300-mK Strap Development Team
Telecon minutes

TO: Bruce Swinyard, Matt Griffin, Berend Winter, Sam Heys, Peter Hargrave, Iris Ditschuns,
CC: Tom Bradshaw, Jamie Bock, Dustin Crumb, Lionel Duband, Tony Richards, John Delderfield, Eric Sawyer, Judy Long.
FROM: Doug Griffin
DATE: Friday, 28 September 2001
REFERENCE: SPIRE-RAL-MOM-000897

Summary of Resolutions

- it was resolved that the scope of the team was correct and that the stray light baffle would be included in this
- the requirements for the strap were discussed amended and agreed upon. The amendments are incorporated in version 1.0 of Discussion Document and Proposed Plan, SPIRE-RAL-NOT-000895.
- The design drivers were discussed. It was highlighted that the very highest priority was the robustness and reliability of the system. Discussion on the rest of the criteria was made.
- It was agreed that accommodation of the BDA thermal control system would have to be carefully examined in the light of the possible range of design solutions available.
- It was agreed that MSSL would treat the 300-mK system as an external interface within their own documentation.
- A discussion of the proposed program was conducted.
    - It was agreed that a dummy photometer box, SPIRE Optical Bench and Cooler interface would be made. At the moment MSSL will provide these items but schedule problems may require other solutions.
    - It was agreed that several engineering models would be made for initial mechanical and integration testing then subsequent thermal testing.
    - It was agreed that Cardiff would over the next couple of months carry out thermal testing to gain experience on predicting the eventual thermal performance of the system
    - It was agreed that the possibility of inferring thermal data could be gained by measuring the electrical conductivity at room temperature.
    - It was agreed that the thermal interfaces with the BDAs need to be tested and information gathered from JPL.
    - A follow up progress telecon will be held on Monday 8 October and a follow up meeting at RAL on Monday 15 October where the various technical solutions will be discussed.

Action Items

Number	Responsible	Action	Due Date
1	Sam	Perform a sensitivity analysis on the effect of the parasitic heat load to the 300-mK system	15 October (TBC depending on Sam's availability)
2	Berend	Provide Sam with updated detector – box to SOB thermal conductances	8 October
3	John C.	Circulate information on the accommodation requirements of the system and the relative location of the cooler I/F as well as the BDA I/F locations	First half of week 40

Number	Responsible	Action	Due Date
4	Bruce	Make contact with JPL to sort out provision of I/F information. (including flatness, gold coating etc.)	ASAP
5	Doug	Discuss with Peter Hargrave the information to be obtained from thermal testing	Friday 5 October
6	Peter	Investigate the means of conducting thermal testing at room temperature via electrical analogy	Monday 8 October
7	Berend	Investigate requirements on maximum displacements for the BDA/Strap interface	Monday 15 October
8	Bruce	To find information on strap I/F conductances using ISO style joints	Monday 15 October
9	Doug	To find out from Lionel about the thermal conductance of the joint at the cooler. (Integrated thermal model of cooler)	Monday 15 October

Douglas Griffin
Friday 28 September, 2001