

UK Astronomy Technology Centre

Monthly Project Report

Project: **SPIRE BSM**

Jul 2003

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1. Summary

This is for the provision of a 2 axis beam steering mirror to the Spire instrument for the ESA Herschel mission.

The performance of the mechanism has been almost fully demonstrated now (with proviso that we are relying on increased current being available which is agreed by all parties except one - therefore not yet signed off).

Life test is complete for one axis (jiggle) and nearly complete for the other (chop).

Risk is judged to be low so we have started manufacture of components. We have completed the flight model mechanical design.

The programme dependencies with Cardiff and LAM have been resolved. We were dependent on Cardiff to supply PCAL (calibration source) that fits to the BSM and to LAM for MCU (Mechanism Control Unit). We have now agreed that:

- We need to receive PCAL unit PFM (Proto Flight Model) before we test the BSM PFM.
- We can test the BSM FSM (Flight Spare Model) without PCAL FSM
- Once we have made sure that our in house control unit operates the same as the LAM MCU we can decouple our programme completely from deliveries from Marseille.

2. SOFT Analysis

Successes:

Jiggle cold life test passed!

Cold vibration passed with flying colours.

Programme dependencies simplified, reducing risk of delays. (Still dependent though)

Opportunities:

Can (has already) put the ATC on the map for space flight hardware.

Failures:

None

Threats:

We are dependant on deliveries from Cardiff, LAM that affect ours.

Status of Project Milestones - as at [31-Jul-03] [Milestones in bold text are in ATC Milestone table]

Baseline Agreed Milestone	Baseline	Scheduled	Actual	Change
Beam Steering Mirror – delivery of Cryogenic Qualification Model to RAL	Jun-03	Req't cancelled.		
BSM – Launch manufacture of PFM	Jun-03	Jun-03	Jun-03	
BSM – delivery of Proto Flight Model to RAL	Aug-03	Sep-03		
BSM – delivery of Flight Spare to RAL	Feb-04	Feb-04		
BSM – delivery of PFM Fixed Mirror to RAL	TBD	Oct-03		

Change indicates the delay (+) or recovery (-) since the last report.