

ATLAS SCT Testbeam Working Group Prague 27 June 2001

Requirements & Planning for August 2001 beamtest at CERN H8

- **ATLAS Beamtest Schedule**

<http://atlasinfo.cern.ch/Atlas/GROUPS/GENERAL/TESTBEAM/schedule/index.html>

- **Startup**

- Morpurgo magnet has been cooling for several weeks: tests expected shortly
- Beam spill pattern is changed: this year 5.2s / 14.4s (400 GeV)
(cf: Aug2000, 3.2s; previously 2.58s >>> reduced deadtime, more events per spill)

- **Dates of the August runs**

- ~26 - 31 July Preliminaries - module preparation & characterisation
- 01 August Installation of modules in beamline
- 01 - 08 August Beam (*Pixels main users - magnet possible*)
- 08 - 15 August Beam (*Tiles main user - magnet NOT possible*)
- 15 - 22 August Beam (*SCT main users - magnet possible*)
- 22 August Final removal of modules - vacate beamline

- **What do we want to measure ?**

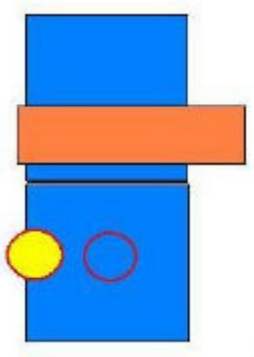
- **Performance of Barrel K4 ABCD3TA pre-/post-irradiation**
 - 2 modules from the April irradiation
 - 2 (or more) unirradiated modules from the Systemtest
 - Angle & Magnet scans not obtained at KEK
 - Chance to maximise sample - fill any spare slots with barrels from ST ?

- **Performance of Forward K4 modules (FDR)**

- *Stability ???* - Testbeam Threshold Scans usually (& usefully) from ~0.8 fC
- K4-200 with ABCD3T ?
- Inner Module K4-209 from NIKHEF ?
- ABCD3TA module(s) ?
- Irradiated module from earlier this year
- Module from irradiated components - if assembled ?

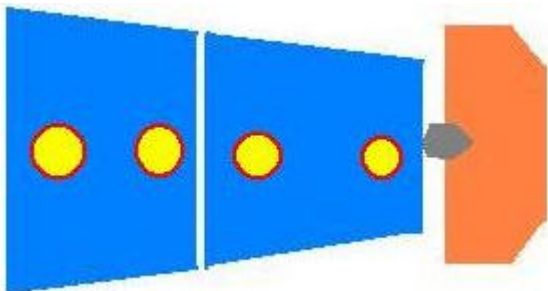
- **Efficiency of edge strips for Alignment studies**

- 3 or 4 unirradiated Barrel modules from Systemtest (2 edges, 1 or 2 reference)



- **Signal along Strips of Forward Modules**

- At least 1 unirradiated forward module, (K4-200 ?)
- Mount horizontally for full coverage



• Modules Available ?

3-4	Barrels Unirradiated k4 3TA	Systemtest	Jo & Lars
2	Barrels Irradiated k4 3TA	Irradiations	Alick & Lars
1	Forward Unirradiated K4 3T	K4-200 Freiburg	Lutz & Christian
1?	Forward Unirradiated K4 3TA	???	Daniela ?
1?	Forward Irradiated K4 3TA	K4-218	Alick & Lars
1?	Forward composite-irradiated	???	Daniela ?
1?	Forward Inner K4 3T	K4-209 NIKHEF	Nigel or Simon ?

• Support

- Installation (few days in late July & early August) - 2 teams works efficiently:
 - Modules - Peter, Lars, Pavel, ...
 - Infrastructure - Gareth, Marcel, Jose, Sandor, ...
- Operation - 2-3 weeks stable running
 - Several people (Peter K., David S.) coming later as some leave: looking ok
 - *More participants very welcome !*

- **Infrastructure**

- Basically the same system as last year
- 10 * Power Cables need to be reinstalled
- 5-6 * SCTLV-3 (with T readout) or LV-2
- 3 * SCTHV
- Dual VME crates
- New insulated lid to Uppsala box, with integrated 10-way fluid manifold

2001 ATLAS Test Beam schedule (SPS) 12 July-4 November 2001

Beam Line	Subdetector	July			August				September			October							
		(first day of the week)	12	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31
H8/SPS	Pixel	C																	
	SCT	C																	
	TRT																		
	Tiles																		
	LAr em																		
	Muons																		
H6/SPS	HEC																		
	EMEC																		
X5-GIF/SPS	Muons																		

 Co-user period.

- 24 October - 4 November 2001: 25 ns beam
- Magnet OFF: 12-18 July ; 8-15 August ; 12-19 September
- Low energy in H8: 29 August-5 September

(Available at <http://atlasinfo.cern.ch/Atlas/GROUPS/GENERAL/TESTBEAM/schedule/index.html>) including machine development periods , high and low energy periods