

Load a new OBSM image from the ASW  
 File: H\_FCP\_SPI\_CLOM.xls  
 Author: L.Lucas-hp



## Procedure Summary

### Objectives

The objective of this procedure is to load a new OBSW image via the ASW

### Summary of Constraints

INPUT:  
 - Expected ASW version?

### Spacecraft Configuration

**Start of Procedure**

SPIRE is in REDY mode

**End of Procedure**

SPIRE is in DPU\_ON mode

### Reference File(s)

**Input Command Sequences**

**Output Command Sequences**

HFSCLOM

### Referenced Displays

<b>ANDs</b>	<b>GRDs</b>	<b>SLDs</b>
ZAZ96999		
SA_1_559		

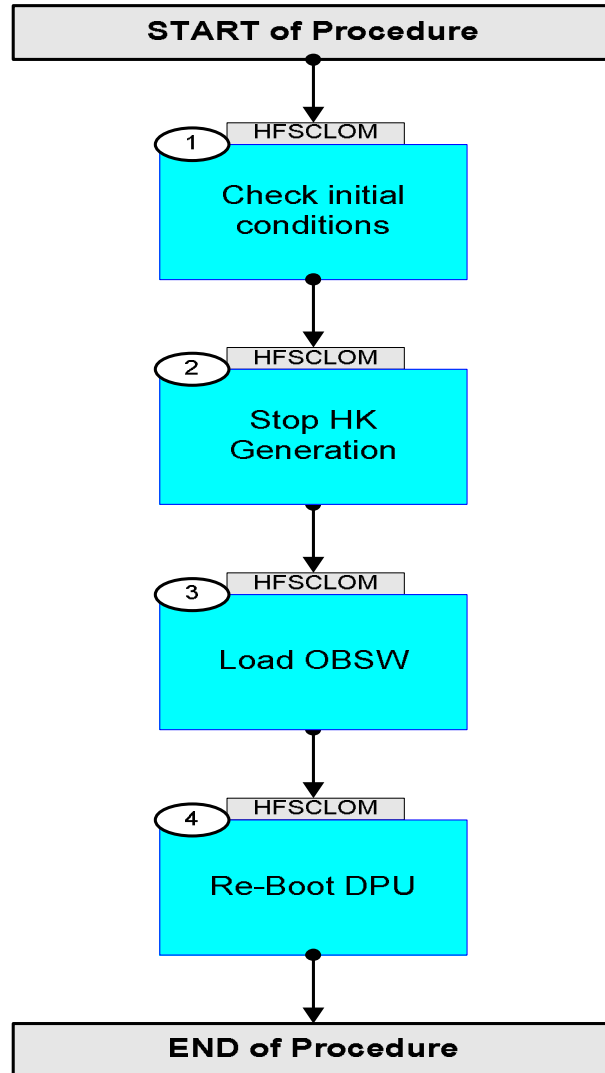
### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
18/01/08		1	Created	R. Biggins	
			Updates due to SVT-1 testing: - TM checks added at end to verify software version - Flags updated - Comments added/updated - AND updated for all TM parameters		
19/05/08	1	2		R. Biggins	
04/11/09		3	Updates to cmd parameters SPMTN500 and SPMRN500 for new OBSW 4.0.0.	L.Lucas-hp	
11/11/09		4	Text description updates	L.Lucas-hp	
17/11/09	3	5	Corrected cmd SCM06500 parameter SPMPN500 to 20000 (h). Was found to be incorrect & failed execution while uploading 4.0.0.	L.Lucas-hp	

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### Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
<b>Beginning of Procedure</b>				
<i>TC Seq. Name : HFSCLOM (Load OBSM - ASW)</i>  <i>TimeTag Type: N</i> <i>Sub Schedule ID:</i>  <input type="checkbox"/>				
1		Check initial conditions		Next Step: 2
1.1		SPIRE input		<input type="checkbox"/>
		Verify that the correct information has been supplied by the ICC:  Software Image (verify with OBSM engineer)		
		Verify that the expected DPU software version number has been supplied by the SPIRE ICC		
1.2		Verify TM, Mode and Current S/W Version		<input type="checkbox"/>
		Verify Telemetry  MODE SM00M500 = REDY		AND=ZAZ96999
		The following version check ensures which software version is running.		
		Verify Telemetry  OBSVER1 SM0EN500 Version		AND=ZAZ96999
		Verify Telemetry  OBSVER2 SM0FN500 Sub-version		AND=SA_1_559
		Verify Telemetry  OBSVER3 SM05F500 Revision		AND=ZAZ96999
2		Stop HK Generation		Next Step: 3
	ET=+ UT=+00.00.00	Execute Telecommand  CLEAR_HK_REPORT  Command Parameter(s) : PCKTID_CLEARHK SPR6N500  Subsch. ID : 370 Det. descr. : CLEAR HOUSEKEEPING PARAMETER REPORT DEFINITION	SCR01500  301 <hex>	
2.1		Check HK Has Stopped		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify that the Nominal Housekeeping is not being generated [TM(3,25), APID 1282 or 1283].		
		Verify telemetry is no longer incrementing <b>TM2N SMT1N500</b>		AND=SA_1_559
3		Load OBSW		Next Step: 4
3.1		Clone OBS to loading area in HIGH Memory		<input type="checkbox"/>
		Execute Telecommand <b>CLONE_OBS</b>  Command Parameter(s) : <b>DEST_ADDR_CLONEOBS SPMPN500</b> <b>N_PMWORDS_CLONEOBS SPMRN500</b>  Subsch. ID : 370 Det. descr. : CLONE AN OBS IMAGE TO PATCHING AREA	<b>SCM06500</b>  <b>20000 &lt;hex&gt;</b> <b>16E13 &lt;hex&gt;</b>	
3.2		Load OBSW		<input type="checkbox"/>
		OBSM engineer to run the procedure <b>H_FCP_OBS_5110</b> to generate the saved stack files for upload.		
		The OBSM procedure will generate a saved stack file and uplink the patch commands to SPIRE. It may also verify that the load/patch is successful by checksum verification of the on-board image.		
4		Re-Boot DPU		Next Step: END
		Sending the following TC may result in a <b>TM(5,1)</b> [SDB_Unhealthy] on the CDMU.		
		Execute Telecommand <b>COMMIT_OBS_AND_REBOOT</b>  Command Parameter(s) : <b>FROM_ADDR_COMMITOBS SPMSN500</b> <b>N_PMWORDS_COMMITOBS SPMTN500</b>  Subsch. ID : 370 Det. descr. : COMMIT OBS IMAGE AND REBOOT	<b>SCM07500</b>  <b>20000 &lt;hex&gt;</b> <b>16058 &lt;hex&gt;</b>	
4.1		Verify DPU has re-booted		<input type="checkbox"/>
4.2		Verify current software		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry <b>MODE</b> <b>SM00M500</b>	<b>= DPU_ON</b>	AND=ZAZ96999
		The following version check should ensure that the expected software version is running.		
		Verify Telemetry <b>OBSVER1</b> <b>SM0EN500</b>	<b>Version</b>	AND=ZAZ96999
		Verify Telemetry <b>OBSVER2</b> <b>SM0FN500</b>	<b>Sub-version</b>	AND=SA_1_559
		Verify Telemetry <b>OBSVER3</b> <b>SM05F500</b>	<b>Revision</b>	AND=ZAZ96999
<b>End of Procedure</b>				