

Minutes, 7/28/04 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 Bob and Steve
2. Reports from subproject leaders and the test stand
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- 3 1/2 weeks before the beam goes away. We will continue to keep that in mind as we plan for a beam test of the new hardware and software and of any beam tests that we might want.

- Steve W. will give a talk at the first CD Accelerator activity coordinating meeting on Tuesday August 3 at 3-5 P.M. (not the whole two hours for Steve's talk!) in FCC1 conference room. A preliminary version of the talk will be sent out (or at least a link to it).

- Bob will call a meeting to get together a few people from the TeV BPM upgrade project and the transfer line BPM project to discuss commonality and strategy for the software.

- We will put the new crate in A3 for our beam tests before the shutdown.

2. Reports from L2 Managers

Vince Pavlicek:

- Timing Board. The timing board is installed in a VME crate. They are learning how to download firmware and have made changes in order to enable the VME interface. This is a full timing module. The digitizer part of the board (a second one) can be built for the A3 crate. Bob asked whether one more digitizer section could be assembled for other BPM work. The answer is yes.

- EchoTek reflection numbers have been measured on all 3 boards. The input impedance has been looked at -- apparently is low, consistent with the return loss.

- Filter Board: Stefano is working with Ken to take over some of the work on the filter board. Ken will be on vacation for two weeks beginning next Monday. There is a plan to combine the filter board with the Echotek and make a combined return loss measurement. Purchase requisitions for the long lead time items for the 150 production filter boards need to be written and placed.

Margaret Votava:

- Working hard on the integration and on getting a crate to A3 next week.

Dehong Zhang/Jim Steimel:

- Will make closed orbit measurements and read the data out through ACNET very soon. The 53 MHz continuous signal that was used as a fake input was saturating the system. Once that was solved the system seems to work well and does measure closed orbits!

- Have used a fake beam signal and measured close orbits using from 1 to 36 bunches. The position is not completely stable (as far as they can tell) with only 1 bunch and the position moves by on order 100 microns as more bunches are added. Still work to do to understand the behavior.

- The test stand was offline for about a day because of the power outage in FCC on Monday evening and then finding a good time to power up the hub consistent with accelerator operations.

Mark Bowden:

- Mark is in contact with EchoTek about the boards. He has a set of issues which he will transmit in email to EchoTek. Some of these include the channel to channel variations, input impedance/return loss, chained DMA, etc. We would like to have a replacement for the one bad board that was sent to us (of the first three) and of course would like a copy of the newest version board as soon as possible.

Rob Kutschke:

- One document is out. The rest are coming.

3. Technical Coordinator -- Jim Steimel

- The plan is to site the new test system in A3. The rack is ready.

- Jim has looked at the amplitude measurements made with the beam and the new

filters. He proposes attenuation circuits with 16 db on the proton side and 6 db on the anti-proton side on the filter board.

- Jim will call a meeting for Thursday at 1:30.

- Craig McClure promises new timing modules by the end of the week.

4. AOB.

- Margaret asked about the software user's guide -- what AD guidelines should she follow for the document? After some discussion it was decided that she should write it in Word.