

Mode_ScuFunc02 SCU Nominal Sci Contents
 File: H_COP_SPI_SCSC.xls
 Author: L.Lucas-hp



Procedure Summary

Objectives

The purpose of this procedure is SCU Nominal Science Contents
 Based on Procedure:
 Mode_ScuFunc02 (v3)

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

Mode SPECSTBY or REDY

End of Procedure

mode SPECSTBY or REDY

Reference File(s)

Input Command Sequences

Output Command Sequences

HCSSCSC

Referenced Displays

ANDs	GRDs	SLDs
SA_6_559		
SA_1_559		
ZAZ90999		

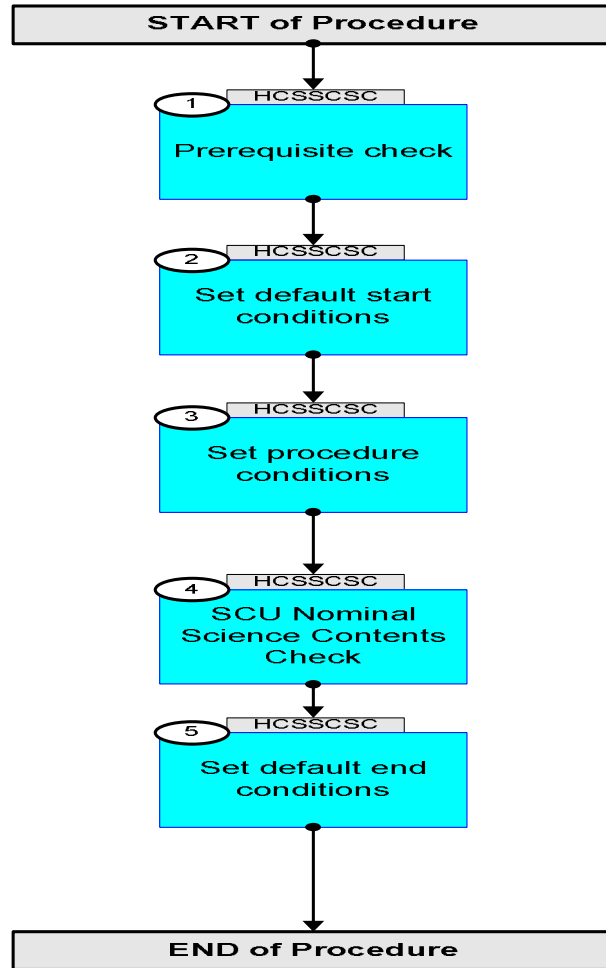
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
02/12/08		1	Created	L.Lucas-hp	
27/01/09	2	2	Remove ETs for ease of Loading to manual stack	L.Lucas-hp	
24/03/09	2.2	2.01	Validation : Title Update	L.Lucas-hp	
21/04/09	2.3	2.02	Validation : Text Update	L.Lucas-hp	
05/05/09	2.4	2.03	Validation : Text updates to s/c start and end config	L.Lucas-hp	

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Procedure Flowchart Overview



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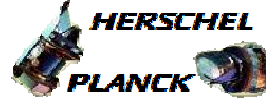
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
<p><i>TC Seq. Name : HCSSCSC (SC NomSciChk)</i></p> <p><i>TimeTag Type: Y</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
1		<i>Prerequisite check</i>		Next Step: 2
1.1		<i>HSC/ICC Input</i>		□
		<p>Verify that the HSC has supplied a valid OBSID value:</p> <p>OBS_ID = 0xnnnn nnnn</p>		
1.2		<i>TM check</i>		□
		<p>Verify Telemetry</p> <p style="text-align: center;">SCUFRAMECNT SMD0N520</p> <p style="text-align: center;">= 0 <dec></p>		AND=SA_6_559
		<p>TMCHECK Check that parameter TM5N is 0x3FFF.</p>		
		<p>Verify Telemetry</p> <p style="text-align: center;">TM5N SMT4N500</p> <p style="text-align: center;">= 3FFF <hex></p>		AND=SA_1_559
2		<i>Set default start conditions</i>		Next Step: 3
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.00	<p>SET_OBS_STEP</p> <p style="text-align: center;">SET_OBS_STEP</p> <p>Command Parameter(s) :</p> <p style="text-align: center;">OBSERVATION_STEP SP03N500</p> <p>Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP</p>	<p>SC003500</p> <p style="text-align: center;">0 <hex></p>	
	ET=+ UT=+00.00.01	<p>SET_BBID</p> <p style="text-align: center;">SET_BBID</p> <p>Command Parameter(s) :</p> <p style="text-align: center;">BUILDING_BLOCK_ID SP01N500</p> <p>Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER</p>	<p>SC001500</p> <p style="text-align: center;">80010001 <hex></p>	
		<p>Verify Telemetry</p> <p style="text-align: center;">BBFULLTYPE SM2LN500</p> <p style="text-align: center;">= ClearObs</p>		AND=ZAZ90999

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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=ZAZ90999
	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=ZAZ90999
	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=ZAZ90999
3		<i>Set procedure conditions</i>		Next Step: 4
	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=SA_1_559
		THSK SM00T500	any	AND=SA_1_559
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	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=ZAZ90999
	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=ZAZ90999
	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 8A000001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= SCU_Nom_Data	AND=SA_6_559
4		SCU Nominal Science Contents Check		Next Step: 5
	ET=+ UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SEND_DRCU_COMMAND SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 A0820000 <hex> 0 <hex> (Def)	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	SEND_DRCU_COMMAND SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 a0830000 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	SEND_DRCU_COMMAND SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 a084001f <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	SEND_DRCU_COMMAND SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 a0820001 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.02	FLUSH_FIFO FLUSH_FIFO Command Parameter(s) : FIFOFLAGS SPD0N505 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : FORCE DPU TO READ SCIENCE DATA FROM FIFOS AND FLUSH CONTENTS	SCD01505 4000 <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 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=ZAZ90999
	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=ZAZ90999
		Verify Telemetry SCUFRAMECNT SMD0N520	= 31 <dec>	AND=SA_6_559
		Verify Telemetry TMSN SMT4N500	= 1 <hex>	AND=SA_1_559
End of Procedure				