



## Minutes of Meeting

Date:	15.07.08	<b>Herschel</b>	
Doc.-No.:	HP-2-ASED-MN-1578		
Meeting place:	ESTEC NL	Chairman:	A. Knight
Date/Time:		Secretary	A. Knight
Agenda dated:	Standard agenda	Close of Meeting:	

Subject: **TRR for SPIRE SMEC 2 Test on PFM SC**

Participants:	A. Knight TASF C.Scharmberg ESA J.Huesler ESA B.Collaudin TASF A.Koppe ASED S.Hamer ASED S. Idler ASED S. Sidher RAL B. Swinyard RAL D.Pouliquen LAM	Additional    ESA Distribution:  AAS-F
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<input type="checkbox"/> Brief-Minutes (except following sheets)	<input type="checkbox"/> Summary of Results of Sheets 2 till
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Pending the closure of the attached Test Release Sheet, the TRR agrees to the go-ahead for the SPIRE SMEC Test #2.

Reference	Results	Remarks
	<p data-bbox="422 478 563 517"><u>AGENDA</u></p> <ol data-bbox="518 591 1077 1446" style="list-style-type: none"><li>0. Introduction</li><li>1. As Built / As Designed Configuration Status / S/W Status</li><li>2. Inspection / Integration Status</li><li>3. NCR / RFW Status</li><li>4. Open Work / Open Actions</li><li>5. Test Procedures / Test Reports</li><li>6. Safety Hazards and Hazardous Operations</li><li>7. Test Equipment / Facility and Calibration Status</li><li>8. Cleanliness</li><li>9. Test Personnel and Responsibilities</li><li>10. Problem Areas</li><li>11. AOB</li><li>12. Conclusion</li></ol>	



Reference	Results	Remarks
	<p><b>0. Introduction</b></p> <p>This TRR covers the SPIRE SMEC 2 Test on PFM SC in He 1 IAW the procedure HP-2-ASED-TP-0217 Issue 1.3</p> <p><b>1.As Built / As Designed Configuration Status / S/W Status</b></p> <p><b>1.1 HW Status</b></p> <p><b><u>As Built:</u></b></p> <p>ASED PLM ISL: HP-2-ASED-LI-0032, Status post mechanical testing            ASED SVM ISL: HP-2-ASED-LI-0033, Status post mechanical testing            in conjunction with TASI TCDL 008 Iss. 15 ACMS SIT.</p> <p>Spire is fully connected in flight configuration  <i>SC on MPT and SC horizontal +Y axis up (to be verified with spirit level prior to test i.a.w HP-2-ASED-SD-381, see Test Release Sheet)</i>            Launch latch is latched</p> <p><b>1.2 SW Status :</b></p> <p><b><u>HP SDB:</u></b> HP-ASP-LI-1441_14 release Note</p>	<p><b>OPEN WORK</b></p>



Reference	Results	Remarks
	<p><u>SPIRE MIB</u> 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> <p>Nominal is use of merged MIB.</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><i>The SPIRE CFT Test Scripts are currently under update at RAL and shall be provided to AIT (including SRN) prior to the start of the test (Al Sidher / RAL – 15 July 2008).            These new scripts must then be loaded prior to the start of test (Al Hamer / AIT – 16 July 2008)</i></p> <p>Boot is from partition 2 due to existing NCR 4086 (note that this point is included within the procedure)</p> <p><b>2. Inspection / Integration Status</b></p> <p><b>2.1 Inspection Status</b>  <i>Inspection will be performed together with instrument once SC is horizontal</i></p>	<p><b>OPEN WORK</b></p> <p><b>OPEN WORK</b></p> <p><b>OPEN WORK</b></p>



Reference	Results	Remarks
	<p><b>2.2 Integration Status – See Section 1.1</b></p> <p>Note that the Launch Latch EGSE cabling is connected (see NCR section)</p> <p><b>Cryo conditions:He1</b></p> <p>Constraints as TP-0217 are currently in the procedure</p> <p style="padding-left: 40px;"> <b>L0 temperature: 4.2 K &lt; T &lt; 6.5 K</b>  <b>L1 temperature: 4.2 K &lt; T &lt; 15 K</b>  <b>L2 temperature: 5 K &lt; T &lt; 30 K</b>  <b>L3 temperature: 5 K &lt; T &lt; 50 K (Spire J-FET, T246 T247)</b> </p> <p>Note that the following Temperature sensors shall be monitored:</p> <p>L0: T225 / 226 / 227            L1: T235 / 236            L2: 254 / 256</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  <i>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.</i></p> <p><b>2.3 Parallel operations planned</b></p> <p>M1/M2 measurements</p>	<p><b>OPEN WORK</b></p>



Reference	Results	Remarks
	<p><b>3. NCR / RFW Status:</b></p> <p>See Annex 1</p> <p>RFW none identified</p> <p><b>4. Open Work / Open Actions</b></p> <p>See <u>Test Release Sheet</u> at the end of these MoM</p> <p><b>5. Test Procedures :</b></p> <p>SPIRE CFT/SMEC procedure HP-2-ASED-TP-0217 Issue 1.3</p> <p>Note that this procedure update has only been recently issued. ASED (Koppe) will forward this to AIT / RAL / TASF / ESA.</p> <p><i>A copy of the signed front sheet of Issue 1.3. shall be attached to these MoM / test Release Sheet</i></p> <p><i>It was noted that in line with the script updates for CFT mentioned above, the RAL CFT procedure 02398 will be updated from the current issue 2.5 to 2.6 (AI – Sidher / RAL – 15/7/08)</i></p> <p><i>It will not be possible in the time allowed to update the ASED leading procedure TP-0217 Iss 1.3 and thus a Procedure Variation Sheet shall be added to cover the changes between RAL</i></p>	<p><b>ANNEX 1</b></p> <p><b>OPEN WORK</b></p> <p><b>OPEN WORK</b></p> <p><b>OPEN WORK</b></p>



Reference	Results	Remarks
	<p><i>procedure 2398 between issues 2.5 and 2.6 (AI – Hamer / AIT – 16/7/08)</i></p> <p>The SMEC test set up and Micro-vibration Test is covered via the Activity Control Sheet HP-2-ASED-SD-381</p> <p><b>6. Hazards and Hazardous operations</b></p> <p>see leading procedure in TP-0217</p> <p><b>7. Test Equipment / Facility and Calibration Status</b></p> <p>See TP-0217 for test set up and EGSE.</p> <p>IEGSE is to be connected and configured locally by RAL</p> <p>Cryo SCOE connected.</p> <p><i>Prior to the start of the test the S/C will be moved and thus the gyro calibration must be performed prior to the SMEC test</i></p> <p><b>8. Cleanliness</b></p> <p>CL 100000 ETS (Hydra) facility</p>	<p><b>OPEN WORK</b></p>



Reference	Results				Remarks
	<b>9. Test Personnel and Responsibilities</b>				
	<b>Responsibility</b>	<b>Name</b>	<b>Company</b>	<b>Contact Number</b>	
	Test Director	B.Collaudin	TASF		
	Test Conductor	S. Idler	ASED		
	SPIRE engineering	S.Sidher	RAL		
	SPIRE	D.Pouliquen	LAM		
	SPIRE	B. Swinyard	RAL		
	QA	T. Schmidt / A. Zumstein	ASED		
	CCS	S.Hamer / S. Ilsen	ASED		
	PA	A. Knight	ASED		
	Instrument coordinator	C Scharmberg	ESA		
	ESA PA	J.Huesler	ESA		
	<b>10. Problem Areas</b>				
	None				
	<b>11. AOB</b>				
	<b>Micro-Vibration Test Accelerometers / ETS Activities</b>				
	<p><i>Prior to the start of the test the accelerometers for the micro-vibration test shall be connected i.a.w the ACS</i></p>				
	<b>OPEN WORK</b>				





Reference	Results	Remarks
	<p>The accelerometers will be connected and the data recorded by ETS. ETS has been informed by ASED (Hohn) of the upcoming SMEC test and are prepared to support activities. At the time of the test the liaison with ETS will be via AIT (Mueller).</p> <p>It was noted that the RWL profile for the micro-vibration test has been updated since the last SMEC test. This will be reviewed and updated online during this test slot if required.</p> <p><b>Input for RMS Test</b></p> <p>Are there any parameters coming out of this SMEC test that need to be manually included in the RMS MTL</p> <p>RAL confirmed No parameters are used for inclusion in RMS</p> <p><b>SPIRE Detector Check</b></p> <p>It was noted that the SPIRE Detector Check (see HP-2-ASED-SD-382) WILL NOT BE PERFORMED DURING THIS SMEC TEST SLOT. This will be performed as part of the upcoming Cold Functional Test.</p> <p><b>Planning:</b>        Test is scheduled for Thursday 17 July 2008 starting with Instrument switch on at 08:00</p> <p><i>The checkpoint to verify the closure of the open points in the Test Release Sheet shall take place at 07:30 on this day.</i></p> <p>SPIRE representatives confirm their arrival at Estec at 07:00 to assist in configuration of the IEGSE and SC configuration inspection.</p>	<p><b>OPEN WORK</b></p>

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Reference	Results	Remarks
	<p>The test is intended to be completed at the end of the late shift on Friday 18 July 2008.</p> <p><b>12. Conclusion</b></p> <p>Pending the closure of the attached Test Release Sheet, the TRR agrees to the go-ahead for the SPIRE SMEC Test #2.</p>	

Meeting: HP-2-ASED-MN-1578

### Action Item List

Herschel

Title:

Date: 15.07.08

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

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## Open Work List

Herschel

Title:

Date: 15.07.08

### Test Release Sheet: SPIRE SMEC Test + Micro-Vibration 17 July 2007

The following points shall be closed prior to the release of the above test (i.a.w TRR MoM):

- The horizontal attitude of the S/C shall be verified (via spirit level) i.a.w ACS SD-381
- The new release of the SPIRE CFT Test Scripts (including SRN) shall be available and loaded
- The update of the SPIRE CFT Procedure reference -02398 to issue 2.6 shall be available.
- A Procedure Variation Sheet shall be attached to the ASED procedure TP-0217 Iss 1.3 to cover the above RAL procedure update to issue 2.6
- An inspection shall be performed by the Test Director / Conductor / QA (and with Participation of the Instrument Representative) prior to the start of the test to ensure that the S/C / test Set-Up is i.a.w the applicable procedures.
- Prior to the start of the test the Level 1 / 2 / 3 temperatures shall be agreed with RAL as acceptable to achieve the objectives of the test.
- A copy of the signed front sheet of the ASED leading Procedure HP-2-ASED-TP-0217 at Issue 3 shall be attached to the TRR MoM (or this Test Release Sheet)
- Prior to the start of the test the S/C will be moved and thus the gyro calibration must be performed prior to the SMEC test
- Prior to the start of the test the accelerometers for the micro-vibration test shall be connected i.a.w the ACS
- **A Checkpoint Meeting shall be held at 07:30 on Thursday 17 July 2008 prior to the start of this test in order to validate that all the above points have been agreed // closed.**

Approval for start of test:

Test Director: .....

Test Conductor: .....

SPIRE Representative: .....

PA / QA: .....

# Open Work List

Title:

Date: 15.07.08

## ANNEX 1: NCR list for SPIRE SMEC Test #2:

### 4223: SPIRE SMEC Launch Lock EGSE not properly functioning ✓ close

*For next SMEC test the multimeter set up will be used  
This shall be addressed at the PTR and potentially CLOSED if no further anomalies are reported*

### 4222: SMEC mechanism friction behaviour in start region ✓ close

It was noted during the TRR that the scripts / procedures would be run assuming no frictions anomalies will be experienced. In case this is not the case then manual commands will be sent via the stack. This commanding procedure is available.

This NCR will be addressed at the PTR.

### 4221: SPIRE Launch Lock does not open during SMEC test on nominal side ✓ close

*This NCR can be closed as the nominal side worked during the first SMEC test.  
This NCR could be CLOSED w.r.t the RAL test report (from Sidher) for the first SMEC test*

*See log*

### 4287: OBCP triggered during SPIRE DRCU & DPU Power OFF ✓ close

*Prior to Inst Switch off disable Spire specific FDIR.  
This has been incorporated into the SPIRE test scripts  
This NCR will be reviewed at the PTR*

### 3954: IST Spire DRCU current WM408565 reports higher than expected - N/A for SMEC test

### 4288: SPIRE SFT post acoustic Pcalv expected value - N/A for SMEC test

### 4289: SPIRE SFT Post acoustic SCAL TEMP Nom and Redundant- N/A for SMEC test

*> calibration to be adapted in DB (MIB)*

### 3703: SPIRE LPU High Level pulse commands not executed ✓

A Koppe to provide verification reference for NCR close out (Cause of NCR was incorrect test set up)