

SPIRE (ATC)	Monthly Report – Dec 2001	Date: 07.Jan.01
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Work Package: BSM

SPIRE-ATC-REP-001159

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 in progress. Prep for IBDR underway.				
2. Subsystem Progress This Month				
Detailed 2 axis prototype testing continues - linearity of chop and jiggle sensor confirmed, indicating look up tables not required. Infineon position sensors received. Purchase Order for sub-con of random response FEA placed. Magnetic modelling underway at MPIA. Options identified for cryo-harness connectors; pursuing details.				
3. Problem Areas		Remedial Action		
<ul style="list-style-type: none"> • development model has been released for manufacture 6 weeks late. Prototype tests are running one month late. • Cryo-harness connectors found to have been omitted from CPPA request • Cost of FEA vibration analysis 		<ul style="list-style-type: none"> • Effort surge will be required in new year to recoup slippage - effort does appear to be available. • Looking at alternate procurement, discussing options for late insertion of request with RAL. • Planning to re-cost budget and look for alternates before mid-Jan.02 		
4. Engineering Activities				
Flexitape for Jiggle frame sensor - samples received from Tayco. C-Flex bearings have been approached for alternate flex pivot supply.				
5. Design Changes				
Revised motor space envelopes received from MPIA - small increase in space to accommodate robust attachment point: will need to study this carefully to accommodate,. Good news is that Aluminium coil windings have been selected, which will help with power budgets.				
6. PA/QA Activities				
Material and fasteners procured. Monthly dedicated PA meetings commenced. CTD scheme modified to improve traceability. BSM PA plan up-issued. Monitoring cleanliness having moved to new lab - not yet up[to DM standard as builder' tidy up continues.				
7. Subsystem Management Issues				
8. Actions Requiring Immediate Attention				
ATC-SW_19Nov01.01 - I.Pain/D.Griffin : Confirm common parts procurement (i.e. that items we have requested have indeed been ordered).				
ATC-SW_23Aug01.08 - I.Pain/P.D'Argent : confirm Launch latch Space envelope - awaiting space envelope update				
9. Status of Previous Actions				
ATC-116 - M.Griffin/R.Carvell - Talk to Mike Sandford about costs of use of RAL cold vibration facility- ongoing				
ATC SX_23AUG01.12 -MJG/BMS - Revise micro-vibration susceptibility number (at next Alcatel meeting) - complete				
ATC-159 - BG characterise the flux of the BSM magnets/motors. - Write up pending				
ATC SX_23AUG01.05 - BMS - Check spec. on FoV requirements. issue as formal change request to the IRD - complete				
ATC SX_23AUG01.07 - BMS - Check specification on FoV of 126 arc secs. - complete				
10. Activities Yet to be Achieved				
Test rig for cryo/warm screening of pivots designed, but needs to be detailed.				
11. Milestones		Status		
Milestone	Baseline	Scheduled	Actual	Change
Report on sensor stability to LAM	07 Jul 00	21 Jun 01	30.Jul.01	
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	Mar.02		
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	Jan.02		
Internal ATC review	new	3 Jul 01	2.Jul.01	
Detailed Design Review	30 Jan 01	31 Jul 01	30.Jul.01	
DM release for manufacture	Oct.01	Nov.01	Dec.01	
2 axis prototyping at ATC complete	N/A	Jan.02		
SPIRE IBDR	N/A	Mar.02		
DM tests complete	N/A	22 Mar 02		

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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		