

Minutes, 11/03/04 Tevatron BPM Upgrade Meeting
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- About 2 1/2 weeks remaining before the beam returns to the Tevatron. We should aim to be ready to take advantage of the beam and to start commissioning our A3 crate.

- Particle Accelerator Conference abstracts are due in about 4 weeks. Steve, based on some advice from Bob and Jim, has asked a few individuals to write draft abstracts that can be circulated and commented on.

- Bob Webber has arranged to get cables tested for opens/shorts and other obvious problems before we install them all in the service buildings.

2. Reports from L2 Managers

Rob Kutschke:

- Rob has gone through the data taken in A3 before the shutdown to study the uncoalesced beam and compare the BPM measurements of that beam compared to coalesced beam. His work is written up in a just-released note AD doc #1434. One of Rob's conclusions is that the measured positions (from uncoalesced and coalesced beam) are the same. It is not known whether the positions should be exactly the same.

Tim Kasza:

- Tim's slides can be found in AD doc #1381.

- Echotek testing. 150 boards have been received (the full order for TeV BPM). The last week has focussed on studying and classifying failures and discussions with Echotek. Some failures are classified as

hardware problems (DNL failures), are repeatable, and those boards will be returned to Echotek for replacement. The Bad ADC errors look like errors that can be solved by firmware changes. New test firmware is in hand to test this and investigations continue.

- Analog filters. Tim showed some filter matching plots (can be found in AD doc #1433), in particular some cases where the phase difference is larger than 2 degrees even at the center frequency. We had a discussion of this and the conclusion is that we are not worrying about it. We do want to compare these measurements to Lark's measurements for the same filters. Vince is getting the data from Lark. We also want to know what position error results from this phase difference. The expectation is that the error is small.

- Cables. Many cables arrived. More 4 inch cables and the 36 foot cables are still on the way.

Brian Hendricks:

- Library work is basically done. Brian is ready for SDA support as well as understanding database changes that will be required to switch the TeV BPM to the new system house by house.

- Work continues on the diagnostics (W25). Bob West is working with Luciano. Work also continues on the display programs.

- A question came up about the possible FPGA re-programming of the Echotek boards. How would it be done? What interface? Discussions continue.

- Brian is working on a TeV BPM state device. Should be available soon.

Margaret Votava:

- Software development continues (Luciano working with Brian and others).

Vince Pavlicek:

- All of the parts that Fermilab ordered for the timing and filter boards are now in hand.

- Bill Haynes continues to work on the timing board firmware, in particular TCLK interrupts work with Luciano.

- Continue to work with DAWN on the crate monitoring software.

- A visit from VMETRO (VME analyzers) will occur next week for those who are

interested.

3. Technical Coordinator -- Jim Steimel

- The A3 mockup will be put together and will be shown to Rupe Crouch for approval.
- Cable panels are due soon. They should be installed while we are in shutdown if possible.
- Discussion of whether the VME crates should be installed in advance during the shutdown or whether we should install them as we fill them and certify them in FCC. There are many issues here including the length of time it would take to install a crate, whether it has to be done between stores, whether people will be paged to do it, etc.
- Meetings will continue to discuss measurements, timing, modes of operation, etc. in preparation for a baseline for commissioning.

4. AOB.

- Will meet Thursday November 4 at 1:30 P.M. to discuss commissioning and modes of operation.
- Plan to meet Monday November 8 at 11:00 A.M. to continue discussions and to see recent test results from Gustavo and Eric.