

The MINERvA Operations Report

All Experimenters Meeting

Howard Budd, University of Rochester
Jan 27, 2014

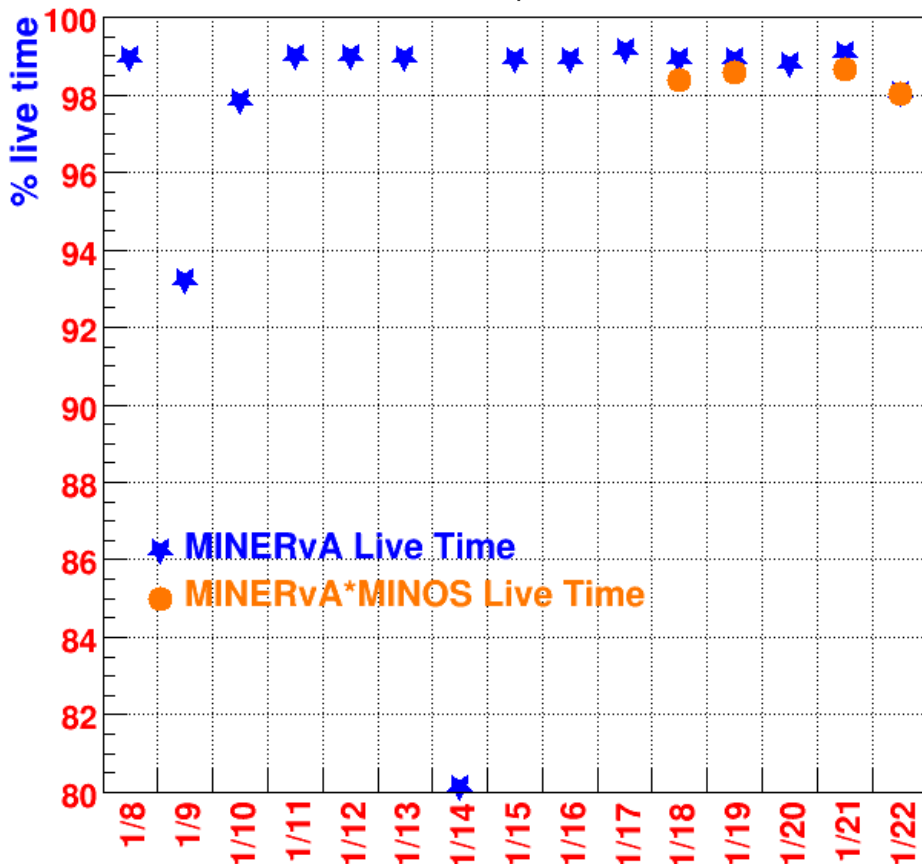




v Data



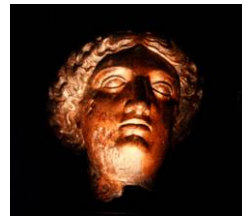
From	To	POT	MINERvA Live time
8-Jan-2014	22-Jan-2014	1.31E+19	96.8%



- % live time Jan 8 – Jan 22
 - Jan 9 FEB failed, described in last AEM meeting
 - Jan 14 – roof removed to start filling He target
- We are starting to include MINOS live time.
 - • MINOS gate matched to MINERvA gate



FEB failures



- On Jan 9 an FEB (board 4) failed with the HV at 400 volts
 - Previously if a PMT had HV problems, the PMT had either the HV varying problem or the HV was at 0 volts . This is type of voltage problem had not been seen before
 - Caused problem in reading the chain when the power of the chain was recycled
 - Board was replaced
- On Jan 23 a FEB in another chain was giving errors causing the DAQ to skip to the next subrun. We did not get information on which FEB in the chain it was. We went in the MINOS hall to investigate by running the DAQ just on this chain to see if we could find the flaky FEB. The chain performed fine. We are not seeing the error right now, but it will probably come back at some point. We do not need to remove the roof to get at this FEB.

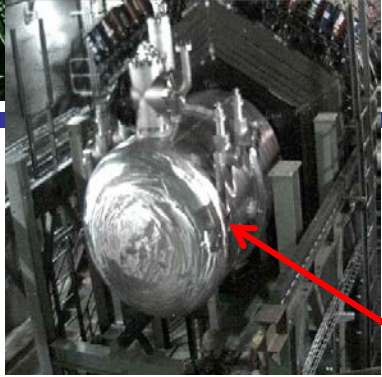


FEB Failures



- 3d FEB failure in the last couple of months in which a FEB failed without anything being dropped on the FEB.
- These failures didn't happen LE Run unless something was dropped on the FEB
 - The FEB which had the wrong HV was the 3d FEB failure in the last couple of months.
- 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



- Jan 14 most upstream panel removed to start filling 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
 - We turned off the HV, so stopped data taking
 - PPD removed 2 segments of the roof, thank John Voirin's group
 - The most downstream segment was moved over & one segment was put back on.
 - Light leak check the detector & start taking data again.
 - Process went well, but one of the roof panels had its hooks about $\frac{1}{2}$ inch closer to together than ideal so that panel took longer.
 - We estimated a down time of 4 hours and the process to 4 $\frac{1}{4}$ hours.



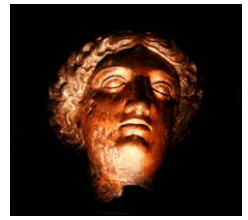
Filling the He Target



- The He target is about 80% filled.
- Two dewars should arrive at the lab today to fill the target .
- The target should be filled tomorrow
- The target will to topped off on Weds, and at that point it will be full.
- It will take about 1 week for the target to be in thermal equilibrium.
 - Since density is a function of temperature, it will take the week to be in uniform density



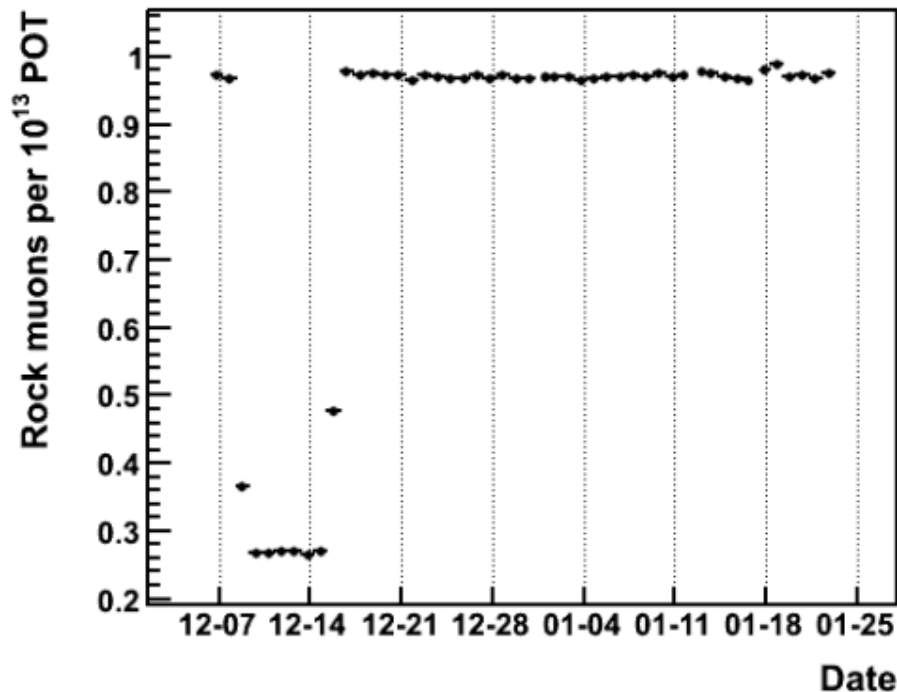
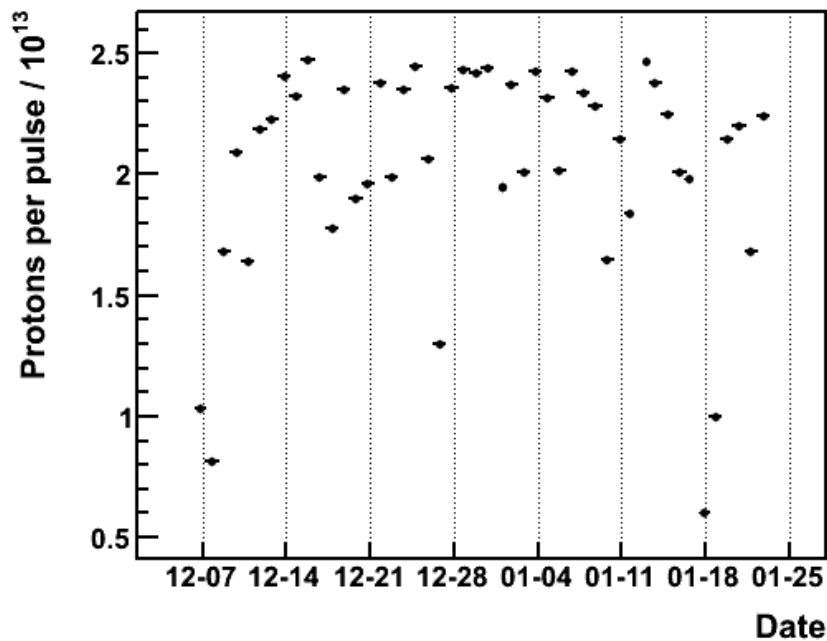
Nearline System Accessing the IF Beam Data Base



- Last week our nearline system (online monitoring system) had problems running. It was trying to access the IF Beam data base. If it cannot access the data base, the program just waits.
 - Part of the problem was the data base has a limit on the number of requests of 120 users and that limit had been exceeded
- To do a short term fix we removed the request to the IF Beam data base and removed the plots which required POTs.
- The IF Beam DB group is working on the problem.



Rock Muons/POT



- Rock muons are muons generated in the berm, not the detector.
- Plot of rock muons/POT. The low region at the beginning of Dec was horn off studies.
- Rock muons/POT is constant



Status of Muon Monitor 4



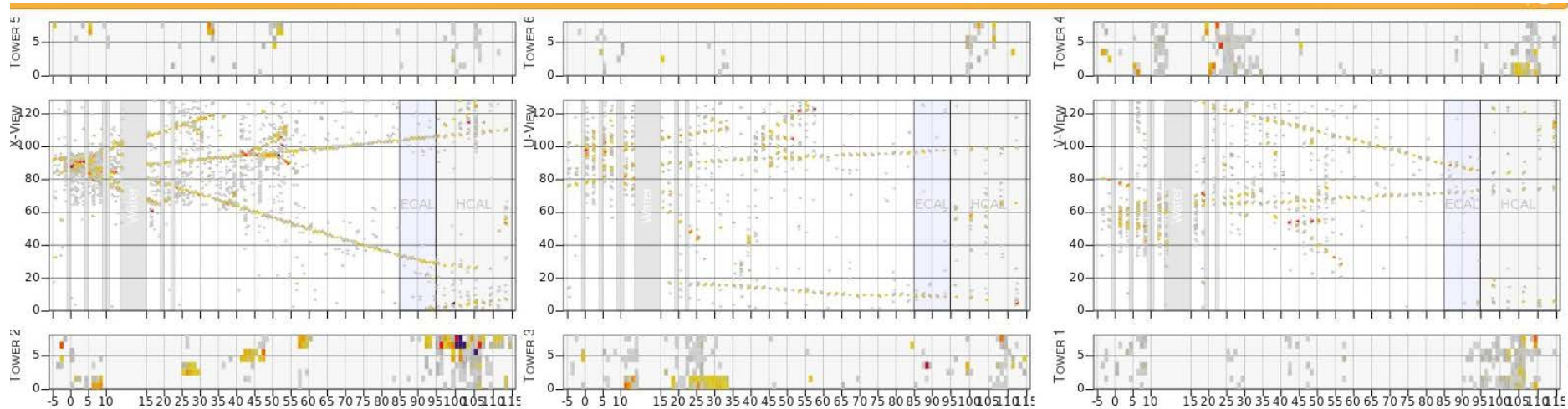
- Status of Muon Monitor 4 from Linda Bagby
- Install humidity sensor in Alcove 4 and connect cable to gas rack
- Run 4 RG58 (1 spare) cables from gas rack to MADDC for 2 flow sensors and 1 humidity sensor
- Install 2d smoke sensor and interlock cable
- Get ORC for gas rack
- Connect to main gas supply
- Muon Monitor 4 is online



Event Display



Outer Calorimeter



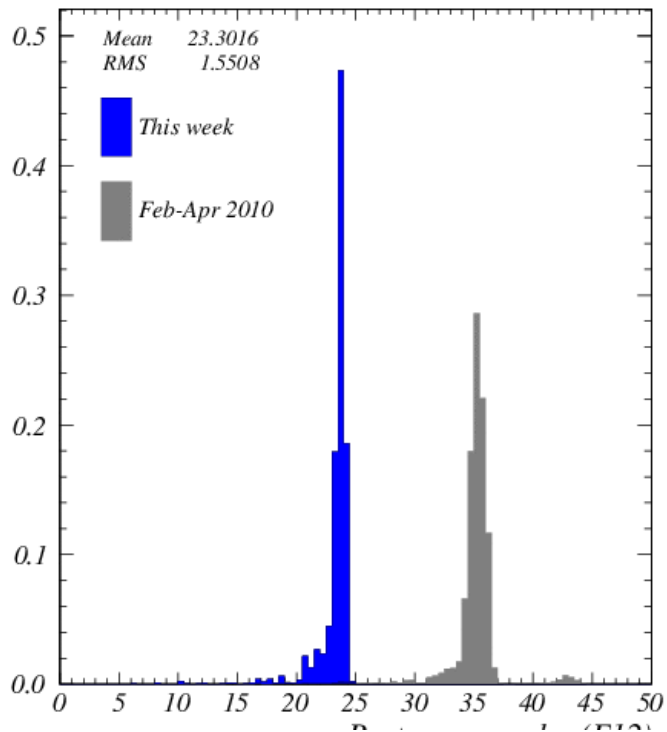
- Neutrino Event



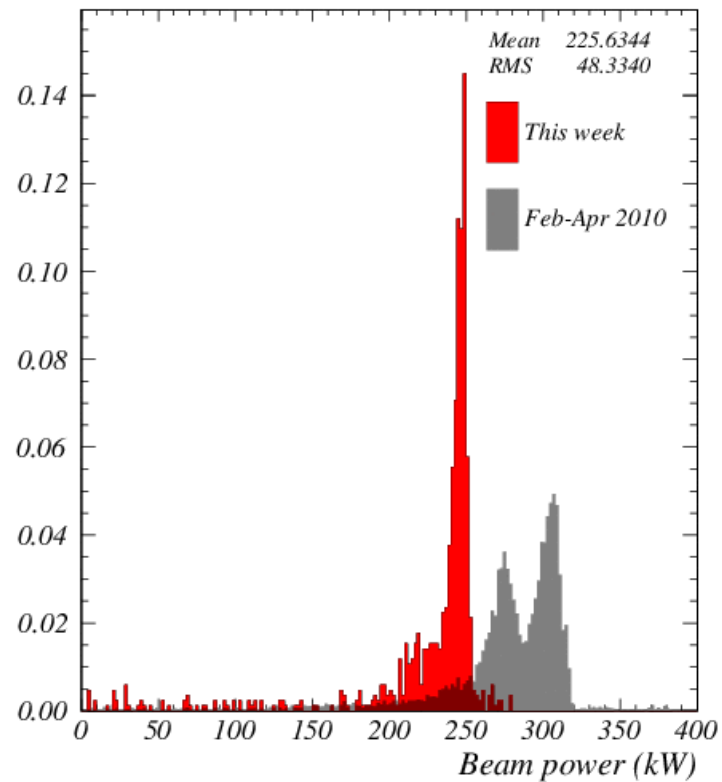
NuMI Beam Plots



Week ending 00:00 Monday 27 January 2014

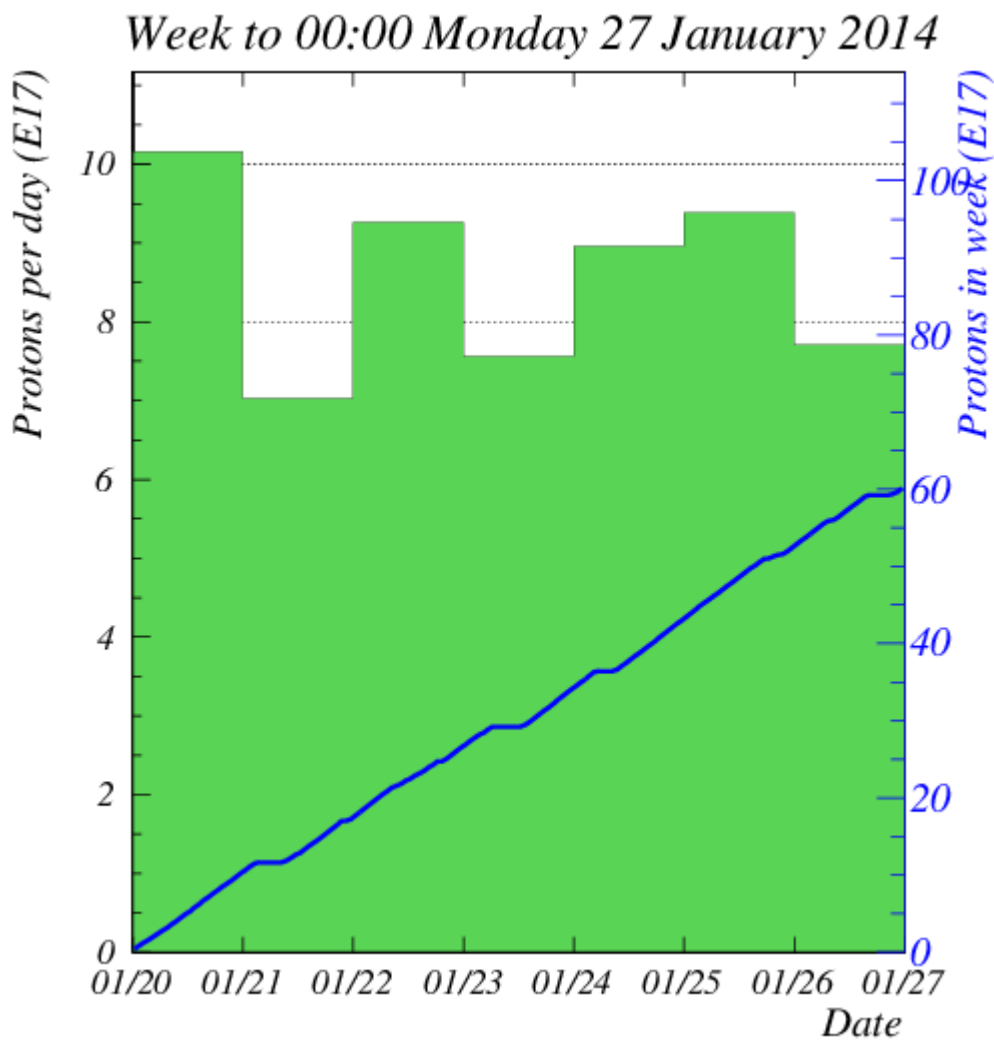


Week ending 00:00 Monday 27 January 2014





Protons for the Week



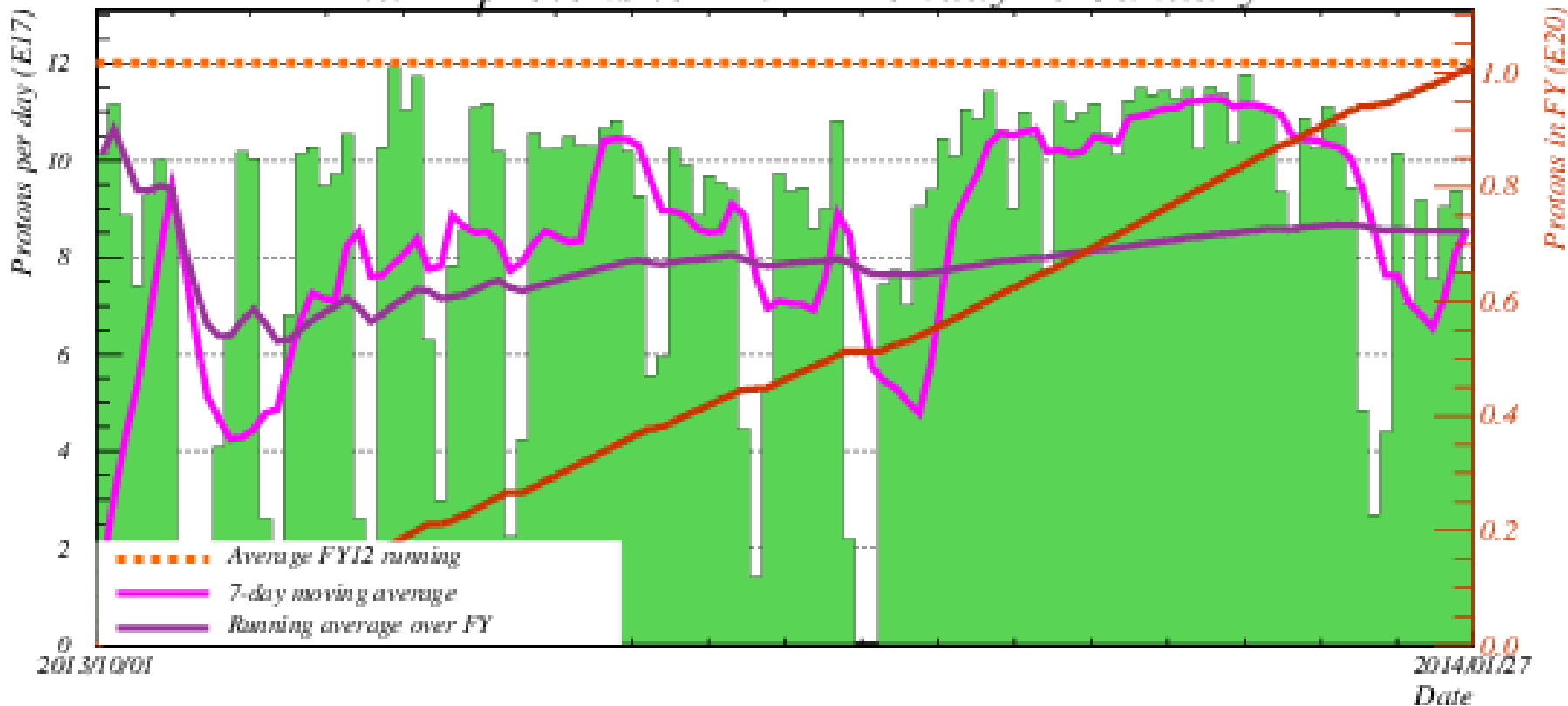
0.60×10^{19} POT
Jan 20-26 2014



FY2014 Protons



FY14 NuMI protons to 00:00 Monday 27 January 2014



10.08×10^{19} POT

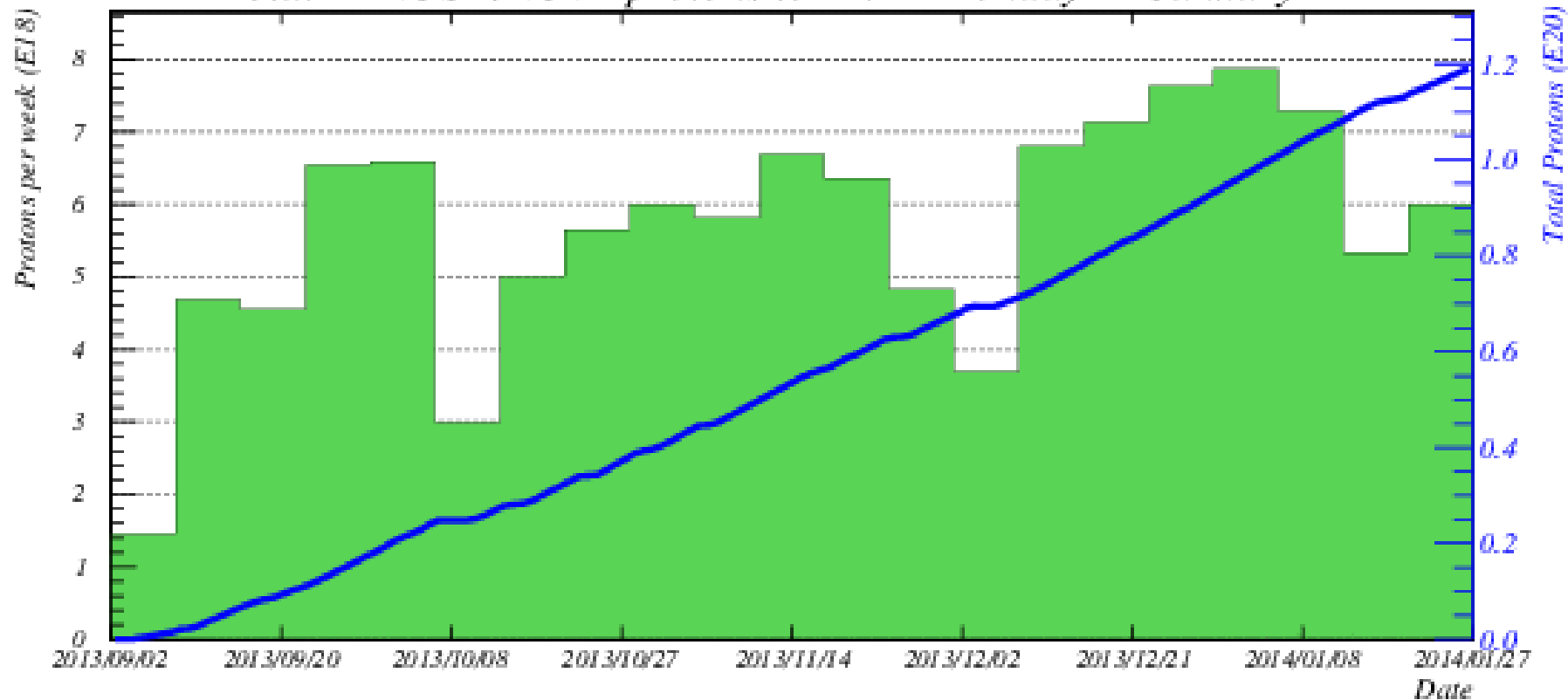
Oct 1 2013- Jan 26 2014



Protons for ME Run



Total MINOS+/NOvA protons to 00:00 Monday 27 January 2014



11.86×10^{19} POT

Sep 6 2013 at 15:00 – Jan 26 2014