

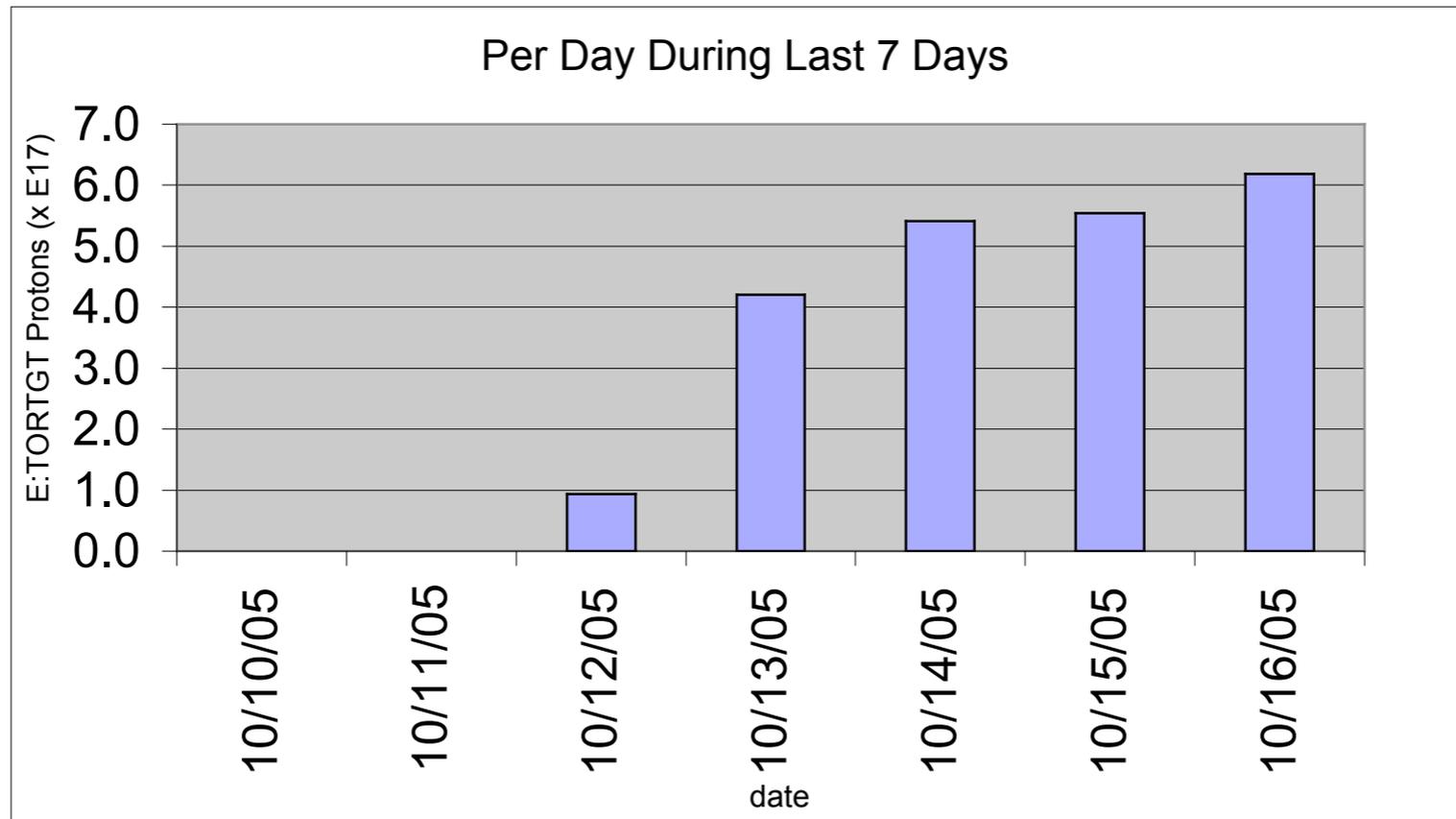
Minos Update for All Experimenters' Meeting

October 17, 2005

Alysia Marino
Fermilab



Beam Delivered

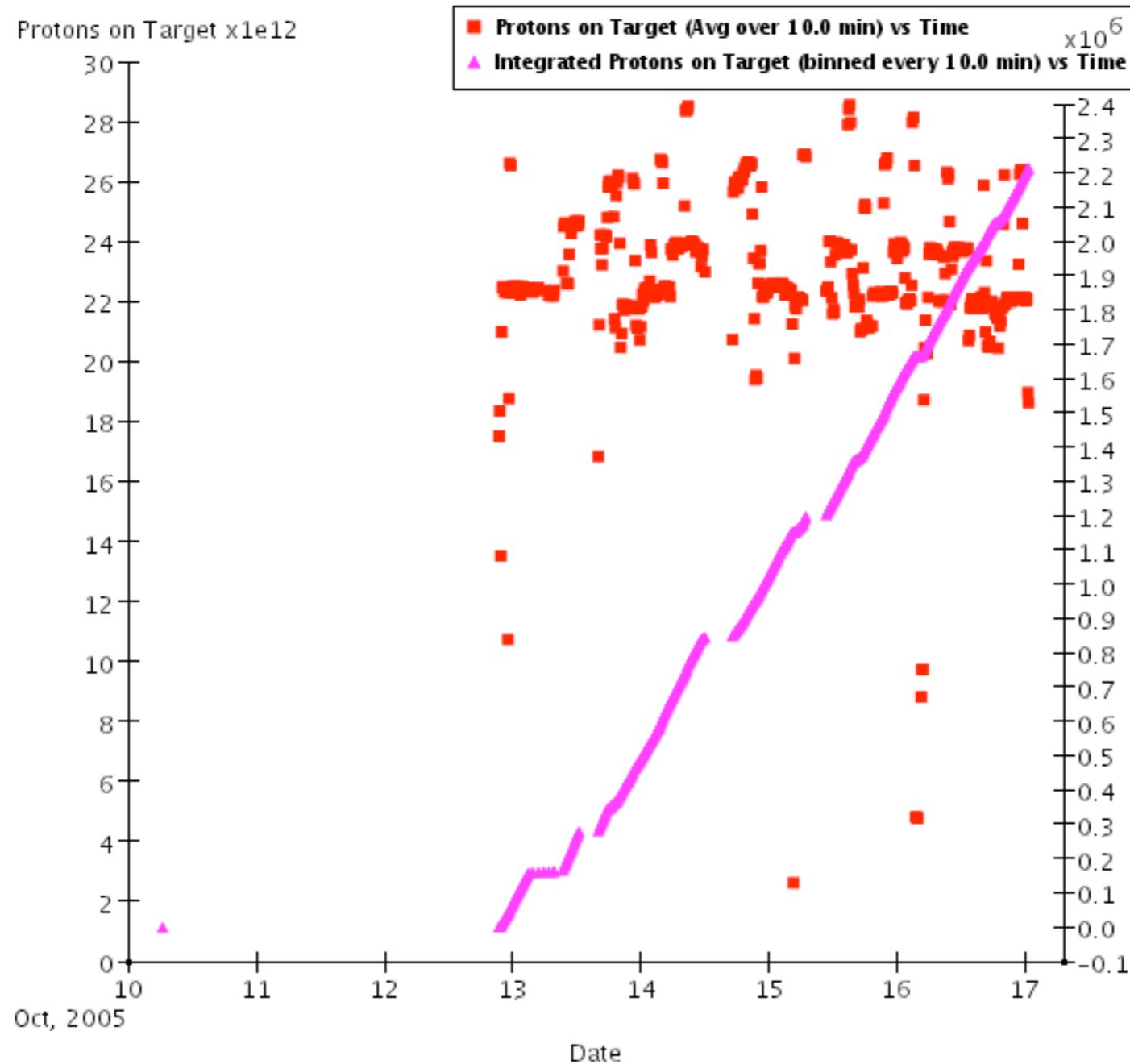


- Horn 2 put back into position
- Beam resumed late on Wednesday



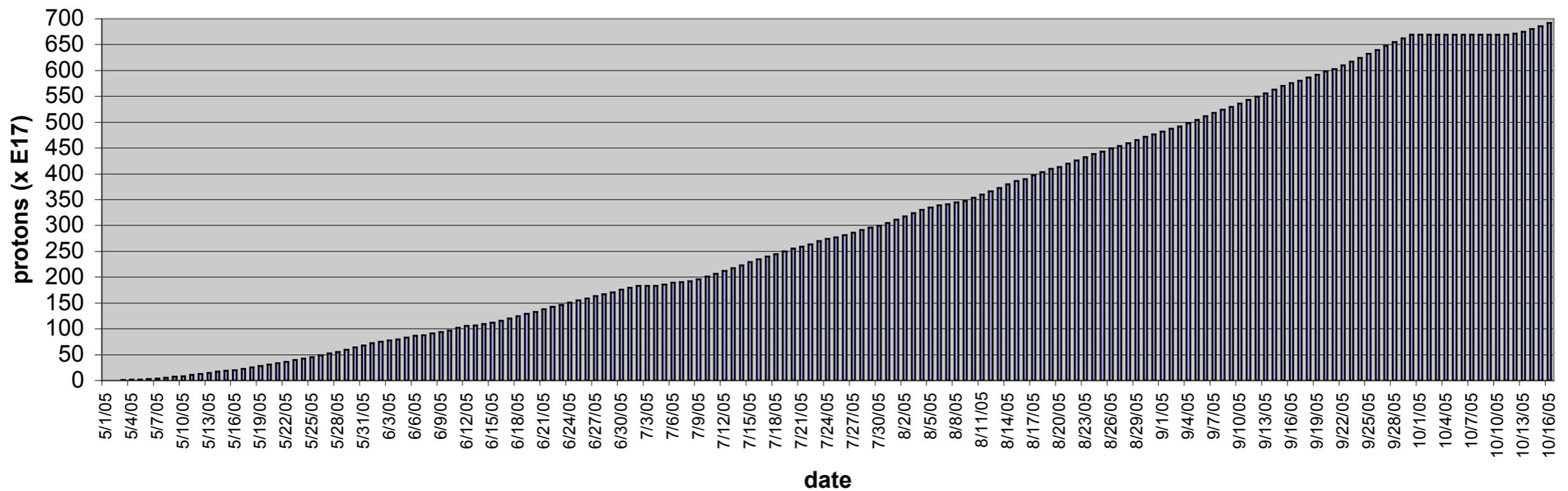
Beam Intensity

Protons on Target (Avg over 10.0 min) vs Time

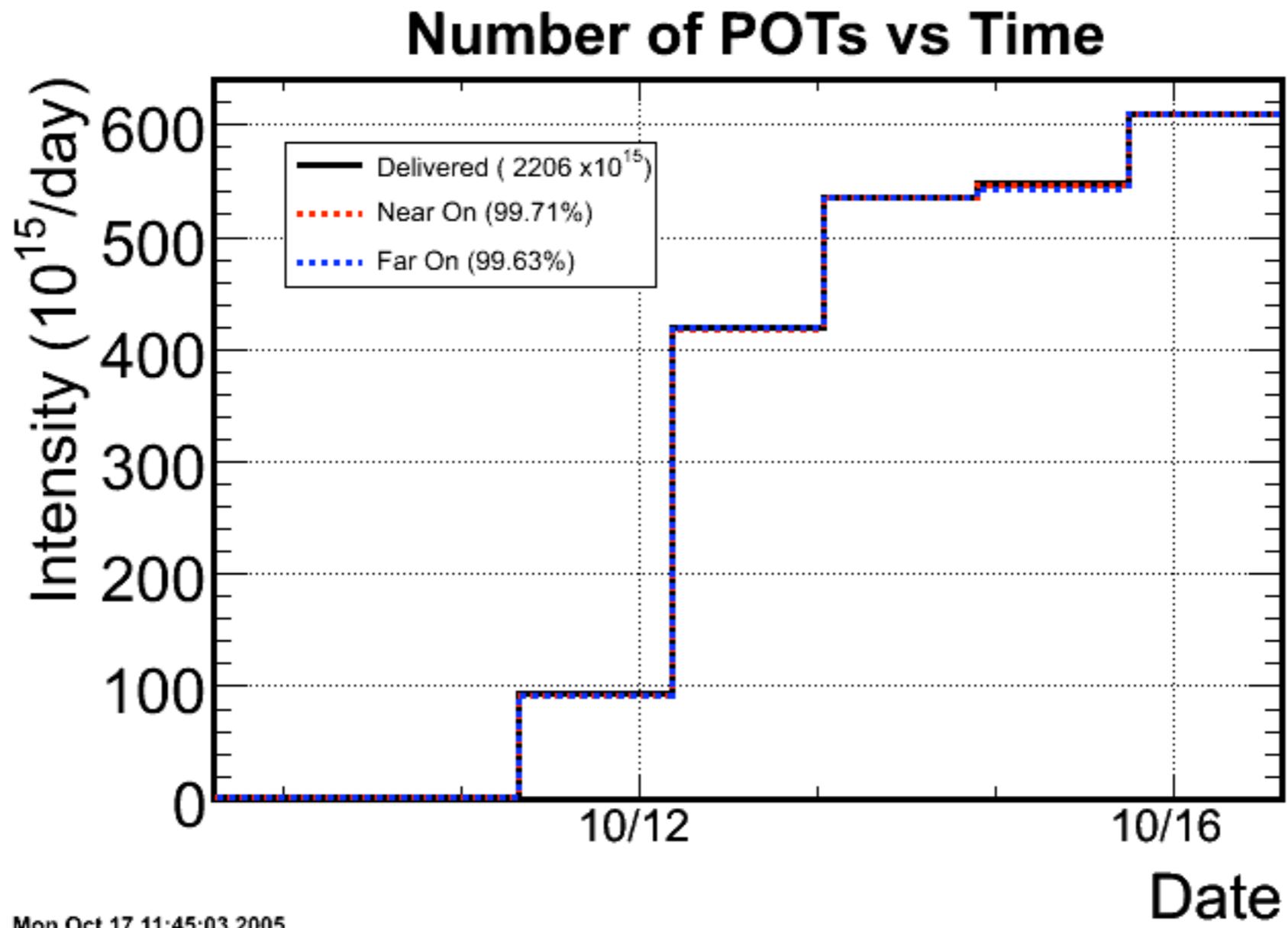


Protons Delivered Since May 1

Total NuMI Protons on Target Starting 1 May 2005 (measured by E:TORTGT)



Detector Live Time

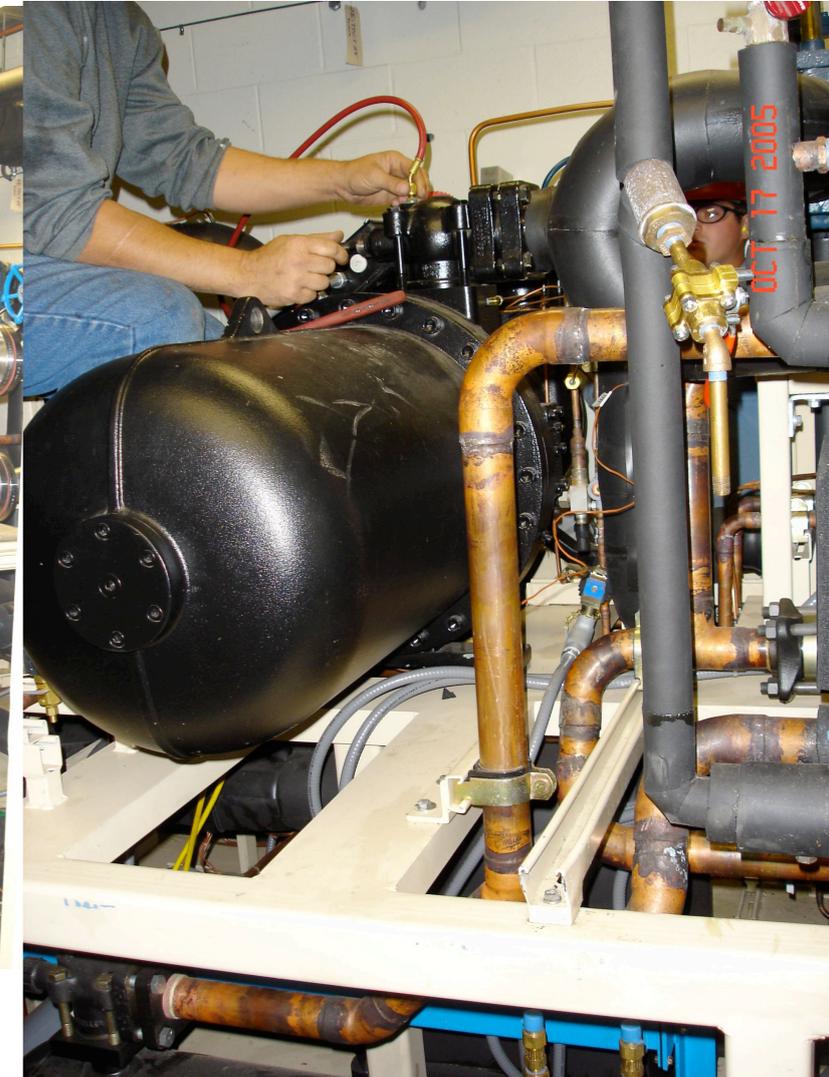


Mon Oct 17 11:45:03 2005



Compressor Problem - Target Hall Chase Cooling System

- Could not restart after shut off for horn repair
- Diagnosed on Friday as problem with compressor, requiring replacement (unit is under warranty)
 - « Skid located in MI65 underground power supply room – radiation area region ~ 2 mR/hr while running beam. Shut off beam while working to replace compressor.
- Can run beam while not working on compressor
 - « Chase heats at ~ 2 deg.C per day without compressor. Six thousand tons of shielding \rightarrow large thermal mass. Ran okay thru weekend. Is a concern with increasing chase humidity.



Compressor Replacement Schedule

- Today – final diagnostics; then disconnect in preparation for compressor replacement
- Restart beam ~ 4:30 PM until ~ 7:00 AM Tuesday
- Tuesday – Remove compressor from skid; weighs 1800 lbs, using 2T. gantry for removal.
- Tuesday afternoon – restart beam until Wed. morning.
- Wednesday – Install new compressor (air-freighted from Virginia)
- Restart beam when replacement complete and checked out.
- ? For work schedule w.r.t planned accelerator M&D – tentative Thursday. We can evaluate once removing the bad compressor is accomplished. Current thinking is that Thursday is our contingency day for replacement and checkout.



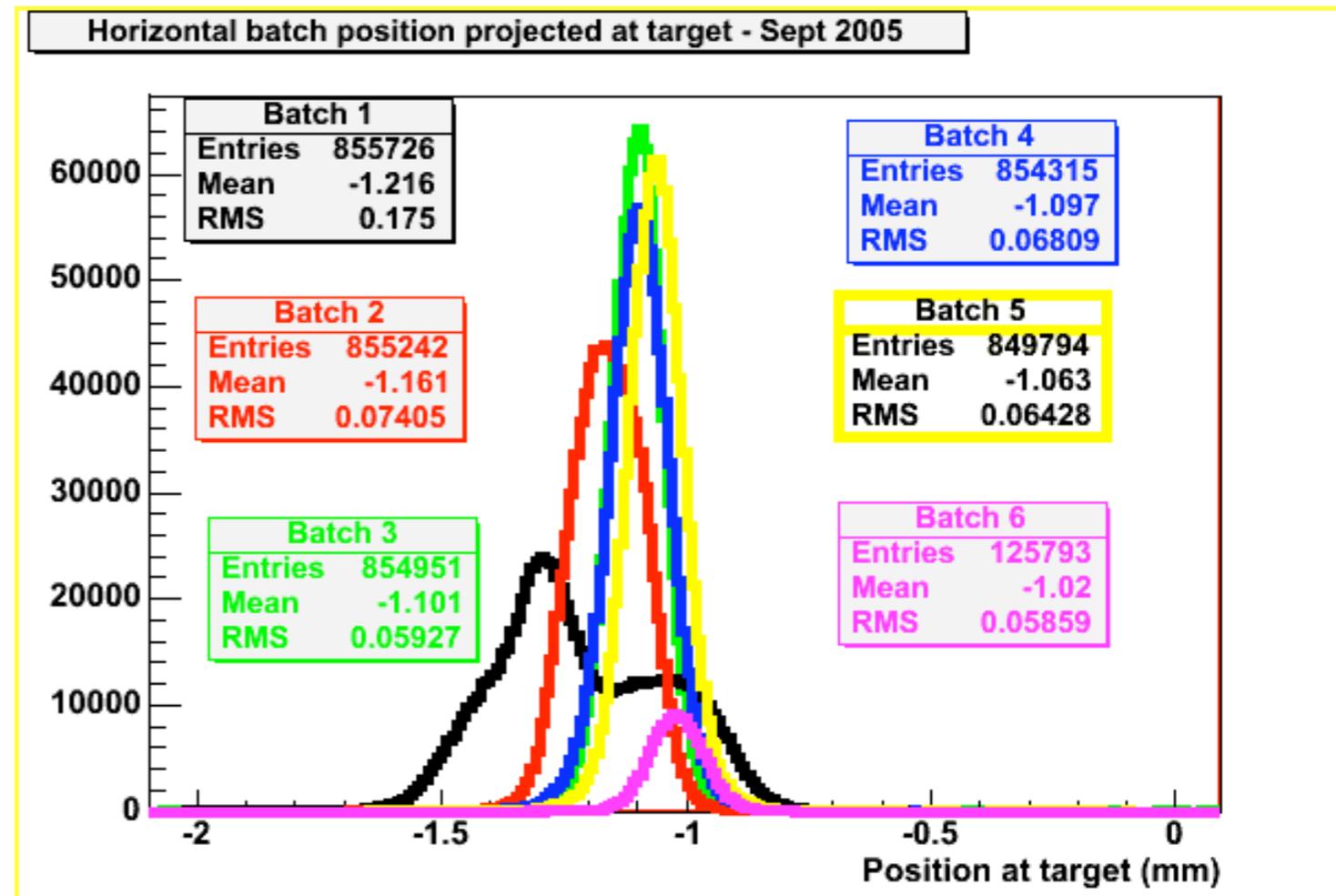
Horn Status

- 2 brief ground faults on horns over the weekend
- Several hours apart
- Each cleared on next pulse
- Might be related to nickel flaking reported last week
- EE today are evaluating system to ensure that it is as robust as possible when ground faults occur



Beam Position in Batch

- NuMI beam delivered in 5 or 6 booster batches
- If the beam is running in mixed mode, spatial position of first batch is different
- Expect only a small change in the energy spectrum, max is 5% at 5 GeV



Horizontal Position (mm)

Plot from Mary Bishai



Energy for Batch 1

- As expected, no significant difference observed between Batch 1 in the low position and Batches 1-5 in the higher x position

