

Minutes of ATLAS Level-1 Calorimeter Trigger Phone Conference – 6th September 2007

Birmingham: Stephen Hillier*, Gilles Mahout, Pete Watkins

Heidelberg: Paul Hanke, Eike-Erik Kluge, Karlheinz Meier

RAL: Norman Gee, Tony Gillman, Viraj Perera

* at CERN

1. Birmingham

- Gilles reported that the two CPMs that had been returned to eEMS with faulty G-link transmitters had now been repaired, and re-tested successfully at Birmingham. They will be shipped immediately to CERN.

The total number of fully-working CPMs is now 60 (including the pre-production modules).

- One CPM has a temperature sensor fault which cannot be traced at CERN; it will be returned to Birmingham for repair.
- Chris had discovered a firmware error in the TCM CAN code, which caused the Geographical Address to always be set at 8. This bug has now been corrected, and the firmware modifications must be made to all of the TCMs at CERN.

2. Heidelberg

- Electro-mechanical assembly work has been continuing with the production PPMs, and Victor will shortly resume single-board testing.
- Klaus has been investigating a timeout fault observed with the full-crate test set-up in Heidelberg, which will require a firmware change in the diagnostics section of the 6U VME analyser module.
- Three PPR crates in USA15 have still to be populated with PPMs, and three crates still require connection of the LVDS cables. This work is planned to take place during visits to CERN in September and/or October.

Whilst they are at CERN, Paul and Klaus will also correct any known LVDS cabling errors.

- All of the FPGAs are now available to complete the assembly of the remaining 20 LCD cards.
- Ralf has repaired 200 MCMs, requiring replacement of FADC and PPrASIC dies, and these devices are currently being re-tested.
- Two new post-docs have joined the Heidelberg group. They will first learn about the PPr system in Heidelberg before becoming resident at CERN.
- The two pre-production PPMs and a PPr crate taken to Brookhaven by the ZDC are now working. There is a Memorandum of Understanding for KIP to deliver a further four PPMs to the ZDC collaboration.

3. RAL

- Assembly of the final seven production CPMs is beginning now, with JTAG tests expected during the week beginning 17th September. Updated information will be available at the regular Friday morning phone conferences.
- Production of the CMMs and RODs is proceeding in parallel, with an assembly starting date of 12/13 September, and the first modules scheduled for completion ~10 October. Priority will be given to completion of the RODs, as they are urgently required in USA15.

All 20 RODs will pass through the surface-mount process in a single batch, but the assembly company requires the use of mechanical strengthening jigs to protect the modules during the subsequent manual handling stage. With only four such jigs available, the RODs will be produced in four-module batches.

Viraj and Richard Matson will then visit the assembly company to carry out the JTAG testing on their premises, and bring the modules back to RAL, thereby minimising the company's concern over possible module damage during shipping.

- The final five CMM RTMs are still awaited from the assembly company.

4. CERN

- Analysis of the data from the recent M4 integration run is proceeding; more information should be available at next week's L1Calo General Meeting at CERN (12 September).

Next Phone Conference – Thursday 20th September 2007 at 11:00 (10:00 in UK)

Tony Gillman