

SPIRE (ATC)	Monthly Report – Nov 2002	Date: 27.Nov.02
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Work Package: BSM

SPIRE-ATC-REP-001784

1. Subsystem Progress Since Project Inception				
Baseline design accepted at Delta-PDR, including digital electronics control by MCU. CPP parts requested. Single axis prototyping complete. DDR held. 2 axis prototype tests complete. IBDR complete. Development Model testing				
2. Subsystem Progress This Month				
STM delivered to RAL. DM-2 assembly complete and tests started. All ATC harness and sub-system wire ordered via Tekdata.				
3. Problem Areas		Remedial Action		
<input type="checkbox"/> Full checks on repeatability/linearity in dewar to be achieved <input type="checkbox"/> Launch Latch relocated on design <input type="checkbox"/> Tayco flexi-tape delayed 8wks by export paperwork <input type="checkbox"/> Zeiss motor quotation above budget price		<input type="checkbox"/> high efficiency anti-reflection coating window received and tested warm. Will test further soon! <input type="checkbox"/> Change to proposed ATC mounting in hand - will need to tie up with LAM. <input type="checkbox"/> Investigated JPL route but determined would not help. <input type="checkbox"/> Initiated procurement with ATC contracts office		
4. Engineering Activities				
Alignment of jiggle stage, wiring and check out of mechanical limits performed. Sensors, motors and LAM electronics all function. Working to close control loop over full range of travel. We are also investigating an increase in spring rate seen on the chop axis in comparison to expected values. Discussions on the ICD with MMSL are in hand - some confusion over beam positions on the BSM.				
5. Design Changes				
Problem routing wiring for DM-2 jiggle frame sensor has been overcome on the development model and the design change will be documented for future models. Similarly a number of small minor design changes (mainly drawing notes and dimensions) will result from experience during assembly and test. An error in the motor package slot width was exposed by initial DM-2 tests, as the full 2.53° of chop travel cannot be reached at full jiggle angle. A salvage scheme will fix this for DM-2, and the slot will be expanded on subsequent models.				
6. PA/QA Activities				
A number of RID responses have been worked on, primarily an update to the BSM SSSD. A few outstanding TBCs on telemetry and optical spec are being closed out with RAL and LAM. Discussions into performing a cold shake in December have been started.				
7. Subsystem Management Issues				
Late delivery of flexi-tape. To minimize re-work costs, the rebuild of DM2 with flexi tape will coincide with salvage scheme to extend chop travel, but as both these should precede a cold shake it puts US customs on the critical path....				
8. Actions Requiring Immediate Attention				
SW11MAR02.02 IP Place contract for Zeiss motors ... ongoing.				
9. Status of Previous Actions				
IP/D.Griffin : ATC PO placed with Tekdata for central procurement of harness. Complete				
10. Activities Yet to be Achieved				
Overall slippage of DM-2 assembly and test : impacts liaison with LAM and knock on to CQM delivery (but within consortium requirements). Improvements to the drawing configuration data base are being sought.				
11. Milestones		Status		
Milestone	Baseline	Scheduled	Actual	Change
20K test dewar available	N/A	Nov.02		+6 months
Integrate DM 2 at LAM	30 Mar 01	Nov.02		
DM release for manufacture	Oct.01	Nov.01	Dec.01	
DM-2 release for manufacture	N/A	Apr.02	Apr.02	
2 axis prototyping at ATC complete	N/A	Mar.02	Apr.02	
SPIRE IBDR	N/A	Mar.02	Mar.02	
DM-2 tests complete	30.Apr 02	20.Dec.02		+ 3w eeks
BSM STM del'y to RAL	01 Feb 00	5.Nov 02	5.Nov 02	
BSM CQM delivery to LAM	Jul.02	Feb03 TBC		TBC
BSM CQM del'y to RAL	13 Mar 02	Apr.03 TBC		
BSM QM tests complete (flight design valid)	25.Apr.03	20.Jun.03		
BSM PFM delivery to LAM	03.Jun 03	04.Sep.03		

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