

CERN-RRB-2006-095  
3 OCTOBER 2006

# PRINCIPAL LHCC DELIBERATIONS

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23<sup>RD</sup> MEETING OF THE ATLAS RESOURCES REVIEW BOARD

23 OCTOBER 2006

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SCIENTIFIC SECRETARY, LHCC

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**GENERAL**

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This document summarises the principal LHCC deliberations concerning ATLAS at the Committee's sessions in May, June and September 2006.

Good progress was reported on the installation of the infrastructure and technical services in the experimental areas.

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**CONCERNS FROM THE PREVIOUS ATLAS RESOURCES REVIEW BOARD**

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<b>SUB-SYSTEM</b>	<b>CONCERN</b>	<b>STATUS</b>
Pixel Detector	The one major concern is with the corrosion in the stave cooling pipes of the Pixel Detector.	All staves have been made and the loading is complete. Integration of the Pixel Detector is advancing well.
Calorimeters	The major outstanding problem area is related to the timely delivery of the power supplies.	Progress in producing and installing these power supplies has been reported but concerns remain on the reliability.

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**DETECTOR SUB-SYSTEMS**

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**MAGNETS**

The Solenoid Magnet has been commissioned successfully in its final position, its field has been mapped and the magnet is now fully operational. The Barrel Toroid test programme over the next months comprises the characterization and commissioning test, commissioning of the control and safety systems and finally a full power current test. The cold mass of End-Cap Toroid (ECT) A has been inserted in the vacuum vessel while that for ECT-C is well-advanced. A number of technical difficulties related to fixing the cold mass and the tie rods, difficulties in installing the thermal shielding and the cryogenics tower have been encountered. Although all problems have been resolved, completion of the ECT has been delayed by about 6 months. The ECT installation delay has an impact of the Big Wheel installation and commissioning of the Calorimeter and the Inner Detector and ATLAS is in the process of optimizing the respective schedules.

**INNER DETECTOR**

Good progress was reported on the Inner Detector, with the Barrel Semiconductor Tracker (SCT) and Barrel Transition Radiation Tracker (TRT) installed successfully in their final positions. Integration of the Pixel Detector is advancing well.

### **CALORIMETERS**

Good progress was reported on the calorimeters, consisting of the LAr Barrel, LAr End-cap, Hadronic End-cap, Forward Calorimeters (FCAL), and Tile Calorimeter. ATLAS is putting a considerable effort in resolving the outstanding low voltage power supply problems for the Tile Calorimeter and the low & high voltage power supply problems for the LAr calorimeter. Progress in producing and installing these power supplies has been reported but concerns remain on the reliability.

### **MUON SYSTEM**

Installation of muon chambers is advancing well. The first Big Wheel Thin Gap Chamber (TGC) has been installed successfully.

### **TRIGGER AND DATA ACQUISITION**

Good progress was reported on the Level-1 Trigger and on the status of the DAQ/Higher-Level Trigger infrastructure.