

Minutes, 6/15/05 Tevatron BPM Upgrade Meeting
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Last scheduled Tevatron BPM upgrade meeting.

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:

Report from Bob and Steve
Reports from subproject leaders
Report from Jim Steimel
AOB

0. Special talk from Vladimir Shiltsev and cake!

- Vladimir gave a nice talk describing the nice things that the new TeV BPM have done and will do for the accelerator and thanked everyone for their good and careful work. I think everyone is optimistic that increased luminosity and other improvements can come from this upgrade.

- Margaret brought a nice cake and we polished off a large fraction of it. Thank you Margaret!

1. Report from Bob and Steve

- Reviewed the list of things left to complete the project, including:

- Test safe mode
- Finish implementation of pbar measurements.
- calibrations and calibration DB
- Diagnostics (docDB 1835)
- Determine and implement overall scale and corrections for higher order terms or off-axis terms
- Transition to operations, including teststand deployment.
- Publication (PRST AB)

- Closeout activities have begun and will continue with the goal of having a final report in early July. Much of the work will occur before that time, this week and next.

2. Reports from subproject leaders

Luciano/Margaret:

- Luciano and Margaret are back from the RT2005 conference and are getting back to the TeV BPM. A few things left to finish include fast time plot at 500Hz, diagnostics, status, documentation. This work will continue until it is all finished.

Vince Pavlicek:

- Working to understand the A1 crate problem from last week.

Tim Kasza:

- New filter pairs are tested and are OK. Working on building the 15 spare filter boards. Still need one filter pair to complete the job.

- Timing boards in A3 and B3 do not have the latest mods and should be upgraded as soon as possible if that is indeed the case.

Brian Hendricks:

- Finished the ring-wide status display that Marv asked for. Bob West will implement it in W25.

- Also some new status displays are being implemented in W25.

Rob Kutschke:

- Rob showed the equations that are currently implemented in the front-end code. We had a long discussion about whether those formulae properly take into account the higher order terms (in $(A-B)/(A+B)$) to take into account the response of the pickups when one goes far off axis. In addition we talked about relative gain, survey, and electrical offsets.

- The data is close to being ready to feed into ACNET devices and to test in the front-ends.

- Rob looked at the effect of putting in the corrections. The positions will change, but the changes are not large. Mike will have to adjust his golden orbit or central orbit to take these changes into account. In addition a difference in gain/attenuation behavior is seen in antiprotons compared to protons. This may be due to the way the cables were installed/used for the pbar ends of the pickups.

Mike Martens:

- The new BPM system is in pretty good shape overall.

- The program that collects information for the pbar measurements has been fixed (again). Mike is looking into having the program be taken over by a professional programmer.

- There are many things that Mike is looking into, including making sure that the pbar measurements make sense, having some small problems fixed up, HE19, 7/5 or 10/7, etc.

3. Jim Steimel - Technical Coordinator

- A0 is now hooked up. There is lots of work to finish to get all the signals properly routed to other devices that need them.

- Jim is working on the diagnostic specification and will put that out soon. After that comes the hardware changes, firmware changes, application pages, etc. to implement the diagnostics.

- Also working on a few loose ends, like the E19 BPM.

4. AOB

- Thanks to everyone who made the project a big success!