Minutes, 9/01/04 Tevatron BPM Upgrade Meeting
Stephen Wolbers

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deposited in the Beams Document Database as document number
792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Echotek Validation status
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

   - The gain measurements from the Echotek boards look good,
comparable to the Recycler boards.

   - Bob is going to take one of the first two modified Echotek boards
(received in June) and will have Peter Prieto investigate making small
changes to the analog front-end to see whether input impedance numbers
can be improved.

   - Vladimir Shiltsev has asked for study time estimates for the
commissioning of the Tevatron BPM system. Steve is responsible for
collecting the information and getting it sent to Vladimir before the
10th of September.

   - The Hardware MOU has been reviewed by Computing Division. It is
in Accelerator Division for review now. The Software MOU is still in
the project. Some comments have been received, will be implemented, and
a second draft will be circulated soon.

   - The wbs has been updated reflecting the dates for the Echotek
boards and the rest of the hardware. Most of the boards will be in
production with first items arriving in October-November. This affects
our installation/commissioning schedule and we will discuss the details
over the coming weeks.

2. Echotek validation status -- Dehong Zhang

   - Dehong has successfully run the counting and prep tests on the
Echotek boards. Many issues were ironed out along the way and Dehong
and others worked hard to sort these things out.

- Three of the four boards look good and pass the tests. The 4th board has some unknown problems, still under investigation. The turn-on effect has finally been successfully implemented. Different versions of FPGA firmware has been loaded. The FPGA code has not been recompiled and reloaded yet.

- Given the above information we agree that we should proceed to finalize the results, document them, get approval from the project and then tell Echotek to go ahead. Bakul will work to organize the information and contact Gary Golinski. The goal is to have this finished by Friday, Sept 3.

3. Reports from L2 Managers

Margaret Votava:

- Working to improve the software diagnostics given the experience of the A3 setup.

- Will be working soon to understand the rate limitations in the readout.

- Working to get simulated turn-by-turn (TBT) data to Brian. And also to understand how to get the MAC address of the VME crate diagnostic ethernet port.

Vince Pavlicek:

- Bob Forster is working with the cable vendor on the cable labels. Also working on the air dam quotes.

- The timing card is functioning now to open/close the relays on the filter board. A 53MHz signal can be injected through the filter board. Working on this signal. Will debug the timing card interference with the Echotek card that was seen in early Echotek testing last week.

- Putting together bid packages for fabrication of both the timing boards and the filter boards. We need to get the orders in place and order all of the parts soon.

- VME crates continue to arrive. 3/4 of them are tested. They need to be tagged.

- Question of installation plan. Will we install bare crates or full crates? Answer is that full crates are the baseline. If we reach the last weeks of the shutdown without enough hardware we will probably

consider installing whatever we have before the beam turns on.

Brian Hendricks:

  - Working on TBT support. Earlier misdesign of TBT devices, has been fixed. Needs a place to test -- teststand discussion later.

  - TCLK and beamsync is not always available during the shutdown but special requests can be made.

Tim Kasza:

  - Working on the final service building cable positioning -- A1,F1-F4. Close to finishing all buildings.

  - Marv Olsen is close having all pbar ends of the BPMs in the tunnel connected to the pbar cables, the cables terminated upstairs, and measurements made of each of the cables.

  - Interlock work in the C buildings will proceed soon.

  - Tim's group will be working with Vince's to check out the hardware as it comes in. A test setup for the filters is already being prepared.

Mike Martens:

  - Thinking about studies time to commission the system.

  - Some comments on the software MOU were sent.

3. Technical Coordinator -- Jim Steimel

  - Jim is working on test stands. There is currently a shortage of working timing cards but hopefully that will be solved soon. Given that he proposes three teststands. One could be used for Graychip testing, one for Front End and Online software testing and one for various hardware tests.

  - It is likely that a teststand will be needed for the prep tests for the Echotek boards.

  - Jim reviewed some of the discussions about the Echotek board from Monday (Gustavo, Eric, Jim, Vince, Dehong, Steve).

    = Three modes to understand (closed-orbit, TBT, short-gate)
    = Will we need to modify Echotek firmware (FPGA)?
    = Eric will investigate the firmware.
    = Jim/Eric will look at the Echotek setup files.

4. AOB.

   - Meeting Thursday at 1:30 to discuss Graychip filtering.