The MINERνA Operations Report
All Experimenters Meeting

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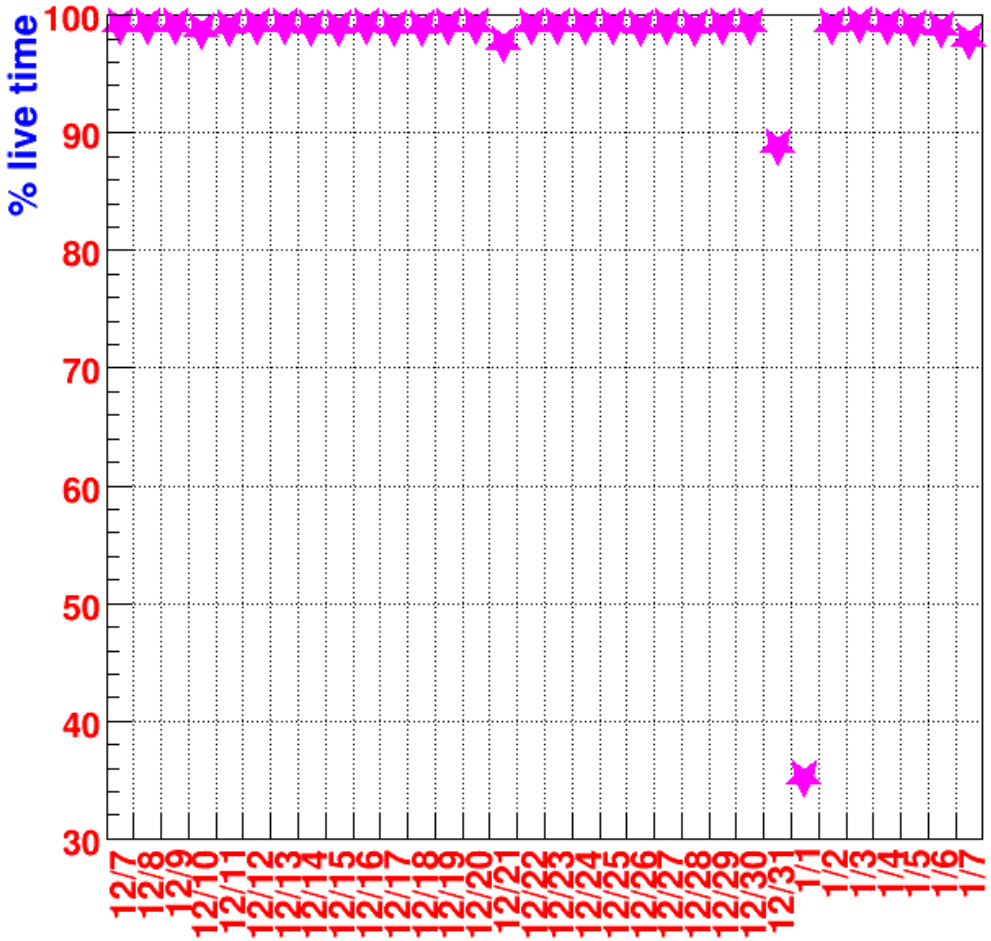
Jan 13, 2014

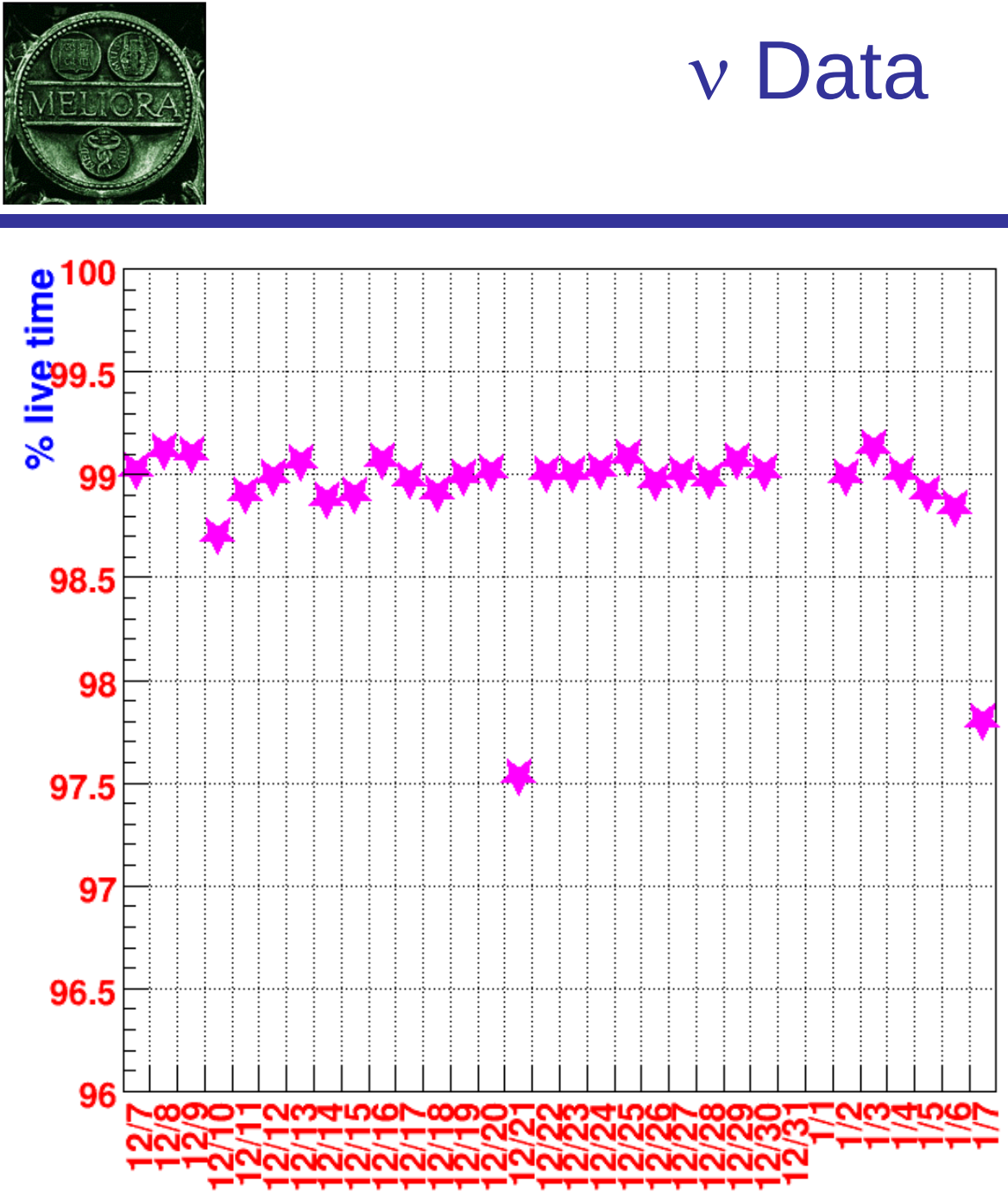
ν Data

From	To	POT	MINERvA Live time
7-Dec-2013	7-Jan-2013	3.32E+19	96.4%



- % live time Dec 7 – Jan 7
  - Dec 5-6 No Beam
  - Dec 12, 13, & 14th inefficiencies that were reported in the previous AEM talk were due to beam cuts. The horn was off.
- The low efficiency on 12/31 and 1/1 will be discussed

ν Data



- If we get rid of the 2 days with the FEB failure.

FEB failure – Dec 31,Jan1

- A chain had failed and caused the DAQ to stop running
  - Board 1 was complaining and was replaced, but because the FEBs are readout as a chain, the FEB complaining may not be the bad FEB.
  - Then, the readout board CROC-E was replaced. This in itself did not create a problem, but the power cycling of the VME crate put the VME crate in a funny state in which when a hardware configuration was down loaded it failed at random FEBs.
  - Mouse shows up to help!

  - By resetting individual CROC-Es, The VME crate was brought back, and the problem chain could be tackled again.
  - The bad FEB had a flickering green light and it was replaced which fixed the problem.
  - Problem took about 20 hours to solve.

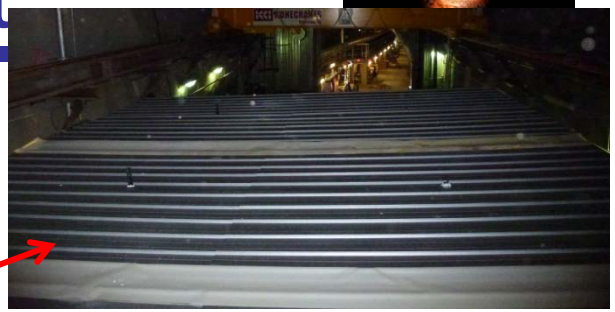
FEB failures – Jan 9

- On Jan 9 an FEB (board 4) failed with the HV at 400 volts
  - Previously if a PMT had HV problems it is was either the HV varying problem or the HV was at 0 volts . This is type of voltage problem had not been seen before
  - After power cycling the chain, this chain became dead.
    - FEB 10 had no lights on & was replaced, but the FEB with the bad HV had HV = 0.
    - That FEB was replaced and that fixed the problem
    - Probably FEB 10 was OK, and the power cycling affected FEB 10 because FEB 4 was bad.

FEB Failures

- 3d FEB failure in the last couple of months in which a FEB failed without anything being dropped on the FEB.
  - This did not happen in the LE Run
  - According the ECL all FEBs which caused the run to fail were due to either water or material being deposited on the FEB.
- Not clear if this is a trend due the aging of the FEBs
- We have been fortunate as we have been able to reach all the FEB that have failed.
- We will be working PPD EED & PPD Online Support, to see if there are ways we can improve our diagnostics to solve these kinds of failures.

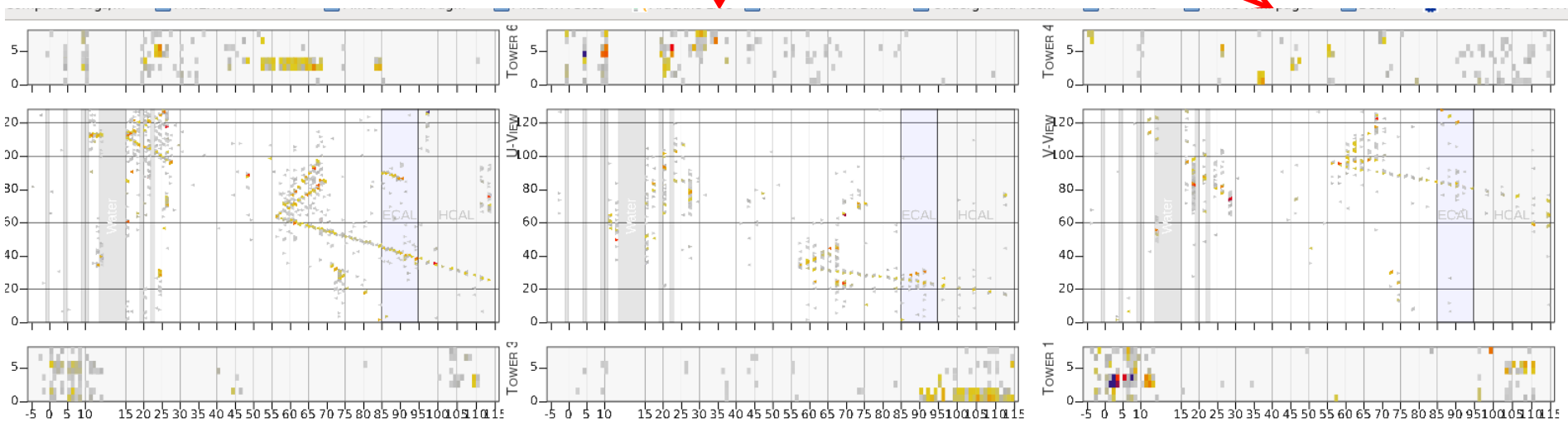
Starting the Task of Filling the Helium Target



- To fill the He target we need to remove the roof over the He target.
  - The roof consists of 3 segments & they have to be removed by starting with the most downstream segment
  - The roof over the He target is the most upstream segment
  - Tomorrow morning at 7 AM, we will stop data taking, turn off the HV on the detector.
  - PPD will remove 3 segments of the roof.
  - The 2 downstream segments will be put back on, covering almost entire detector.
  - Light leak check the detector & start taking data again.
  - Estimate we will be down for about 4 hours.
- The filling of the He target will take about 1 month

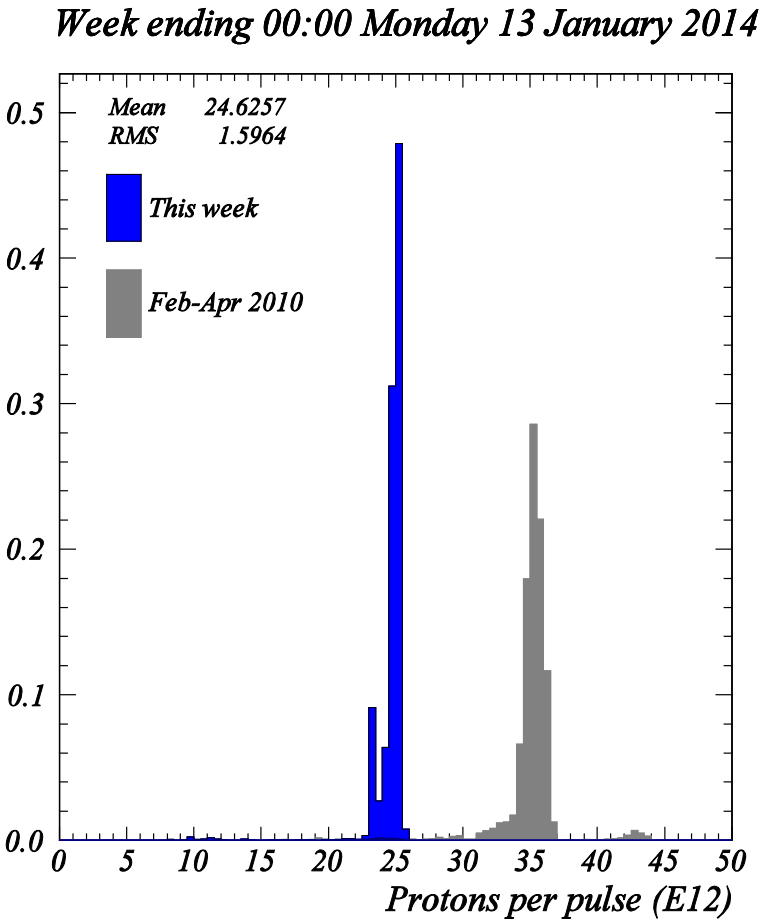
Event Display

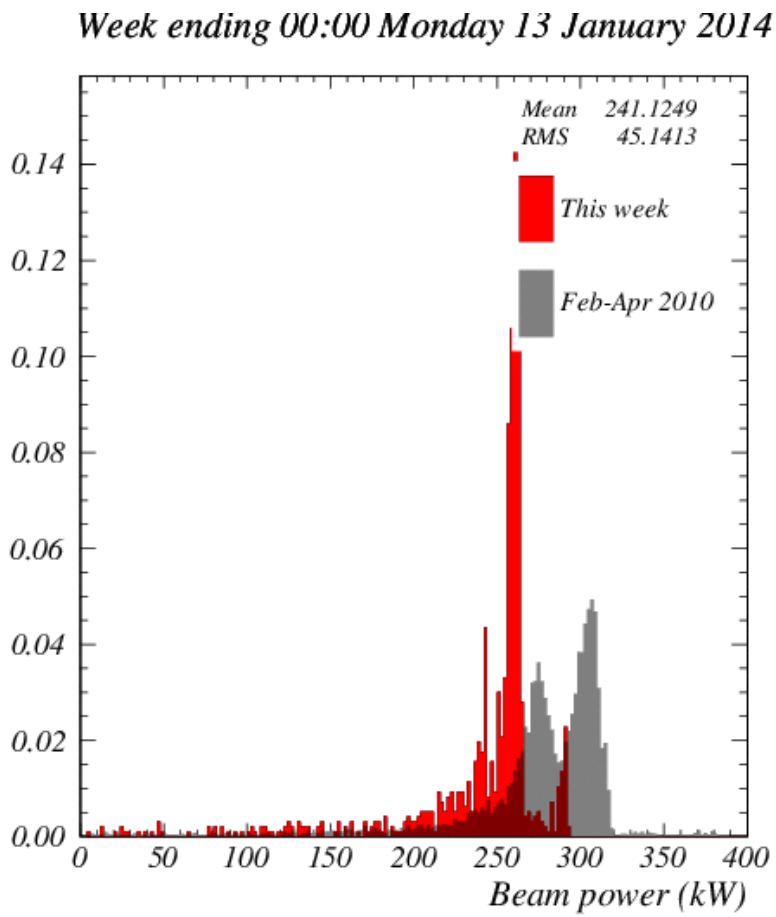
Outer Calorimeter



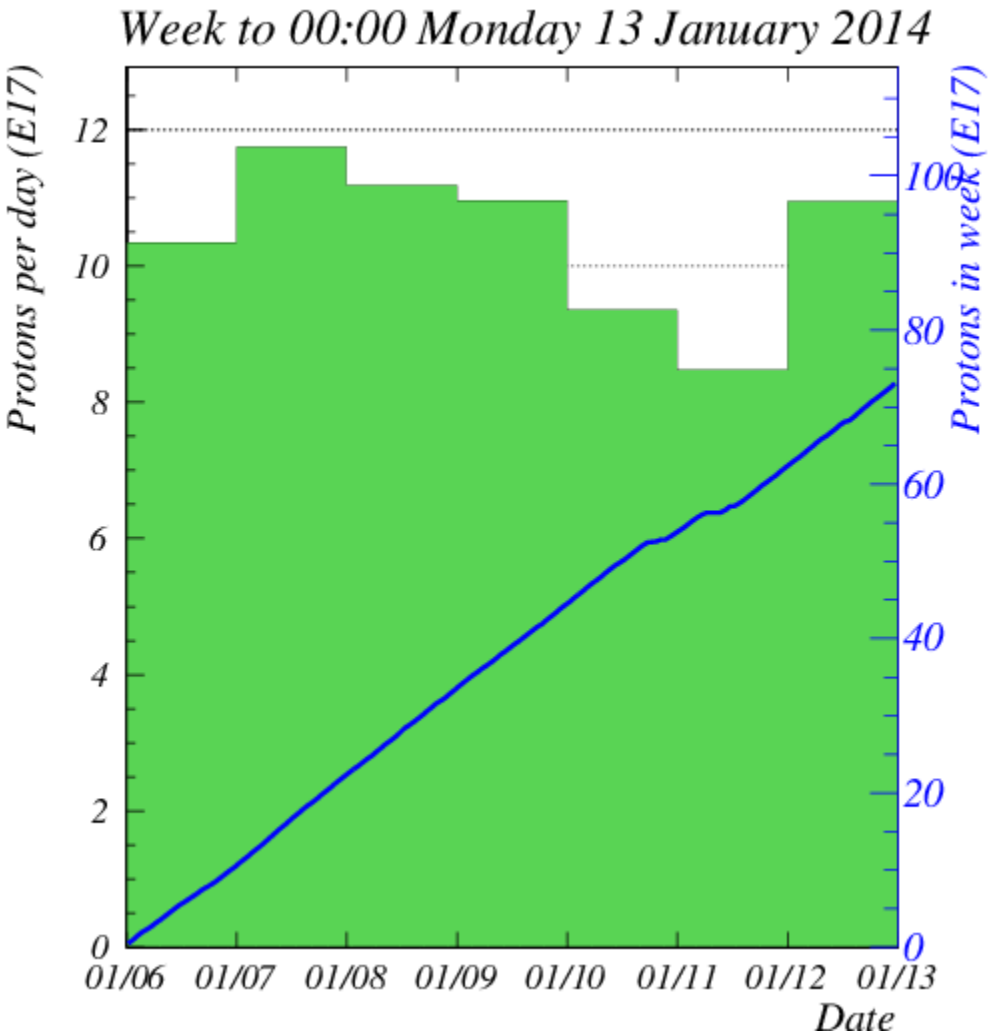
- Neutrino Event

NuMI Beam Plots



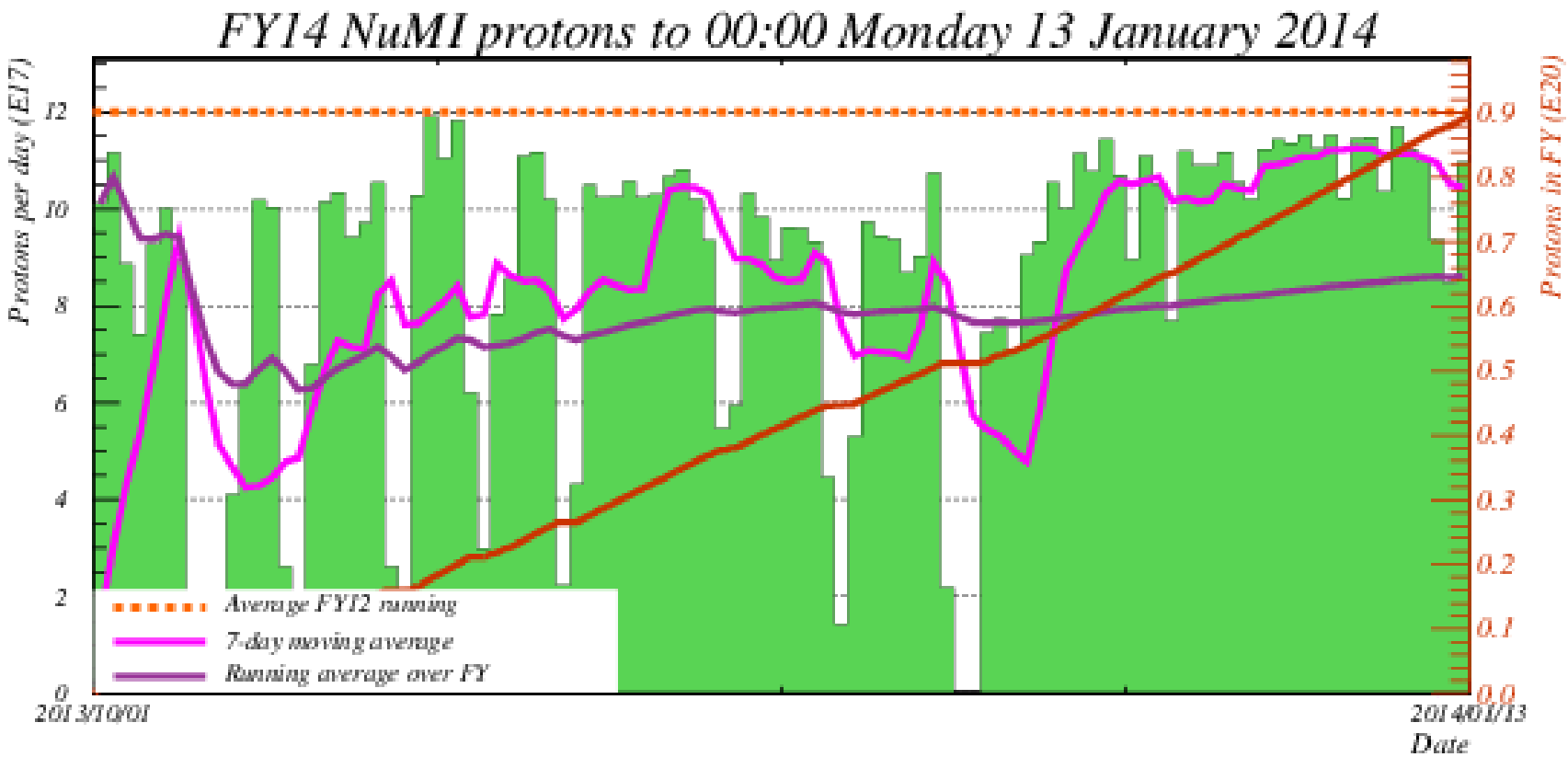


Protons for the Week



0.730×10^{19} POT
Jan 6-12 2014

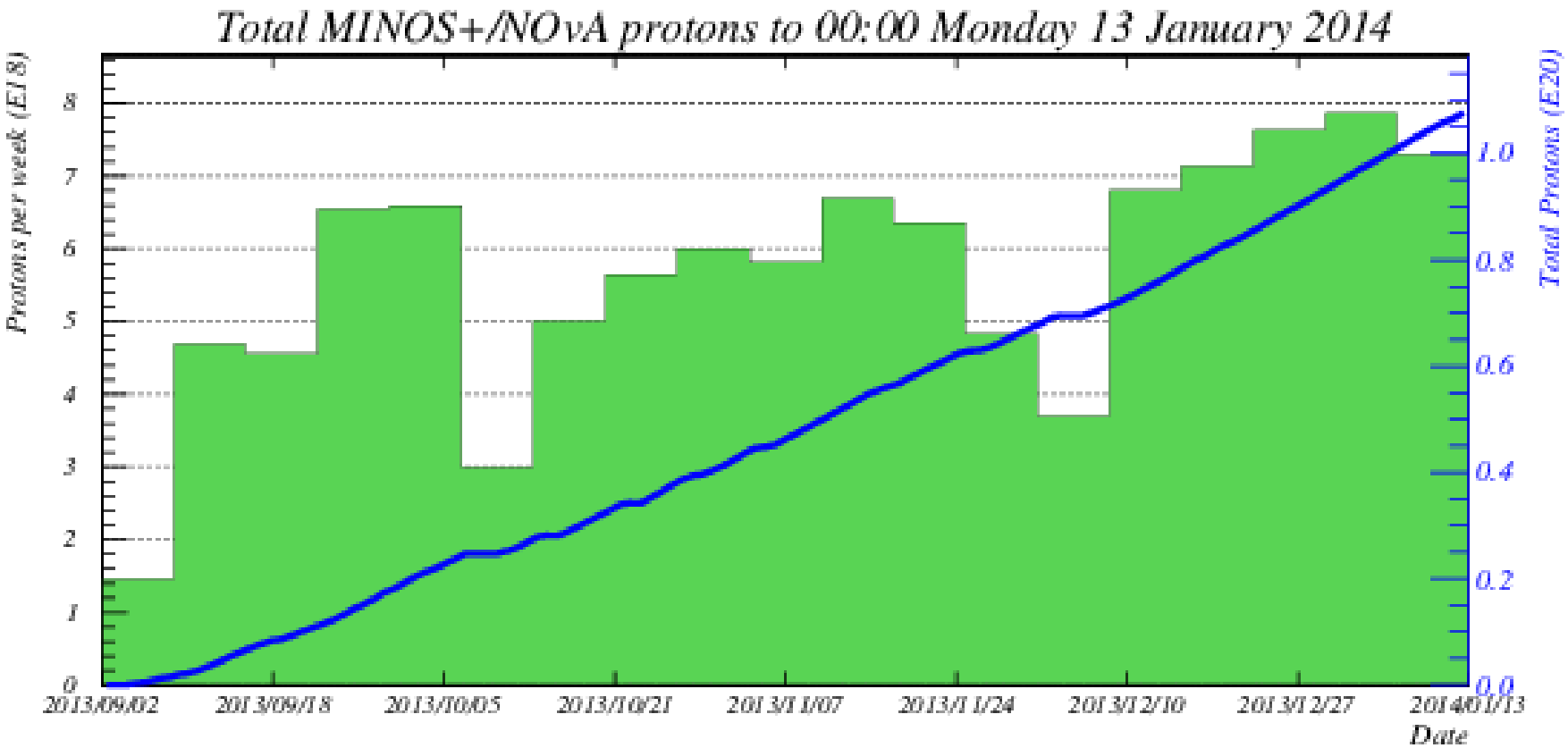
FY2014 Protons



8.95×10^{19} POT

Oct 1 2013- Jan 12 2014

Protons for ME Run



10.73×10^{19} POT

Sep 6 2013 at 15:00 – Jan 12 2014