Minutes June 9, 2004 TRT Barrel Electronics Meeting
(Action items in Red)

1. Status of Testing of Type 3 back boards.

The boards have been electrically tested. Some location are read out with the mini-rod setup but not all of them. Work in progress (several reset lines reversed, different Bunch Crossing delay settings, etc..) Right now, reading out with the short (1m) ROD-to-patch panel cable. Once all the other little problems will be understood, change to the 100 m ROD-to-patch panel cable.

2. Status of the design of type 3 front boards.

Bjorn needs to do some changes to its analog ground fill, but nothing involving major changes. Mitch notes that this boards has a lot of data read back signal traces in the internal layers (the back boards design by Thursten do not present such feature). Mitch does not expect very different behaviour. Nandor has checked the mechanics, so far nothing wrong. Ben explicitly asks to check the hole size.

3. Protection Input Boards (from SEI and Sweden)

Ben. 100 protection input boards received from SEI. So far no problems had been observed. He has been talking to Daniel to proceed with the order. No news from Sweden. Ben asks about a jig to make the pins in the protection input board, that has to be built at Penn. Work in progress. Chiho gave to Ben some parts from Duke to test/straighten the pins in the Protection Input Boards.

4. System Test Results in H-8

Mike and Ben show some results testing the type 1, type 2 back boards and type 1 front boards plugged with the cooling plates in the sector barrel prototype in H-8. (http://www.hep.upenn.edu/atlas/sysperf/current) 300 kHz thresholds and clock noise look good. For one chip in 2BL boards, there is a dramatic drop in the 300 kHz thresholds. It has been observed before at SR-1 and Penn, and for what there is not a conclusive explanation. Ben notes that connectivity tests show that these channels seem to be connected. Also, shifts by 10 DAC counts on the 300 kHz thresholds are observed for the same board in several occasions. This is believed to be due to the low voltage power cables with different length, and therefore different IR losses and different analog power. It should be confirmed with new measurements whenever it will be possible.

5. Connectivity Tests Results in H-8

Ben shows the results of the connectivity tests injecting a pulse through the high voltage kapton in H-8. (http://www.hep.upenn.edu/atlas/sysperf/current) Results are nice and conclusive, and agree with the expected bad wires, with the exception of a few channels. The disagreement is believed to be caused by an error in the straw mapping.

6. Status of Test Beam Preparation

The preparation for the test beam proceeds. Jolanta has prepared the bulk low voltage supplies and the ELMB for the monitoring of the voltages and temperature. Ben, Mike and Toni build the cables to power the boards using the End-Cap patch panels. Herve is building the connector array to power the End-Cap patch panels and the barrel patch panels with the Jolante bulk power supplies. Anatoli notes that tomorrow by lunch time the sector barrel prototype will be at the beam line, and we should start to install the setup.