Issue 3

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Introduction

These are the minutes of the EIS System Design Team meeting number 3 (**SDT-3**).

Held at the MSSL Library, Thursday, February 4, 1998, 2pm.

Those present

MWT, MSSL
AJM, MSSL
WTO, MSSL
CJM, MSSL
DGS, MSSL
LKHM, MSSL

Minutes prepared by MWT.

Reminder - documents referred to as EIS-xxx-xxx-xxx are available in the documents archive at the project website http://www.msssl.ucl.ac.uk/solar-b/docs .

Agenda

Debrief

Design Discussion

Format of Future Meetings

Next Meeting

Consortium Meeting de-brief

MWT reported that the selection of US partners for Solar-B had taken place. The US consortium member for EIS is the US Naval Research Laboratory in Washington, DC. The US group is led by George Doschek of NRL. This is the group with whom the consortium were in discussion before the "blackout" that took place before the AO and selection process.

MWT reported from the EIS consortium meeting held at NRL 25-26 January. See

EIS-meet-cons-9901agen

EIS-meet-cons-9901mins

A list of the materials handed out can be seen in the minutes.

The main questions at this meeting were

- what is the best telescope configuration ?
- what is the best spectrometer wavelength range or ranges?

The telescope configuration may be either an off-axis paraboloid (OAP), as per the strawman payload, or a Cassegrain, as described by NRL in their (winning) proposal to NASA. The OAP has been on the table, particularly in Japanese circles for many years, whereas the Cassegrain was introduced to this consortium in February 98.

Up to four wavelength ranges are being considered - 1,2,3 and 6 in "EIS science Notes" EIS-sci-notes-4. Range 2 is the baseline range. Ranges 1 and 3 were suggested in the NRL proposal and range 6 has been recently suggested by the UK science team.

MWT showed the matrix of design choices.

Design

MWT sketched out the direction to be taken, having in mind the unsettled nature of the basic design and the forthcoming Solar-B kickoff meeting.

Whilst the basic design question will be answered at a scientific level, the engineering groups in all institutes will seek to expose technology issues that might drive the choice.

Work Breakdown Structure requires further elaboration.
EIS-sys-eng-wbs-1

Interface Diagram needs elaboration - an interface list should be generated and interface specs drafted.

Spectrometer Design - in a two-wavelength system - where will the foci of the gratings be? - will there be any overlap of the images?

WTO enquired about the nature of the deliverable models. This would become clearer after the kick-off meeting. The present plan however is for there to be separate Engineering (electrical) and Structural/Thermal model deliveries.

A s/w development model of the main electronics box was felt to be very beneficial.

CJM reported some initial developments in the CCD area. Again, it was felt that having test-grade devices to play with would be extremely helpful, as would a CCD simulator. We agreed to enquire about test devices at a forthcoming visit to EEV. The main reason for going to EEV this time was to discuss radiation effects of their CCDs with the aim of establishing the optimum temperature and clocking regime.

It was felt that a future SDT meeting should begin to address EGSE and software issues.

Future Meetings

The SDT group should meet regularly and include the other institutes, e.g. by teleconference or videoconference. If held in the afternoon the meeting could usefully segue into a telconference with NRL (5 hours behind). A frequency of ~ weekly was suggested for the run-up to the kick-off meeting.

CJM and MWT visit EEV 8th Feb

Next SDT meeting 11th Feb ?

Project Review Meeting 16th Feb

PPARC Steering Comitte meeting 25th Feb

Solar-B Kick-off (all instruments) at ISAS