



# NuMI-MINOS Status Report — Alec Habig

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- FAR DETECTOR:

- 99.7% live time (wall clock) 99.9% (pot weighted)
- Annual hoist inspection and maintenance closed lab on Friday
  - Experiments cooperated by staying up

- NEAR DETECTOR:

- Up 93% of the time (pot weighted)
  - Some electronics maintenance
  - Re-commissioning detector after power outage on Wednesday was the big uptime sink



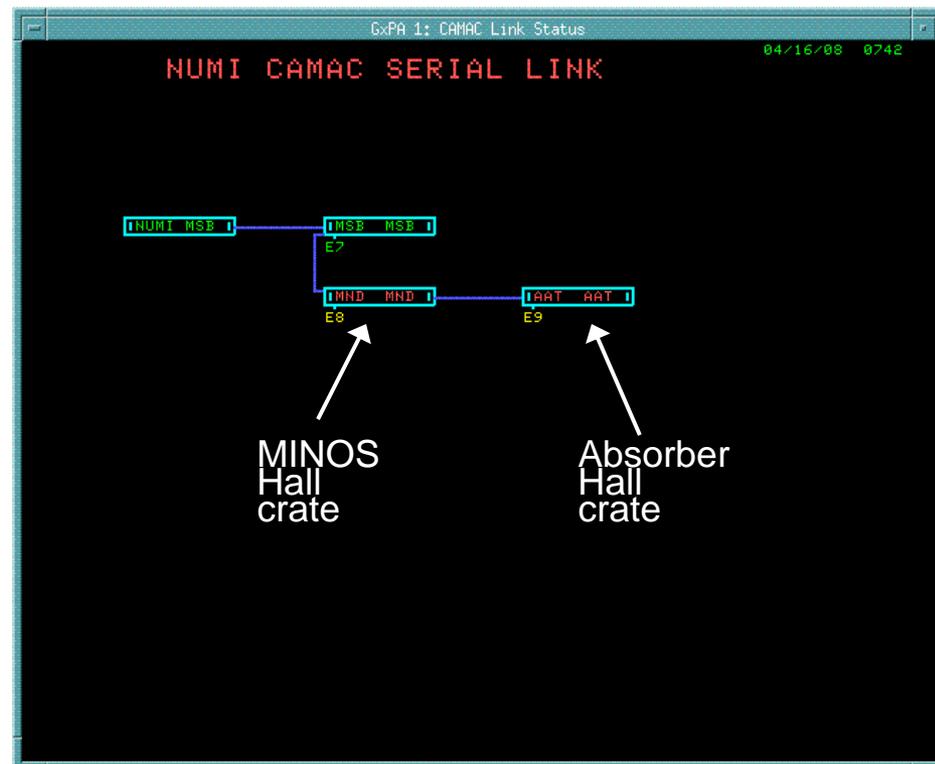
(Next slide)



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- POWER OUTAGE?
- Minerva & Argoneut had planned electrical work to add service for the new experiments on Wednesday day shift
  - In the works for a while, exact date set on Tuesday morning
  - Experiments coordinated successfully, but AD operations not properly notified
- So MCR unexpectedly lost communications to NuMI controls:

MCR log, 07:44: "Looks like we lost a crate in the NuMI FE crate \$E8."





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- The Technical Problem
- But why should detector power affect the neutrino beam?
  - Controls fiber to absorber hall passes in series through the MINOS LCW/coil control crate, doubles back to absorber
  - Transports beam permit
  - When power to utility breaker panel dropped by electricians to tie in Minerva service, the beam permit was lost
- Lessons Learned and Mitigation
  - Better communications needed for planning
    - Control crates and their breakers now labelled
    - Meetings have occurred, PPD leadership involved
- ~6.5h of Far Detector NuMI beam lost





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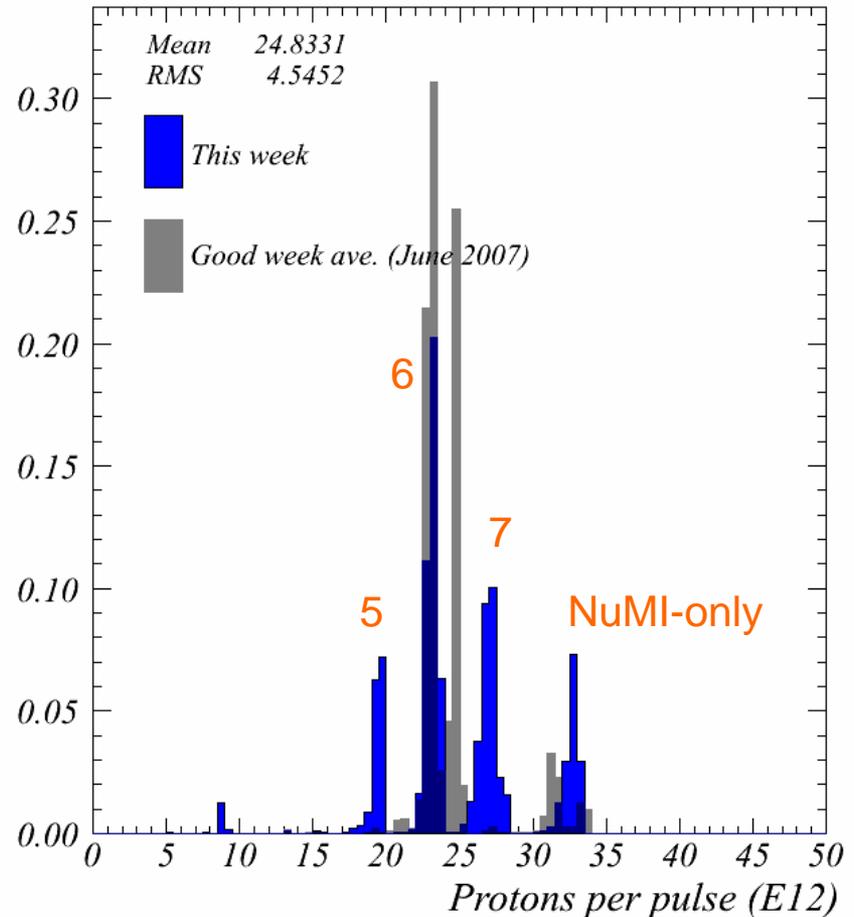
## • Protons/pulse:

- $\sim 19 \times 10^{12}$ : 2+9 5-turns mixed
- $\sim 23 \times 10^{12}$ : 2+9 6-turns mixed
- $\sim 27 \times 10^{12}$ : 2+9 7-turns mixed
- $\sim 33 \times 10^{12}$ : NuMI only
  - (More than usual this week due to large pbar stacks)
  
- All a few % higher pot-per-turn than before the MPO2 troubles!
  - All that tuning is working

<2.48 E13 ppp>

Best week 2.59 E13

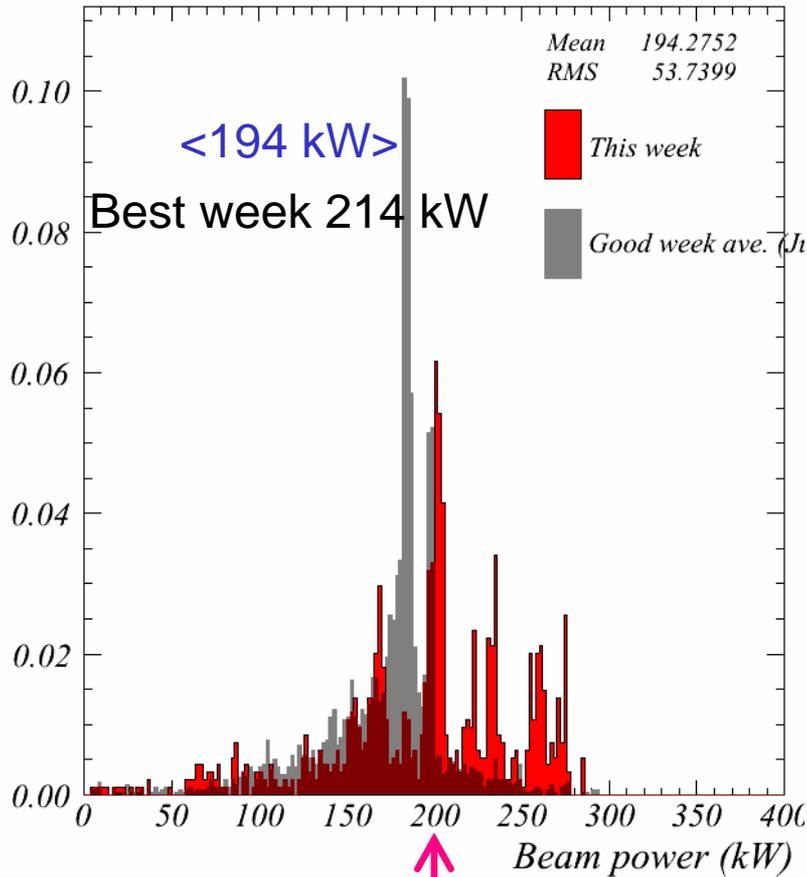
Week ending 00:00 Monday 21 April 2008





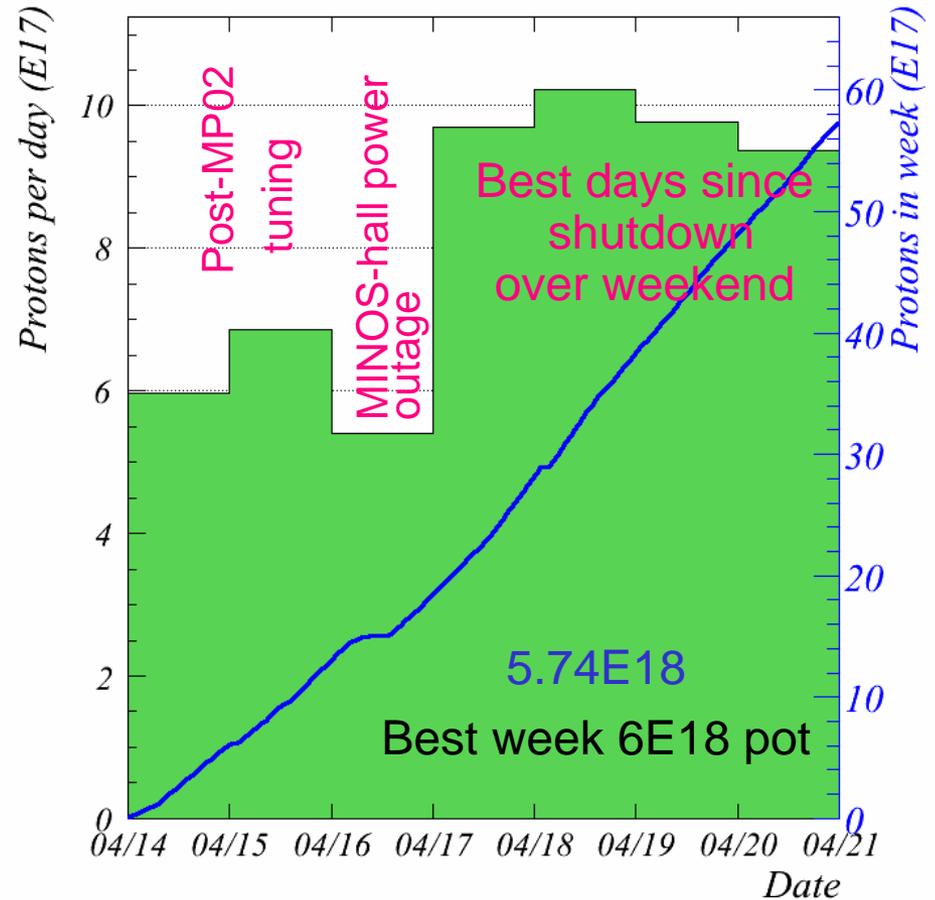
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Week ending 00:00 Monday 21 April 2008



~165kW with 5 turns,  
~195kW with 6 turns,  
~230kW with 7 turns,  
~270kW in NuMI only

Week to 00:00 Monday 21 April 2008

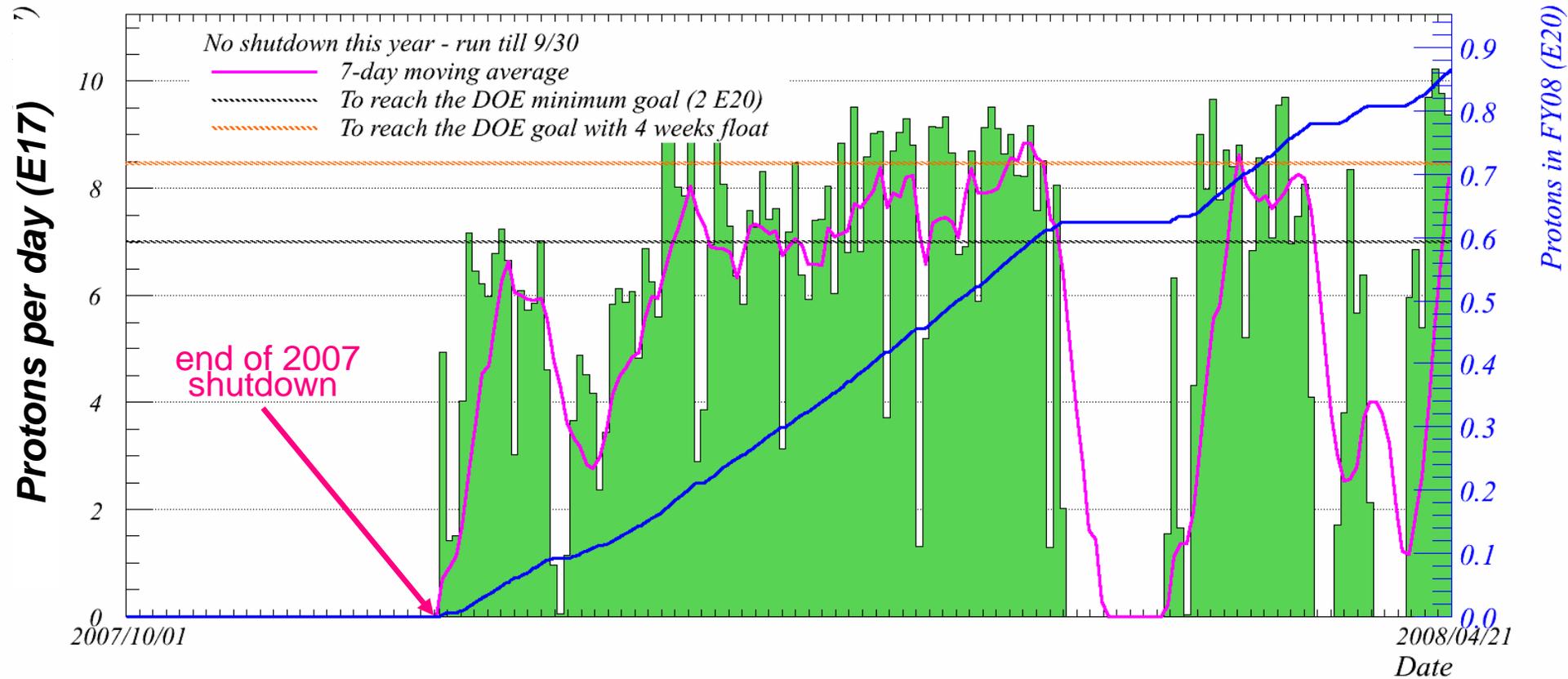


6.5 hours lost on Wed.  
due to power outage  
But still a pretty good week  
(2<sup>nd</sup> best since shutdown)



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FY08 NuMI protons to 00:00 Monday 21 April 2008

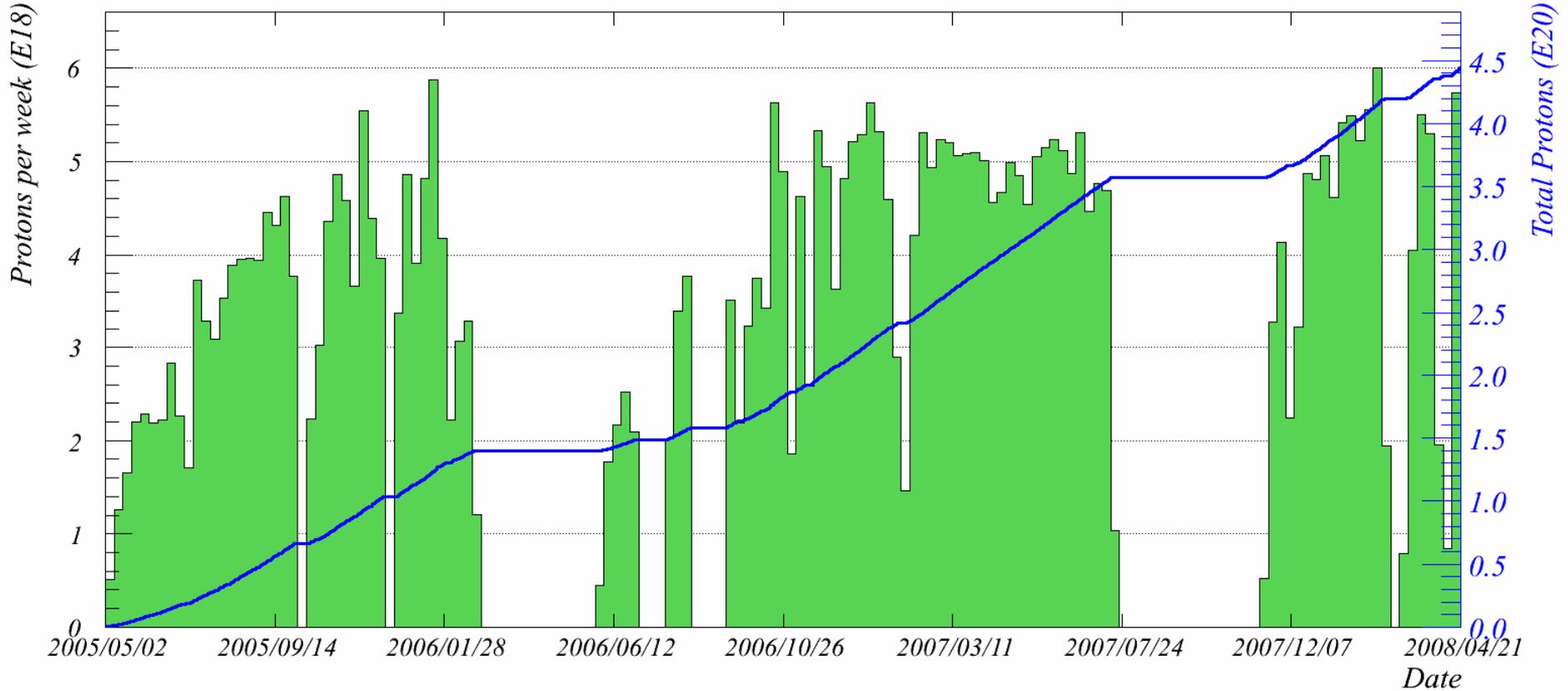


- ..... Weekly Avg. needed to meet 2E20 pot by 30 September (*no shutdown!*)
- ..... Same, but with 4-weeks float
- 7-day running average



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Total NuMI protons to 00:00 Monday 21 April 2008



4.460 E 20 total POT to NuMI

↑  
end of 2007  
shutdown