

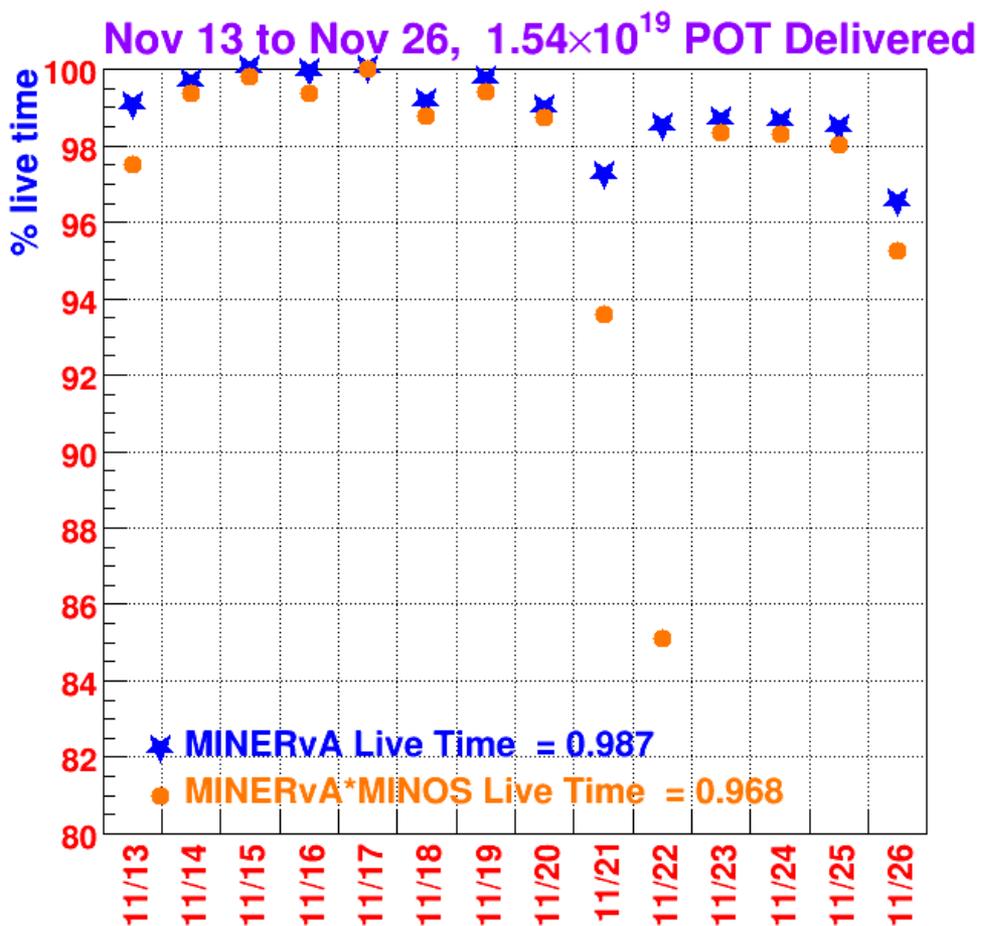
# The MINERvA Operations Report

## All Experimenters Meeting

Howard Budd, University of Rochester  
Dec 1, 2014



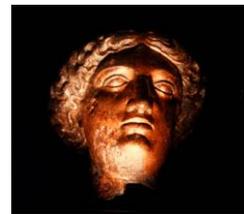
# $\nu$ Data



- Live time Nov 13-26.
- MINERvA 98.7%
- MINERvA\*MINOS 96.8%
- Didn't show Nov 13-19 last week. The efficiencies were higher than they should be. We could not find a reason for this. There was a SAM update which could have something to do with this, but in the week Nov 20-26 the number returned to what we expect.
- Nov 21, looks like some data was not processed
- Nov 26, The DAQ stopped twice. Expert Shifter was called to get it going.



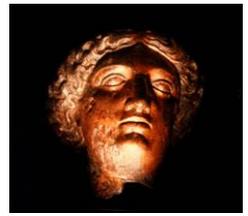
# Nov 28 Power Outage



- 10:30 AM one of the sump pumps had a ground fault. This caused power to fail in the MINOS ND Hall. This caused a power failure in the MINOS Hall, the decay pipe, and the absorber system. The beam came back ~ 12:30.
- This caused a power cycling of the MINERvA detector.
- In order to bring the MINERvA detector up after a planned power outage the components are turned on in a specific order. We are best able to recover from a power outage if this occurs. In this case everything came up at once.
- The detector can be temperamental after a power outage, especially an unplanned power outage.
- It took about 4 hours of work before all the CROC-Es could talk to the FEB chains. Once they could we quickly returned to data taking.
  - After the first attempts to operate the detector it was turned off and the detector was turned on according to the proper procedure. Even then it took a couple more hours to get it operating



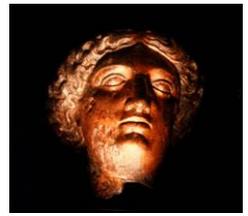
# Nov 28 Power Outage



- We were down for about 4 hours when there was beam, but the actual number will be reported next week.
- MINOS Near Detector also was not able to recover and was down for >12 hours after the outage, see MINOS+ talk for details.
- Many thanks to Donatella for her holiday weekend wee hours of the night dedication!
- The MINOS Hall chiller did not start up and doesn't start up after a power outage. The ops caught this after seeing the temp of the cooling water to the absorber rise, after which point the duty mechanic turned on the chiller
- Bill Lee and Mike Andrews are looking into the problem of the chiller not coming on after a power outage.



# MINERvA E-Checklist



- Unrelated to the Wilson Hall power outage, the MINERvA E-Checklist failed due to a outage of if-wbm.fnal.gov around noon on Nov 28 . This happened because of an unscheduled outage of FermiCloud and the problem is being worked today.
  - E-Checklist is how MINERvA monitors the data quality while on shift (“nearline” monitoring)
- As the FermiCloud does not have 24/7 support, Bill Badgett is working on moving the E-Checklist to some system which does have 24/7 support



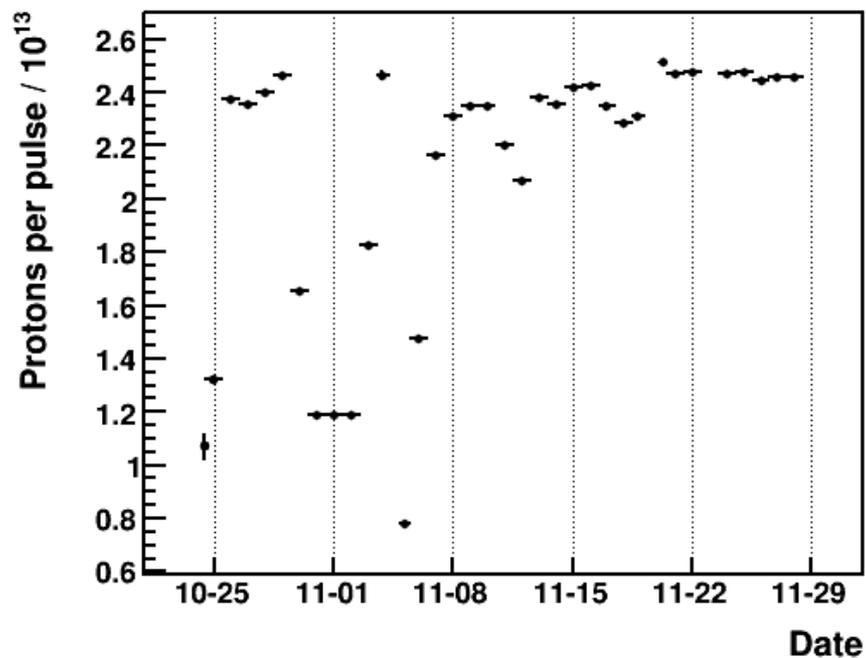
# Work to be Performed During RF Cavity Replacement



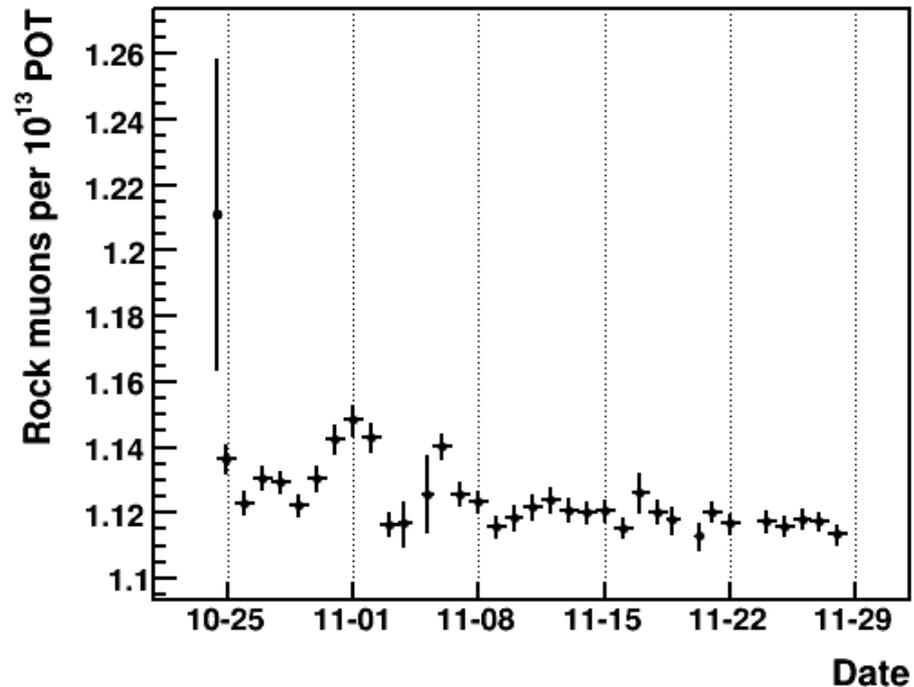
- As reported before every so often the DAQ would crash with a sequencer error and skip to the next subrun.
  - The sequencer is the firmware code in the CROC-E which reads out the FEBs. This code used to be in the DAQ code. Putting this code in the CROC-E sped up the DAQ.
  - This happens on 2 chains on 2 separate CROC-Es
- We will replace one of the CROC-Es and check if this fixes the problem.



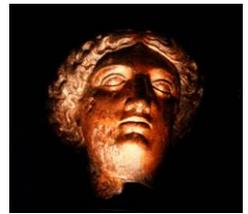
# Rock Muons/POT



POT/Pulse

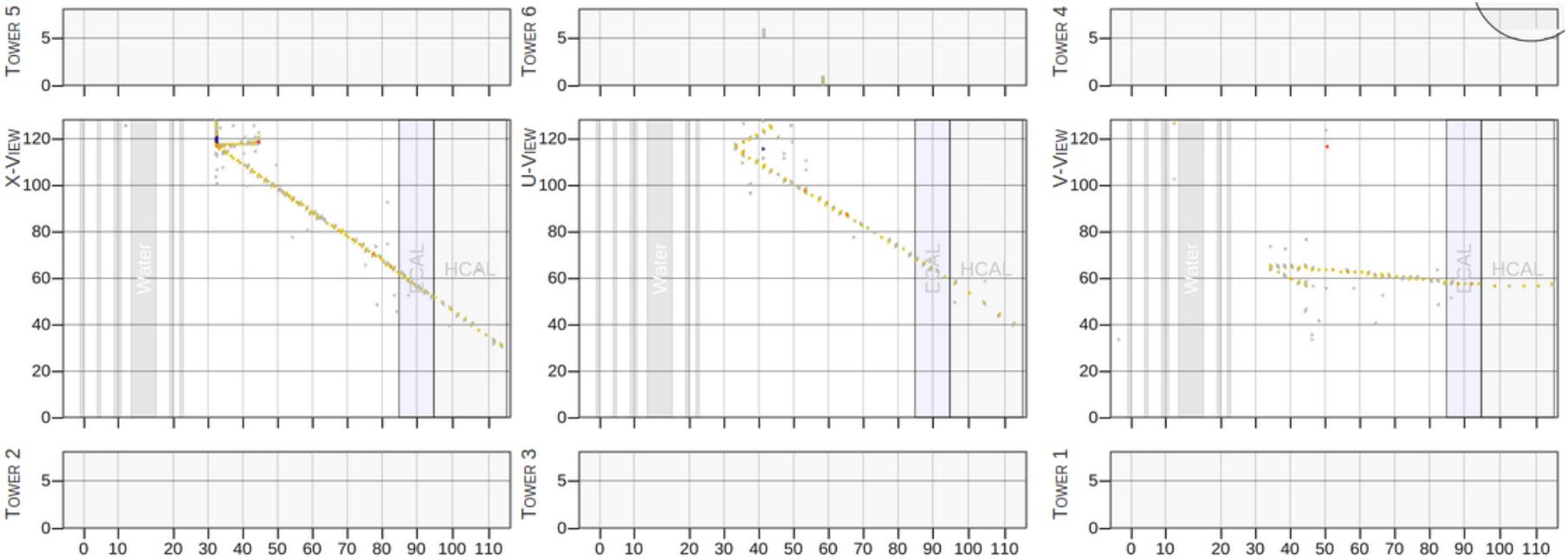


Rock Muons/POT



# Event Display

Outer Calorimeter



X View

U View

V View

Tracker Event

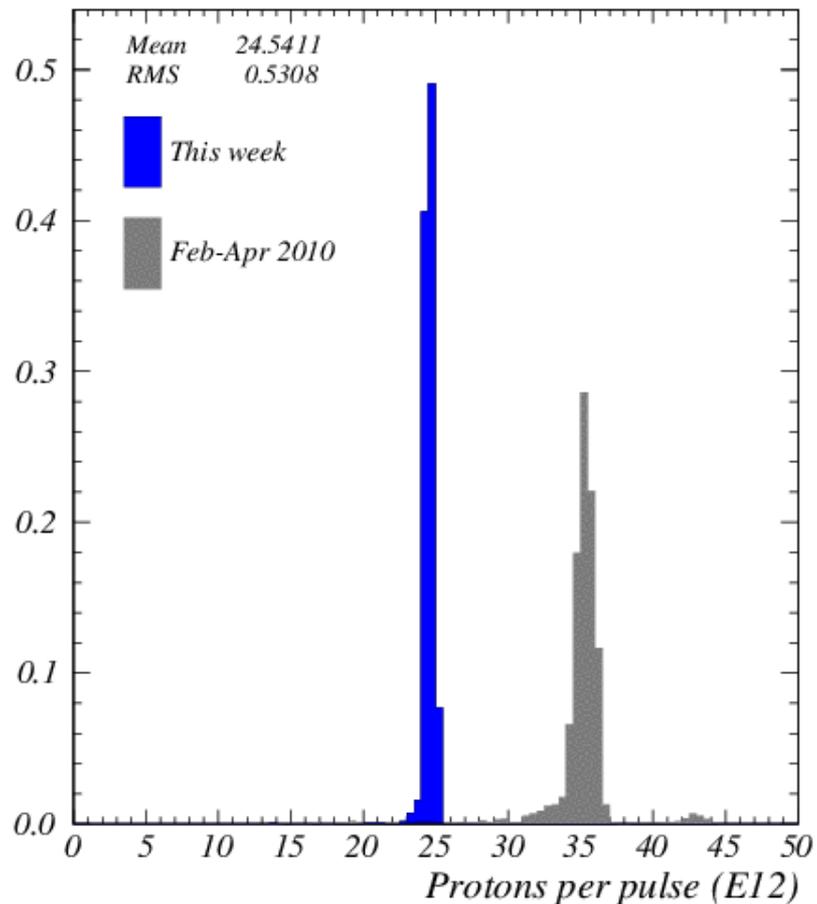


# NuMI Beam Plots

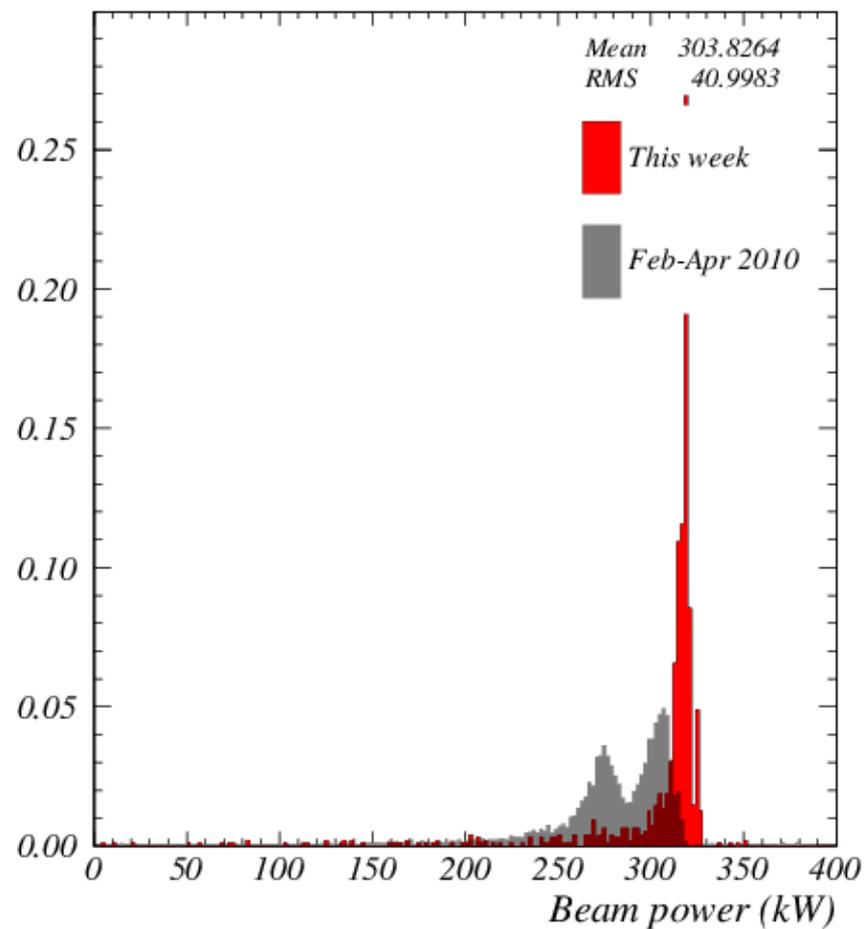
## November 24-30



Week ending 00:00 Monday 01 December 2014

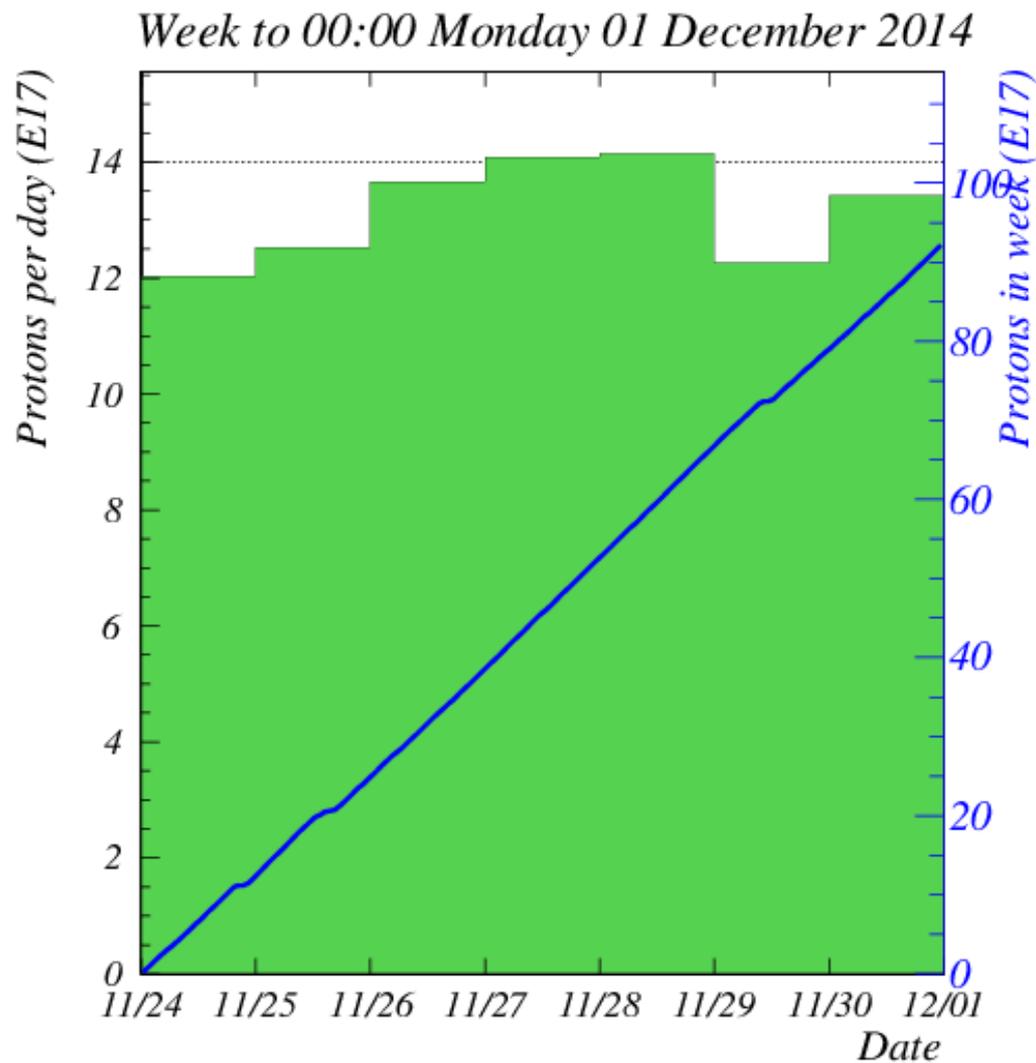


Week ending 00:00 Monday 01 December 2014





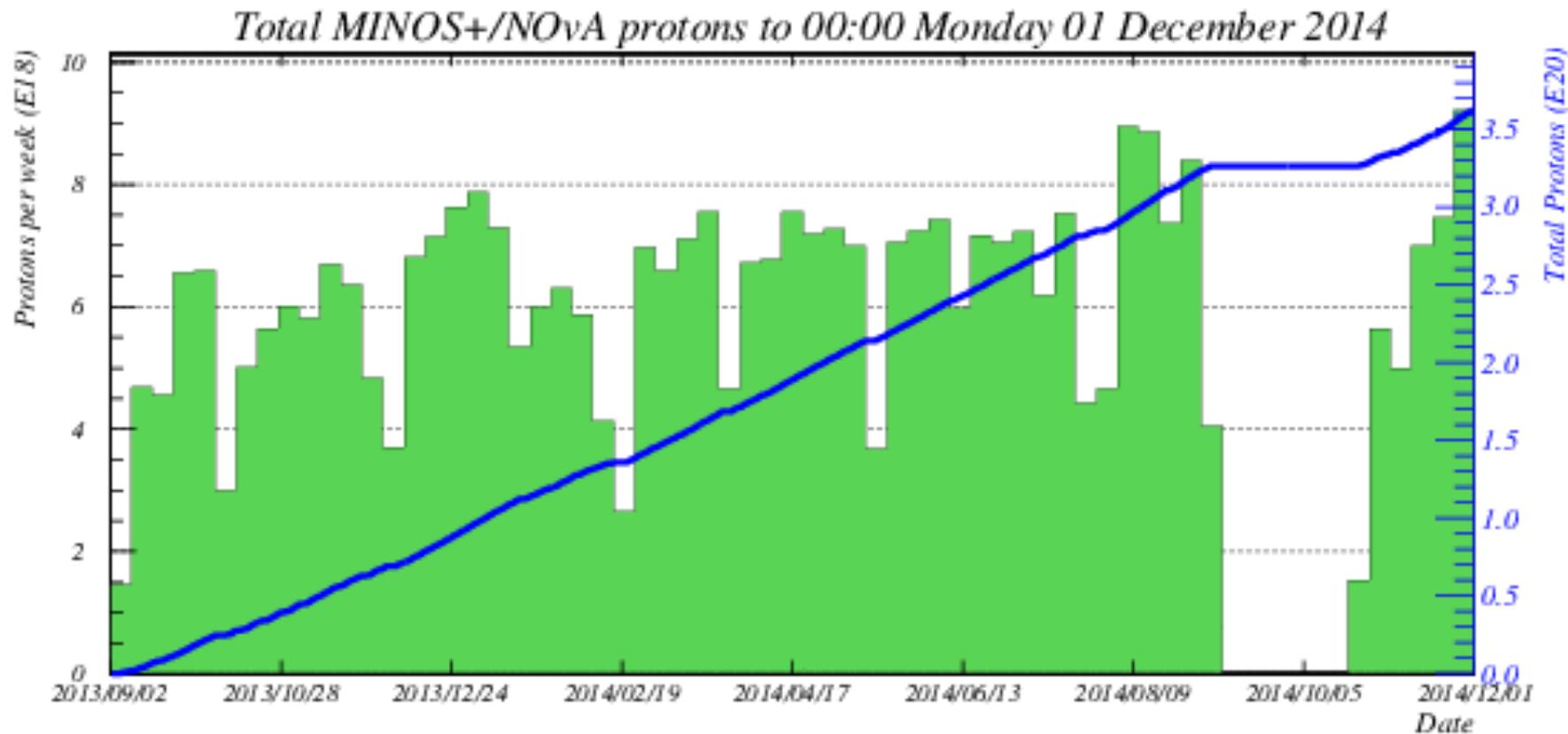
# Protons for the Week



$0.92 \times 10^{19}$  POT  
Nov 24-30



# Protons for ME Run



$36.20 \times 10^{19}$  POT

Sep 6, 2013 at 15:00 – Nov 30, 2014

Congratulations to AD, this was a record week