP 3</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : packet store catalogue OBCP 3	XC396991	
		Execute Telecommand <p style="text-align: right;">ReptOnBoardObcps</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report list of on-board OBCPs TC(18,8)	DCT76170	
		Execute Telecommand <p style="text-align: right;">ReptObcpStatus</p> Command Parameter(s) : <p style="text-align: right;">ObcpId DH135170</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report OBCP Status and Parameters TC(18,12)	DCT78170 4361 <dec>	
		Verify Telemetry <p style="text-align: right;">ObcpLoadProcId DE879170</p>	= 4361 <dec>	AND=ZAZAQ999
		Verify Telemetry <p style="text-align: right;">ObcpFreeChunks DE888170</p>	Previous val -1	AND=ZAD24999
3.3		Dump OBCP and compare against reference image		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Start OBSM tool for comparison: - Use Monitor/Update and load reference image type PATCH for this OBCP ID - Ensure Rec button green See procedure H_FCP_OBS_7114 for generic dump details in case of need.		
		Execute Telecommand <div style="text-align: right;">DumpObcp</div> Command Parameter(s) : <div style="text-align: right;">ObcpId DH135170</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 10 Det. descr. : TEMPLATE DumpOBCP TC(18,14)	DCT79170 4361 <dec>	
		After the TC, three TM(18,15) "Dump of a copy of an OBCP" will be received followed by an event TM(5,1,27408) "OBCP Dump completed". Await all packets and ensure 0 differences.		
TC Seq. Name :HFDPKST4 (Delete PktStore OBCP) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
4		Delete OBCP ID 4361		Next Step: 9
		Execute Telecommand <div style="text-align: right;">ReptObcpStatus</div> Command Parameter(s) : <div style="text-align: right;">ObcpId DH135170</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 10 Det. descr. : TEMPLATE Report OBCP Status and Parameters TC(18,12)	DCT78170 4361 <dec>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand <p style="text-align: right;">DeleteObcp</p> Command Parameter(s) : <p style="text-align: right;">ObcpId DH135170</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Delete OBCP TC(18,2)	DCT70170 4361 <dec>	
TC Seq. Name : HFDPKST2 (Start PktStore OBCP) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
5		Activate the OBCP ID 4361		Next Step: 6
		Execute Telecommand <p style="text-align: right;">StartObcp</p> Command Parameter(s) : <p style="text-align: right;">ObcpId DH135170 NParam32 DH138170 NParam64 DH142170</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Start OBCP TC(18,3)	DCT71170 4361 <dec> 0 <dec> 0 <dec>	
		Execute Telecommand <p style="text-align: right;">ReptObcpStatus</p> Command Parameter(s) : <p style="text-align: right;">ObcpId DH135170</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report OBCP Status and Parameters TC(18,12)	DCT78170 4361 <dec>	
		Expect a CO OOL on one of the OBCP threads statuses (OCLxxSts, following is just an example) plus an event "OBCP started".		
		Verify Telemetry <p style="text-align: right;">Ocl01Sts DEM54170</p>	= Running	AND=ZAZ41999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception CdmuAsw Event 5-1 OBCP Started Packet Details: APID: 16 Type: 5 Subtype: 1 PI1: 27402 PI2: 0	D_EvRp_148	
		Verify Telemetry ObcpStartId DE842170	= 4361 <dec>	AND=ZAZAQ999
		Verify Telemetry ObcpActiveCnt DE83B170	Previous value +1	AND=ZAZAQ999
6		Verify that the packet store catalog reports are being generated		Next Step: 9
		The packet store catalog reports for all ten stores on board : 0,1,2,3 on SSMM A 128,129,130,131 on SSMM B 127 and 255 CEL A / B should be generated shortly after the OBCP is started and then the cycle shall repeat at about 10 minutes intervals. Each report shall be accompanied by a TM(1,9) since this documents the autonomous commanding by the OBCP.		
		Verify Telemetry BSWTcFvObcpPass DELMF160	+1 each OBCP TC	AND=ZAZO999
		The OBCP TC asking for the catalogue store report will NOT generate a TM(1,1) or TM(1,7). However, in case of a problem, TM(1,2) or TM(11,8) shall be issued. If this happens, to know which TC has failed one shall have to manually correlate the SSC in TM(1,9) with the one contained in the TM(1,2) or TM(1,8). Do NOT expect failures in TCHIST since these TCs are autonomously generated on-board and therefore are not known to the MCS.		

TC Seq. Name : HFDPKST3 (Stop PktStore OBCP)

TimeTag Type: N
 Sub Schedule ID:

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
7		Deactivate OBCP ID 4361		Next Step: 8
		Execute Telecommand ReptObcpStatus Command Parameter(s) : ObcpId DH135170 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Report OBCP Status and Parameters TC(18,12)	DCT78170 4361 <dec>	
		Execute Telecommand StopObcp Command Parameter(s) : ObcpId DH135170 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Stop OBCP TC(18,4)	DCT72170 4361 <dec>	
		Expect a CO OOL on one of the OBCP threads statuses (OCLxxSts, following is just an example) plus the event "OBCP ended".		
		Verify Telemetry Ocl01Sts DEM54170	= Stopped	AND=ZAZ41999
		Verify Packet Reception CdmuAsw Event 5-1 OBCP Ended Packet Details: APID: 16 Type: 5 Subtype: 1 PI1: 27399 PI2: 0	D_EvRp_145 16 5 1 27399 0	
		Verify Telemetry ObcpEndId DE83C170	= 4361 <dec>	AND=ZAZAQ999
8		Verify that the packet store catalog reports stop being generated		Next Step: 9

TC Seq. Name : *HFDPKSTY* (Check final OBCP status)

TimeTag Type:
 Sub Schedule ID:

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
9		Acquire final status, check OCPD on MCS		Next Step: END
		Execute Telecommand <p style="text-align: right;">ReptOnBoardObcps</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- --</p> Subsch. ID : 10 Det. descr. : TEMPLATE Report list of on-board OBCPs TC(18,8)	DCT76170	
End of Procedure				