

SPIRE (ATC)	Monthly Report – Aug 2001	Date: 04.Sep.01
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Work Package: BSM

SPIRE-ATC-REP-000855

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 assembled. Prep for IBDR underway.				
2. Subsystem Progress This Month				
DDR closeout held on 23.Aug. Opted to attempt up-screening of 429 stainless flex pivots and Smiths Industries picots. By opting not to fit inconel pivots to STM a six month breathing space before QM model purchase exists. 2 axis prototype assembled. Magnetic field tests scheduled for next week. and DM design changes in hand.				
3. Problem Areas		Remedial Action		
Flex pivot prices over budget.		Up-screening of commercial pivots will be attempted. Inconel a fallback.		
4. Engineering Activities				
Drawing pack undergoing configuration control release and design iteration towards DM manufacture. BSM Test Plan meeting held and test plan being written. Control systems checks of BSM motor damping performed				
5. Design Changes				
Design for manufacture review held and small changes in hand. Prototype assembly being studied for design tweaks - chop axis throw currently undersize by 40%.				
6. PA/QA Activities				
NCR system being trialled. Flex pivot up-screening test rig concept design in hand.				
7. Subsystem Management Issues				
Flex pivot - Collaboration with HIFI on flex pivots yet to be closed out. Some effort constraints delaying release of DM drawings and FEA of assembly vibration response. Quotes for off the shelf Infineon position sensors for DM have a high MoQ. Given the required outlay Delaying purchase while we work out if we can get some which are closer to flight status. RFQ for 20K dewar issued				
8. Actions Requiring Immediate Attention				
ATC-116 - M.Griffin/R.Carvell - Talk to Mike Sandford about costs of use of RAL cold vibration facility				
ATC -187 - BG to order additional position sensors				
D.Griffin - release of final BSM DDR report				
9. Status of Previous Actions				
ATC-159 - B.Graham characterise the flux of the BSM magnets/motors. - scheduled				
ATC-183 - B.Stobie to check effects of harness length on motor damping - complete, ATC tech note issued				
10. Activities Yet to be Achieved				
Configuration control release of drawing pack presented at DDR. PA plan up-issue delayed by effort shortfall.				
11. Milestones		Status		
Milestone	Baseline	Scheduled	Actual	Change
Report on sensor stability to LAM	07 Jul 00	21 Jun 01	30.Jul.01	+1 month
Prototype Detail design release	24 Jan 01	30 May 01	30May01	
Update ICD structure	24 Oct 00	13 Jun 01	13 Jun 01	
20K test dewar available	N/A	Oct 01		
SPIRE Intermediate Instrument Design Review (IIDR)	TBD	23-24Apr.01	23-24Apr.01	
Integrate Prototype (in place of DM 2) to LAM	30 Mar 01	Dec.01		revised
Internal ATC review	new	3 Jul 01	2.Jul.01	
Detailed Design Review	30 Jan 01	31 Jul 01	30.Jul.01	-1 day
DM release for manufacture	Oct.01	Oct.01		New
2 axis prototyping at ATC complete	N/A	Dec.01		New
SPIRE IBDR	N/A	Nov.01 (TBC)		New
DM tests complete	N/A	22 Mar 02		
BSM STM del'y to RAL	01 Feb 00	01 Jul 02		
BSM CQM delivery to LAM	N/A	Jul.02		
BSM CQM del'y to RAL	13 Mar 02	Under review		