

<b>SPIRE (MSSL)</b>	<b>Monthly Report – November 2002</b>	Date: 28/11/02
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**Work Package: Structure SPIRE-MSS-REP-001785**

<b>1. Subsystem Progress Since Project Inception</b>		
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 almost complete and manufacture is continuing.		
<b>2. Subsystem Progress This Month</b>		
Production drawings of the busbar have been revised and issued. Have tested the second set of MKIII units and light baffle from Cardiff and FEA is still in progress. The assembly drawings have been started. After the liquidation of Thrust, two suppliers were found to complete the three remain major components. The SCAL box has gone into production with Edwards brothers of Worthing. Spectrometer 2K Detector box and Optical Bench has gone into production with B3 Technologies of Shalford. The optical Bench has been roughed (2 cycles) completely on one side and the second side is in progress. This is still due on 20 December. Spectrometer 2K detector box is due 31 January 2003. The photometer Cover has been fit checked as an assembly. MSSL's workshop continues to finish all the smaller parts of the structure. The FEA model of the instrument has been updated to reflect the current design of Spire and random vibration analysis has been performed with the new vibration levels.		
<b>3. Problem Areas</b>		<b>Remedial Action</b>
<p>Also other subsystems have problems with them.</p> <ul style="list-style-type: none"> <li>- Thermal busbar suspension has strong non-linear responses</li> <li>- Level 1 thermal strap interface with spacecraft still has been confirmed</li> </ul> <p>Delivery date now 5 months late – due to loss of supplier for detector box and optical bench</p>		<ul style="list-style-type: none"> <li>- Development team redefined the schedule for the project. Delivery date is mid-February</li> <li>- Have produced design for the thermal bus bar itself. Received MKIII units from Cardiff. Revisited the mechanical characterisation tests and continuing FEA.</li> <li>- Production design has been revised and drawings have been issued for manufacture.</li> </ul> <p>Constant monitoring of manufacturing progress and preplanning of follow on activities with RAL to minimise impact on whole project.</p>
<b>4. Engineering Activities</b>		
FEA on thermal busbar.		
<b>5. Design Changes</b>		
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<b>6. PA/QA Activities</b>		
Preparation of End Item Data Package is still continuing as well as revising PA documentation for Delta DDR of the Thermal bus bar		
<b>7. Subsystem Management Issues</b>		
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<b>8. Actions Requiring Immediate Attention</b>		
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<b>9. Status of Previous Actions</b>		
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<b>10. Activities Yet to be Achieved</b>		
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<b>11. Milestones</b>		<b>Status</b>
February 2002	Interfaces defined and reported	Completed
13-08-2002	STM delivery to RAL	now 5 months late January 03
01-02-2002	CQM FTB enclosure to RAL	On schedule
10-06-2003	PFM delivery to RAL	On schedule
01-10-2002	PFM FTB enclosure to RAL	On schedule
6-01-2004	FS delivery to RAL	
<b>13. Schedule Changes</b>		
Due to liquidation of our main supplier, we are lagging 5 months behind on original schedule.		