



Minutes of Meeting

Date: 13.05.08

Herschel

Doc.-No.: HP-2-ASED-MN-1547

Meeting place: ESTEC NL

Chairman: D.Hendry

Date/Time: 13.05.08/15-00 hrs

Secretary: D.Hendry

Agenda dated: Standard agenda

Close of Meeting: 13.05.08/18-10 hrs

Subject: TRR for SPIRE SMEC **1** Test on PFM SC **4e1**

Participants:

E.Sawyer RAL
 C.Scharmberg ESA
 J.Huesler ESA
 K.Goodey ESA
 M.Cesa ESA
 C.Jewell ESA
 B.Collaudin TASF

R.Hohn ASED
 A.Koppe ASED
 S.Hamer ASED
 D.Hendry ASED

Additional ESA
 Distribution: AAS-F

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 Brief-Minutes (except following sheets)

 Summary of Results of Sheets 2 till

To agree the start of testing a dedicated close out meeting shall be held to confirm the satisfactory close out of the open work, date Thursday 15.05.08 at 17-00hrs

Reference	Results	Remarks
	<p><u>AGENDA</u></p> <ul style="list-style-type: none"> 0. Introduction 1. As Built / As Designed Configuration Status / S/W Status 2. Inspection / Integration Status 3. NCR / RFW Status 4. Open Work / Open Actions 5. Test Procedures / Test Reports 6. Safety Hazards and Hazardous Operations 7. Test Equipment / Facility and Calibration Status 8. Cleanliness 9. Test Personnel and Responsibilities 10. Problem Areas 11. AOB 12. Conclusion 	



Reference	Results	Remarks
	<p>0. Introduction</p> <p>This TRR covers the SPIRE SMEC 1 Test on PFM SC in He 1 IAW the procedure HP-2-ASED-TP-0217 Issue 1</p> <p>1.As Built / As Designed Configuration Status / S/W Status</p> <p>1.1 HW Status HW status Spire is fully connected in flight configuration</p> <p>SC on MPT and SC horizontal +Y axis up</p> <p>Launch latch is latched</p> <p>1.2 SW Status :</p> <p>HPSDB:HP-ASP-LI-1441_10 release Note</p> <p>SPIRE MIB loaded in HPSDB is version 2.2.H1 PR</p> <p>SPIRE Merged MIB H-P-ASP-LI-1424_04</p> <p>Both MIBs are loaded on the IEGSE</p>	

Reference	Results	Remarks
	<p>Nominal is use of merged MIB but in case of problems the SPIRE MIB is loaded and available.</p> <p>OBSW: Version DPU 2.2.H Partition 1 ; main and redundant Version DPU 2.2.H partition 2 ; main and redundant</p> <p>CDMS: Version 3.4</p> <p>SPIRE_IST_COLDFT_Scripts_13May2008 SPIRE_IST_COLDFT_13May2008_Release. Not yet installed and need to be put under ASED configuration control. These will be loaded by ASED 06.03.08</p> <p>Boot is from partition 2 due to existing NCR</p> <p>2. Inspection / Integration Status</p> <p>2.1 Inspection Status Inspection will be performed together with instrument once SC is horizontal</p> <p>2.2 Integration Status</p> <p>As EMC with the following exceptions:-</p>	

Reference	Results	Remarks
	<p>MLI removed from thrusters</p> <p>BBQ MLI removed partly</p> <p>Accelerometer (Appendix 2 of TP 217) to be connected as procedure OW ETS</p> <p>ACMS to be connected (as procedure appendix 1) OW ASED</p> <p>Launch Latch EGSE can be connected as confidence check, subject to NCR (baseline is not connected)</p> <p>Cryo conditions:He1</p> <p>Constraints as TP-0217 are currently in the procedure</p> <p>L0 and L1 below 10K no drift constraint L2 below 15K no drift constraint These may not be achieved therefore the TP will be redlined with input from RAL considering the real temperature needs of this functional test.</p> <p>Temperatures in Horizontal will be recorded after stabilisation period. It is not intended to use heaters. Achieved temperatures will be monitored, recorded and distributed Prior to start of the test these temperatures will be agreed with RAL as acceptable to achieve the objectives of the test. A Check point will be held to review and agree the conditions.</p>	

Reference	Results				Remarks										
	<p>2.3 Parallel operations planned</p> <p>M1/M2 measurements</p> <p>3. NCR / RFW Status:</p> <p>See Annex 1</p> <p>RAL advise that none of these open NCRs affect the test</p> <p>RFW none identified</p> <p>4. Open Work / Open Actions</p> <table border="1" data-bbox="376 1305 1787 1465"> <thead> <tr> <th data-bbox="376 1305 497 1353">Item</th> <th data-bbox="497 1305 943 1353">Description</th> <th data-bbox="943 1305 1223 1353">Actionee</th> <th data-bbox="1223 1305 1503 1353">Status</th> <th data-bbox="1503 1305 1787 1353">Comment</th> </tr> </thead> <tbody> <tr> <td data-bbox="376 1353 497 1465">1.</td> <td data-bbox="497 1353 943 1465">Red line TP with regard to Cryo temperatures with I/P from RAL</td> <td data-bbox="943 1353 1223 1465">ASED</td> <td data-bbox="1223 1353 1503 1465"></td> <td data-bbox="1503 1353 1787 1465"></td> </tr> </tbody> </table>				Item	Description	Actionee	Status	Comment	1.	Red line TP with regard to Cryo temperatures with I/P from RAL	ASED			
Item	Description	Actionee	Status	Comment											
1.	Red line TP with regard to Cryo temperatures with I/P from RAL	ASED													

Reference	Results					Remarks
	2	Accelerometer measurement accuracy to be detailed BY TASF	TASF			
	3	Redline TP with I/P as above	ASED			
	4	Load TCL scripts on CCS	ASED			
	5	Procedure for SC to go horizontal and vertical to be provided , including safety and hazardous operations	ASED		Mandatory for tilting.	
	6	Check point to agree cryo temperatures	ASED			
	7	A background measurement of acceleration need to be performed before the reaction wheel start (to be clarified with mechanical engineers) Clarification by TASF mechanical specialists.	TASF			
	8	Inspection/check point of SC configuration prior to going horizontal	ASED/ESA/TASF /RAL			
	9	ACMS to be connected as procedure sect 7.2.6.14	ASED			
	10	Check IEGSE Configuration	RAL		Remote day	

Reference	Results	Remarks
	<p style="text-align: right;">before test</p> <p>5. Test Procedures :</p> <p>SPIRE CFT/SMEC procedure HP-2-ASED-TP-0217 Issue 1</p> <p>5.1.Accuracy of accelerometer measurement TASF OW TASF will provide the written I/P for the accelerometer measurement</p> <p>5.2.TP to be redlined with respect to redefinition of Cryo temperatures in horizontal , (RAL to provide I/P and ASED to redline)</p> <p>5.3 Separate procedure for orientation of SC in present configuration to be provided by ASED for review prior to test.</p> <p>5.4 connection between cryo scoe and CCS to be established.</p> <p>5.5 TP is redlined to remove spot frequency</p> <p>5.6 Only sections 7.25 ,7.26 and 7.27 are used.</p> <p>Comments on the SMEC part: 5.7. The horizontal position of the satellite should be verified (measured) before starting the test rather than in the step 7.2.6.6 (SMEC-02-P) Section 7.2.5: Is already covered and a separate tilting procedure is to be provided</p>	

Reference	Results	Remarks
	<p>5.8ASED to confirm connection for transfer of Cryo Scoe data and CCU data. CCU data every 8 mins Cryo SCOE 16secs tbc</p> <p>5.9 ASED to state which parameters are connected & available (in range).</p> <p>5.10 Section 7.2.6-14 (Microvib pre test) How long is this phase expected to be (Switch on ACMS,). Same question for section 7.2.6-19 (post test config) All sections should be completed in 2 hrs</p> <p>5.11 What is the accuracy needed for time synchronisation with ETS acceleration measurement: is it possible manually Manual sync within 1 sec</p> <p>5.12 A background measurement of acceleration need to be performed before the reaction wheel start (to be clarified with mechanical engineers) Clarification by TASF mechanical specialists. TASF OW</p> <p>5.13 Question to SPIRE: Are there any parameters coming out of this SMEC test that need to be manually included in the RMS MTL (for instance section 7.2.6.7 SMEC-FFOFFSET-P, or next section (Gain), + Similar on redundant side) ?</p> <p>RAL confirmed No parameters are used for inclusion in RMS</p>	

Reference	Results	Remarks
	<p>5.14 Inspection/check point of SC configuration prior to going horizontal</p> <p>6.Hazards and Hazardous operations</p> <p>see section in TP-0217</p> <p>For the SC tilting the specific procedure needs to be identified and reviewed including safety and hazardous operations</p> <p>7. Test Equipment / Facility and Calibration Status</p> <p>See TP-0217 for test set up and EGSE.</p> <p>IEGSE is to be connected and has been configured locally by RAL</p> <p>Cryo SCOE connected.</p> <p>ACMS to be connected (as procedure appendix 1)</p> <p>8. Cleanliness</p> <p>CL 100000 ETS facility see FRR Ref ETS/MOM/MECH/2253</p>	

Reference	Results				Remarks	
	9. Test Personnel and Responsibilities					
	Responsibility	Name	Company	Contact Number		
	Test Director	B.Collaudin	TASF			
	Test Conductor	A.Koppe	ASED			
	SPIRE engineering	S.Sidher	RAL			
	SPIRE	D.Pouliquen	LAM			
	SPIRE	A.Dowell	RAL			
	QA	R.Langenstein	ASED			
	CCS	S.Hamer	ASED			
	PA	D.Hendry	ASED			
	Instrument coordinator	K,Goodey	ESA			
	ESA PA	J.Huesler	ESA			
	<p>Note: Personnel to cover 2 consecutive shifts shall be identified</p>					



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Reference	Results	Remarks
	<p>10. Problem Areas</p> <p>None</p> <p>11. AOB</p> <p>Planning: Test is scheduled for Friday starting at 06-00 SC power on, Spire switch on 07-00 (test duration 10hrs approx) Spire will be available 06-30 hrs to assist in configuration of the IEGSE and SC configuration inspection.</p> <p>12. Conclusion</p> <p>To agree the start of testing a dedicated close out meeting shall be held to confirm the satisfactory close out of the open work, date Thursday 15.05.08 at 17-00hrs</p>	

Meeting: HP-2-ASED-MN-1547

Action Item List

Herschel

Title:

Date: 13.05.08

No.:	Description:	Due Date	Originator Comp./Pers.	Actionee Comp./Pers.	Source	Completion
01						
02						
03						

Meeting: HP-2-ASED-MN-1547

Open Work List

Herschel

Title:

Date: 13.05.08

Item	Description	Actionee	Status	Comment
1.	Red line TP with regard to Cryo temperatures with I/P from RAL	TASF		
2	Accelerometer measurement accuracy to be detailed BY TASF	ASED		
3	Redline TP with I/P as above	ASED		
4	Load TCL scripts on CCS	ASED		
5	Procedure for SC to go horizontal and vertical to be provided , including safety and hazardous operations	ASED		Mandatory for tilting.
6	Check point to agree cryo temperatures	ASED		
7	A background measurement of acceleration need to be performed before the reaction wheel start (to be clarified with mechanical engineers) Clarification by TASF mechanical specialists	TASF		
8	Inspection/check point of SC configuration prior to going horizontal	All		
9	ACMS to be connected as procedure sect 7.2.6.14	ASED		
10	Check IEGSE Configuration	RAL		Remote day before test

Test Conductor Approved	PA	TASF	Instrument

Note: To be completed and Signed off prior to start of the Test

	A	B	C	D
1	NCR Nr	NCR Title	Model	
2				
3	H-P-112000-ASED-NC-4152	SPIRE OFF CTRL OBCP did not trigger	FM	
4	HP-130000-ASED-NC-4128	SPIRE goes to an improper status with jamming	FM	
5	H-P-000001-ESOC-560-4105	Missing textual calibration for SPIRE	FM	
6	HP-130000-ASED-NC-4086	IST Nominal Mode Robustness - SPIRE DPU BSW boot problem	FM	
7	HP-130000-ASED-NC-4070	AVM WU integration - SPIRE DPU BSW boot problem	AVM	
8	HP-111000-ASED-NC-4001	Instruments merged MIB (issue 3) failed to be loaded on HIFI IEGSE.	PFM	
9	HP-112000-ASED-NC-3996	SPIRE CFT JFET Switch on voltage level	PFM	
10	HP-112000-ASED-NC-3957	SPIRE SFT: Missing current parameter for LCL 25 & 26 (SPIRE LPU)	FM	
11	HP-130000-ASED-NC-3954	IST Spire DRCU current WM408565 reports higher than expected	FM	
12	HP-112000-ASED-NC-3725	SPIRE FM Detector Channel Anomalies during WFT	PFM	
13	HP-111000-ASED-NC-3698	HIFI warm SFT1 - command completion failure	FM	
14	HP-112000-ASED-NC-3616	SPIRE DPU Set Table TC acceptance not reported as acknowledged by CCS	FM	
15	HP-130000-ASED-NC-3572	SPIRE Unknown type (5,x) packet during SPIRE cooler recycle, RMS 48hrs	PFM	
16	HP-130000-ASED-NC-3512	During RMS 48, SPIRE DPU reports missing Time Sync Pulse on MIL Bus 1553	FM	
17	HP-100000-ASED-NC-3299	Update of RMS MTL SPIRE time-tagged TCs in verification history	PFM	
18	HP-112000-ASED-NC-1804	SPIRE EMC E-Field RS test results non conformances	EQM	