

Minutes of ATLAS Level-1 Calorimeter Trigger Phone Conference – 23rd August 2007

Birmingham: Chris Curtis, Stephen Hillier*, Gilles Mahout*, Richard Staley

Heidelberg: Eike-Erik Kluge*, Rainer Stamen

Mainz: Andrea Neusiedl*, Uli Schäfer*

QMUL: Eric Eisenhandler**, Murrough Landon*

RAL: Bruce Barnett*, Tony Gillman, Viraj Perera, Weiming Qian, David Sankey

* at CERN **at RAL

1. Birmingham

- Chris had sent around a note summarising the DCS status for the L1Calo hardware installed in USA5:

All *Wiener* crates, except CP0, are now connected to the global DCS. In addition, connected crates should contain a TCM, which is also connected to the DCS.

Most of the CPMs and JEMs are visible to the global control stations, but there are still problems with the RODs, PPMs and some of the CMMs, which are not visible to the control room.

People working in USA15 should minimise the amount of time that crates and TCMs are disconnected from DCS. The modules need not be powered, but the CAN cables should remain connected as far as possible in order to prevent false alarm signals.

- Of the four new CPMs from the final production batch, two are fully working and two have been returned to the assembly company for replacement of faulty G-link devices (two on one module and one on the other module). New parts are scheduled for delivery next week, and Gilles will re-test the repaired modules in Birmingham during w/b 3rd September.

2. RAL

- The final batch of seven CPMs are scheduled for assembly, starting 28th August, with a 7-10 day turnaround.
- The connectors required for assembly of the final five CMM-RTMs are expected at the end of August.
- The first two pre-production CAMs are scheduled for delivery to RAL on 11th September (one particular component was on a long delivery lead-time).
- The PCBs for the full production of twelve CMMs are currently on order. Assembly is scheduled to start on 12th September, with delivery in two batches of six modules on 9th and 22nd October. Viraj will try to persuade the assembly company to accelerate this schedule.
- The PCBs for the full production of twenty RODs (including two modules for the ZDC collaboration) are currently on order. Assembly is scheduled to start on 13th September, with delivery in two batches of ten modules on 10th and 23rd October. Viraj will try to persuade the assembly company to accelerate this schedule.

3. Stockholm

- Sam had e-mailed a status report in advance of the meeting, the main points of which are as follows:

During last week's visit to CERN, he had repaired and reinstalled backplane P4M0 in crate CP0. He replaced one pin that had been bent and broken off from the front in P143, using the AMP extraction tool to push out the remainder of the broken pin from behind. A second pin that had been bent during fitting of the CMM1 RTM support was also replaced *in situ*. The rest of the installation went more-or-less smoothly. His conclusions were that the AMP pin repair kit and the *Harting* pin insertion tool seem to complement each other, so the pin replacement/repair technique would best be served using a combination of these tools.

Whilst at CERN, he also looked into ideas for connecting air temperature sensors in the CP/JEP crates. Since the eventual solution is linked to the voltage sensing which currently shares the same ribbon cables, it was agreed that a final decision should be made on local vs remote voltage sensing before any new interfacing PCBs are designed.

During last week with help from Bruce, Sam made some progress studying the jet CMM firmware, which he continued this week with further simulation/VHDL testbench work. The central jets seem to work well, but FCAL jets had a curious problem that cannot be reproduced in simulation. He identified and fixed a latency mismatch in jet E_T this week, and will make new systemACE files soon.

He would like soon to test the jet CMM firmware with readout and simulation.

4. CERN

- There was some discussion about preparations for the M4 integration run. The hardware status could be summarised briefly as follows:

The DCS is operational

Four PPr crates are populated with PPMs, and three of these are LVDS-cabled to the CP/JEP crates

Three CP crates have been commissioned

Two JEP crates have been commissioned

Nine RODs have been installed

The CMM-RTMs have still to be installed

- It is hoped to integrate the L1Calo hardware into the M4 run on Friday 24th August.
- L1Calo will have increased autonomy to define the run priorities next week (30th-31st August), with the possibility of actually triggering the system.
- There will be a phone conference on Tuesday at 14:00 (CERN time) to discuss the strategy for the latter part of the M4 run – details to be circulated in advance.

Next Phone Conference – Thursday 6th September 2007 at 11:00 (10:00 in UK)

Tony Gillman