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| <p>SOLAR-B E I S</p>  <p>EUV Imaging Spectrometer</p> | <p><i>SDT Minutes 1</i></p> | <p><i>sdtmins</i></p> <p>1</p> |
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Issue 1

Document ID EIS-meet-sdt-minutes-1

File D:\Users\mwt\Projects\Solar-B\EIS\docs\meet\sdt\Minutes1.doc

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Date 12 November, 1998

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Introduction

These are the minutes of the EIS System Design Team meeting number 1 (**SDT-1**).

Held at the MSSL Library, Friday 3rd July 1998 10 a.m.

Those present

MWT, MSSL

VG, UCL

AJM, MSSL

WTO, MSSL

RAG, MSSL

Agenda

Situation - report/debrief by MWT

Management Plan - discussion, all

Schedule - discussion

Actions from Consortium Meeting - progress

Actions Arising

AOB

Date of Next Meeting



Situation Report

MWT reviewed significant meetings of late.

The May meeting at ISAS.

Meeting was held 13-15 May 98 at ISAS. For the record, here is the agenda as it was on 9 May.

EIS design meeting No.1

13 - 14 May 1998 ISAS

13 May (Wed) 10:30 - 17:00

z. Status

0. Welcome (Ogawara)
1. Current Japanese status (Kosugi/Ogawara)
2. Current UK status (Culhane)
3. s/c configuration (Tsuneta)
4. s/c schedule (Tsuneta)

a. EIS design Issues (MSSL)

1. Spectrometer Design and Structure
Discussion on design options Inclusion of slit jaw, or other camera Materials, vacuum vessel or purged Alignment; Thermal design.
2. CCD detector system including cryostat and radiator
3. Electronics associated with the spectrometer and its control Need to preliminary definitions of:
 - a) command and telemetry interfaces, b) power distribution
 - c) recommended components (if any)

b. CCDs for XDT and future testings (Sakao)

(XDT: X-ray Doppler Telescope)

14 May (Thr) 10:30 - 17:00

c. Progress of spacecraft design

1. MDP: Scientific data processing and operations (Shimizu) data compression, packet telemetry... control of observation sequence... (ground based science coordination)
(cont. obs. During the eclipse)
2. Spacecraft/instrument interfaces (command and telemetry)
3. Attitude control requirements (Sakao)
4. Power system (Tsuneta)
(5. CCD cooling and bakeup)

(MDP: Mission Data Processor)

b'. Possible NASA proposals: optical system (e.g., spectrometer design concepts and components) (Hara/UK....)

1. Cassegrain system?
Sensitivity, spatial resolution, torelance, coalignment instrument length...
2. SVLS grating tolerance



3. Wavelength options
170-200A?, vuv option?, slit-jaw image?

d. NASA AO process

1. Preproposal briefing
2. Expected US proposals
3. Next EIS meeting consistent with AO process

15 May (Fri)

spare, visiting

cf. Action Items of the previous meeting

1. EIS spectrometer design options pros vs. cons before pre-BO by mssl/ub/nrl), sensitivity, spectral resolutions, structure tolerances, coalignment
2. wavelengths all by Apr/98 (first)
3. eev ccd qualification testing by mssl asap naoj=Jun/98 kek/uvsor experiments < mssl
4. ccd temperature requirements by mssl asap
5. data handling by J before pbo
observational sequences...
6. contamination by thruster <-- SoHO info by mssl
prelaunch bakeout before pbo
- [7. Launch lock info by J -> ub]
- [8. Vibration spec by J before end Mar.]
9. possible US-PI affiliation problem by isas

[closed]

Those present: Tsuneta, Ogawara, Shimizu, Hara, Watanabe, Kosugi (and someone else) and from the UK: JLC, MWT, RDB and JL.

Before going to this meeting, I got the feeling from UK engineers that this would have been a good time to state the spacecraft interface for instruments, i.e. "Solar-B spacecraft interface meeting # 1". But the way that interface design is being approached (cooperatively, evolving towards a definition) means that it was appropriate to look at the EIS design at this time. MWT can provide copies of his notes all that meeting, as well as copies of the overheads which were shown, the most significant of these were as follows (as also or presenter shown in brackets)

- Master schedule and milestone (Tsuneta)
- Possible UK progress (RDB)
- Telemetry pros and cons (us RAG)
- Discussion of 28 and 50 volt systems (AJM)
- EIS radiator temperature (WTO)
- MDP concept (Shimizu)



- Various studies of EIS operation, e.g. accuracy of obtaining Line widths (Hara)

The June Meeting at MSSSL.

Meeting was held 2-3 June 98. Minutes of this meeting can be found on the EIS web site at

<http://www.mssl.ucl.ac.uk/solar-b/minutes.htm>.

Management Plan

Present:

Draft Management Plan - includes System Engineering Management Plan

User Needs

System Requirements

- Need to ask for “ratification” of the SEMP from PI/ISAS level. SDT should now carry forward initial formation of SEMP (thanks VG).
- Begin formation of Baseline EIS document structure

Specifications,

Design,

Interfaces

The team had some useful comments on the content and style of this document.

Other business

The date of the next meeting was not fixed

The following topics were not discussed:

- Schedule
- Review of Existing Actions
- Actions Arising
- Any Other Business