

The MINERvA Operations Report

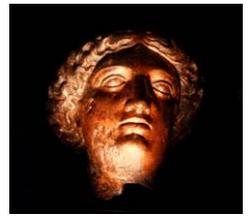
All Experimenters Meeting

Howard Budd, University of Rochester
Nov 04, 2013





Taking Data



- We are taking data with very small downtimes
 - All parts of the detector are operating fine



Disk Problems Fixed during Downtime



- Mnvonline0
 - Failed disk replaced.
 - Backup DAQ computer and it setups up 1 of the 2 LI boxes
- Mnvonline1
 - DAQ computer
 - giving errors”smart failure”, but warnings are set at a very conservative level so we have not replaced the disk.
- mnvonlinebck1 –
 - Has veto HV software
 - Failed disk does not have veto software, so nothing was done.
- Thank Jason Harrington CF SCD & Jeff Savage PPD EED₃



West Platform



- $\frac{3}{4}$ of the FESBs on the west side cannot be accessed
 - A FESB powers a chain → 6 - 9 FEBs.
 - The fuse in FESB can blow when its power is cycled. Sometimes, we need to do this to readout a chain.
- During previous shutdown PPD has built a platform which will enable access these FESBs



West Platform



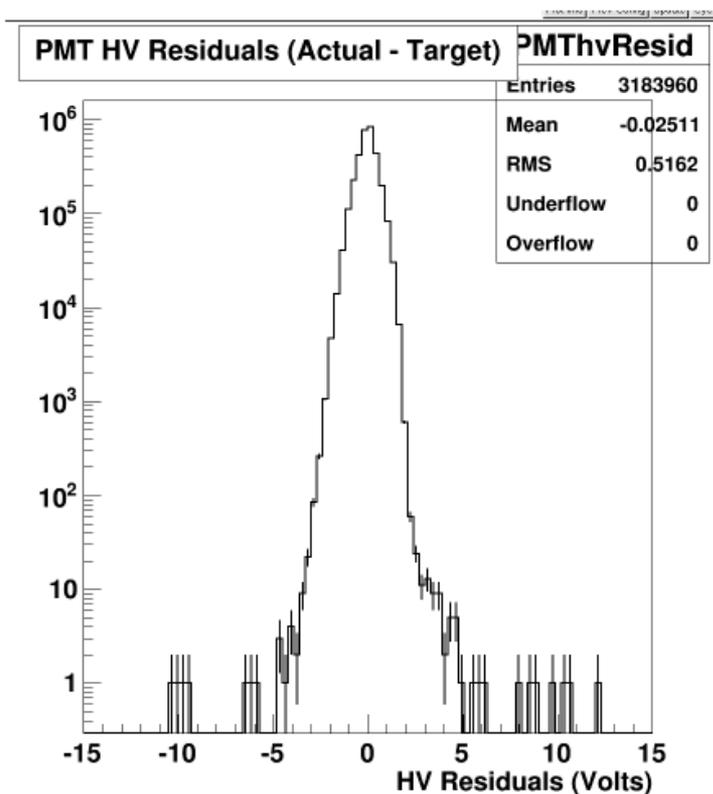
- During this shutdown
 - Grating (flooring) will be fastened down.
 - In looking at how we will use the platform, we realized for the detector safety we needed a railing on the east side of platform next to detector where the optical cables are exposed.
 - After installation we will need to light leak check the detector.
- With the new platform we will probably be able to access ~ 40% of the FEBs and ~ 20% of the PMTs without removing the roof and moving the bridge.
- Can access a FEB which has high PEDs ave in $\frac{1}{2}$ the low channels. The PED ave, > 2000, nominal PED ~ 450.



HV varying problem (Issue for Test Beam)



- After the platform work, we may replace either the FEB or PMT box which has the “High Voltage Varying Problem”.



- A Cockcroft-Walton generator sets the HV on the tube
- The HV varies around its set value
- This tube had the problem in LE run. It was repaired and put on the detector to try to understand the fix of this problem
- We need to understand this problem to get enough PMTs for the testbeam



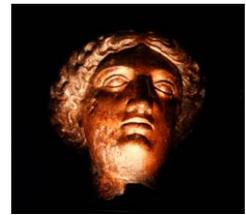
CROC-E Firmware To Check CRC word



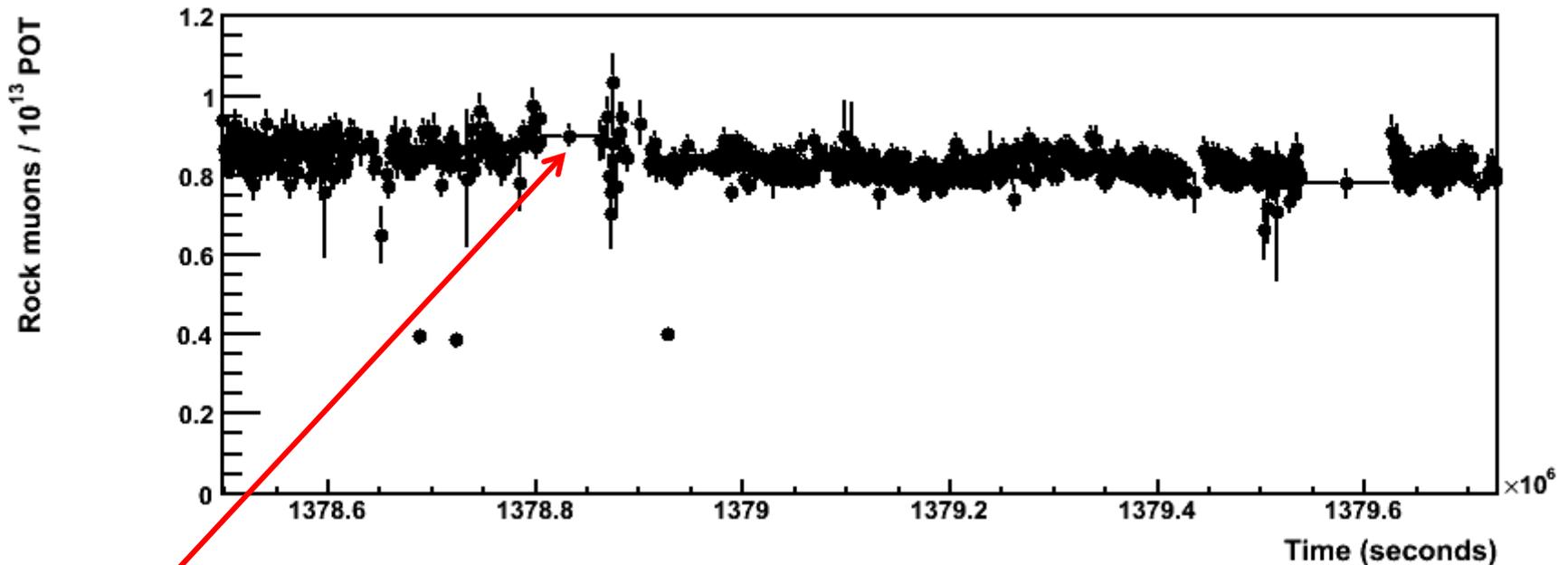
- We have decided on the method to insert the CDC word into our data structure. The version of the CROC-E firmware has been updated by Cristian Gingu PPD EED
 - This work is now proceeding both by us and by Cristian



Rock Muons/POT



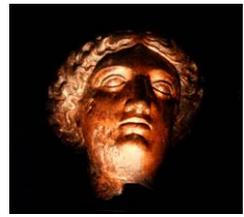
MINERvA rock muons per POT vs time (from 09/06/ to 09/20)



- Plot presented at last weeks AEM talk
- The slight step here is due:
 - To change in spot size (1.7 mm -> 1.1 mm) of beam
 - Change in location of target, moved 0.9 mm



Rock Muons/POT Calibration Jobs



- We can't update this plot because the data base, NuConDB, cannot handle the high request rate when we start many calibration jobs at once.
- Marc Mengel is working on solving this problem.
- As soon as this is done, we should be good to run calibration jobs.
- Marc has solved this problem with the database, so we will be able to submit the calibration jobs.



IF Beam Data Server



IF Beam Data Server A9 Event Monitoring

Last update:	Mon Sep 30 2013 12:28:04 GMT-0500 (CDT) (1.0s ago)
Time since last 8F:	1.3s
Last A9:	Mon Sep 30 2013 12:28:02 GMT-0500 (CDT) (2.7s ago)
Last A9 interval:	1.73s

- The IFBEAM collectors (or brokers or servers) on the AD side have increased capacity. We have not had another incident of a collector failing.
- On occasion some number of devices stop reporting, but are later restored. This is on the collector side, not the IF BEAM DB side. Robert Hatcher is looking at this problem.
 - We don't think the problem is devices not reporting to ACNET.
- We are working on assembling the resources to figure this problem out and to rectify it.



MM4



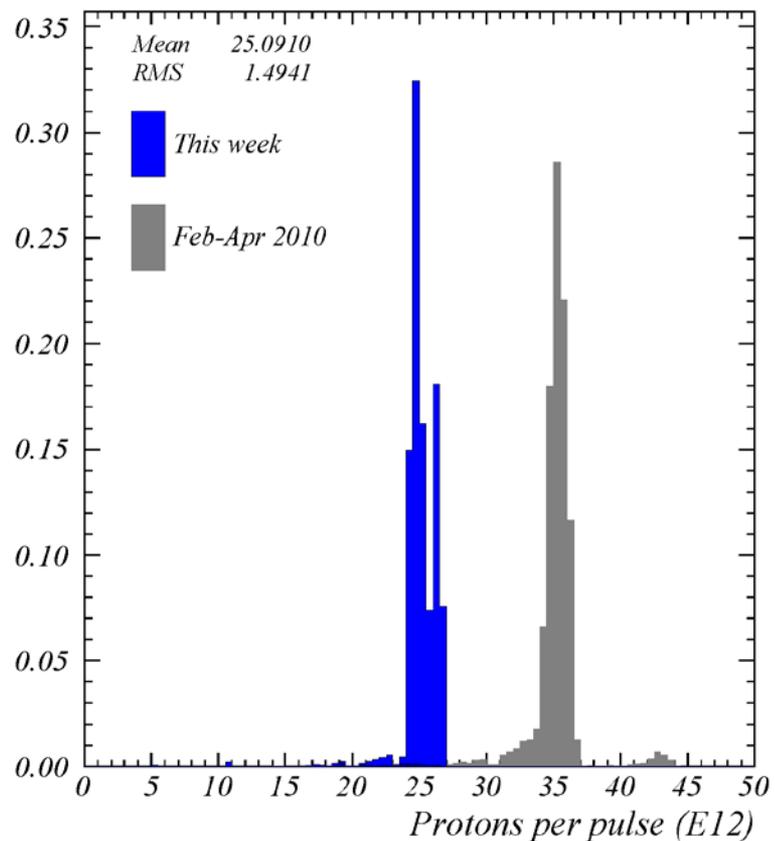
- The SWIC scanner which was installed downstairs has been replaced by the SWIC scanner with the modified grounding.
 - The ORC for the electronics rack as been approved
- The gas rack is being constructed in D0.
 - We needed additional parts beyond what was supplied us by Austin to get through the ORC. These parts have arrived.
 - We anticipate a ORC review in ~ 2 weeks the in Hall.
 - We do not need to access the MM4 alcove to make it operational.



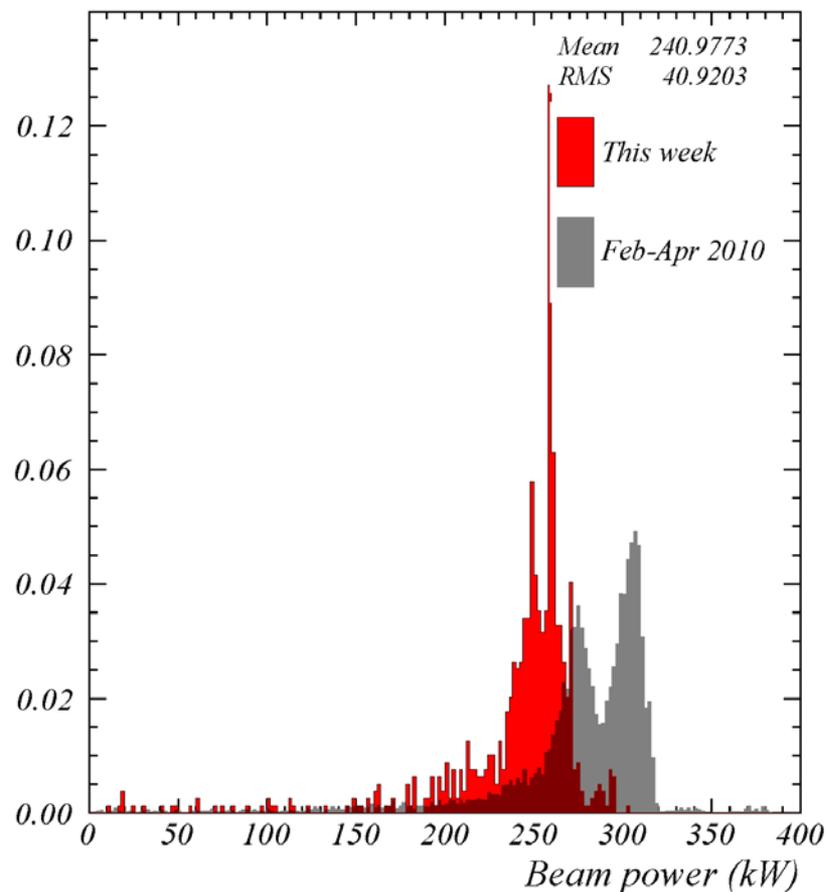
NuMI Beam Plots



Week ending 00:00 Monday 04 November 2013

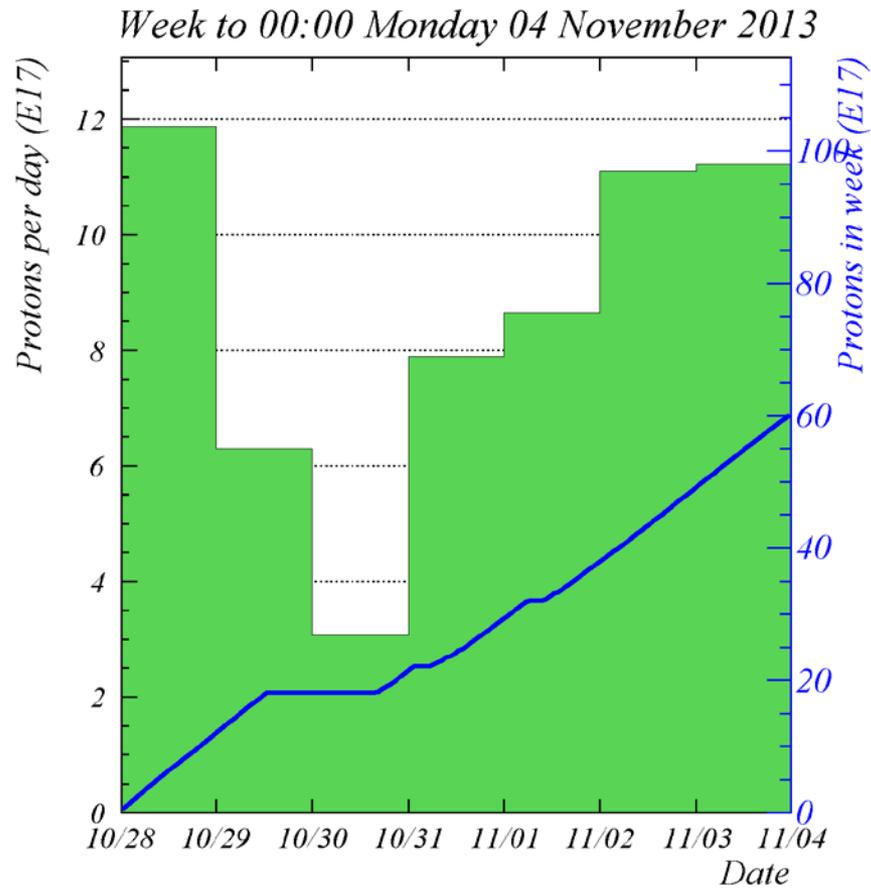
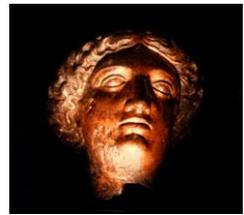


Week ending 00:00 Monday 04 November 2013



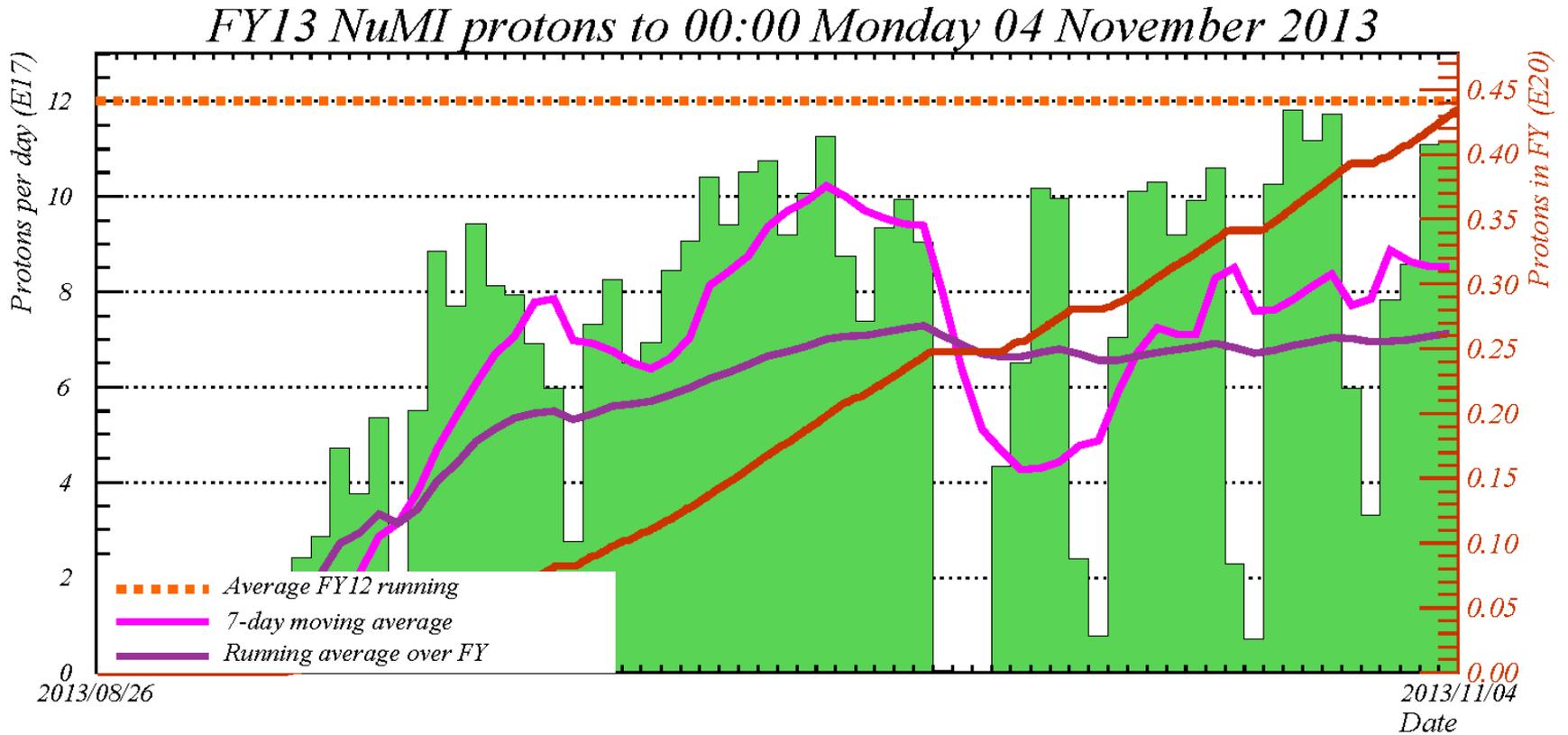
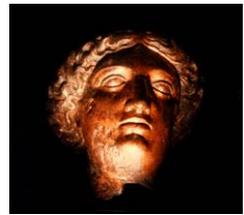


Protons for the Week



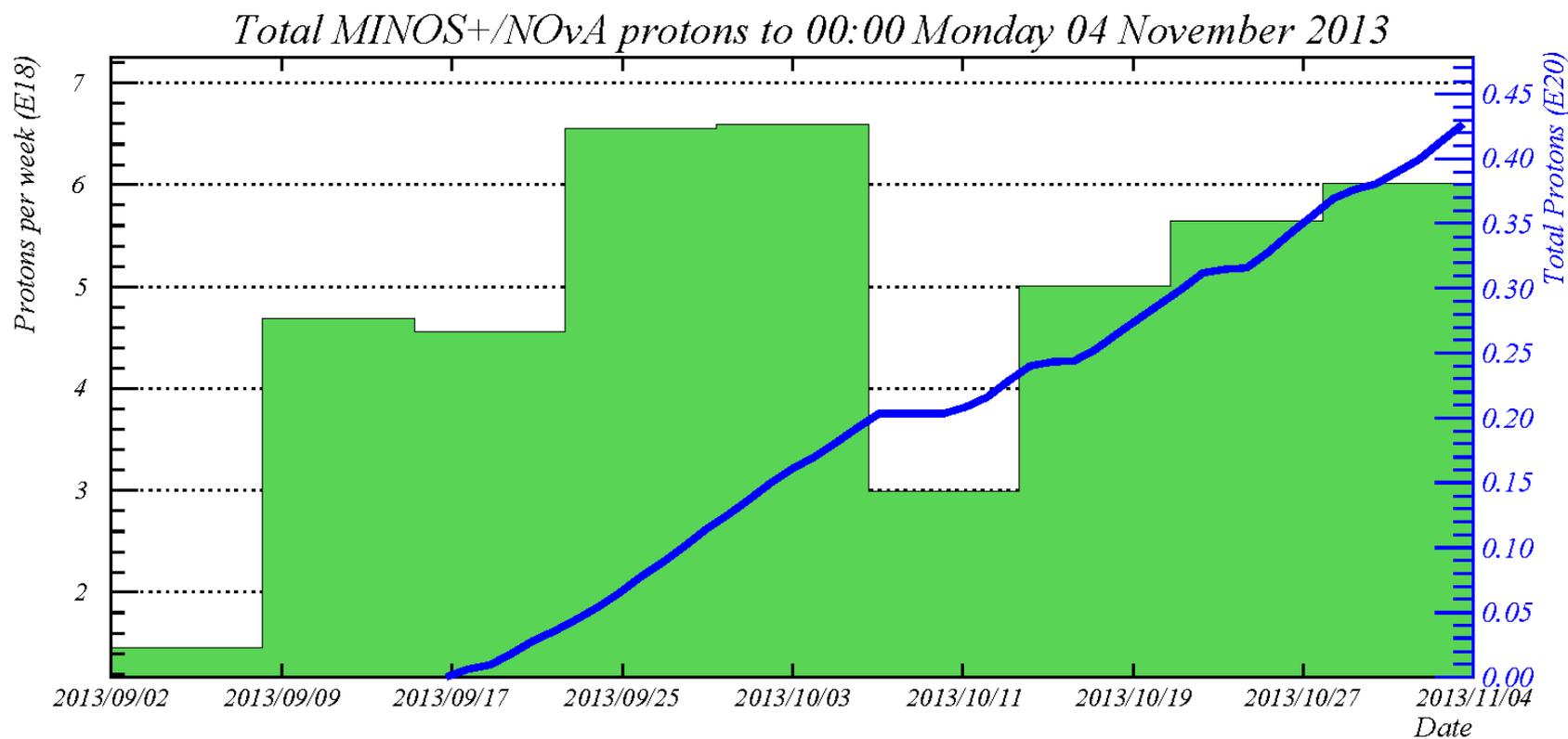


FY2012 Protons



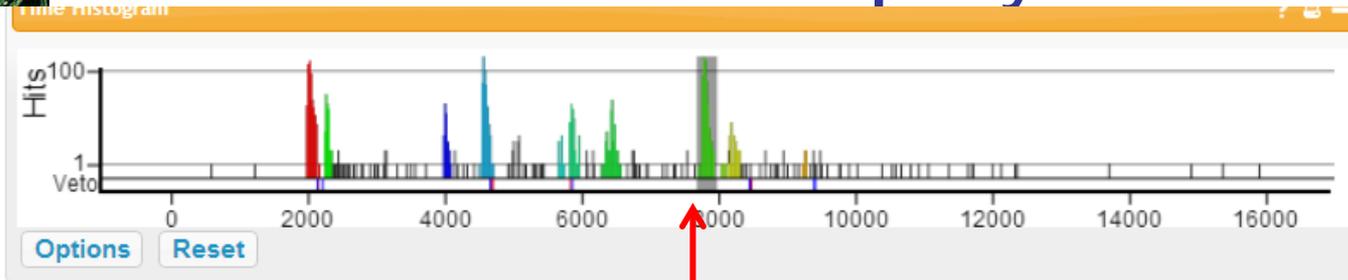
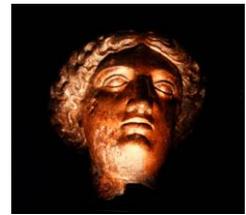


Protons for ME Run

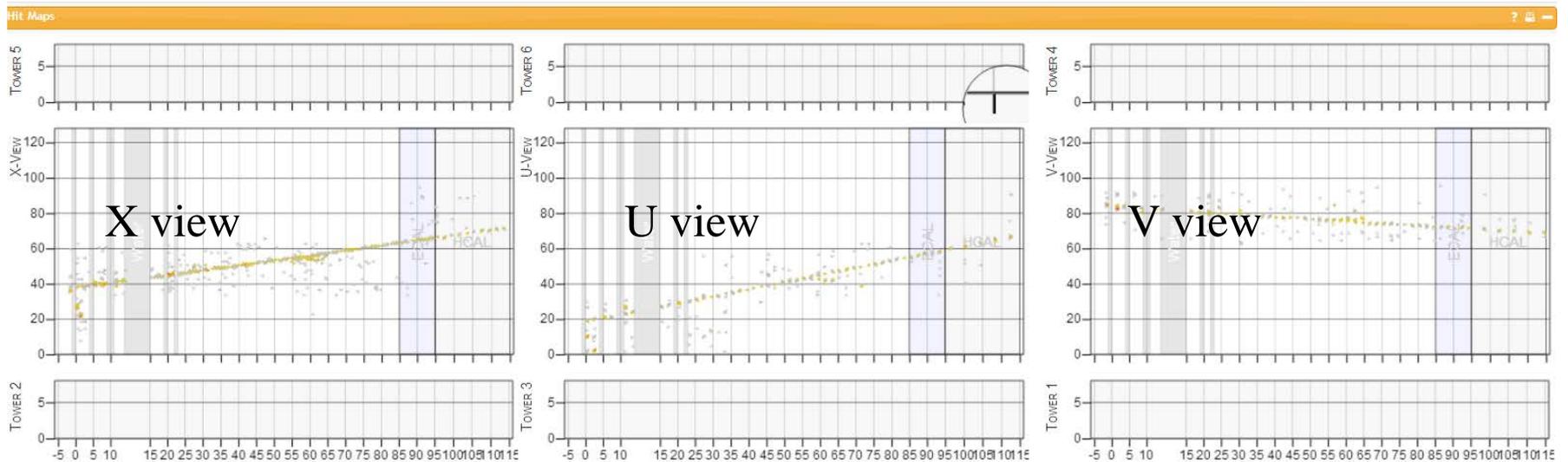




Event Display



Hit Times, Timing slice that is displayed



- Nuclear target quasi-elastic neutrino event