

The MINERvA Operations Report

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for the MINERvA Collaboration

All Experimenters Meeting

26 October 2015



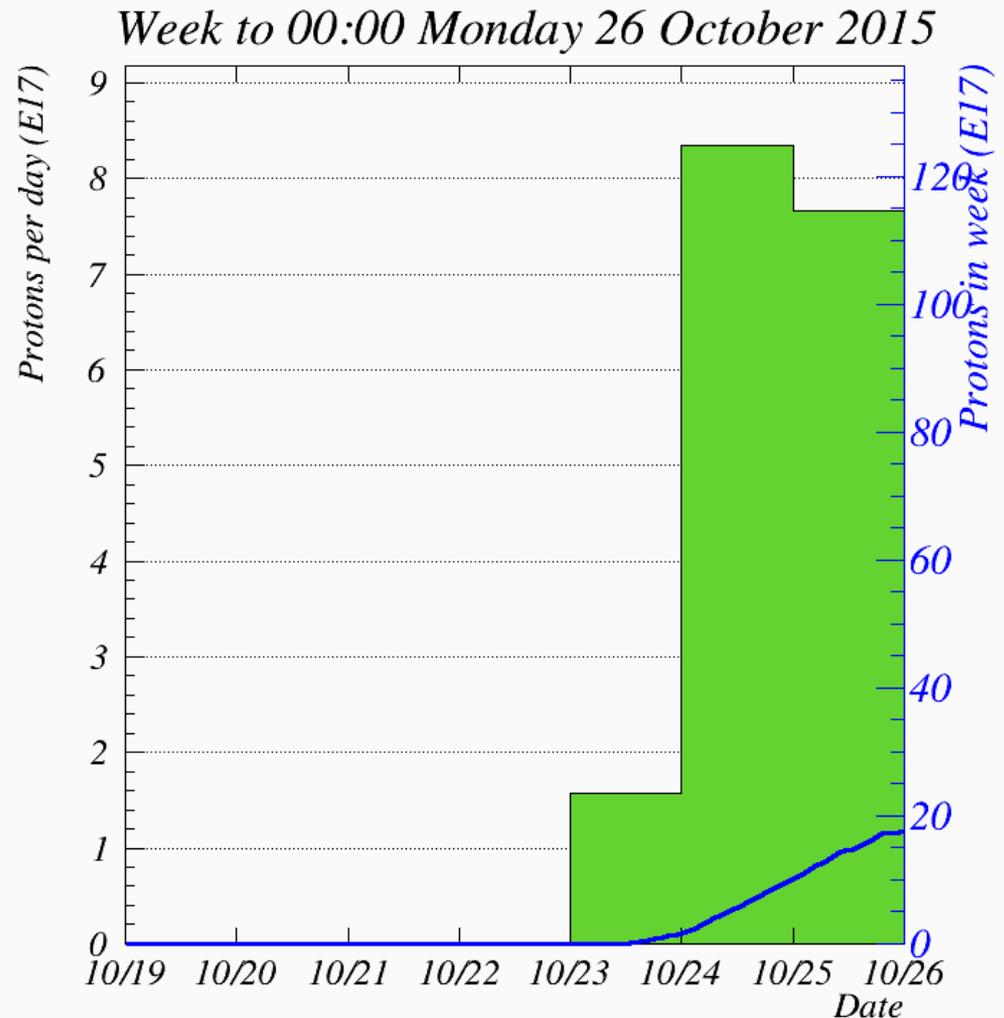
Protons for the Week

Received NuMI beam on Friday

- Running on beam mode since

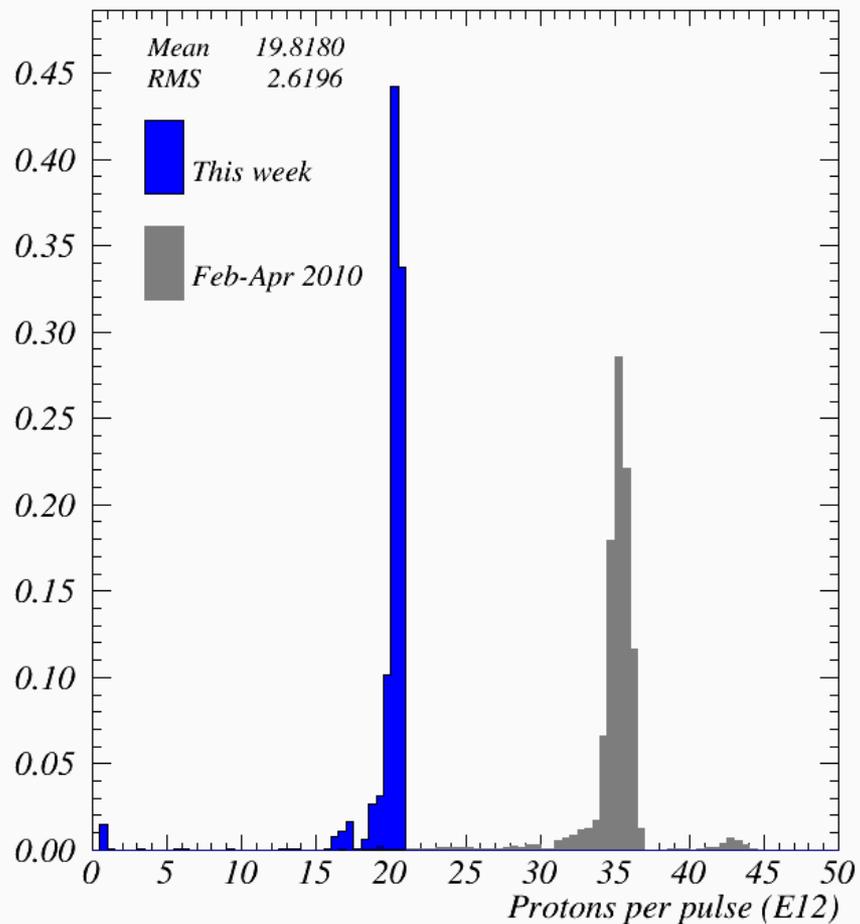
Thanks to the Accelerator Division for the successful return of the beam!

Proton on target (POT)
for the week = 0.18×10^{19}

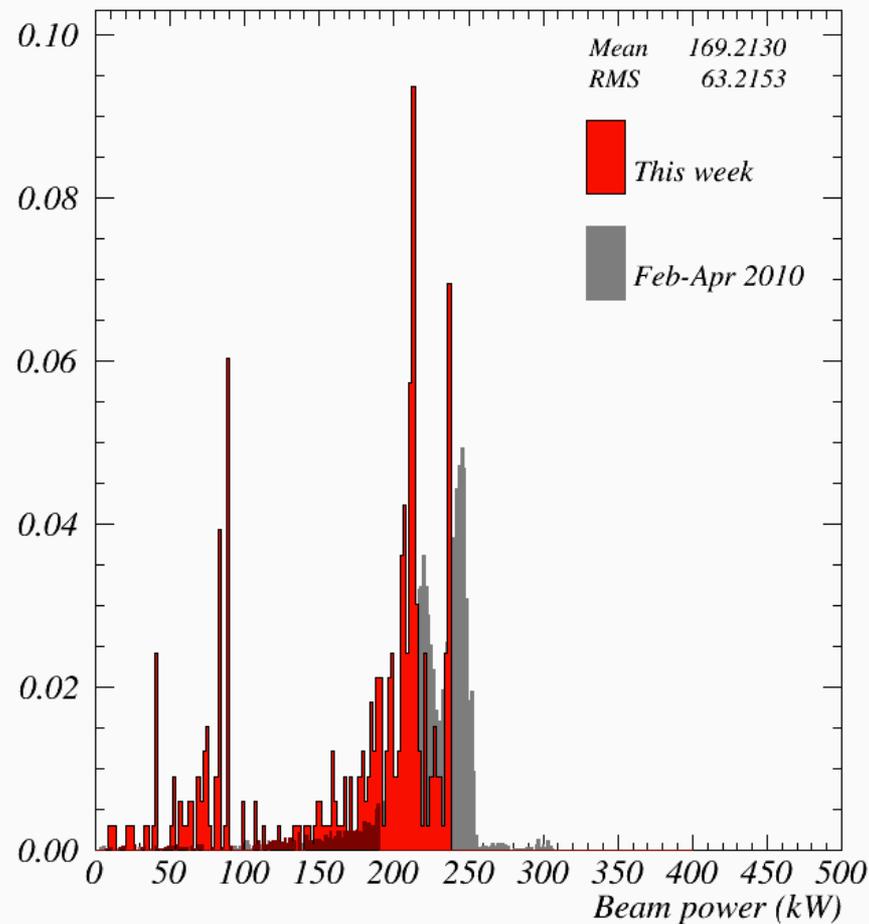


NuMI Beam Plots

Week ending 00:00 Monday 26 October 2015

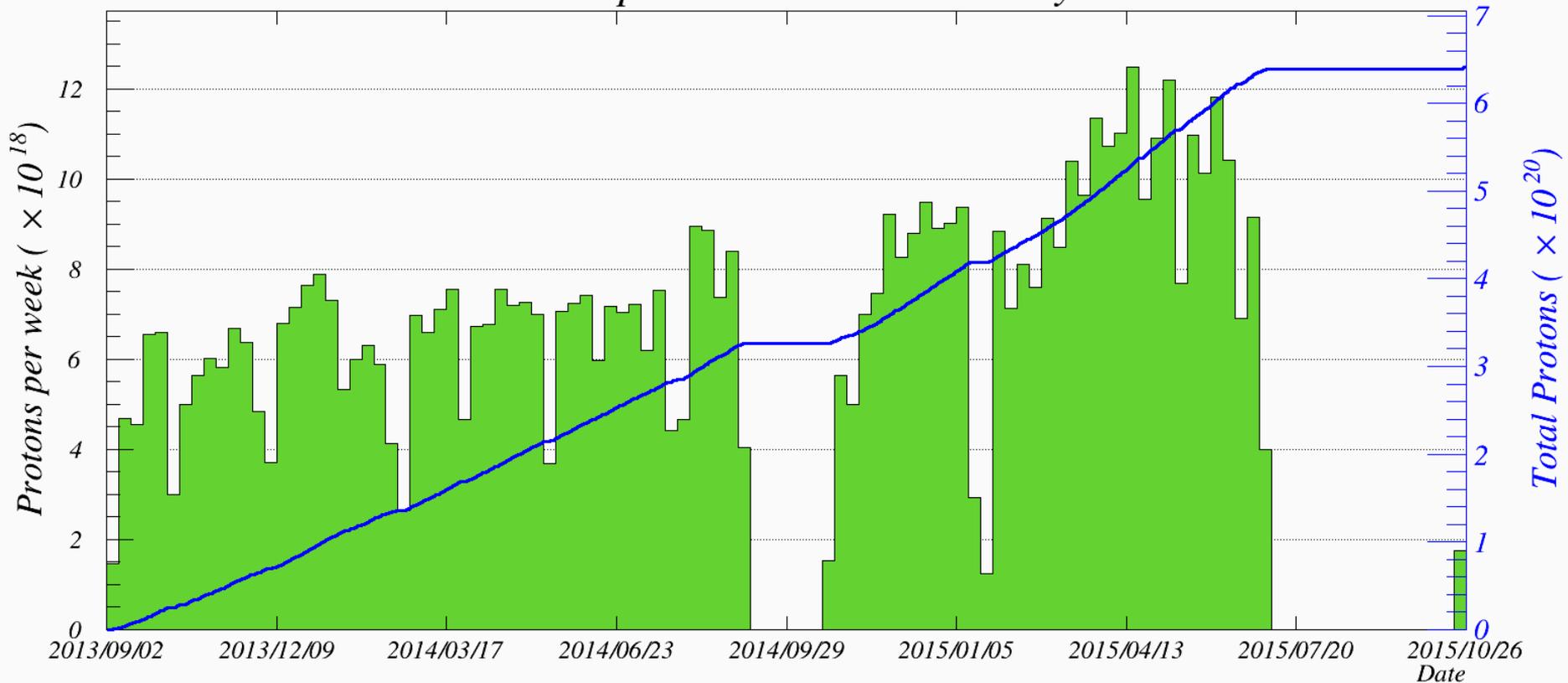


Week ending 00:00 Monday 26 October 2015



Protons for ME Runs

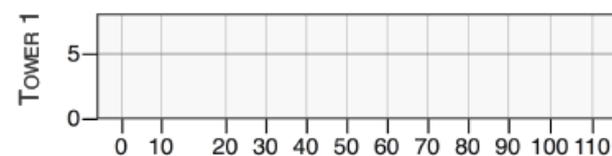
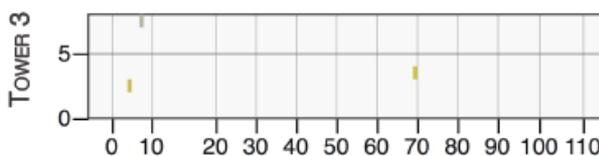
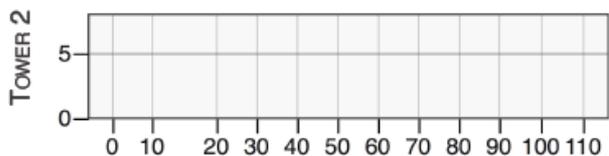
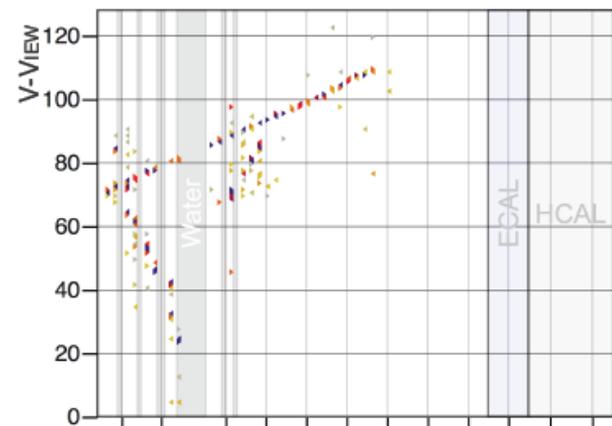
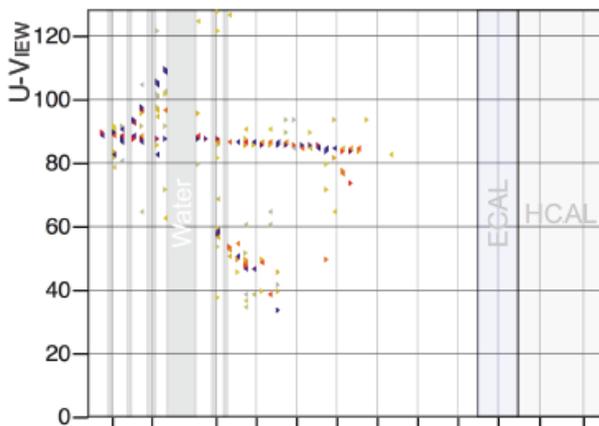
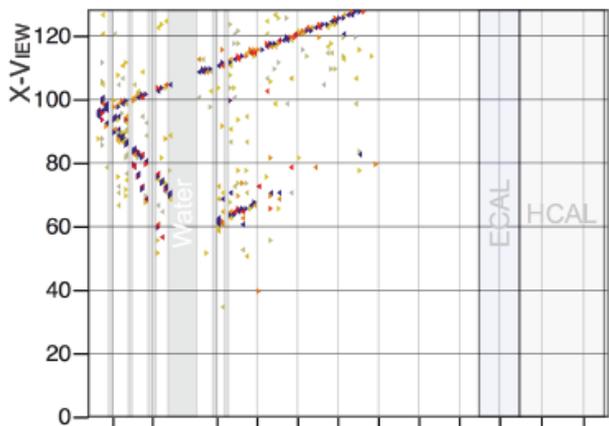
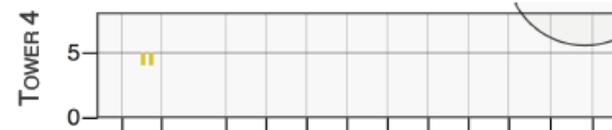
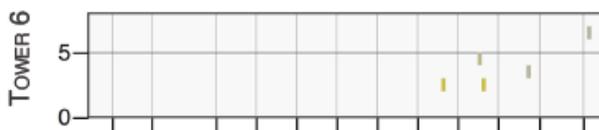
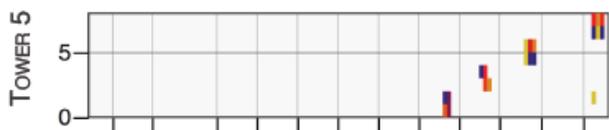
Total MINOS+NOvA protons to 00:00 Monday 26 October 2015



POT for the ME run

6 Sep 2013 15:00 – 26 Oct 2015 00.00 = 64.03×10^{19}

Event Display



X-view

U-view

V-view

26 Oct 2015

Overview of Last Weeks Work

New DAQ Machine:

- ◆ Configured new spare DAQ machine (mnvonline06), and we are currently running from it. It is identical to other DAQ machine (mnvonline05)
 - Upgrade from a mirrored raid1 system to a reliable and robust raid6 system with a hot spare.
 - Increase disk space from 1 TB to 12 TB
 - Have 2 serial ports so 1 DAQ computer can control both LI boxes (earlier we were running 2 LI boxes from 2 separate non DAQ computers)
- ✓ DAQ has been running smoothly

New Logger Machine:

- ◆ Installed new logger machine for online monitoring
 - Previous logger was very old and dusty
- ✓ Nearline monitoring has been running smoothly from new logger machine

Overview of Last Weeks Work

FEB Replacements:

- ◆ Replaced FEBs on the detector for various reasons
 - ❑ To recover the chain we struggled for a several weeks, last Monday we checked the power cable & replaced the PMT box & the FEB. Although the PMT cannot stop the DAQ, its possible the HV on the PMT base could arc to one of the lines which goes to the FEB and damage the FEB
 - ❑ Replaced two more FEBs for dead channel and multiple hits.
 - ❑ Replaced one FEB for high rms
 - ❑ Replaced FEB on Friday for very high ADC values for half of the channels
- ◆ Detector is quietly taking data with occasional glitches
 - ❑ Current plan is put our roof back on Wed/Thu, if detector run smoothly

Special Thanks

- Geoff Savage, Donatella Torretta, Steve Hahn – Neutrino Division
- Cristian Gingu, Paul Rubinov, Steve Chappa, Roberto Davila – EED
- SLAM Group – Experimental Computing Division

Future Goals

Update to v96 FEB Firmware:

- ◆ v96 FEB & CROCE firmware, which increases the live time. The firmware is written, but the unpacking and implementation needs to be done.
 - The On a FEB, a TriP chips 1 to 4 stores 16 channels (highs & mediums). While TriP chips 5, 6 each store 32 low channels.
 - Right now if the discriminator of 1 channel fires, we store the charge of 32 channels of highs, mediums, & lows. This reads in all highs, medium & lows read together.
 - While storing the charge the TriP chip is dead for ~200 ns
- ◆ Soon we will start testing v96 in test setup. Once the unpacking is written and firmware is well tested, we plan to install it at the appropriate time

Spare Logger Machine:

- ◆ Need to configure and test the spare logger machine