Minutes 2-June-2004 TRT Barrel electronics meeting
(Action items in Red)

1. Status of testing of Type 3 back boards
   Type 3 BL finished stuffing 1-June. Testing will begin after testing on the unified setup of the Patch Panel, TTC – cable and type 1 (BL,BS) and type 2 (BL,BS) boards. Some of the Patch Panel testing can be done independent of testing the full setup. After the full setup is tested then the type 3 boards will be tested.
   Type 3BS stuffing will start June 2 and should finish within a few days.
   Can use the endcap patch panel to study the type 3 boards but only a limited number of ASDBLR sites will be tested at once without a special cable.

2. Status of design of type 3 front boards
   Bjorn and Mitch have been exchanging files. Near final design. Bjorn has a lot of cleanup to do and add the fills. Mitch estimates that it is 2 weeks before the board can be submitted.

3. Protection boards (from SEI and Sweden)
   No protection boards from SEI (first 100) received at CERN yet; due at CERN 3 June. Ben is supposed to test and visually inspect the first 100 parts from SeiSystem fast so that they can produce the other 900 boards. No new boards from Sweden since the Copenhagen meeting. Ben is supposed to contact Bjorn about receiving the Swedish parts. Penn is supposed to produce and ship a jig for testing the pin placement and straighten them. Jig supposed to be in the Penn shop by 4 June.

4. RF gaskets on BSS (including delivery of solder from US)
   The longest and shortest type 1 modules were put into the BSS to test the placement of the location of the RF gaskets on the BSS. The RF gasket placement was fine. All RF gaskets placed so far have been soldered. Penn is shipping over more solder. Jack Fowler is determining the amount of RF gasket material needed. John Callahan claimed that we should have just enough RF Gasket material. (Editors note: Jack's calculations including a scrape rate state that some more parts need to be ordered. Craig Kline has been cutting the RF gasket material and gets a scrap rate very similar to Jack's estimation. Jack is conferring with Ben and will send to Penn the estimate for more parts to order. It has taken 1 FTE 4 days to place half of the type one RF gaskets required. It was also discovered that 17 of the RF gasket pieces were put on incorrectly so they will have to be desoldered and replaced. A depth gauge is now used to test the RF gasket placement before soldering.)

5. Status of software, test programs, database
   No update

6. System test results in H-8

Last Thursday (28-May) Ole and Mike moved the DAQ to H8. Have installed all protection boards that they have and need a few more. Tested the 1B boards with wires grounded on the other end. Adding copper tape brings noise down. 1BS have capacitors removed around the mount holes. The type one stuffing diagrams have the capacitors removed around the mounting holes. The Type 1 Front boards have thermal foam between Active Roof board and cooling plate instead of thermal RTV. (Who is going to validate the attachment of cooling plate and AR boards using thermal RTV?) 2 type 1 Front side AR boards were mounted in the middle of the two type 1 modules in the test beam frame. 1 board on each of the two modules. The boards were next to each other. 3 of the 4 back side boards had data cables wired, 1 board was clocked while the front boards were readout. Position 8 on AR1FL boards might have increased clock noise pickup due to the test pulse pickup. (test pulse for position 8 on digital side of board for this board type only) The number of protection boards limit the number of AR boards that could be installed. The active gas plumbing was in place when the AR boards were added. This means that one can install and test the active gas independent of the electronics. The test results from H8 can be found at: http://www.hep.upenn.edu/atlas/sysperf/barrel_cern/current/

7. Status of hardware in SR-1 for DAQ. Share of elements with Test beam
   Ole stated that we should bring up the new TTC as soon as possible. Paul thinks should happen in a few days.
   To have two independent system in SR-1:
   - Still waiting on a new TTC. NBI will send a TTC from Copenhagen when the TTC is needed.
   - Need another ROD. 3 Rods are being assembled very soon.
   - 2nd TTC backplane. One exists in H8 and can move it to SR-1
   - The 2nd system in SR-1 should be available one week after the parts are availilbe.

   We need to be prepared for a combined system test in SR-1 with the SCT.

   Penn will make some more harnesses for the test beam and testing at Penn using the barrel system test patch panel. Penn will make 2 cable harnesses for the testbeam (one is already produceded) It will be 2 weeks for the 2nd test beam cable. Penn is also producing 1 short back side harness and 1 short front side harness for testing at Penn. In order to have cables for SR-1 in the short term we will use the end cap system patch panel and exsisting cables. Need to inventory the cables. **Having enough cable harness for the SR-1 is an issue**. There is no definitive plan for getting them to SR-1 as soon as possible. Need to decide on harness procurement. Need pin outs for the cables. Dubna needs the pin outs to start making cables. It thought that the preseries cables from Dubna would be used for SR-1. Penn will collect the pin out information and send it to Herve so that CERN can help check the pin outs.