

ESA/SPIRE Technical Meeting
ESTEC
8th June 2000

The purpose of the meeting was to go through the IID, to clarify and update it for inclusion into the ITT documentation.

Note: this version of the IID (Parts A and B) are now under configuration control and changes require the agreement of the Project Manager, and may be subject to review.

IIDB Part B

IID Part B was discussed page by page. Changes were marked up in the ESA copy as we went through the document. In addition:

Chapter 4:

Sections 4.7.1, 4.7.2:

Where is the Instrument Specification defined? – IRD uses values given in the IID Part B. This document seems to take its figures from the SRD. It's clear we need an Instrument Specification Document, giving the performance figures for the instrument

As an example of the lack of a specification, we found an inconsistency between the number of detectors given in Matt's SPIE presentation and the wiring table sent to Colin from JPL. We didn't know which document the information should be found in .

Section 4.7.2:

This section should contain the instrument Science Performance parameters. We assume these should be taken from the SRD?

Action: MJG/WJG to provide Scientific Performance Parameters sections (4.7.1, 4.7.2) by 12/6/00

Chapter 5

Colin's new FPU mass estimate is now 45kg + contingency. Passvogel felt that at this stage of the project we should be interating towards a fixed value. He suggested that we may be requested to carry out a mass reduction exercise by the ISVR review board. In the end he agreed to enter a mass of 42Kg +20% contingency into the IID PartB.

Other estimates of the mass were discussed.

Action: CRC to update FSFTB size and mass estimates, by 15th June

During this discussion we found that the mass, thermal dissipation and power dissipation figures have not been included in most of the subsystem specification documents that we have so far.

Action: KJK to request mass, thermal and power dissipation to be put in the Subsystem Specification Documents

Table 5.9.1.2 (thermal loads onto the cryostat) may need updating. Passvogel said he would put an action on us to provide a thermal model if we don't provide one at the ISVR.

Figure 5.10-1 CRC updated this, in real time

CRC provided updated harness information, just received from JPL. This raised several questions about the figures provided:

Is 10 mA really required for JFET power and heater supplies?

Could 200 ohm cables be used to provide this power?

How do we provide 30 volts to power the JFET heaters?

Action: CRC to clarify information in the Cryoharness Tables

Section 5.12.2: Is the pointing requirement confirmed?

Action: MJG to confirm pointing requirement in section 5.12..2

Section 5.13.3: Do we need Autonomous Housekeeping Data packets? Or should we use the standard housekeeping packets. They will be asked to comment on this.

Section 5.15.1.1. ESA questioned the 5g figure for maximum shock during transport. They reckoned it should be on the 100s of g

Action: BW to provide the maximum shock level (plus time duration) allowed on the instrument during transport.

Section 5.6.1: This is a new section added at the meeting. It deals with the level of microvibrations to which we are susceptible

Action: CRC to confirm maximum level of microvibrations that we can accept at the optical bench interface

IID Part A

ESA need comments by 16th June – send to CRC

AOB

Sorption Cooler:

Collaud estimates that implementing redundancy in the cooler would increase thermal budget by 20%. This is in contrast to Duband's estimate of 100% increase. This needs to be clarified - Passvogel will ask Collaud to contact Duband about this.

Action: KJK to send Delta PDR agenda to ESA

Action: KJK to send Word macro to CRC