

Minutes, 1/19/05 Tevatron BPM Upgrade Meeting
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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 Jim Steimel
4. AOB

1. Report from Bob and Steve

- The TeV BPM Upgrade project will report to the All Experimenter's Meeting Monday Jan 24. Steve will send a draft for people's comments shortly.

- Steve will also give a talk at the Tevatron meeting on Friday Jan 21. He will show some subset of the Monday talk with the latest data from the A3 BPM system and will show the Scenario II installation and commissioning schedule (shown below).

Scenario II:

Start to ramp up the week of January 24. Increase to two crates/week the week of Feb 7 and keep up that rate until the end.

January 24 B3
January 31 C3
February 7 D3,E3
February 14 F2,D0
February 21 D0,A2
February 28 B2,C2
March 7 D2,E2
March 14 A4,B4
March 21 C4,D4
March 28 E4,A1
April 4 B1,C1
April 11 D1,E1
April 18 A0,F3
April 25 F4,F1

2. Reports from L2 Managers

Tim Kasza:

- Echotek testing continues. See Beams docDB #1381-v16. 4 boards are bad and will be sent back to Echotek for repair.

- 64 of 150 filter boards have been tested. 50 have passed all tests. 14 failed (see details of failures in Vince's report below). 20 partial boards were delivered. These are meant for us to stuff with the appropriate filters and attenuators. The first will be needed for the B0 and D0 BPMs since they are short (have smaller signals) and the p signal is split.

- All 48 timing boards have been delivered. One is installed in the A3 service building. 16 have passed testing. 8 have various failures that are being examined.

Vince Pavlicek:

- Filter board failures were shown. Some of the failures are pairs of filters with greater than 3 degrees phase difference. Some of the filters are gain differences greater than 0.15 dB. Options for us include : returning the filters to Lark for replacement; making matched pairs ourselves from the filters that fail the match; keep the filters since we think the phase mismatch does not lead to position errors; make sure that we use the gain difference in the position that is reported.

- Work continues on the timing card. Fixes have been made to registers that overflow, for duty factor changes in signals, etc. Bill Haynes continues to work on the board and programming. We hope to change all timing boards to the final production boards.

- Bob Forster and Charlie continue to work on the Optilogic crate diagnostics and control.

Luciano Piccoli:

- Luciano reported a big success with the turn by turn measurements! Work with Bob Webber, Bill Haynes, Jim Steimel, Dehong Zhang and probably others debugged the problems with the timing card and the Echotek board and it is felt that the TBT measurements are now working. This is great news. New firmware for the Echotek board apparently is not needed to allow us to reset the board each turn. A new version of the driver allows us to set a bit instead. It has been tested and seems to work.

- The plan is to take some data (we can take 8K turns now) and to analyze it to ensure that it gives results which are as far as we can tell correct.

- Luciano will return to working on the state devices.

Rob Kutschke:

- Rob will be analyzing data and working on figures for the talks coming up.
- Rob will be meeting with Marc Mengel, Brian Hendricks, and others to begin the process of implementing the calibrations.

3. Jim Steimel:

- As mentioned above we believe that TBT is working and it needs to be tested. Jim will be talking to applications developers and users about applications that can read and analyze the TBT data.

- We had a discussion about getting the project into a production phase where crates are assembled, tested, and installed and commissioned in the ring. This is necessary for us to move into that phase of the project. Jim is working with people on the steps required and who will be contributing (and backups for the key people if they happen to be sick, away, whatever). Key issues include:

- ACNET access
- FE software loading onto the MVME processor
- Application programs
- Crate checklist

- Ken Treptow has been assigned to help coordinate the production assembly of crates. Jim will work with Ken and others to establish a system for assembly and installation.

- We plan to install B3 next week. We do need to work with Tevatron department and others to ensure that this is done in such a way that nobody is surprised and that it is acceptable to all.

4. AOB.