

Minutes, 1/28/04 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 Steve and Bob.
2. Reports from L2 managers.
3. AOB.

1. Report from Bob and Steve.

- The data Bob showed on Monday was looked at again, this time with the new plot that was referred to in the Monday minutes. Clearly the beam motion that was seen is real and can be explained by changes in the magnets and other physical changes to the accelerator.

- Bob Webber is working to make turn-by-turn (TBT) measurements with the prototype TeV BPM Echotek. He is getting closer to success.

- Steve showed the near-term DOE milestones and internal project milestones.

DOE Milestones in February:

2/13/04 Echotek requisition placed

We are working on convincing Vladimir that the technology will achieve the requirements or that we have good reason to believe that they will. Measurements continue along these lines.

Internal Project Milestones in February:

2/6/04 Frontend SW specification review complete

Margaret is working on this. We will need to come up with a procedure for signing off on this kind of milestone. Bakul is working on this.

2/13/04 Timing card PO

This one is being worked on by Bill Haynes and Mark Bowden, among others. We will have a discussion of the status on Thursday, February 5.

2/16/04 BLM PO

We will put this on hold until we understand better what we are doing for the BLM.

2/16/04 VME crate and controller PO

2/24/04 Online S/W specification

2/24/04 Offline S/W specification

- We had a discussion of the layout of the Recycler Echotek crate, specifically in regard to the timing. I don't think I can do a good job in reproducing the diagram or the discussion here. The Tevatron is somewhat different than the Recycler of course and that will have to be taken into account. One PMC card in the MVME card will have to be procured. Jim Steimel will work on that with Margaret.

2. Reports from L2 Managers

Margaret Votava:

- A timing module is still needed for the FCC teststand from Craig. This will happen relatively soon -- Craig is working with Bob to get the TBT measurements.

- Luciano made changes to the code on the Echotek to allow us to get the I and Q measurements. This is a big accomplishment and should help us to make measurements from the prototype system in A1.

- A fourth fiber is required to bring in the beam synch signals to the FCC teststand. It should take about 2 weeks.

Brian Hendricks:

- Brian has helped to update doc 860, including data header information. Comments should be sent to the entire bpm list.

Mike Martens:

- Mike is thinking about how we can perform the studies that are needed for the Tevatron BPM project.

Rob Kutschke:

- Rob is working on writing up his work on proton-pbar cancellation studies. His plan is to show how the cancellation technique works and use it for a couple of stores to show pbar position measurements.

3. Technical Coordinator Report, Jim Steimel.

- There has been some discussion with Peter Prieto, Bob Forster to decide on the requirements for monitoring of the VME crates and whether the crates we are thinking of ordering meet those requirements.

- Jim has done a calculation based on the fastest rate that data will be used and has sent out an email with the estimate. No more than 1 Mbit/sec. will be required per house in the new system. At the moment two houses share a 10 Mbit ethernet.

- A new buffer diagram was shown and sent out by Jim and we had a short discussion of the buffers required. Mike Martens will think about the buffers with a plan/hope to present this to the Tevatron department at a regular department meeting -- maybe Feb 6.

3. AOB.

- The near-term schedule has:

Thursday, January 29, 1:30 P.M.

Wednesday, February 4, 11:00 A.M. (note time -- back
to 11:00)

Thursday, February 5, 1:30 P.M. (Timing discussion)