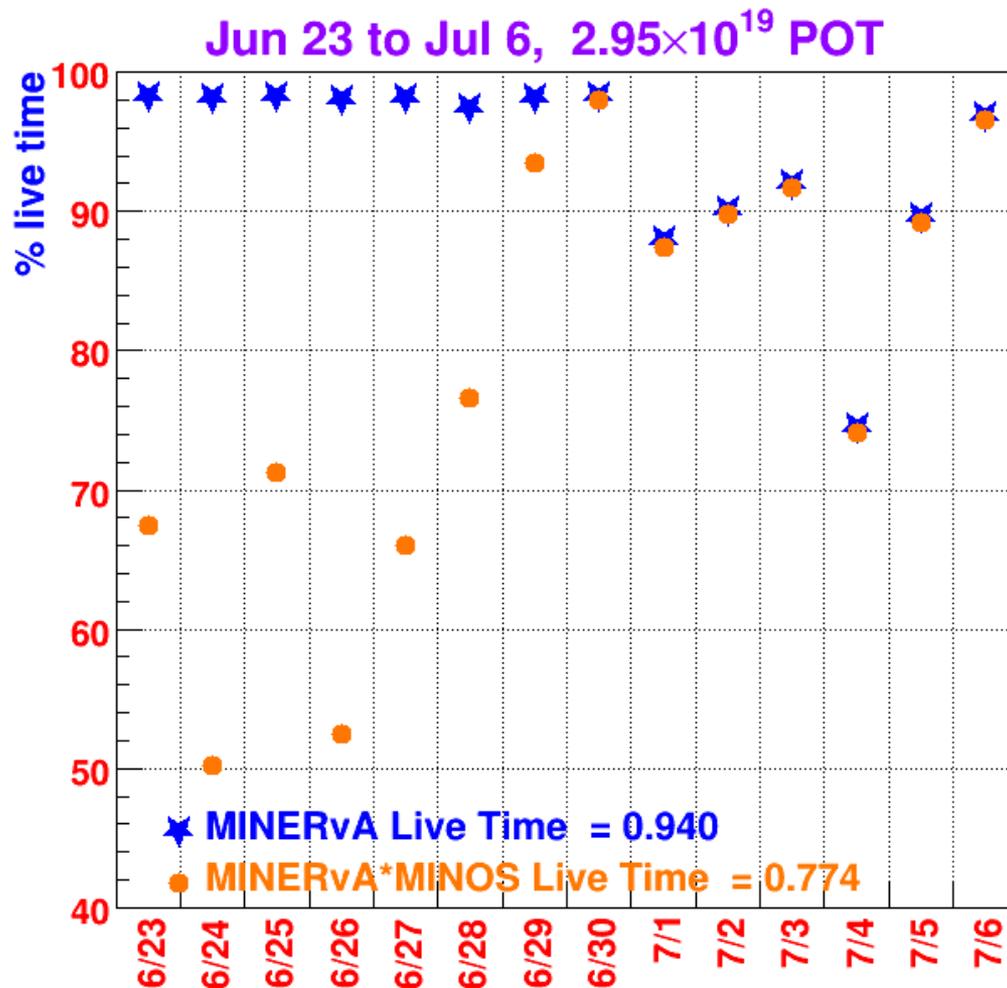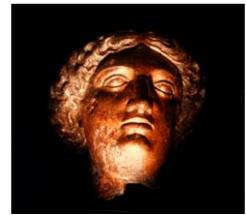# The MINERνA Operations Report
All Experimenters Meeting

Howard Budd, University of Rochester
Jul 11, 2016

ν Data

Jun 23 to Jul 6, 2.95×10^{19} POT

★ MINERvA Live Time = 0.940
● MINERvA*MINOS Live Time = 0.774

Live Time – Jun 23-Jul 6

2.95×10^{19} POT

MINERvA 94.0%

MINERvA*MINOS 77.4%

ν Data, MINERvA

- July 1- 5, MINERvA live time low.
  - Problem with chain 0-4-0 (Crate-Croc-Slot in Croc)
  - From Mar 11 to Jun 25 0-4-0 gave DAQ errors every 1-2 weeks. We did not lose data, DAQ skipped to next subrun.
  - On Jun 26, the errors started appeared every day.
  - On Jul 1 the error rate increased and the errors sometimes caused the VME driver, which enables to DAQ computer to talk VME crate, either quit talking to the VME controller or became corrupted. We are not sure which.
  - Rebooting the DAQ computer fixed this. Rebooting is done from root. The Expert Shifter was given root access.

ν Data, MINERvA
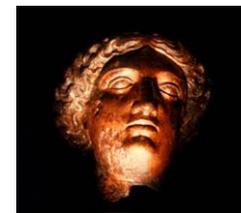
- – From July 1-5 the errors continued. The watchdog notifying the Expert when the DAQ stopped. However, we lost ~ 4 1/2 hours of data when Puppet, the system configuration control program, took away the Expert's root access. The Expert did not realize Puppet took away his root access. He thought there was some other problem.
- – On July 5, experts got together to determine what to do. The proposed tests showed a bad FEB, but did not tell us which one. The chain has 10 FEBs.
- – We replaced 1 FEB and the errors have only appeared twice since then. These errors did not stop the DAQ. We will study this chain during the shutdown.
- • The All Experts have been given root access to the DAQ machine so they can bring back the VME driver. In addition, we can page the SLAM group if we realize there is a problem they can solve.

4

ν Data, MINOS ND

- The MINERvA experts are handing the simple MINOS errors. MINOS ran well during the last 2 week period.
- MINOS Live time
  - Jun 27 – Jul 3 88.6% live
    - Problem due to LI corrupting the data. This is also why the MINOS Jun 23-26 live time is low. During the Jun 29 shutdown we turned the LI off. On July 7 we turned the LI on for one 10 hour period to see if it still caused a problem. The data was fine.
    - During the shutdown we will see if we can understand the problem with the LI.
  - Jul 4-10 - 99.4%
- During the Jun 29 shutdown, we replaced a Minder board which had a hot channel.
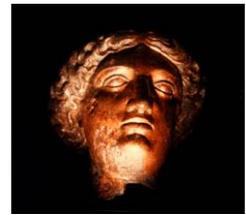
Rock Muons/POT
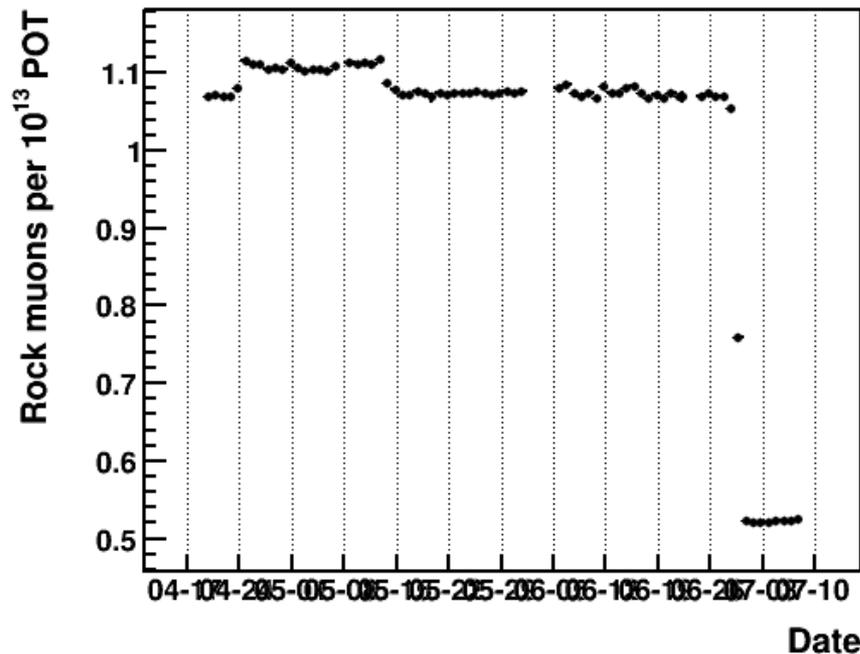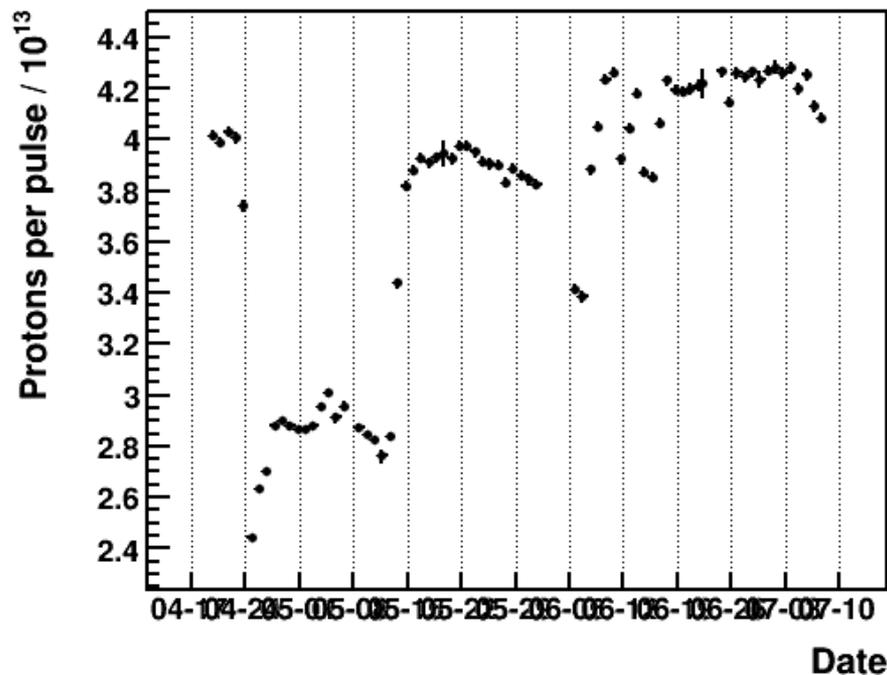
POT/Pulse

Rock Muons/POT

- The change to reverse horn current reduces the number of Rock Muons/POT by ~ 1/2
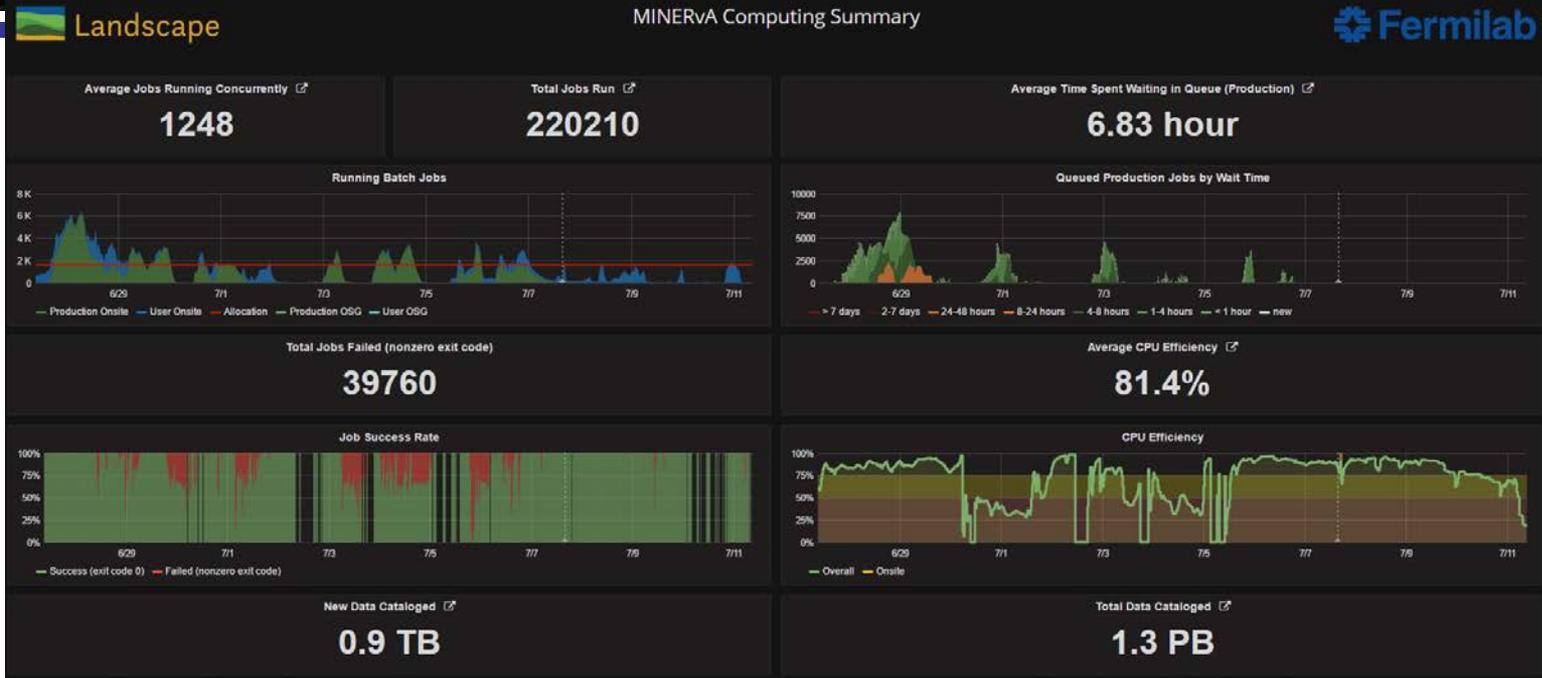
6

Event Display
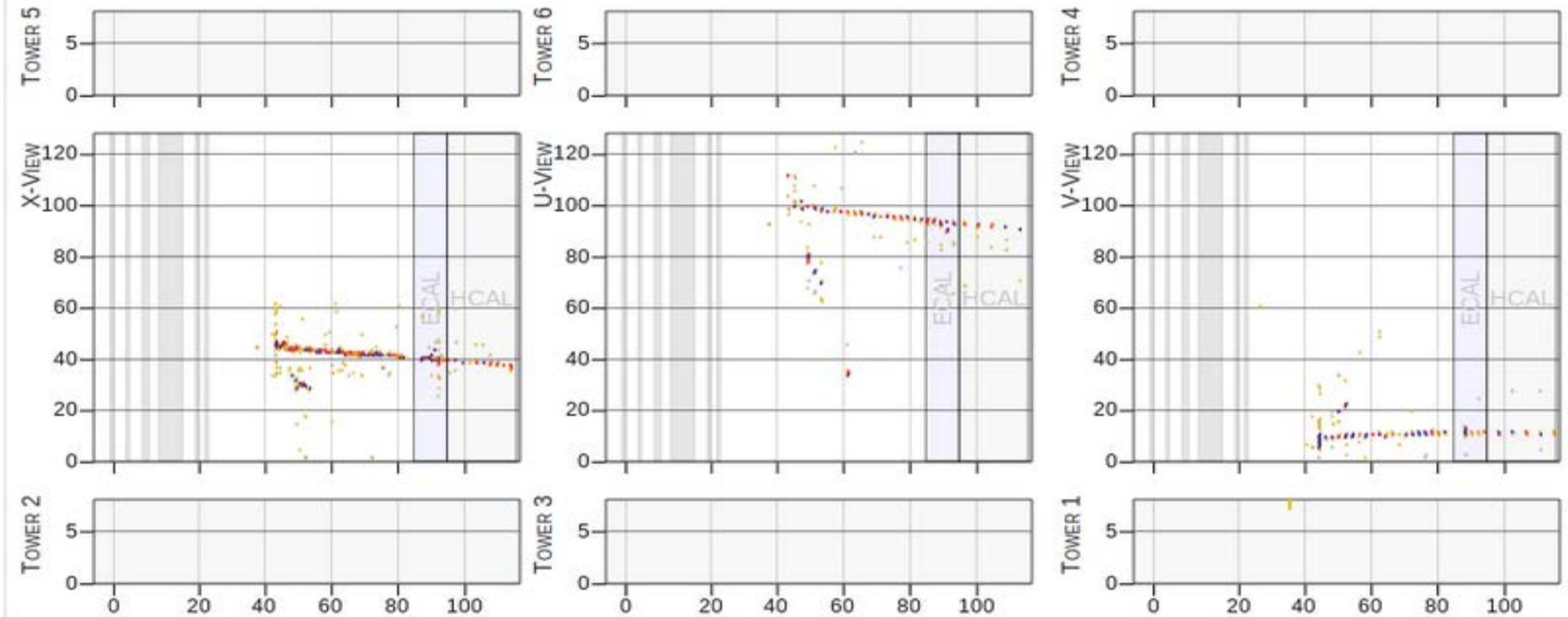
X View   V View   U View

Tracker anti-ν CCQE Event

Computing

- Production jobs Jun 30 -Jul 1 & ~ Jul 4 had input files which fell off disk on dCache
  - Implementing prestaging checks prior to large productions with inputs coming off of tape backed dCache
  - Instructions have been sent to the production team to manually stage these files

Spectrum Stability
Batch 6

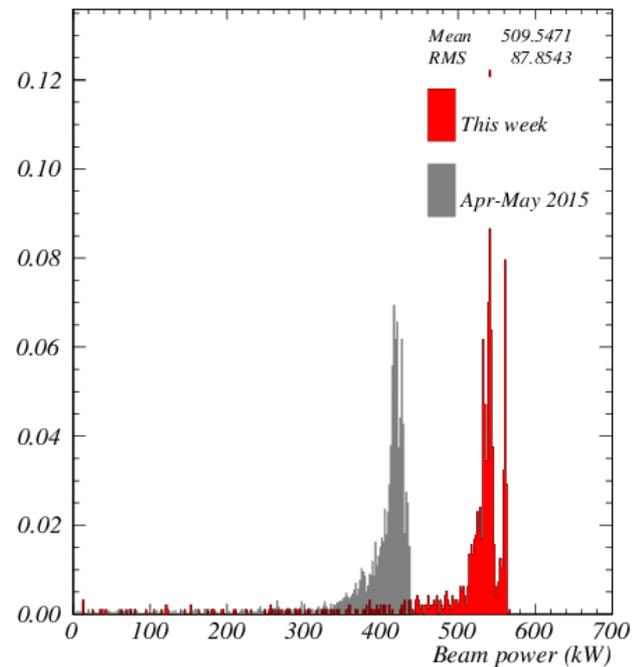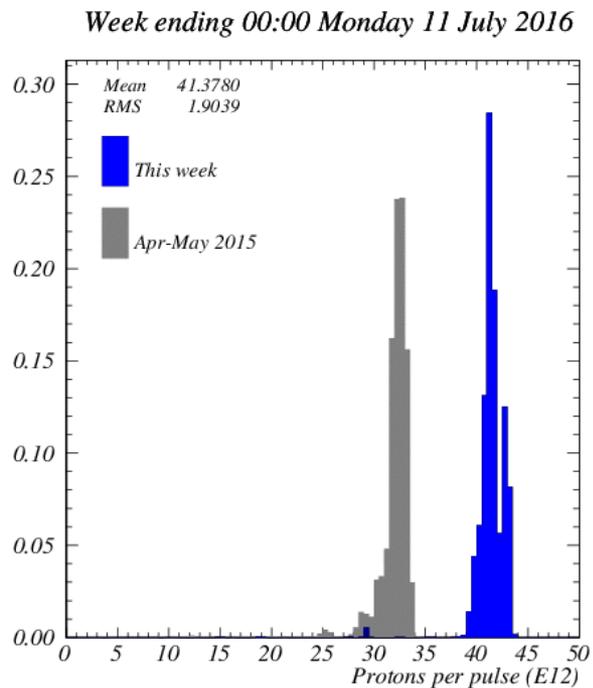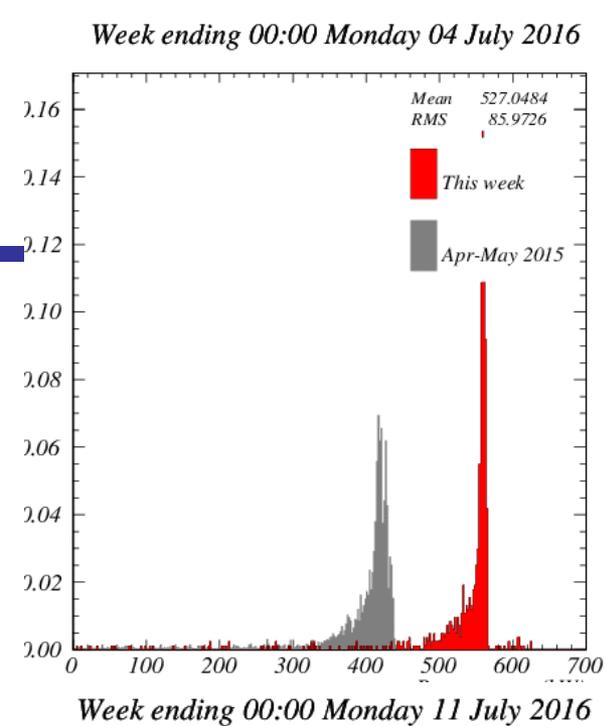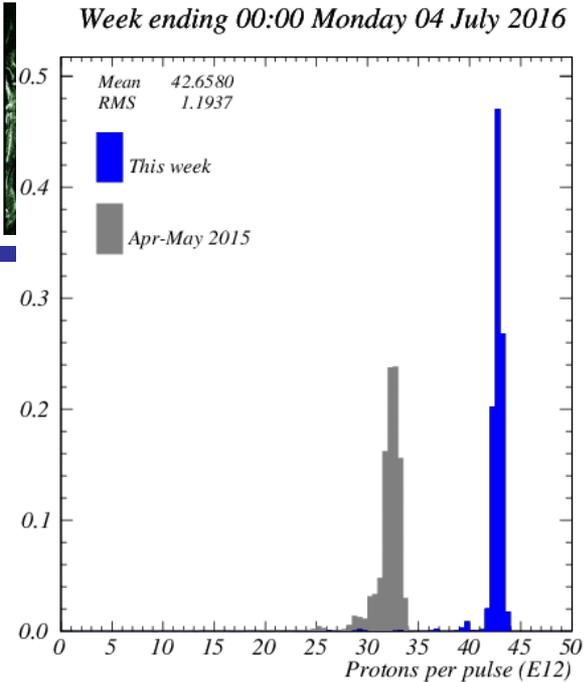Neutrino Selected Batch Energy Spectrum Stability (PQ and NQ)
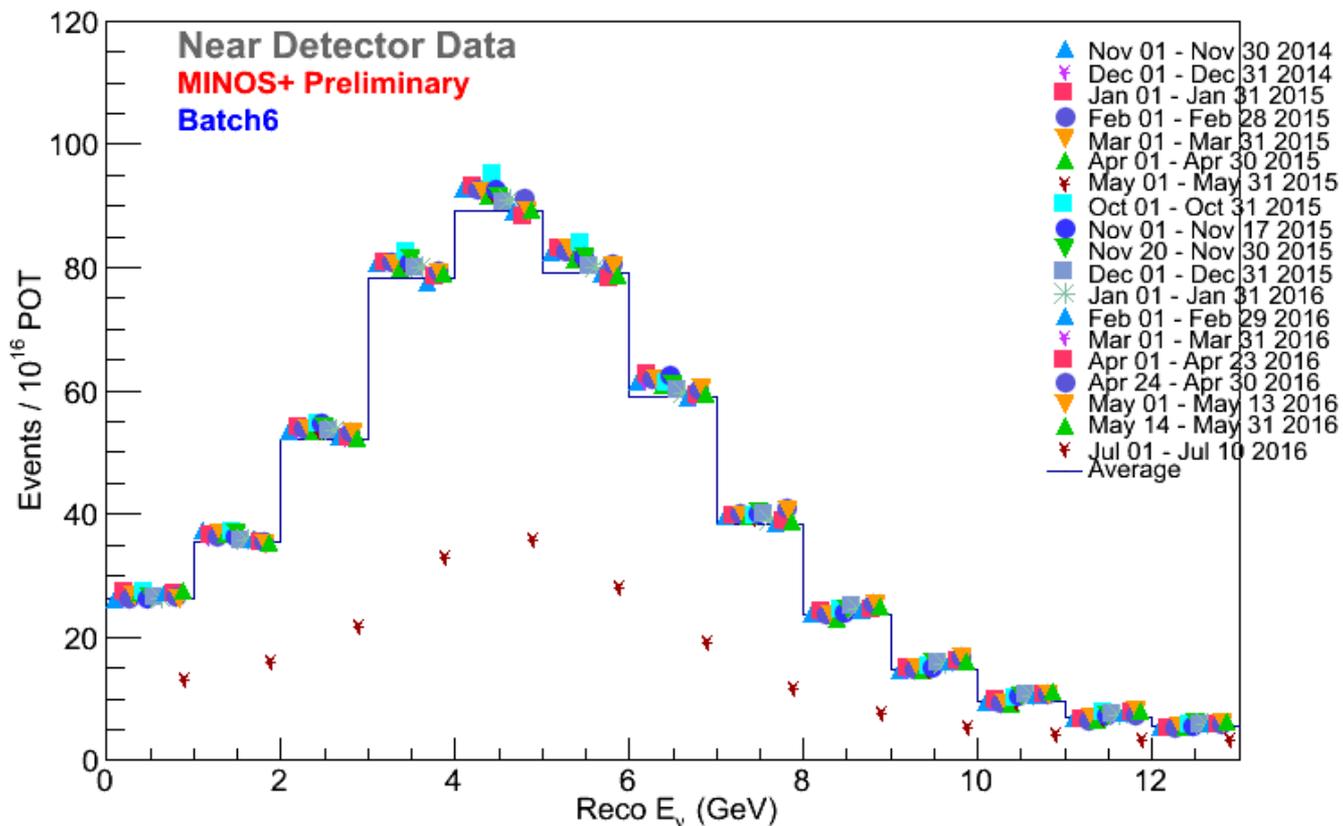
- 1st 2 week period with anti-neutrinos
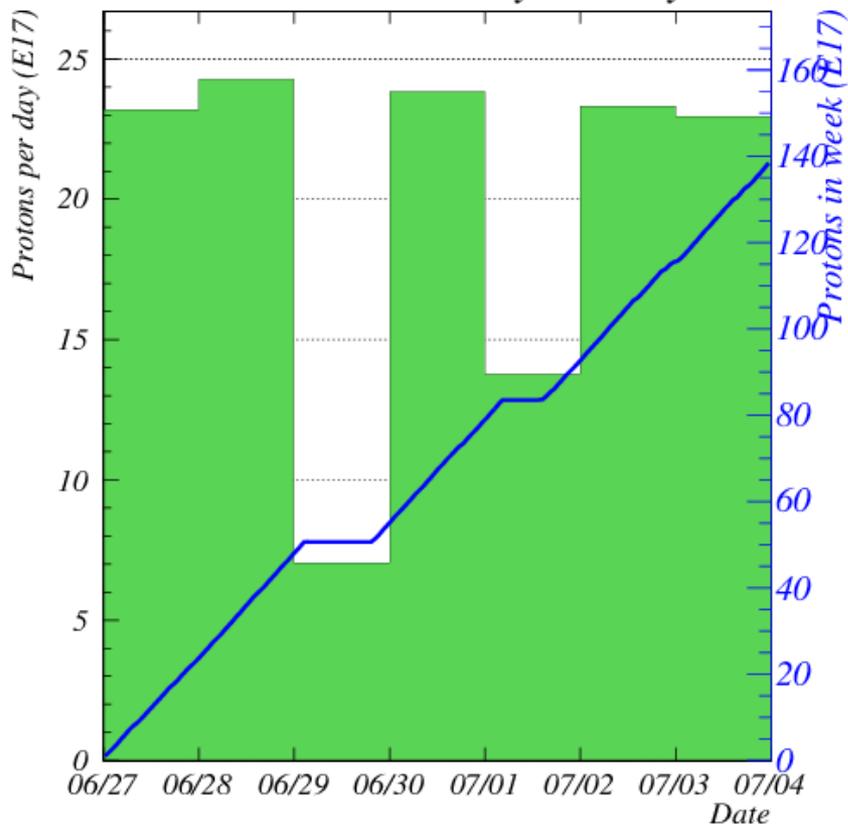
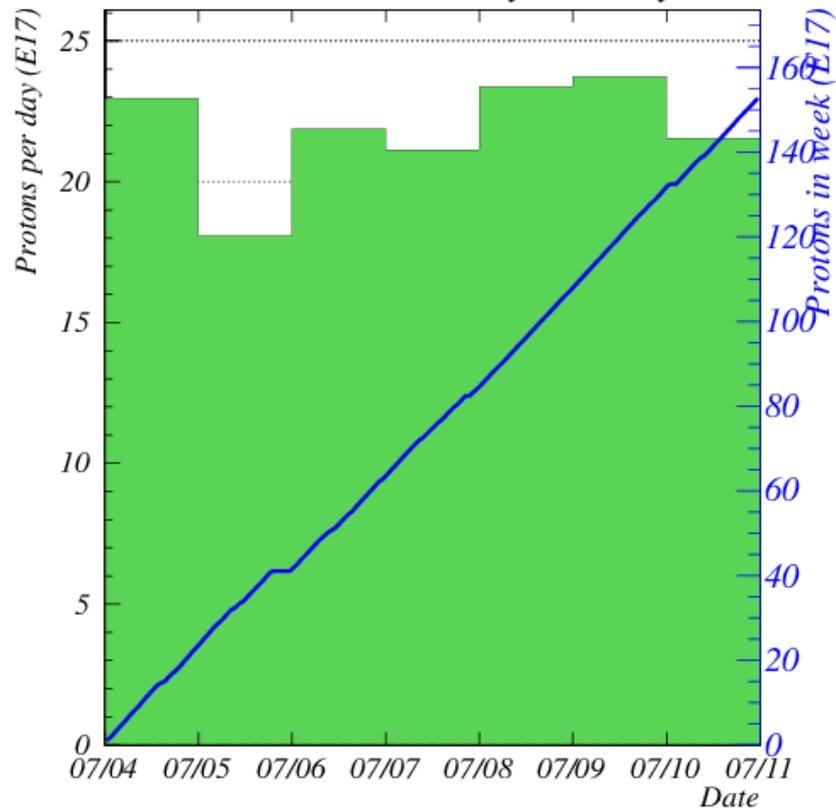# NuMI Beam Plots

June 27-July 3

July 4-10

Protons for the Week

Week to 00:00 Monday 04 July 2016

1.28×10^{19} POT
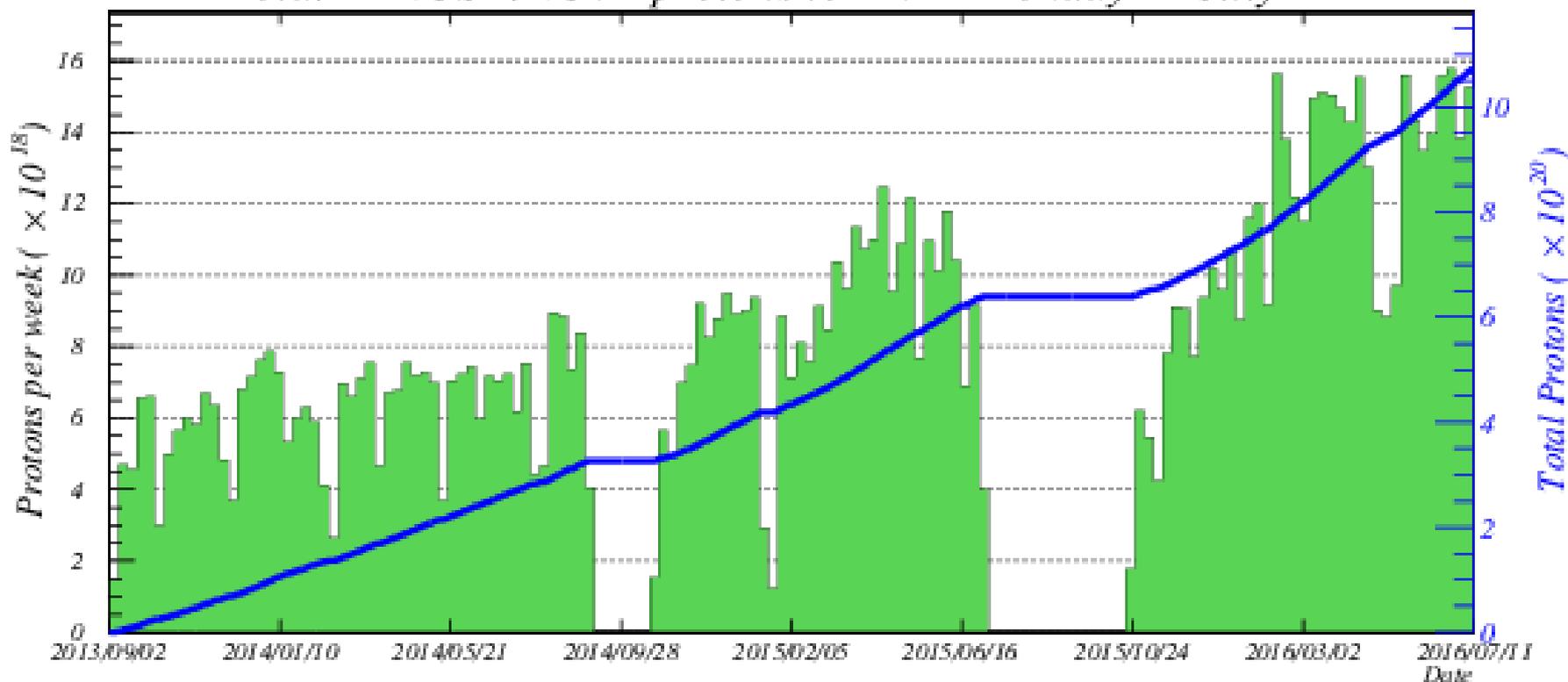Jun 27-Jul 3, 2016

Week to 00:00 Monday 11 July 2016

1.53×10^{19} POT
Jul 4-10, 2016

Protons for ME Run

Total MINOS+/NOvA protons to 00:00 Monday 11 July 2016

10.73✕10²⁰ POT - Sep 6, 2013 – Jul 10, 2016