

Work Package: Structure

SPIRE-MSS-REP-001795

**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. Closed interfaces with the all subsystems. Started with production drawings in February 2001 and were finished in January 2003. The concept of the suspension has been analysed and decided on implementation. Hardware produced and tested, meets specifications. Detailed design has been completed and manufacture of the CQM is completed. Manufacture of trh PFM is continuing. The structure integration has been completed. First warm vibration has been completed. The design of the MK2 Level 0 Thermal straps is in progress. Design of instrument and detector box mounts is in progress.

**2. Subsystem Progress This Month**

Production of MK1 level 0 Thermal Straps has been completed and it is currently with the goldplaters. Spine of the Photometer 2K Detector box is still in production and will be completed by Mid July. Photometer cover wall is in production and is set to be completed by the end of August. MSSL's workshop continues to finish all the smaller mechanical parts for the harness and the last remaining bits for the flight hardware. Awaiting quotes from Edwards for the remanufacture of mirror mounts SM7 and SM8.

**3. Problem Areas**

Also other subsystems have problems with them.

- Thermal busbar suspension has strong non-linear responses
- Level 1 thermal strap interface with spacecraft still has been confirmed

Redesign of the Level 0 Thermal Straps

**Remedial Action**

- Awaiting new light baffle from Cardiff so that MSSL can run some unit tests.

The thermal test of the 99.999% pure Aluminium wire has been completed. The design of the MK2 strap has stalled until some analysis work can be performed.

**4. Engineering Activities**

Redesign of the Level 0 straps and isolation joint from results of the TMM.

**5. Design Changes**

-

**6. PA/QA Activities**

None

**7. Subsystem Management Issues**

-

**8. Actions Requiring Immediate Attention**

-

**9. Status of Previous Actions**

-

**10. Activities Yet to be Achieved****11. Milestones**

February 2002

13-08-2002

01-02-2002

1-10-2003

6-01-2004

Interfaces defined and reported

STM delivery to RAL

CQM FTB enclosure to RAL

PFM delivery to RAL

FS delivery to RAL

**Status**

Completed

Completed

N/A

On schedule

On schedule

**13. Schedule Changes**

On schedule