

Work Package: Structure

SPIRE-MSS-REP-001279

1. Subsystem Progress Since Project Inception

Several concepts evaluated for the structure. Base line design decided upon in June 2000. Working on the system implications and implementation since first half of 2001. Continuing to close interfaces with the various subsystems. Started with production drawings in February 2001. The concept of the suspension has been analysed and decided on implementation. Hardware produced and tested, meets specifications. Detailed design continuing and manufacture has started.

2. Subsystem Progress This Month

Subsystem interfaces still open are thermal busbar, thermistors, RF filters and SMEC. Detailed design for MGSE has been completed and MGSE is now in production. Delivery of STM still in Early August with current manufacturing deadlines. Harness routing continuing, with more detailed design work in the detector harnesses. Production of second optical bench nearly completed and the production of the photometer 2K box and covers is continuing. More sets of mirror mounts and cover seals have been completed. Detail drawings of spectrometer 2K box have been completed. Work on implementing the Cardiff thermal busbar design is ongoing. Designs for the Level 1 thermal strap interface have been produced.

3. Problem Areas

-Difficult to close interface definitions.
Also other subsystems have problems with them.
- Thermal busbar suspension has strong non-linear responses
- Level 1 thermal strap interface with spacecraft still is not confirmed

Bend radii of proposed cabling is making the harness routing a longer task than originally anticipated

Remedial Action

-Most interfaces are closed. The outstanding ones include the RF filters, JFETS and the SMEC.

- Development team has been set up to redefine design. Continuing to work to implement design without effecting the schedule. Production of outer cover of photometer 2K box still on hold.
- Have produced design and awaiting confirmation

Continuing design work and closer co-operation with RAL. Problematic area is the detectors and working closely with RAL, Tekdata and JPL to resolve quickly.

4. Engineering Activities

Analysis and alignment reports continuing

5. Design Changes

6. PA/QA Activities

7. Subsystem Management Issues

8. Actions Requiring Immediate Attention

9. Status of Previous Actions

10. Activities Yet to be Achieved

Close the I/F with JPL for the RF filters only. Close out interface with SMEC. Finish harness routing. Detail design drawings for spectrometer side cover and optical bench.

11. Milestones

February 2002	Interfaces defined and reported
13-08-2002	STM delivery to RAL
01-02-2002	CQM FTB enclosure to RAL
10-06-2003	PFM delivery to RAL
01-10-2002	PFM FTB enclosure to RAL
6-01-2004	FS delivery to RAL

Status

On going
On schedule
On schedule
On schedule
On schedule

13. Schedule Changes

Due to the proposed design and improved manufacturing deadlines, we are lagging 0.5 months behind on original schedule.

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