

Minutes of SPIRE Project Team Meeting 14
SPIRE-RAL-MOM-000797
RAL 7 August 2001

Present: Matt Griffin, Ken King, Eric Sawyer, Bruce Swinyard, Berend Winter, John Delderfield

1 Review of outstanding actions from previous meetings

No. PT-04-0570	Actionee	Description	Priority	Deadline	Status
01	KJK	Write WE integration and test plan	High	Oct. 2001	Still Open. Needed for IBDR.

No. PT-10-0682	Actionee	Description	Priority	Deadline	Status
04	MJG	Arrange for QMW to evaluate filter suppression.	Medium	May 31	Open, not yet documented

No. PT-11-0712	Actionee	Description	Priority	Deadline	Status
06	C Cara	Circulate draft DRCU spec doc		May 25	Closed

No. PT-12-0726	Actionee	Description	Priority	Deadline	Status
02	EC	Update the document management plan to reflect the new scheme for interaction of institute PMs with the documentation configuration control system.		June 29	Still open, action being taken
03	EC	Write a document describing the configuration control system for internal RAL use.		June 29	Still open

No. PT-13-0772	Actionee	Description	Priority	Deadline	Status
01	DKG	Initiate project e-mail box	high	27/7/01	closed
02	all	Use the 'out of office reply' system		On going	closed
03	KJK	Send ESA a progress report for JUNE		27/7/01	One will be sent for July
04	BMS DKG	Bruce and Doug to talk to John and distribute a draft list of documents showing approval status.		3/8/01	In progress
05	BMS	Bruce to propose a logical scheme for the		3/8/01	In progress

		documents on live link.			
06	MJG	Matt to meet with Ken to discuss the outstanding MOUs		3/8/01	open
07	DKG JD	Check scope for increasing the thermal load on the detector box JD to look at the fraction of the 2-K load that is due to the 2-K box		27/7/01	Open, there appears to be little scope to increase thermal load. But MSSL are planning to optimise the dynamic performance without the thermal performance suffering.
08	BMS	Check orientation of the BDA for the spectrometer		27/7/01	open
09	ECS	Discuss the mirror to mirror mount interface with MSSL.		27/7/01	closed
10	System team	develop a strategy for dealing with power increase.		31/7/01(progress meeting with Gavazzi)	This is a project level problem, Ken to discuss with the other instruments.
11	ECS	Outline new document scheme at the next telecon		Next telecon	open
12	KJK	Ask for copy of PACS MOU		31/7/01	Yes but not yet received
13	ECS	Seek confirmation of DDR dates		27/7/01	open

Actions raised during this meeting

No. PT-14-0797	Actionee	Description	Priority	Deadline	Status
01	KJK	Ken to draft a memo to ESA identifying concerns about the responsibilities of the various parties.		(by the end of this week)	open
02	ECS	consider instigating an investigation into alternative design solutions to the cold bus bar.			open
03	Peter Hargrave	define detector filter and incorporate into the filter ICD.		This to be defined before the BDA review.	open
04	ECS	Compile contents list for JPL ICD		10/8/01	open

05	KJK	confer with other PMs to decide what to do - maybe require IFSI to do the appropriate analysis.		17/8/01	open
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General comment : We need to keep an open items list, not just a list of actions - agenda will be changed to incorporate this.

2 Project Management Issues

Alcatel

Lack of information on how Alcatel and ESA work together. Requests for information come from both parties.

[Ken to draft a memo to ESA identifying concerns about the responsibilities of the various parties. \(by the end of this week\)](#)

Partnership agreement, dates are still in the document and not agreed by SPIRE.

IIDB.

ESA are preparing for the SRR.

IIDB status was not as required by ESA, some changes implemented by RAL.

Comments received from ESA, too much detailed design information, e.g. harness details.

SPIRE is concerned that this information will not be taken into account when Alcatel do the detailed design.

Add this concern to the above memo.

IIDB will be issued in PDF format. Changes will be by change request.

Some updates to harness definition are still to be initiated, should be ready by the end of this week.

Mechanical interface issues are still outstanding.

Alignment issues are still fluid.

Mass budget, overall mass is 90Kg not split into units, SPIRE can shift mass around.

Control of budgets will now be at RAL, not ATC.

Thermal model

Only ESTEC are running a dynamic model. Alcatel will only run a static model.

Spacecraft level testing EQM

Document received from Astrium, response proposed by Bruce.

A meeting was proposed by SPIRE, but not yet held.

Astrium are proposing a flight thermal environment.

SPIRE reject this proposal, on the basis of incompatible schedule and of little use to us.

End to end testing will be carried out at instrument level.

Structure and thermal strap programme

There are still some problems with the mirrors. LAM need to revisit the optical design and provide updates to MSSL.

All mirror mounts have to be redesigned, due to the error in the original optical design.

Final design of the detector box needs to be pursued.

Spectrometer detector box not started.

Thermal bus bar, some testing, amplification higher than expected.

Should we study alternate designs?

After the calibrator/filter DDR, Peter Hargrave can work on thermal strap issues, testing and development etc.

ECS to consider instigating an investigation into alternative design solutions to the cold bus bar.

Outer cover well under way.

Interface to detector connector panel is reaching agreement, formal agreement from JPL is required.

Thermal bus bar light trap should be considered as part of the strap development.

DDR likely to be end September, but not cover all aspects of the structure sub system, Berend to specify which parts could be reviewed in this time scale. Delta review to follow, before the IBDR.

BSM flex pivots

Solution has to be within the ATC budget, some trade off with system level effort is available.

This will be discussed at the delta review on 23 August.

DDR report is being prepared but will not be available before 23/8/01.

Support for ICC to be discussed on 23/8/01.

Electronics issues

List of documents agreed with CEA, Bruce to pass to John.

John to visit CEA next week, probably.

2.1 Management Reporting and Control

2.2 Document change and configuration control

2.3 PA

2.4 Business Agreements

2.5 Schedule:

3 Instrument Issues

Detectors

Effect of 1g on suspended BDA is still an open issue.

ICD dimensions for the BDA should not be temperature sensitive, but ICD should be dimensioned warm.

Action on Peter Hargrave to define detector filter and incorporate into the filter ICD. This to be defined before the BDA review.

The ray trace does not show rotation (6 degrees). Some further rotation of the BDA mechanical interface will probably be necessary. The chopper shall be aligned along the Y axis. The action to check this is still open. Data shall be included in the appropriate ICD.

Orientation of the arrays within the detector may still be possible. JPL to confirm.

RAL to specify rotation angle.

Pixel map required.(pixel number vs JFET channel number.

Location of pixels wrt mechanical interface.

Information required from JPL and to be included in the ICD.

- Above list plus . . .
- Eigenfrequencies and modal masses
- Bruce's e-mail of 21/5 and Jamie replied on 23/5
- E-mail from John Coker

- We can re-send package to make sure nothing is lost
- Deadline depends on when JPL have to have them signed off
- We need to see all docs. for review at least 14 days before sign-off date
- Purpose plan for production and review of the documents.

ECS to compile list of contents for ICD

3.1 OBS and Instrument Control

3.2 DPU

- PACS and SPIRE have rejected high power level.
IFSI haven't provided any technical analysis.

Action: KJK to confer with other PMs to decide what to do - maybe require IFSI to do the appropriate analysis.

4 ICC Issues

Not Discussed

5 Meetings:

5.1 Detailed design Reviews

5.1.1 Planned Dates for other DDRs

Latest summary:

- Mirrors: Complete
- FTS: Some time in September. MCU and SMEC should be reviewed together.
- DRCU/WIH TBD.
- Structure/thermal straps End September TBD
- DPU: Not decided yet
- AIV 7/9/01
- EGSE: TBD
- BDAs:/JFETs 30/7/01, NASA review, formal DDR done by a document review and meeting in September.
- Filters/calibs: End August TBD, not calibrators
- BSM: 30/7/01 not all issues closed out
- OBS Requirements review 30/7/01
- Shutter PDR: July 17, Almost a DDR, some aspects still open.
- Cooler Complete, some RIDs to be signed off.
- DRCU simulator TBD

6 Progress on Open Issues

None discussed

7 AOB

Nothing raised

