

# The MINERvA Operations Report

## All Experimenters Meeting

Howard Budd, University of Rochester  
Jan 23 2012





# NuMI Run Extension



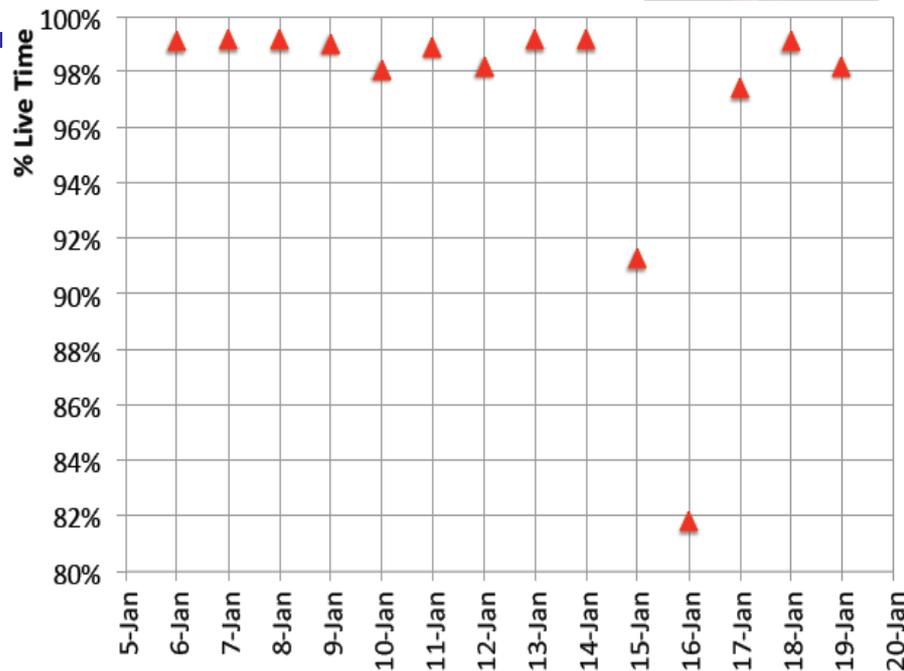
- We would like to thank the Lab for extending the NuMI run to April 30 2012



# $\nu$ Data



- $15.19 \times 10^{19}$  POT with NT-07
- $13.88 \times 10^{19}$  POT for  $\nu$ , Oct 6 – Jan 22, LE10 with NT-07
- $1.69 \times 10^{19}$  POT for  $\nu$ , Jan 9-22
  - $0.88 \times 10^{19}$  POT for  $\nu$ , Jan 9-15
  - $0.81 \times 10^{19}$  POT for  $\nu$ , Jan 16-22
- Total Live time Jan 6 - 19  
 $\text{MINOS} * \text{MINER}\nu\text{A} = 95.6\%$



**% live time Jan 6-19**

From	To	POT	MINOS Live time	MINER $\nu$ A Live time	Live time
6-Jan-2012	12-Jan-2012	8.73E+18	97.6%	98.9%	96.5%
13-Jan-2012	19-Jan-2012	8.02E+18	88.5%	94.6%	83.7%
<b>6-Jan-2012</b>	<b>19-Jan-2012</b>	<b>1.68E+19</b>	<b>93.2%</b>	<b>96.8%</b>	<b>95.6%</b>



# January Rain Storm



- Evening Jan 15, the drainage for the drip pan above the hadron calorimeter got clogged, causing water to fall onto the hadron calorimeter in the same region it did during the Easter Rain Storm. This region we have been having FEBs reset problems
- We would like to thank John Voirin and Aria Soha for coming in at 1 AM to fix the problem
- One FEB needed to be replaced
- One of the soaked FEBs later became unresponsive and had to be power cycled
- Agreement at Underground meeting
  - Check the drip pans once per month and be sure they are cleaned out
  - Putting sensors in the drip pans, but its not clear when this will happen
  - Installing larger diameter. elbow



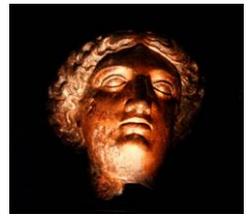
# Detector Repairs During Jan 18 Shutdown



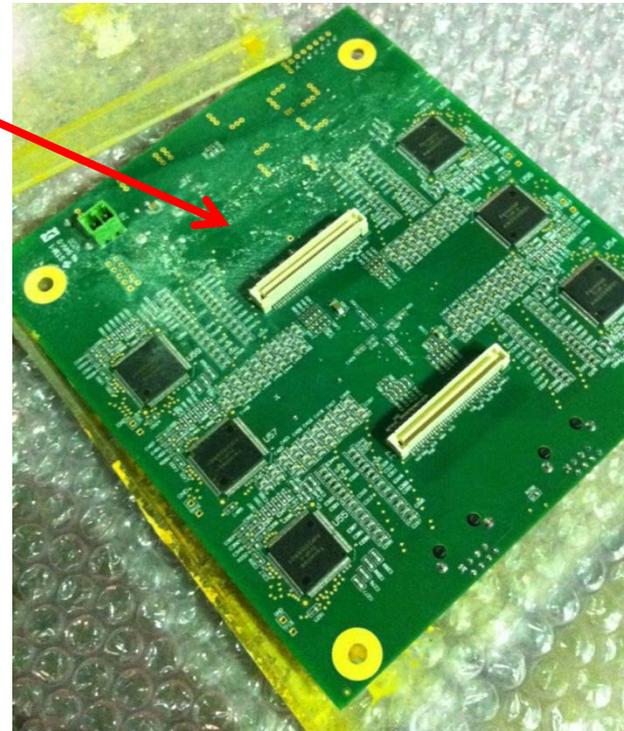
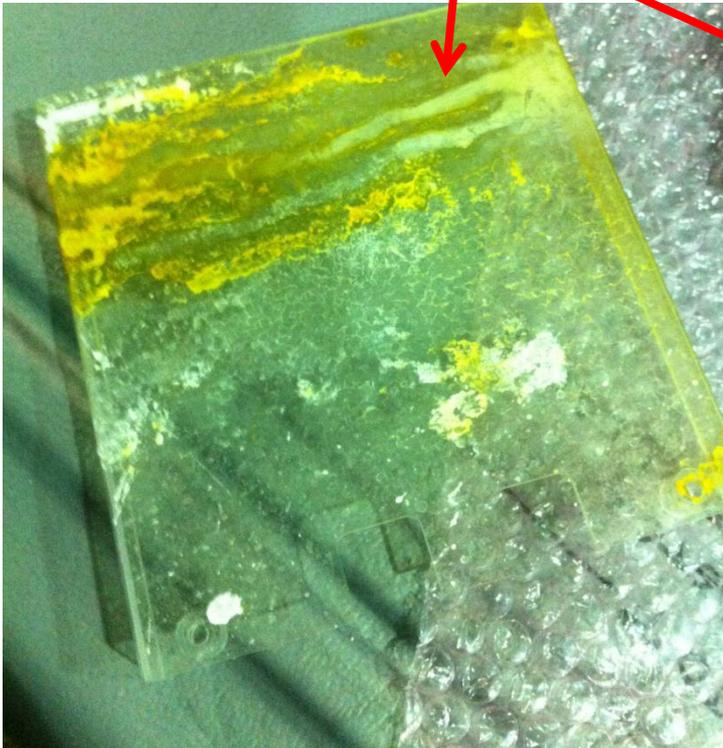
- We fixed 2 dead cables created by the installation of the water target, this brings back 15 channels
  - We replaced an optical cable which had all the fibers damaged although the outside of the cable looked fine.
  - One cable had a light leak in 1 channel so we made a special optical cable with that channel blocked off. Previously we put and a light tight plug in the PMT. We replaced the plug with this optical cable with one channel blocked out
- We cleaned the readout cables of one of the FEB after it reset itself as we had previously replaced the FEB at this location.
  - This is the region of the Easter Rain Shower



# 2 FEBs Replaced



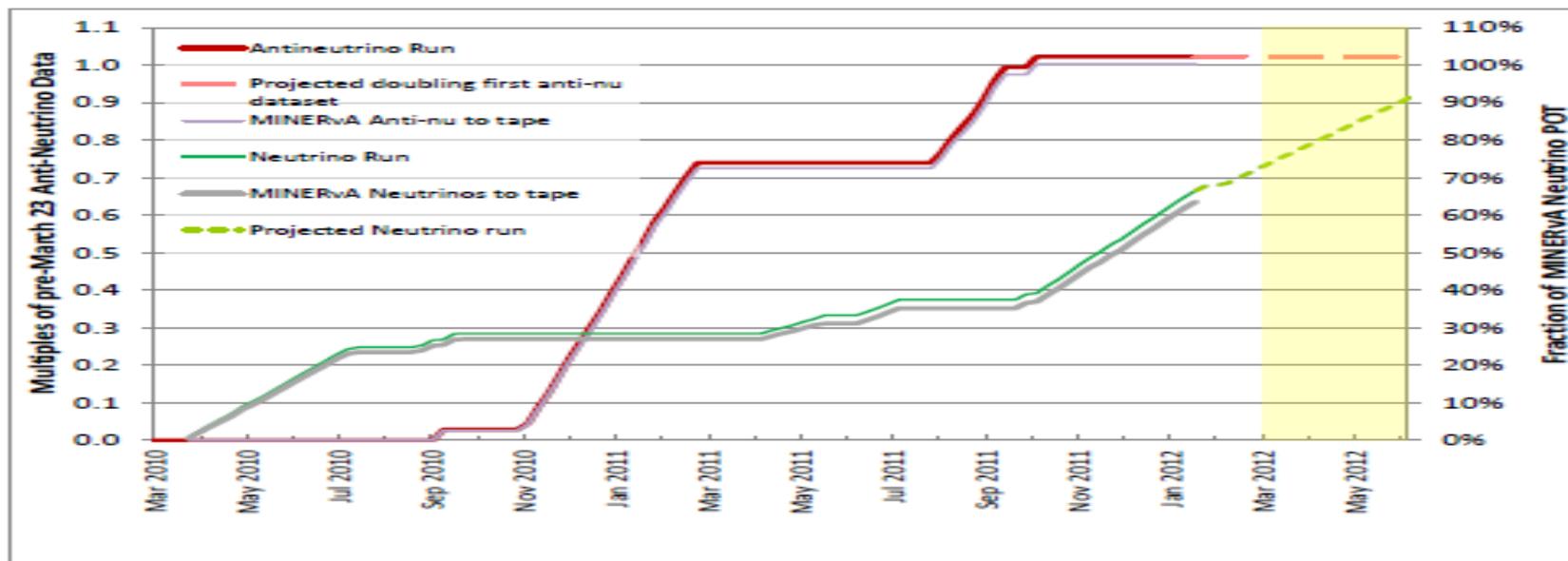
- We replaced 2 FEBs with the HV varying problem during the Weds shutdown
  - One had water damage the other looked OK







# Accumulated POT to Jan 19



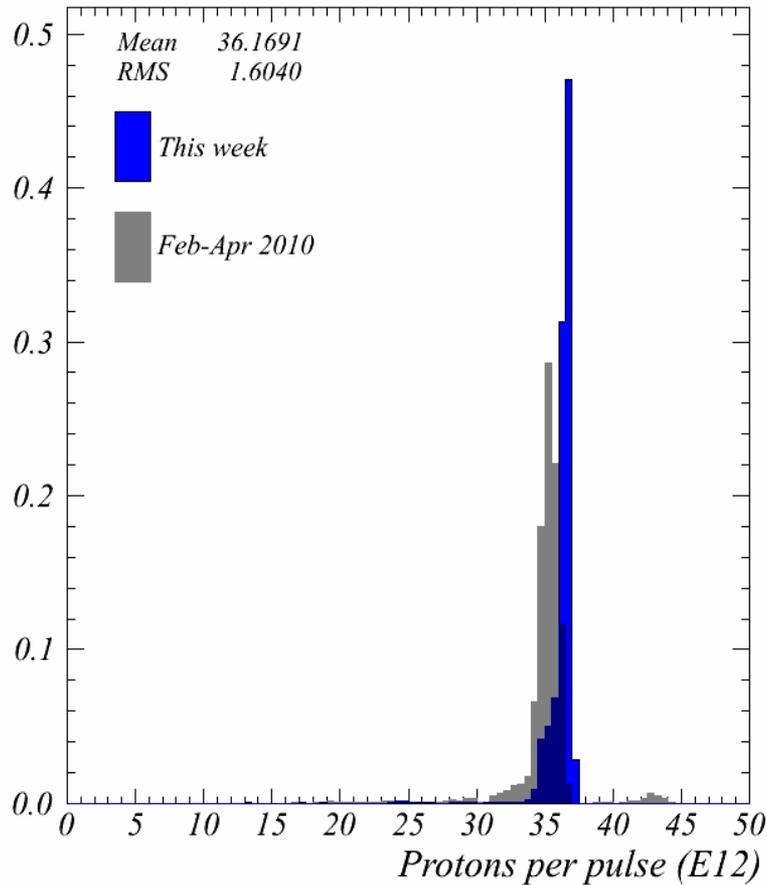
- Anti-ν run, full scale corresponds to  $1.76 \times 10^{20}$  POT
  - # POT for collected for anti-ν before Mar 23 10, official start of MINERvA ν run
- NT02 running gives enough anti-ν data for doubling of the 1<sup>st</sup> anti-ν data set.
- Minerva run, full scale corresponds to  $4.9 \times 10^{20}$  POT
  - # for which MINERvA project & experiment were reviewed & the detector built.
- Projected assumes  $0.92 \times 10^{18}$  POT/day
  - # POTs – average over the uptime during the past 1.5 years
  - Actual run plan not yet determined, this is one possible scenario



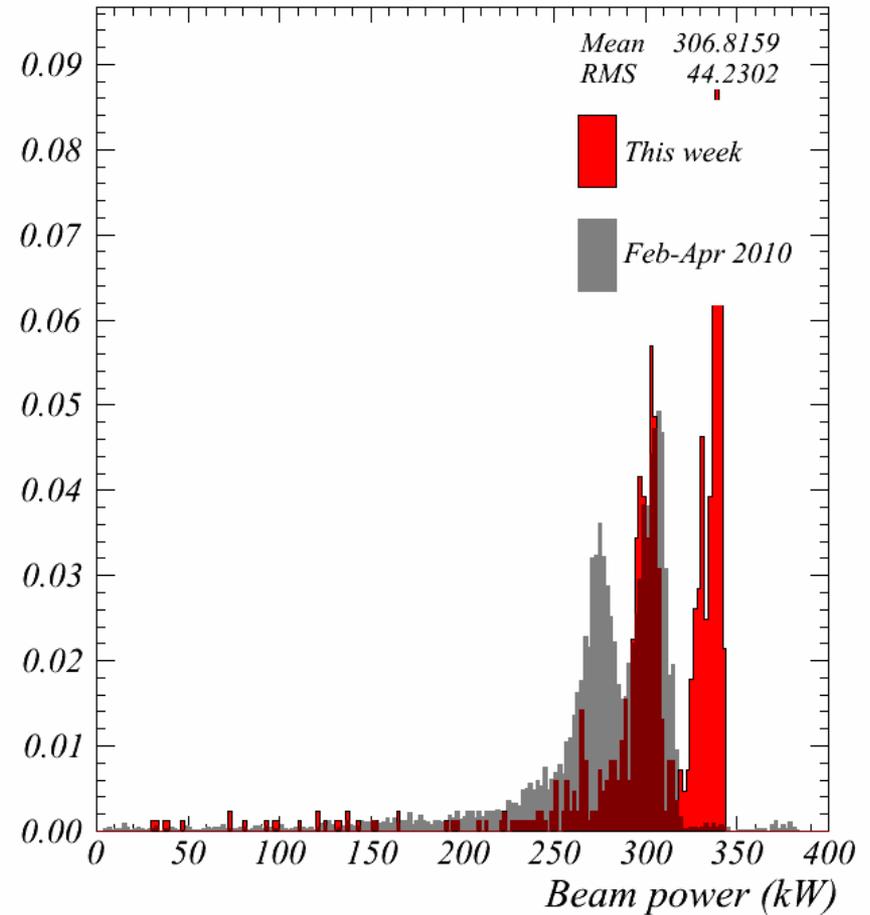
# NuMI Beam Plots



Week ending 00:00 Monday 09 January 2012

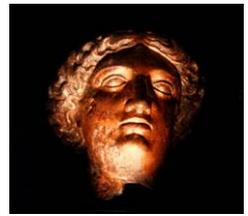


Week ending 00:00 Monday 23 January 2012

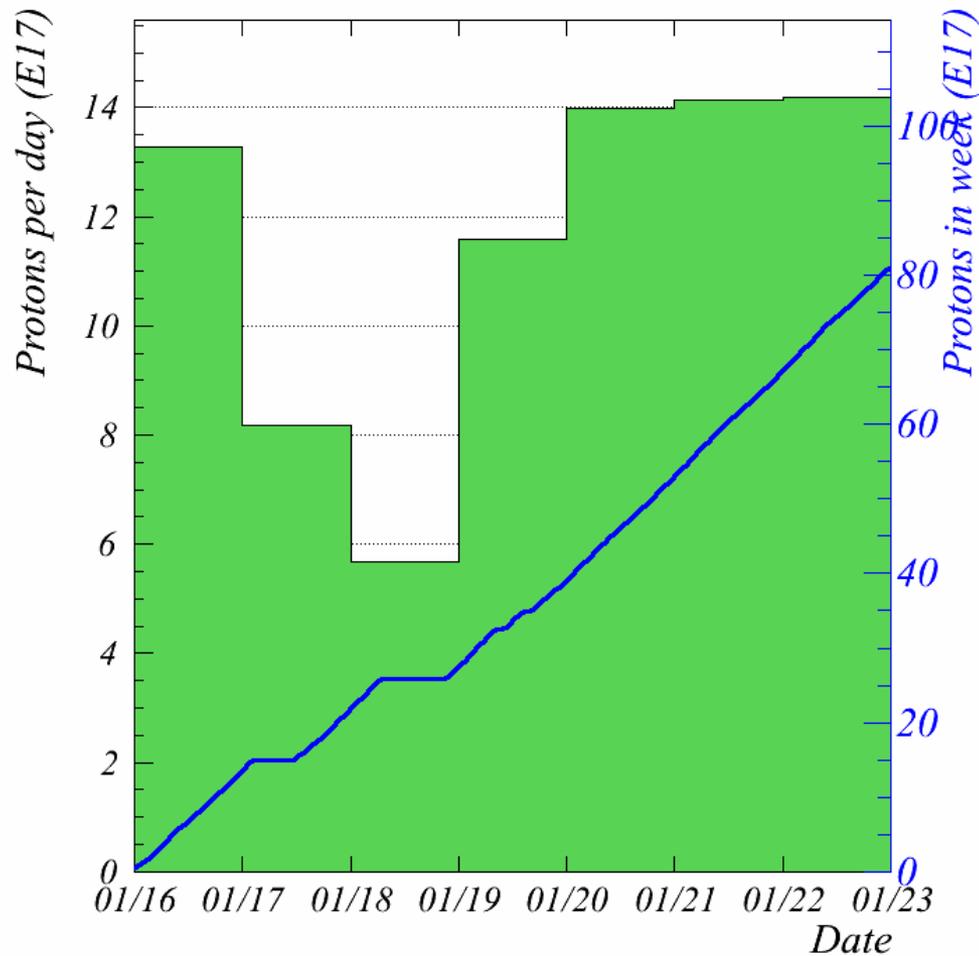




# Protons for the Week

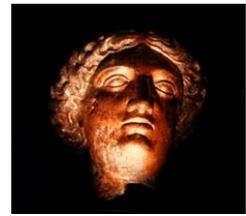


*Week to 00:00 Monday 23 January 2012*

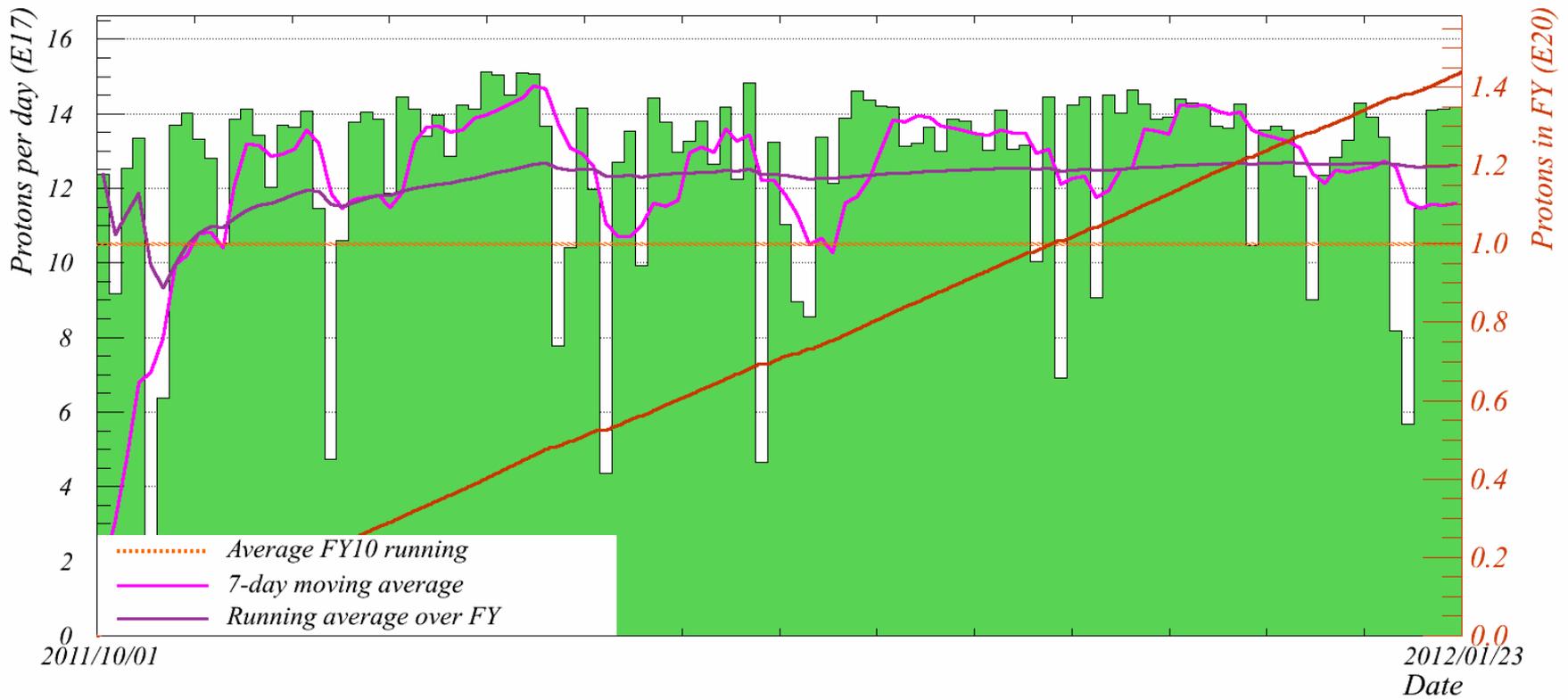




# FY2012 Protons

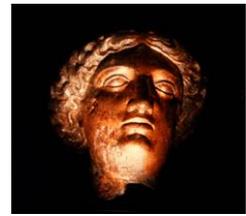


*FY12 NuMI protons to 00:00 Monday 23 January 2012*





# NuMI Protons over History



*Total NuMI protons to 00:00 Monday 23 January 2012*

