

Minutes of SPIRE-JPL-CEA Telecon, January 14 2003
Matt Griffin, January 14 2003

Present: JPL Gary, Jamie, Jerry, Ben
 RAL Bruce, Doug, John
 Cardiff Matt

Contents

1. Review of actions.....	1
2. JFET vibration levels	1
3. Status of Agreed Documents	1
4. Interface drawings.....	2
5. JPL participation in DRCU Programme Review	2
6. Any Other Business	2
6.1 Kevlar update from Gary	2
6.2 Impact on schedule of late definition of vibration requirements.....	2
6.3 Boulder tests.....	2
7. Updated Action list.....	3

1. Review of actions

See new action list at the end of this document

2. JFET vibration levels

- RAL recommend that the units be bolted into the racks and vibrated to the original IID-B levels.
- JPL agree but note that the racks might not fit into the cold shake fixture. If so, it may be feasible to warm vibrate with an accelerometer on the rack and cold vibrate the units with levels derived from the warm results.
- The same components are needed for back-harness structure - possible conflict between that and vibration test would need to be sorted out.
- RAL have two sets and could end both if needed.
- John: Hoping to ship at end of this week after some re-work that's going on now.
- Gary: JPL will need to get an import certificate so that it can be sent back without problems.

3. Status of Agreed Documents

- SSSD:
 - ECR all closed and updated version has been sent by Bruce to JPL for signature.
 - A separate ECR was raised on the changes to the sensitivity levels.
 - Vibration levels will be changed via an RFW.
- Business Agreement
 - Ready for signature pending review of updated ECR by JPL.
- Other documents
 - Bruce has given the current EXCEL spreadsheet summary to Doug
 - The main ICD still needs to be updated wrt the changes agreed at the Saclay meeting in December.
 - **Action: Bruce, Doug, Matt to review and update the spreadsheet and identify any other outstanding issues.**
 - Bruce: Inspection procedures for delivered hardware need to be documented
 - Jerry: This should be covered in the EIDP.

4. Interface drawings

- Drawing 25:
 - Doug: A side-effect of pin assignment changes on the is that the F-harness has been affected. Have sent detailed communication outlining the problem and proposed remedy. Not a hardware change. Please have a look at that. Would also impact page 22 (JFET ICD).
 - Gary: Need Len to check this.
- Specification of resistors for non-flight units
 - Jamie: Dustin will put a note on the ICD about this referencing the relevant STM ICD and noting the values.
- HDD:
 - John: Once 22 and 25 are sorted out, then we can revise the HDD.
 - Jamie: Len had a comment on the temperature control interface connector - he needs to know the definition for that - is it covered in the HDD?
 - Doug: There's a TBC on this in the current version, with a proposal for an MDM rather than a Nanonics - will extract that from the document and send to Len.
- Drawing 22:
- Gary: Have asked Len about this and will chase this up and get done ASAP.

Note: No specific actions have been listed for this discussion. It is expected that the various issues will be closed out by normal work.

5. JPL participation in DRCU Programme Review

- Review will take place on March 4 with documents to be circulated two weeks in advance
- JPL comments on the design of the DCU and its compatibility with the specification will be important
- [Action: Bruce to send JPL copies of the relevant documents for their comments.](#)

6. Any Other Business

6.1 Kevlar update from Gary

- Results of Kevlar creep test run over holidays are encouraging. Test was on a sample subjected to the pre-conditioning procedure before testing. Very little creep was detected.
- One possible design change is being considered - changing the pulley material to Invar to eliminate their contribution to the CTE effect. Not favoured but will be done if necessary.

6.2 Impact on schedule of late definition of vibration requirements

- Day for day schedule slip
- Risk of spares not being deliverable within budget
- Matt: Sorting out and agreeing final vibration levels is agreed high priority. Objective is to do that at or immediately following next week's telecon.

6.3 Boulder tests

- Gary: Have proposed February date to SAp. As far as I know that's acceptable to Jean-Louis.

7. Updated action list

Blue = updates

Green = actions closed at this meeting

Actions 117-120 are from this telecon

Actions from July 9 telecon				
No.	Action	Responsible	Due date	Status
47	Update Major Milestones List	Ken	Next telecon (July 23)	Open. The MMA is to be updated in accordance with the dates for JPL deliveries agreed at this meeting for the updated business agreement.
Actions from August 20 telecon				
65	Draw up vibration test procedure for the instrument STM, including policy for accelerometry.	Berend	Feb. 1	Open. To be addressed after the FEA analysis is complete.
Actions from November 19 telecon				
88	Review JPL schedule with objective of maintaining required delivery dates.	JPL/RAL	Continues	Continuing. New baseline has been defined in revised Business Agreement.
Actions from December 3 telecon				
92	Send Jamie plots revealing cooler cold and warm Q-factors if available	Eric	6 Dec.	Closed
94	Liase on planning a "dummy shipment" to test the process before "non-return" flight hardware is shipped to RAL.	Jerry and Eric	6 Dec.	JPL are working on getting the necessary export licence to allow for permanent shipment. First permanent export will be CQM in May. RAL need proforma invoice with similar format to the one provided to Cardiff by Tim Koch Closed: Jerry has sent draft proforma invoice for review. Eric and Matt to respond.
Actions from December Saclay meeting				
No.	Action	Responsible	Due date	Status
96	Arrange telecon on Kevlar in January in preparation for MRB	Bruce	15 Jan.	Open. To be done tomorrow if possible.
97	Issue HDD (high priority)	Doug	20 Dec.	To continue off-line with report at next telecon. See below
98	Arrange for JPL comments on the EIDP template to be sent to Eric	Gary	15 Jan.	Closed - Jerry has sent comments. Eric and Bruce to respond.
99	Propose set of data on bolometer performance and characteristics to be included in the EIDP.	Bruce	15 Jan.	Closed. JPL to review and respond
100	Arrange for feedhorn test report to Bruce and Matt.	Gary	6 Jan.	Closed
101	Check whether thermal cycling will be done by Cristek or whether it will need to be done at JPL.	Gary	15 Jan.	Closed. Jerry sent e-mail on this. Correction: continuity testing to be done on all the pins. John: Will there be leakage checks between nearest neighbour pins. JPL will consider this.
102	Investigate feasibility of providing dummy RF filter modules as a backup for the STM if needed	Gary	15 Jan.	Closed. JPL agree that this could be useful and would like John to send an e-mail plus a sketch of what's needed.
103	Write formally to Passvogel emphasising the need for a clear decision on whether SPIRE	Matt	15 Jan.	Deferred to industry meeting in February.

	should pursue a full or curtailed STM/CQM schedule.			
105	Produce a note before Christmas working through some of the discussion, considering the use of bundled wires.	Viktor	20 Dec.	Open. Jamie will remind Viktor. Jamie: Viktor just back from Bulgaria - defer to next telecon.
106	Draft out possible test configurations before Christmas	Dominique	20 Dec.	Open. Dominique is now away until mid-Feb. Christophe: The concept for performing measurements is clear. The exact configuration needs to be defined, and that needs Dominique.
107	Respond to above notes	JPL, CEA	15 Jan.	Open
108	Obtain and circulate better values for the cryoharness impedances, particularly the proposed shields.	John	15 Jan.	Open. Testing is going on now on the RAL ground-test harness. Industry should be able to provide flight harness estimates by end Jan. To be included on topic list for next industry interface meeting.
110	Provide e-mailed comments on the draft QM electronics test plan	John and Viktor	20 Dec.	Open. John has started work on this and will e-mail further comments this week
113	Check DRCU FMECA and update if necessary.	Christophe	1 Feb.	Open Bruce: What's needed is short exercise to reflect failure modes that might be apparent with the new PSU configuration Similarly, WCA needed on system-level (28-V) interfaces at least. New action: Bruce to specify what's needed for the WCA.

Actions from January 7 telecon

No.	Action	Responsible	Due date	Status
114	Send to John a brief note (e-mail + diagram) on configuration of croostalk switches.	Jamie	15 Jan.	Open - deferred to next telecon.
115	Arrange vibration levels telecon for Friday 16:00 UK time	Matt	9 Jan.	Closed - telecon took place Jan. 10
116	Clarify to Christophe what's needed for the updated FMECA and WCA.	Bruce	15 Jan.	Closed.

Actions from this telecon

No.	Action	Responsible	Due date	Status
117	Check Berend's availability for Jan. 21 telecon (to be devoted largely to vibration levels)	Matt	15 Jan.	
118	Comment on draft proforma invoice sent by Jerry	Eric and Matt	21 Jan.	
119	Send e-mail plus a sketch of what's needed for dummy RF filter modules (backup for STM).	John	18 Jan.	
120	Send JPL copies of the relevant DCU design documents from the DRCU Programme Review Document set	Bruce	When available	