

DPU_START - Switch ON the redundant SPIRE units
 File: H_FCP_SPI_RSON.xls
 Author: L.Lucas-hp



Procedure Summary

Objectives

The objective of this procedure is to switch SPIRE REDUNDANT
 This involves CDMU commanding for the LCLs and SPIRE commanding.
 (LCLs are switched on, the SPIRE DPU is booted and started.)

Summary of Constraints

Warning: The Boot DPU command (step 5.4) MUST be added MANUALLY
 to the manual stack once this procedure has been loaded.
 The command must be added in the middle of the sequence.
 INPUT:
 - The PRIMARY or SECONDARY partition should be copied to the
 EEPROM upon DPU switch on: 3.0.B
 - Expected ASW version?

Spacecraft Configuration

Start of Procedure

SPIRE is OFF

End of Procedure

SPIRE is in sub-mode DPU_ON

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSRSON

Referenced Displays

ANDs	GRDs	SLDs
ZAZ96999		
SA_7_559		
SA_6_559		

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
12/11/07		1	Created	R. Biggins	
21/11/07		2	- Variable TCs updated - Time tags added to SVM commands	R. Biggins	
11/12/07		3	Table Update TCs updated to reduce the number of parameters and reduce the size of the TC to below the maximum allowed TC length	R. Biggins	
15/01/08		4	Update due to initial testing against simulator: - Bus profile selection TC added	R. Biggins	

Status : Version 9 - Unchanged
 Last Checkin: 12/03/09

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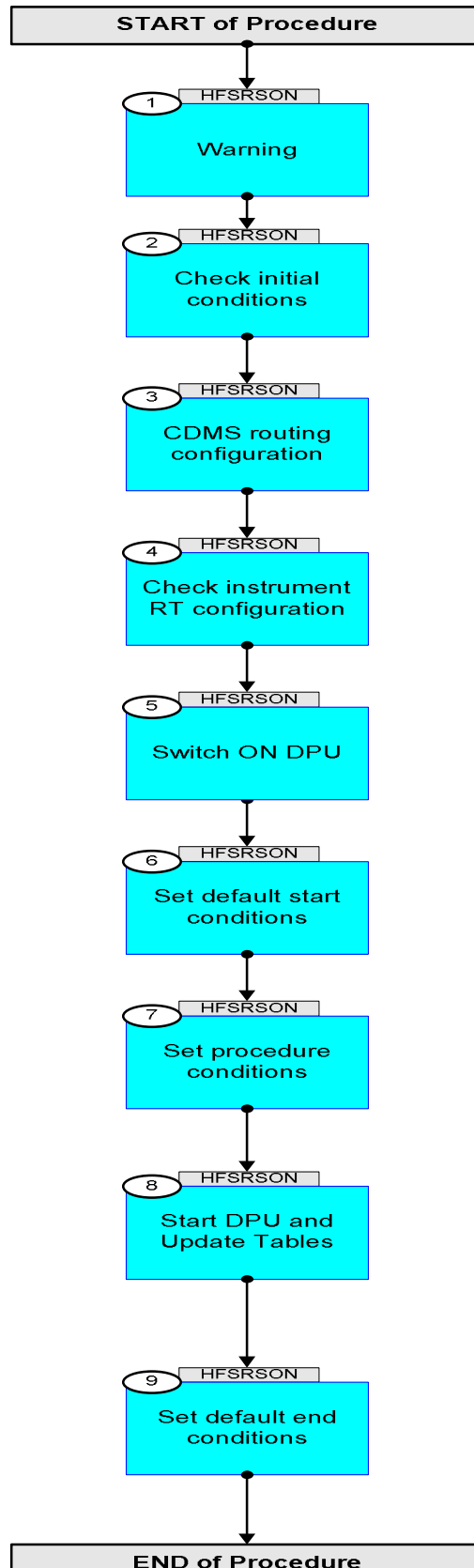


30/01/08		5	Update due to changes in input file (DPU_START: version 4) <input type="checkbox"/> <input type="checkbox"/> - BBID/OBSID TM checks added <input type="checkbox"/> - Table Update TCs added <input type="checkbox"/> - Table update parameters updated <input type="checkbox"/> - Execution times removed	R. Biggins	
22/02/08		6	<input type="checkbox"/> Update due to testing against MOC Simulator: <input type="checkbox"/> - Time Tags updated <input type="checkbox"/> - BBID/OBSID TM checks added <input type="checkbox"/> - Editorial updates	R. Biggins	
03/03/08		6.01	Validation : Update due to comments by S. Sidher: <input type="checkbox"/> - DPU LCL expected current updated	R. Biggins	
19/05/08	1	7	Updates due to SVT-1 testing: <input type="checkbox"/> - TC to start RT interrogations updated (step 4.3) <input type="checkbox"/> - TC to enable SDB FDIR moved from step 8 to step 4.5 <input type="checkbox"/> - TM to check software version added (step 4.7) <input type="checkbox"/> - TM parameters added to RESET_DRCU_COUNTERS telecommand (step 6) <input type="checkbox"/> - Default OBSID value updated to 0x0000 0000 <input type="checkbox"/> - flags updated <input type="checkbox"/> - comments added/updated <input type="checkbox"/> - AND updated for all TM parameters	R. Biggins	
02/03/09	2.1	8	Procedure updated to reflect SVT2. <input type="checkbox"/> CDMU latch commands included. Excessive table updates removed.	L.Lucas-hp	
12/03/09		8.01	Validation : Added in warnings/Reminders: The DPU Boot command must be added manually	L.Lucas-hp	
12/03/09		9	Re-exported commands	L.Lucas-hp	
25/03/09	2.2	9.01	Validation : Text Updates: Including APID 1289 and DPU version	L.Lucas-hp	

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Procedure Flowchart Overview



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Procedure Flowchart Overview

END of Procedure

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
TC Seq. Name :HFSRSON (Switch ON (Red))				
TimeTag Type: N Sub Schedule ID:				
□				
1		Warning		Next Step: 2
		Warning: The Boot DPU command (step 5.4) MUST be added <u>MANUALLY</u> to the manual stack once this procedure has been loaded. The command must be added in the middle of the sequence.		
2		Check initial conditions		Next Step: 3
		Verify: SPIRE has been switched off for at least 4 minutes		
2.1		SPIRE input		□
		Verify that the SPIRE ICC has indicated whether the DPU is to be booted from the primary or secondary partition (step 5.4)		
		Verify that the expected DPU software version number has been supplied by the SPIRE ICC (Step 5.6)		
2.2		Bus status		□
		Verify Bus configuration		
		Verify: Active 1553 bus Active_Bus_A_B DEFJ1160 = BUS_A		AND=ZAZ96999
		Verify: 1553 bus FDIR status SDB_FDIR DEFJ4160 = ENABLED		AND=ZAZ96999
		Verify: SDB handling status BSW_SDB_ENAB DEF60160 = ENABLED		AND=ZAZ96999
		Verify bus health status		
		Verify: Bus (side A) health status BusA_HealthySts DEFJ2160 = Healthy		AND=ZAZ96999
		Verify: Bus (side B) health status BusB_HealthySts DEFJ3160 = Healthy		AND=ZAZ96999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
2.3		Redundant instrument LCLs		<input type="checkbox"/>
		Verify: DPU LCL status SpirHsdR_L12_1S WM82C565	= OFF	AND=ZAZ96999
		Verify: FCU LCL status SpirHsfR_L52_1S WM72C565	= OFF	AND=ZAZ96999
2.4		Nominal instrument LCLs		<input type="checkbox"/>
		Verify: DPU LCL status SpirHsdN_L11_1S WM32C565	= OFF	AND=ZAZ96999
		Verify: FCU LCL status SpirHsfN_L51_1S WM42C565	= OFF	AND=ZAZ96999
2.5		Temperature		<input type="checkbox"/>
		TBD		
3		CDMS routing configuration		Next Step: 4
3.1		Verify Packet Routing		<input type="checkbox"/>
	ET=+ UT=+00.00.00	Execute Telecommand RepDownlinkTMStorage Subsch. ID : 10 Det. descr. : Report Telemetry Packets Down-linking/ Storage Status	DC141160	
		It should be verified that ALL telemetry packets for the following APIDs should be transmitted to ground (Transmit_Flag = ENABLED) EXCEPT for TM(21,x) which should be stored in the SSMM (Storage_Flag = ENABLED, Transmit_Flag = DISABLED). 1281 - SpireRed 1283 - SpireRedDiagHk 1285 - SpireRedSci0 1287 - SpireRedSci1 1289 - SpireRedSci This should be verified on the VPD		
		Verify Packet Reception Telemetry Packets DownLinking-Storage Status Report Packet Details: APID: 16 Type: 14 Subtype: 7 PI1: PI2:	(14,7)-1400	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
4		Check instrument RT configuration		Next Step: 5
4.1		Remote Terminal configuration		<input type="checkbox"/>
		Verify Telemetry SPIRE_VitalNonV DED52161	= NonVital	AND=ZAZ96999
		Verify Telemetry SPIRE_TmRetry DED54161	= ON	AND=ZAZ96999
4.2		Remote Terminal Status		<input type="checkbox"/>
		Redundant units		
		Verify Telemetry SPIREB_OnOff DED21161	= OFF	AND=ZAZ96999
		Verify Telemetry SPIREB_DeadAliv DED22161	= Alive	AND=ZAZ96999
		Verify Telemetry SPIREB_WellsiTc DED23161	= Well	AND=ZAZ96999
		Verify Telemetry SPIREB_WellsiTm DED24161	= Well	AND=ZAZ96999
		Verify Telemetry SPIREB_ValidInv DED25161	= Invalid	AND=ZAZ96999
		Nominal units		
		Verify Telemetry SPIREA_OnOff DED1G161	= OFF	AND=ZAZ96999
		Verify Telemetry SPIREA_DeadAliv DED1H161	= Alive	AND=ZAZ96999
		Verify Telemetry SPIREA_WellsiTc DED1Z161	= Well	AND=ZAZ96999
		Verify Telemetry SPIREA_WellsiTm DED1J161	= Well	AND=ZAZ96999
		Verify Telemetry SPIREA_ValidInv DED1K161	= Invalid	AND=ZAZ96999
5		Switch ON DPU		Next Step: 6
5.1		Set Bus Profile		<input type="checkbox"/>

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																																																																																													
	ET=+ UT=+00.00.00	Execute Telecommand <p style="text-align: right;">SelectActiveSCBP</p> <i>Command Parameter(s) :</i> <p style="text-align: center;">SCBP DH049160</p> <i>Subsch. ID : 10</i> <i>Det. descr. : Select Active SCBP from SCBP Table</i>	DC819160 SCBP_03																																																																																														
		Verify Telemetry <p style="text-align: center;">BSW_SDB_ActProf DEF5F160</p>	= 3 <dec>	AND=ZAZ96999																																																																																													
5.2		<i>Disable FDIR & Start Instrument RT interrogations</i>		☐																																																																																													
		WARNING: The following TC disables the SDB FDIR for the WHOLE spacecraft . Since there is no other alternative to the switch on sequence, it is vital that the FDIR is disabled for as short a time as possible.																																																																																															
	ET=+ UT=+00.00.00	Execute Telecommand <p style="text-align: right;">ConfigureSDBFDIR</p> <i>Command Parameter(s) :</i> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20%; text-align: right;">RTA</td><td style="width: 30%;">DH011161</td><td style="width: 50%;">SPIRE B</td></tr> <tr><td style="text-align: right;">M0</td><td>DH030161</td><td>Update status</td></tr> <tr><td style="text-align: right;">M1</td><td>DH031161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M2</td><td>DH032161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M3</td><td>DH033161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M4</td><td>DH034161</td><td>Update status</td></tr> <tr><td style="text-align: right;">M5</td><td>DH035161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M6</td><td>DH036161</td><td>Update status</td></tr> <tr><td style="text-align: right;">M7</td><td>DH037161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">F0</td><td>DH018161</td><td>ON</td></tr> <tr><td style="text-align: right;">F1</td><td>DH019161</td><td>Alive</td></tr> <tr><td colspan="3"> </td></tr> <tr><td style="text-align: right;">F2</td><td>DH020161</td><td>Well TC</td></tr> <tr><td style="text-align: right;">F3</td><td>DH021161</td><td>Well TM</td></tr> <tr><td style="text-align: right;">F4</td><td>DH022161</td><td>Valid</td></tr> <tr><td style="text-align: right;">F5</td><td>DH023161</td><td>Non-vital</td></tr> <tr><td style="text-align: right;">F6</td><td>DH024161</td><td>REDUNDANT</td></tr> <tr><td style="text-align: right;">F7</td><td>DH025161</td><td>ON</td></tr> <tr><td style="text-align: right;">M12</td><td>DH051161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M_C</td><td>DH043161</td><td>Ignore CNT</td></tr> <tr><td style="text-align: right;">M8</td><td>DH038161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M9</td><td>DH039161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M10</td><td>DH040161</td><td>Ignore Flag</td></tr> <tr><td style="text-align: right;">M11</td><td>DH041161</td><td>Update status</td></tr> <tr><td style="text-align: right;">F12</td><td>DH050161</td><td>ENABLED</td></tr> <tr><td style="text-align: right;">CNT</td><td>DH042161</td><td>LoopCnt1</td></tr> <tr><td style="text-align: right;">F8</td><td>DH026161</td><td>Bus A</td></tr> <tr><td colspan="3"> </td></tr> <tr><td style="text-align: right;">F9</td><td>DH027161</td><td>Healthy</td></tr> <tr><td style="text-align: right;">F10</td><td>DH028161</td><td>Healthy</td></tr> <tr><td style="text-align: right;">F11</td><td>DH029161</td><td>DISABLED</td></tr> </table> <i>Subsch. ID : 10</i> <i>Det. descr. : Configure SDB FDIR</i>	RTA	DH011161	SPIRE B	M0	DH030161	Update status	M1	DH031161	Ignore Flag	M2	DH032161	Ignore Flag	M3	DH033161	Ignore Flag	M4	DH034161	Update status	M5	DH035161	Ignore Flag	M6	DH036161	Update status	M7	DH037161	Ignore Flag	F0	DH018161	ON	F1	DH019161	Alive				F2	DH020161	Well TC	F3	DH021161	Well TM	F4	DH022161	Valid	F5	DH023161	Non-vital	F6	DH024161	REDUNDANT	F7	DH025161	ON	M12	DH051161	Ignore Flag	M_C	DH043161	Ignore CNT	M8	DH038161	Ignore Flag	M9	DH039161	Ignore Flag	M10	DH040161	Ignore Flag	M11	DH041161	Update status	F12	DH050161	ENABLED	CNT	DH042161	LoopCnt1	F8	DH026161	Bus A				F9	DH027161	Healthy	F10	DH028161	Healthy	F11	DH029161	DISABLED	DC005161	
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		Wait up to 1 minute for the generation of the D_H_Hk_P64 packet from the CDMU (APID = 18)																																																																																															

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		Verify: 1553 bus FDIR status SDB_FDIR DEFJ4160	= DISABLED	AND=ZAZ96999
		Verify Telemetry SPIRE_NomRed DED53161	= REDUNDANT	AND=ZAZ96999
		Verify Telemetry SPIREB_OnOff DED21161	= ON	AND=ZAZ96999
		Verify Telemetry SPIREB_ValidInv DED25161	= Invalid	AND=ZAZ96999
5.3		<i>Power ON DPU</i>		□
		Switching ON the DPU LCL will initialise BSW. This will initially execute memory checks (failures will generate TM(5,4) packets) and then generate TM(5,1) [R_Boot_ROM_Check] packets every 10 seconds. WARNING: It is vital to send the FORCE_BOOT TC within 210 seconds otherwise the DPU stops sending TM(5,1) packets (after 21 packets) and then the SVM will invalidate the RT		
	ET=+ UT=+00.00.00	Execute Telecommand SwOn_SpireHSPDU_R_L12 <i>Subsch. ID : 10</i> Det. descr. : PCDU: TC(8,4,112,5) SPIRE HSDPU Red - switch LCL_12 on	DC12D170	
		Verify: DPU LCL status SpirHsdR_L12_1S WM82C565	= ON	AND=ZAZ96999
		Verify: DPU LCL current (+/- 0.5A) SpireHsN_L11_I WM308565	= 0.425 A	AND=ZAZ96999
5.4		<i>Boot DPU</i>		□
		Sending either of the FORCE_BOOT TCs will generate a TM(5,1) [R_TC_ACKNOWLEDGE] packet from the BSW. On ASW startup, three TM(5,1) [R_No_MCU_Response_Error, R_No_SCU_Response_Error, R_No_DCU_Response_Error] packets are expected as the units are not switched on.		
		To boot from PRIMARY partition, MANUALLY send the following command:		
		FORCE_BOOT_PRIMARY FORCE_BOOT_PRIMARY <i>Subsch. ID : 370</i> Det. descr. : LOAD OBS FROM PRIMARY PARTITION OF EEPROM AND BOOT This Telecommand will not be included in the export	SCD09505	

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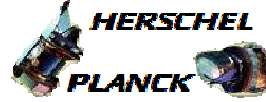
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																																	
		To boot from SECONDARY partition, MANUALLY send the following command:																																			
		Execute Telecommand <p style="text-align: center;">FORCE_BOOT_SECONDARY</p> <i>Subsch. ID : 370</i> Det. descr. : LOAD OBS FROM SECONDARY PARTITION OF EEPROM AND BOOT This Telecommand will not be included in the export	SCD0A505																																		
5.5		Verify Housekeeping		<input type="checkbox"/>																																	
		Verify the TM is being generated. Check Packet History: Critical 3,25, 1281 (Critical_HK_Parameter_Report) Nominal HK 3,25, 1283 (Nominal_HK_Parameter_Report)																																			
		The following version check should ensure that the expected software version is running.																																			
		Verify Telemetry <p style="text-align: center;">OBSVER1 SM0EN500</p>	Version	AND=ZAZ96999																																	
		Verify Telemetry <p style="text-align: center;">OBSVER2 SM0FN500</p>	Sub-version	AND=ZAZ96999																																	
		Verify Telemetry <p style="text-align: center;">OBSVER3 SM05F500</p>	Revision	AND=ZAZ96999																																	
5.6		Re-enable SDB FDIR		<input type="checkbox"/>																																	
	ET=+ UT=+00.00.00	Execute Telecommand <p style="text-align: center;">ConfigureSDBFDIR</p> <i>Command Parameter(s) :</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">RTA</td> <td style="width: 30%;">DH011161</td> <td style="width: 30%;">SPIRE B</td> </tr> <tr> <td>M0</td> <td>DH030161</td> <td>Ignore Flag</td> </tr> <tr> <td>M1</td> <td>DH031161</td> <td>Ignore Flag</td> </tr> <tr> <td>M2</td> <td>DH032161</td> <td>Ignore Flag</td> </tr> <tr> <td>M3</td> <td>DH033161</td> <td>Ignore Flag</td> </tr> <tr> <td>M4</td> <td>DH034161</td> <td>Ignore Flag</td> </tr> <tr> <td>M5</td> <td>DH035161</td> <td>Ignore Flag</td> </tr> <tr> <td>M6</td> <td>DH036161</td> <td>Ignore Flag</td> </tr> <tr> <td>M7</td> <td>DH037161</td> <td>Ignore Flag</td> </tr> <tr> <td>F0</td> <td>DH018161</td> <td>ON</td> </tr> <tr> <td>F1</td> <td>DH019161</td> <td>Alive</td> </tr> </table>	RTA	DH011161	SPIRE B	M0	DH030161	Ignore Flag	M1	DH031161	Ignore Flag	M2	DH032161	Ignore Flag	M3	DH033161	Ignore Flag	M4	DH034161	Ignore Flag	M5	DH035161	Ignore Flag	M6	DH036161	Ignore Flag	M7	DH037161	Ignore Flag	F0	DH018161	ON	F1	DH019161	Alive	DC005161	
RTA	DH011161	SPIRE B																																			
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		F2 DH020161 F3 DH021161 F4 DH022161 F5 DH023161 F6 DH024161 F7 DH025161 M12 DH051161 M_C DH043161 M8 DH038161 M9 DH039161 M10 DH040161 M11 DH041161 F12 DH050161 CNT DH042161 F8 DH026161 F9 DH027161 F10 DH028161 F11 DH029161 Subsch. ID : 10 Det. descr. : Configure SDB FDIR	Well TC Well TM Valid Non-vital REDUNDANT ON Ignore Flag Ignore CNT Ignore Flag Ignore Flag Ignore Flag Update status ENABLED LoopCnt1 Bus A Healthy Healthy ENABLED	
		Wait up to 1 minute for the generation of the D_H_Hk_P64 packet from the CDMU (APID = 18)		
		Verify: 1553 bus FDIR status SDB_FDIR DEFJ4160	= ENABLED	AND=ZAZ96999
6		Set default start conditions		Next Step: 7
		Note that a TM(5,1) [New_Step_Report] is generated after every SET_OBS_STEP TC		
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80010001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= ClearObs	AND=ZAZ96999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500 00000000 <hex>	
		Verify Telemetry OBSID SM10N500	= 00000000 <hex>	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80020001 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BBFULLTYPE SM2LN500	= StartObs	AND=ZAZ96999
7		<i>Set procedure conditions</i>		Next Step: 8
	ET=+ UT=+00.00.00	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS Subsch. ID : 370 Det. descr. : RESET DRCU COUNTERS	SCD00505	
		Verify that the TRESET parameter has the same value as the THSK parameter TRESET SM01T500	same as THSK	AND=ZAZ96999
		THSK SM00T500	any	AND=ZAZ96999
		Note that a TM(5,1) [New_Step_Report] is generated after every SET_OBS_STEP TC		
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500 OBS_ID	
		Verify Telemetry OBSID SM10N500	OBS_ID	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80000000 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 Subsch. ID : 370 Det. descr. : SET OBSERVING MODE	SC002500 0 <hex>	
		Verify Telemetry MODE SM00M500	= DPU_ON	AND=ZAZ96999
8		Start DPU and Update Tables		Next Step: 9
		CHECK these table commands. They are a direct copy form NSON, but need confirmation from Sunil		
	ET=+ UT=+00.00.03	SET_TABLE SET_TABLE Command Parameter(s) : TABLEID_SETTAB SPB0N500 TABLESIZE_SETTAB SPB1N500 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : SET SPACE FOR A TABLE	SCB00500 36 <hex> 5 <hex>	
	ET=+ UT=+00.00.01	UPDATE_TABLE UPDATE_TABLE Command Parameter(s) : TABLEID_UPDTAB SPB5N500 INDEX_UPDTAB SPB6N500 N_UPDTAB SPB7N500 DATA_UPDTAB SPB8N500 TC Control Flags : GBM IL DSE --- --- --- Subsch. ID : 370 Det. descr. : UPDATE CONTENTS OF A TABLE	SCB02500 36 <hex> 0 <hex> 5 <hex> 986b9270 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80030001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= EndObs	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500 00000000 <hex>	
		Verify Telemetry OBSID SM10N500	= 00000000 <hex>	AND=ZAZ96999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80000000 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ96999
		Verify Telemetry SPIRE_NomRed DED53161	= REDUNDANT	AND=ZAZ96999
		Verify Telemetry SPIREB_OnOff DED21161	= ON	AND=ZAZ96999
		Verify Telemetry SPIREB_ValidInv DED25161	= Valid	AND=ZAZ96999
End of Procedure				