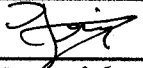
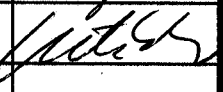




		REF.: H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE: 06/05/03	PAGE: 1/8

COMPTE RENDU DE REUNION / MINUTES OF MEETING	LIEU / PLACE: RAL Chilton
---	---------------------------

OBJET / PURPOSE:	CLASSIFICATION:
SPIRE Progress & Interface Meeting	

PARTICIPANTS ATTENDEES	SOCIETE FIRM	SIGNATURE SIGNATURE	PARTICIPANTS ATTENDEES	SOCIETE FIRM	SIGNATURE SIGNATURE
Guy Doubrovik	ASP		Matt Griffin	Cardif	
Carsten Scharmberg	ESA		Ken King	RAL	
Jan Rautskooki	ESA		John Delderfield	RAL	
Horst Faas	ASED		Eric Sawyer	RAL	
Astrid Heske	ESA		Bruce Swingyard	RAL	
			C. Bockley-Blatt	MSSL	
REDACTEUR / WRITTEN BY: Guy DOUBROVIK					

CONCLUSION :

DISTRIBUTION : PARTICIPANTS / ATTENDEES	POUR ACTION : FOR FURTHER ACTION
	POUR INFORMATION : FOR INFORMATION

APPROUVE PAR / APPROVED BY

NOM / NAME				
SIGNATURE / SIGNATURE				

		REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 2/8
COMPTE RENDU DE REUNION / MINUTES OF MEETING		LIEU / PLACE : RAL Chilton	

Agenda : see Annex 1

Actions status:

Actions from HP-ASPI-MN-2298 (26-27/11/02):

AI-2 SPIRE, Update IID-B, still open

- §5.16: Add hardware matrix (deliverable items)
 - §9: provide input wrt testing & verification
- SPIRE due date to be included in IIDB v2.3: 30 May

- § 5: details of all points of electrical isolation on SPIRE FPU & JFETs.
To be closed by ECR 53

Actions from HP-ASPI-MN-2748 (27/2/03):

- AI-1 SPIRE : ECR 29 updated in v3.0, with harness document 1.1, closed by ASP CR291 (Issue 2; Ref. HP-ASP-LT-3046) sent to ASED by ASP Agreement to keep the §5.10 in IIDB as it is with tables extracted from SPIRE Harness Definition (issue 1.1 at this time)

- AI-2 ASP+ASED : closed, simplified temperature sensors table proposed by ASP (mail H-P-ASP-LT-3035 BC 23/04) "SPIRE CR 30 reduced CCU Measurement.doc"

Sensors already procured by ASED: Sensors table of ASED proposal will be applied to IIDB as it is in draft 2. ASED will reply to the above referenced ASP mail.

Accuracy possibility of all sensors particularly of T226 to be verified by ASED (8 bit seems not enough)

- AI-3 ASP : IIDB 2.3 draft 2, closed (draft 2 of § 2, 4, 5, 7 and 9 sent end April)

Comments to draft 2 to be sent before 16 of May by SPIRE & ASED

- AI-4 SPIRE : make provision for inserts to support harness, closed by OBA IF drawings issue A provided by ASED
- AI-5 SPIRE : Tolerances to be added to the JFET rack feet position, Closed
- AI-6 SPIRE : refine the heat flow requirement for evaporator strap, Closed

- AI-7 SPIRE+ASP : ECR 9 to be reissued ; to be closed by ASP (ASP will issue a new ECR9) still open

- AI-8 ASP : MGSE interfaces (slide 6) to be added in IID-A, to be done by ASP in next IIDA issue end May still open

- AI-9 SPIRE : Integration procedure of FPU on Optical bench, still open

- AI-10 SPIRE : Sorption cooler-Demonstration of the leak before burst requirement, still open

SPIRE Safety Documentation Pack to be sent by SPIRE before 16 May

- AI-11 SPIRE : Size of external Power supplies shall be given for QM test, open (partially closed)

ACTION

		REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 3/8
COMPTE RENDU DE REUNION / MINUTES OF MEETING		LIEU / PLACE : RAL Chilton	

To be discussed at next AIT Meeting 28 May

- AI-12 ASP : Peak up mode, to be done by ASP in next IIDA issue end May
See minutes of corresponding Data management WG, to be given to SPIRE
- AI-13 SPIRE+ASED : inputs/comments for IIDB 2.3 draft 1, open for SPIRE, nearly closed for ASED

Additional Action Items (Open or to be closed with formal reference):

- HP-2-ASED-MN-0182\03, RAL/JD to evaluate the IF to optimise the thermal IF, Due: 15.12.02 - Open

L3 internal RAL proposal made but still needs revision. L1 stuck on lack of test results

New due date : 13 May

- HP-2-ASED-MN-0182\08, MSSL/BW should clarify how the SPIRE red tagged cover should be represented in the IF drawings, Due: 28.02.03-Open

New due date : 30 June

- HP-2-ASED-MN-0343\02, SPIRE: Update Instrument RTMM to model the heat switch as agreed in HP-2-ASED-MN-0330, Due: 11.04.03

Status: closed. ITMM, Version 2.4 sent by email

TMM 2.4 to be used for IIDB 2.3 annex

- HP-2-ASED-MN-0343\04, SPIRE and PACS: To assess the change of cooler IF from M3 to M4 and initiate the change request to CEA, Due: 10.04.03

Status: closed by ECR 51 issued and accepted

- HP-2-ASED-MN-0343\05, SPIRE and PACS: to provide to CEA the cooler characterisation constraints for the testing, Due: 07.04.03

Status: closed by SPIRE-RAL-NOT-001588

Mechanical IF Issues:

Issue 5 of drawing pack SPIRE-RAL-DWG-001409 issue 5 dated 30/04/03 provided by SPIRE by mail and on ftp server

To be included in new issue of ECR 40 : ECR 40 v2, due date 16 May

AI 01-SPIRE

Points/inputs asked in fax from ASED ref 0231 dated 17/03/03:

- Point 1: surface roughness, SPIRE/MSSL to provide end May
- Point 2: surface treatment, SPIRE/MSSL to provide end May
- Point 3: Electrical insulation L1/L3 May imply mechanical change, needs formal change request. L3 still needs to be finalised.
- Point 4: Thermal strap fixation, to be checked by SPIRE/MSSL, due date end May
- Point 5 to 12: covered by other actions or done

External power supply for CQM (see AI 11of HP-ASPI-MN-2748)

		REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 4/8
COMPTE RENDU DE REUNION / MINUTES OF MEETING		LIEU / PLACE : RAL Chilton	

Release of Issue A of Optical Bench Assembly I/F, dated March 2003 : forwarded to MSSSL; currently no comments from SPIRE

Details of SPIRE flexible Level-0 thermal straps (material properties, etc)
To be provided by SPIRE end of May

Status of FPU Feet re-design (consideration of shimming plates in the new foot design)
SPIRE confirmed that no shimming plates are required and will also not be considered in the possible new design of the SPIRE FPU feet.

Thermal IF Issues:

Re-issue of ECR#009 :

A proposal was provided by Alcatel (BC) mail dated 20/03/03 and included in draft 2 § 5.7
SPIRE to provide comments on IIDB § 5.7 draft 2: due date 16 May
The CR 009 shall be re-issued to v6

AI 04-SPIRE

SPIRE Thermal model status:

TMM issue 2.4 is the latest, will not change until S/C model
SPIRE to clarify if they need Astrium S/C reduced model

Electrical IF Issues:

Status of Connectors (Glenair, Cannon, Cristek, Courage, ...)

Courage connectors : this company is even not known by ESA ...
Courage and Cristek connectors type and corresponding level of qualification are not known by ESA, so they can't be accepted without full PADs.
SPIRE also to answer to fax HP-ASED-FX-0342-03 dated 22.04.03

SPIRE to provide :

- Test and qualification data on Courage and Cristek connectors
- Interface data & drawings, data sheet on Courage and Cristek connectors
- Complete references on Courage and Cristek connectors

Due date : end May

AI 05-SPIRE

SPIRE to provide ASED with samples of Courage and Cristek connectors for testing purpose
Due date : 16 May

AI 06-SPIRE

	HERSCHEL/PLANCK	REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 5/8
COMPTE RENDU DE REUNION / MINUTES OF MEETING		LIEU / PLACE : RAL Chilton	

Cryo-Harness Data Package verification

SPIRE doesn't want to make a complete line by line verification of ASED Cryo-Harness Data Package.

Internal over-shield status:

Formal answer from ESA still pending

ASED will base the latest data pack on the assumption that ECR 39 is rejected

ECRs on cryoharness:

ECR 52 (power lines pinout)

ASP to give an answer on this ECR 52, due date mid-June

AI 07-ASP

ECR HR-SP-ATC-005 (received by mail dated 02/05/03), Increase maximum BSM motor current to 50mA to provide additional motor torque capability.

ASED to verify the 50 mA capability of harness corresponding cable, due date 16 May

AI 08-ASED

Optical IF Issues:

SPIRE shall review the optical alignment procedure in IIDA annex 1

Document: Alignment Plan-Concept / Herschel: Ref. HP-2-ASED-TN-0002 (it is also called AD 7 of IIDB)

ASED confirms that the latest version of this doc is 2

SPIRE to supply to ASED an Alignment TN 1242

Due date for SPIRE comments on the doc HP-2-ASED-TN-0002 : 30 May

AI 02-SPIRE

Beams clearance analysis: Update of IF drawings and check of margins on instrument and spacecraft side

SPIRE to check the latest optical geometry document reference (will apply also to IIDB 2.3 (RD 15))

SPIRE general:

SPIRE Programme status, Proposed new model philosophy and schedule presented by E.Sawyer, see **annex 3**

For CQM: refurbish STM/AM by fitting only one detector chain

Schedule:

New and delivery date for CQM: early January 2004 (against April 2004 previously)

due to the new model philosophy.

Without this new model philosophy, the CQM would be postponed almost to July 2004 (against April 2004 previously)

		REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 6/8
COMPTE RENDU DE REUNION / MINUTES OF MEETING		LIEU / PLACE : RAL Chilton	

SPIRE asks for realistic delivery dates for CQM and FM : question to Industry and ESA.

CQM required by ASED in January 2004

New project schedule for instruments is planned to be issued in June-July TBC, after ASP-ESA project meeting TBD

SPIRE to send a note on schedule/models aspects to ASP and ESA

Due date: 16 May

AI 03-SPIRE

Others topics:

Position of accelerometers during instrument testing:

SPIRE answer : 2 on photometer, 1 on spectrometer

MSSL will provide future informations

Procurement of JFET mounting hardware for MTDs:

Test to be performed end of May, provided beginning of June

CRs status

see **annex 2**: SPIRE ECRs status, from ASP dated 29/04/03

Next SPIRE IF meeting: 26 June at RAL

	ACTION ITEM LIST	REF. : H-P-ASP-MN-3081
	MEETING TITLE: SPIRE Progress & Interface Meeting	DATE : 06/05/03
	HERSCHEL/PLANCK	PAGE : 7/8

INITIATOR Firm / person	ACTION			DATE
	N°	DESCRIPTION	ACTIONEE Firm / person	DUE
	01	SPIRE-RAL-DWG-001409 issue 5 to be included in new ECR 40 v2	SPIRE	16/05/03
	02	SPIRE comments on doc: HP-2-ASED-TN-0002	SPIRE	30/05/03
	03	SPIRE to send a note on schedule/models aspects	SPIRE	16/05/03
	04	SPIRE to provide comments on IIDB § 5.7 draft 2 (thermal)	SPIRE	16/05/03
	05	SPIRE to provide Courage and Cristek connectors data	SPIRE	30/05/03
	06	SPIRE to provide samples of Courage and Cristek connectors	SPIRE	16/05/03
	07	ASP to give an answer on ECR 52 (power lines pinout)	ASP	15/0603
	08	ASED to verify the 50 mA capability of harness	ASED	16/05/03

		REF. : H-P-ASP-MN-3081	
		SPIRE Progress & Interface	
		DATE : 06/05/03	PAGE : 8/8
COMPTRE RENDU DE REUNION / <i>MINUTES OF MEETING</i>		LIEU / <i>PLACE</i> : RAL Chilton	

ANNEXES OF THE MINUTES

Annex 1: Agenda

Annex 2: SPIRE ECRs status, from ASP dated 29/04/03

Annex 3: SPIRE Status, Proposed new model philosophy and schedule presented by E.Sawyer

SPIRE IF Meeting Agenda, Tuesday 6 May 2003
From 08:30 to 17:30

page 1/2

Actions status:

Actions from HP-ASPI-MN-2298 (26-27/11/02):

AI-2 SPIRE, Update IID-B, still open

§5.16: Add hardware matrix (deliverable items)

§ 5: details of all points of electrical isolation on SPIRE FPU & JFETs.

§9: provide input wrt testing & verification

Actions from HP-ASPI-MN-2748 (27/2/03):

- AI-1 SPIRE : ECR 29 updated in v3.0, with harness document 1.1, closed by CR291 sent to ASED by ASP
- AI-2 ASP+ASED : closed, simplified temperature sensors table proposed by ASP (mail H-P-ASP-LT-3035 BC 23/04) "SPIRE CR 30 reduced CCU Measurement.doc"
- AI-3 ASP : IIDB 2.3 draft 2, open (planned end April)
- AI-4 SPIRE : make provision for inserts to support harness, open ? (mail JD 21/03 + drawing)
- AI-5 SPIRE : Tolerances to be added to the JFET rack feet position, open
- AI-6 SPIRE : refine the heat flow requirement for evaporator strap, open
- AI-7 SPIRE+ASP : ECR 9 to be reissued ; to be closed by ASP (ASP will issue a new ECR9)
- AI-8 ASP : MGSE interfaces (slide 6) to be added in IID-A, to be done by ASP in next IIDA issue end May
- AI-9 SPIRE : Integration procedure of FPU on Optical bench, open
- AI-10 SPIRE : Sorption cooler-Demonstration of the leak before burst requirement, open
- AI-11 SPIRE : Size of external Power supplies shall be given for QM test, open (partially closed)
- AI-12 ASP : Peak up mode, to be done by ASP in next IIDA issue end May
- AI-13 SPIRE+ASED : inputs/comments for IIDB 2.3 draft 1, open for SPIRE, nearly closed for ASED

Additional Action Items (Open or to be closed with formal reference):

- HP-2-ASED-MN-0182\03, RAL/JD to evaluate the IF to optimise the thermal IF, Due: 15.12.02
- HP-2-ASED-MN-0182\08, MSSL/BW should clarify how the SPIRE red tagged cover should be represented in the IF drawings, Due: 28.02.03
- HP-2-ASED-MN-0343\02, SPIRE: Update Instrument RTMM to model the heat switch as agreed in HP-2-ASED-MN-0330, Due: 11.04.03
- Status: to be closed. ITMM, Version 2.4 sent by email
- HP-2-ASED-MN-0343\04, SPIRE and PACS: To assess the change of cooler IF from M3 to M4 and initiate the change request to CEA, Due: 10.04.03
- Status: to be closed
- HP-2-ASED-MN-0343\05, SPIRE and PACS: to provide to CEA the cooler characterisation constraints for the testing, Due: 07.04.03

ECR status (with last SPIRE CR status list and CCB from ASP) :

IID-B Update v2.3 draft status and comments:

- Inputs required

IID-A Update comments:

SPIRE general (or particular) technical status (TBD by SPIRE) :

- SPIRE schedule
- Proposed new model philosophy and schedule

Mechanical IF Issues:

- Status of updated drawings (ECR 40 + ...)
- Drawings & Interfaces for QM (and external power supply)
- Release of Issue A of Optical Bench Assembly I/F, dated March 2003
- Details of SPIRE flexible Level-0 thermal straps (material properties, etc)
- Status of FPU Feet re-design (consideration of shimming plates in the new foot design)

Thermal IF Issues:

- Re-issue of ECR#009
- SPIRE thermal model status & Clarification of TMM interface issues
- Status of Thermal Interface in preparation of Sener Delta-PDR

Electrical IF Issues:

- Status of Connectors (Glenair, Cannon, Cristek, Courage, ...)
Cryo-Harness connector issues (see request for info, ref. HP-ASED-FX-0342-03, 22.04.03):
 - Provision of sample connectors from Crystek and Courage for initial qual. tests
- SPIRE harness (cryo and WU) definition status
 - Review of SPIRE Cryo-Harness Data Package (Update of HEPLM Electrical ICD)
 - Internal over-shield status
SPIRE ECR#039 / ASPI-CR-0265 (new grounding and screening philosophy)

Optical IF Issues:

- Beams clearance analysis: Update of IF drawings and check of margins on instrument and spacecraft side

Other:

- Position of accelerometer during instrument testing
- Procurement of JFET mounting hardware for MTDs

Minutes and actions, EOM

Instrument CR / change to be evaluated	Status (*)	Resp.	Instrum.	IIDB Issue	ASPI CR Ref.	ASPI CR Date (internal)	FAX ASP ref & dispatch date	Subject of instrument CR (s)	Industry Response Ref.	Comments	OTCmt
HR-SP-RAL-ECR 007, 012, 014	C	ASP	SPIRE	2.0					Covered by IIDB 2.2		
HR-SP-RAL-ECR-005 - 006 -009 -010 -011	C	ASED	SPIRE	2.0	H-P-ASPI-CR-0030	12/12/2001	H-P-ASPI-LT-1835 31/07/02	Various.	CR covered by CR 0174. Closed by IIDB 2.2, ECR 009 and 010 not accepted, ECR 009 to be reissued v6	See ECR-09 v6 below	CCB # 4
HR-SP-RAL-ECR-005 - 006 -012	C	ALS	SPIRE	2.0	H-P-ASPI-CR-0029	12/12/2001	H-P-ASPI-LT-1837 01/08/02	Various.	Ref fax : CFMG/RD/01/0441- CCB # 7 . CR covered by ASP CR n° 0178 (fax H-P-ASPI-L-1837). Closed by IIDB 2.2		CCB # 4
2/1 -> 2/2	C	ASED	SPIRE	2.1	H-P-ASPI-CR-0174	26/07/2002	H-P-ASPI-LT-1821 26/07/02	Update of SPIRE IIDB 2.1 to 2.2	CR CONDITIONALLY ACCEPTED (fax HP-ASED-FX-0581-02)		
2/1 -> 2/2	C	ALS	SPIRE	2.1	H-P-ASPI-CR-0178	26/07/2002	H-P-ASPI-LT-1822 26/07/02	Update of SPIRE IIDB 2.1 to 2.2	CCN H-P-AC-AI-0016 : certain objections were raised. These discussed by Telecon on 13/01/03. Awaiting agreement by Alenia of HP-ASPI-MN-2542 sent 14/01/03.		
HR-SP-RAL-ECR-0009 v6?	W	ASED	SPIRE	2.2				Required SPIRE detailed temperatures and heatflows at I/F	Waiting for new version of ECR 0009 (last one dated 16/12/2002), as H-P-MN-2748 27/02/03	Proposed IIDB §5.7 send by BC mail 20/03/03, section 5.7 THERMAL INTERFACES.doc, included in in IIDB 2.3 draft 2	
HR-SP-RAL-ECR-0029 v2	N	ASED	SPIRE	2.2	H-P-ASPI-CR-0291	30/01/2003	H-P-ASPI-LT-2635 30/01/03	Harness update	ASED: FAX HP-ASED-FX-0157-03 dated 25/02/03, ECR029v2 is superseded by new SPIRE Harness Definition Doc. Issue 1.1 - ECR SPIRE to be updated to ECR29v3, as H-P-ASP-MN-2748 27/02/03	See ECR-29 v3 below	CCB # 19
HR-SP-RAL-ECR-0029 v3	I	ASED	SPIRE	2.2	H-P-ASPI-CR-0291 v2.0		H-P-ASPI-LT-3046 24/04/03	New SPIRE Harness Definition Doc. Issue 1.1 -	ECR 29 SPIRE updated to v3, as H-P-ASP-MN-2748 27/02/03 - Overshield to be not taken into account (until final decision on CR39) - Harness Def Doc to be put in annex of IIDB v2.3	Several version of ECR 029 v3 received from SPIRE, an ECR29v3 was made by ASP and officially sent to ASED	CCB # 19
HR-SP-RAL-ECR-0030 v2	R	ASED	SPIRE	2.2	H-P-ASPI-CR-0292	30/01/2003	H-P-ASPI-LT-2635 30/01/03	Temperature sensors	ASED: ECR update required; HP-EM-0013-02, dated 18.11.02- ECR SPIRE to be updated to ECR30v3	See ECR-30 v3 below for S/C sensors table § 5.7.5.3 - Only Internal instrument sensors table § 5.7.5.1 applied to IIDB 2.3 draft 2	CCB # 19
HR-SP-RAL-ECR-0030 v3	S	ASED	SPIRE	2.2	H-P-ASPI-CR-0292 (for v2)		H-P-ASPI-LT-2635 30/01/03 (for v2)	Temperature sensors	ECR 30 v2 SPIRE to be updated to ECR30v3(inputs ASED) and closed, as H-P-ASP-MN-2748 27/02/03-	Issue "v3" from ASED proposal applied to table § 5.7.5.3 in IIDB 2.3 draft 2 - More reduced table from ASP BC proposal mail H-P-LT-3035 dated 23/04 not applied and to be discussed	CCB # 19
HR-SP-RAL-ECR-0032	C	ASED	SPIRE	2.2	H-P-ASPI-CR-0293	30/01/2003	H-P-ASPI-LT-2635 30/01/03	Removal of shutter	Accepted by ASED, fax 158		CCB # 19
HR-SP-RAL-ECR-0033	C	ASP	SPIRE	2.2	NA			Update of IIDB with 3D views.	OK for ASPI and ASED (mail dated 11.09.02), to be included in v. 2.3 - draft		CCB # 19

Instrument CR / change to be evaluated	Status (*)	Resp.	Instrum.	IIDB Issue	ASPI CR Ref.	ASPI CR Date (internal)	FAX ASP ref & dispatch date	Subject of instrument CR (s)	Industry Response Ref.	Comments	OTCmt
HR-SP-RAL-ECR-0039 v.1	S	ASED	SPIRE	2.2	H-P-ASPI-CR-0265	18/11/2002	H-P-ASPI-LT-2267 18/11/02	Cryoharness update including overshield.	HP-ASED-FX-0777-02 Initial analysis provided, ASP: waiting for ESA decision on ECP	Considered as not accepted yet	CCB # 19
HR-SP-RAL-ECR-0040 v1	N	ASED	SPIRE	2.2	H-P-ASPI-CR-0294	30/01/2003	H-P-ASPI-LT-2635 30/01/03	Updated FPU & SVM unit drawings	ASED: Conditionally accepted, detailed IF definition ongoing- Waiting for updated drawings: ECR 40 v2 to be issued	See ECR-40 v2 below - Received ECR040-no version mail JL 21/03 said as closure ? Closure refused by mail GD dated 24/03/03	CCB # 19
HR-SP-RAL-ECR-0040 v1	N	ALS	SPIRE	2.2	H-P-ASPI-CR0320	30/01/2003	H-P-ASPI-LT-2634 30/01/03	Updated FPU & SVM unit drawings - ICD Annex of IIDB	Waiting for updated drawings: new version v2 to be issued		CCB # 19
HR-SP-RAL-ECR-0040 v2	W	ASED	SPIRE	2.2	H-P-ASPI-CR-0294 (for v1)		H-P-ASPI-LT-2635 30/01/03 (for v1)	Updated FPU & SVM unit drawings	Waiting for updated drawings: new version v2 to be issued, will include ECR 47 content, as H-P-MN-2748 27/02/03 - HP-ASED-FX-0231-03 & 331-03 : inputs required	Still waiting for a new drawing pack (v5) from SPIRE	
HR-SP-RAL-ECR-0040 v2	W	ALS	SPIRE	2.2	H-P-ASPI-CR0320 (for v1)		H-P-ASPI-LT-2634 30/01/03 (for v1)	Updated FPU & SVM unit drawings - ICD Annex of IIDB	Waiting for updated drawings: new version v2 to be issued, will include ECR 47 content, as H-P-MN-2748 27/02/03	Still waiting for a new drawing pack (v5) from SPIRE	
HR-SP-RAL-ECR-0041 v1	C	ASP	SPIRE	2.2	NA			Section 7.2.1 change Clarification of requirements for Cryocooler re-cycling, during on-ground testing. Clarification w. r. t. orientation for cooler recycling on ground	ASED: Conditionally accepted - Updated version of text proposed by ASPI (included in v. 2.3-draft), mail GL dated 21/11/02, New text to be proposed by SPIRE+ASED to close the ECR 41 , as H-P-MN-2748 27/02/03	Received ECR041-no version mail JL 21/03 said as closure ? Closure refused by mail GD dated 24/03/03 - Status closed as CCB 19 - Text in IIDB still to be clarified,	CCB # 19
HR-SP-RAL-ECR-0044 v1	I	ASED	SPIRE	2.2	H-P-ASPI-CR-0376	12/03/2003	H-P-ASPI-LT-3046 24/04/03	JFET rack foot mounting details on OB	Can be accepted by ASED	Text of SPIRE CR44 added in IIDB 2.3 draft 2 in section 5.6.1 as a proposal	
HR-SP-RAL-ECR-0045 v1	N	ASP	SPIRE	2.2				Updated DCRU drawings. Completed by ECR 40 ?	ECR 45 deleted	Not transmitted	CCB # 19
HR-SP-RAL-ECR-0046 v1	A	ALS	SPIRE	2.2				Include HSPDU interface circuit	Accepted by ASP CCB 19, sent to ALS for info	Accepted by ASP Keithrobert Hibberd (mail du 20/03)	CCB # 19
HR-SP-RAL-ECR-0047 v1	N	ASP	SPIRE	2.2				IID-B Spire Unit ICD Annex Reissue....Doc. # SPIRE-RAL-DWG-001409 to version 4	ECR 47 deleted, will be included in new ECR 40 v2, as H-P-MN-2748 27/02/03	Not transmitted	CCB # 19
HR-SP-RAL-ECR-0048 v1	A	ALS	SPIRE	2.2				Update table in section 5.5 Masses and sizes reflect ECR 47	Accepted by ASP CCB 19, sent to ALS and ASED for info	To be transmitted to ALS	CCB # 19
HR-SP-RAL-ECR-0048 v1	A	ASED	SPIRE	2.2				Update table in section 5.5 Masses and sizes reflect ECR 47	Accepted by ASP CCB 19, sent to ALS and ASED for info	To be transmitted to ASED	CCB # 19
HR-SP-RAL-ECR-0049 v1	C	ASP	SPIRE	2.2				Update JFET 3D views to match ICDs: cosmetics of IIDB	Accepted and applied to IIDB 2.3 draft 2	Not transmitted - Pb of number on the received SPIRE CR version (50 or ?)	CCB # 19
HR-SP-RAL-ECR-0050 v1	A	ASP	SPIRE	2.2				Update Spire Input beam illustration 5.8.1	Accepted and applied to IIDB 2.3 draft 2	This CR should be completed with quantitative description of beam	CCB # 19
HR-SP-RAL-ECR-0051 v1	N	ASP	SPIRE	2.2		11/04/2003		Increase strap interface boltsize of Sorption Cooler	Withdrawn by ASP, not a spacecraft interface, doesn't affect SPIRE FPU to cryostat interface	ECR 51 v1, pdf format, received by ASP mail Judy Long dated 11/04/03	CCB # 19

Instrument CR / change to be evaluated	Status (*)	Resp.	Instrum.	IIDB Issue	ASPI CR Ref.	ASPI CR Date (internal)	FAX ASP ref & dispatch date	Subject of instrument CR (s)	Industry Response Ref.	Comments	OTCmt
--	------------	-------	----------	------------	--------------	-------------------------	-----------------------------	------------------------------	------------------------	----------	-------

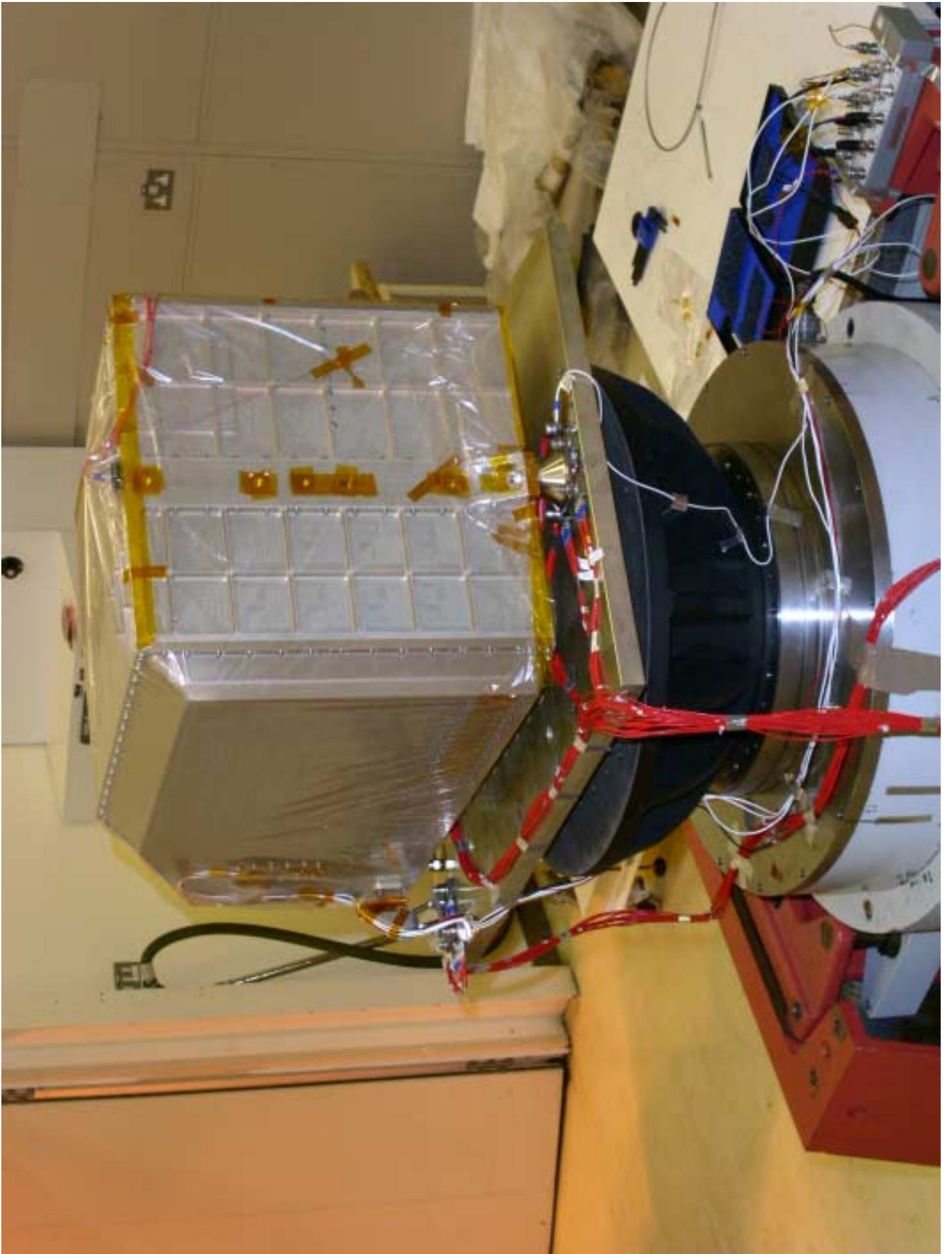
(*) : I	Created by Instrument, received by ASP										
(*) : E	Corresponding ASP CR sent to Sub-Contractor										
(*) : S	Waiting for inputs, suspended										
(*) : A	Accepted by Sub-Contractor										
(*) : C	Closed, Accepted, Applied										
(*) : R	Rejected by Sub-Contractor										
(*) : N	Obsolete, Suppressed										
(*) : W	Waiting for ECR (not yet received by ASP)										

SPIRE programme

- Baseline programme.
- STM
 - Proof of structural integrity
 - Proof of thermal design
 - Not deliverable
- CQM
 - Refurbished STM
 - Full working instrument
 - Limited functionality, 3 BDA arrays.
 - Performance measurements in AIV cryostat
- PFM and FS
- AVM
 - Electronics units only, no change proposed.

SPIRE programme

- Proposed new programme
- SM
 - Do early vibration test to confirm subsystem input levels + qual
 - No electronics
- Alignment Model (AM)
 - Fit OGSE to STM and do cold alignment check.
 - No electronics except OGSE drive electronics
- Cold Qualification Model (CQM)
 - Refurbish STM/AM by fitting one detector chain, CQM cooler, photometer filters, thermal interfaces.
 - This is the model we deliver to ESA, and we can deliver earlier.
 - QM electronics required with this model.
 - Reconfigured for delivery by removing parts not required in the spectrometer.



SPIRE programme

- PFM
 - This can be built up using CQM (FS) subsystems initially to enable the test programme to continue.
 - Electronics required, initially QM2 DRCU
 - As FM subsystems become available they can replace the CQM subsystems, when a convenient slot occurs.
 - The CQM will evolve into the FM
 - This allows a longer test period

SPIRE programme

- Disadvantages
 - CQM cooler and PLW BDA will be delivered with the CQM
 - PFM cooler and one CQM BDA will be needed earlier
 - QM1 warm electronics will be delivered earlier to ESA, this could leave us short of electronics to drive the system.
 - QM2/QM1b electronics essential