Fermilab AEM: MiniBooNE

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Fermilab

1/24/05

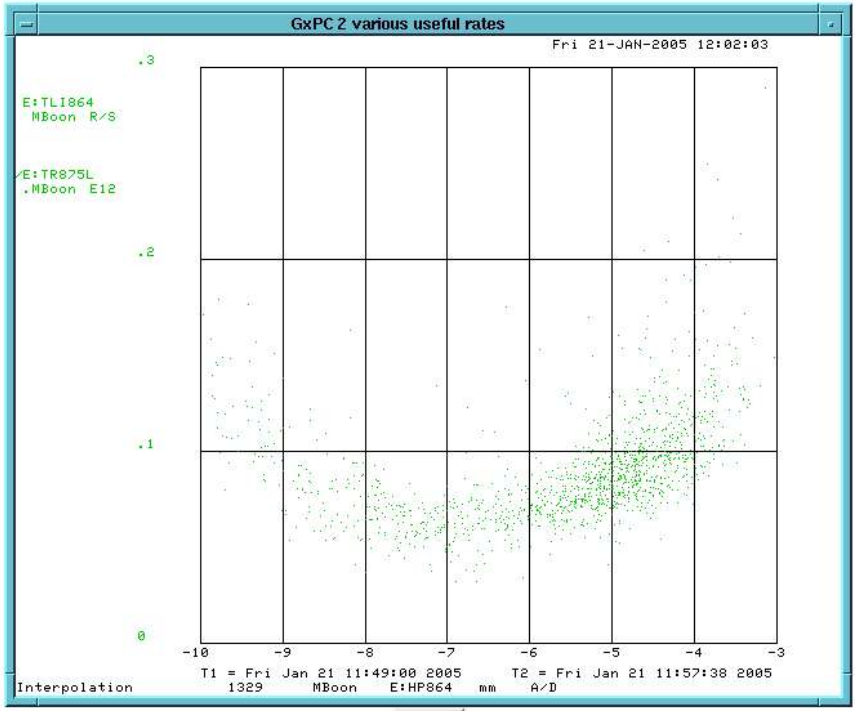
Activities in the past 2 weeks

- Focus on finalizing pre/post shutdown comparisons. Checks of
  - low level quantities (electronics response)
  - calibration
  - dark noise
  - energy response (Michel sample)
  - event characteristics for various samples
    - number of hits, timing

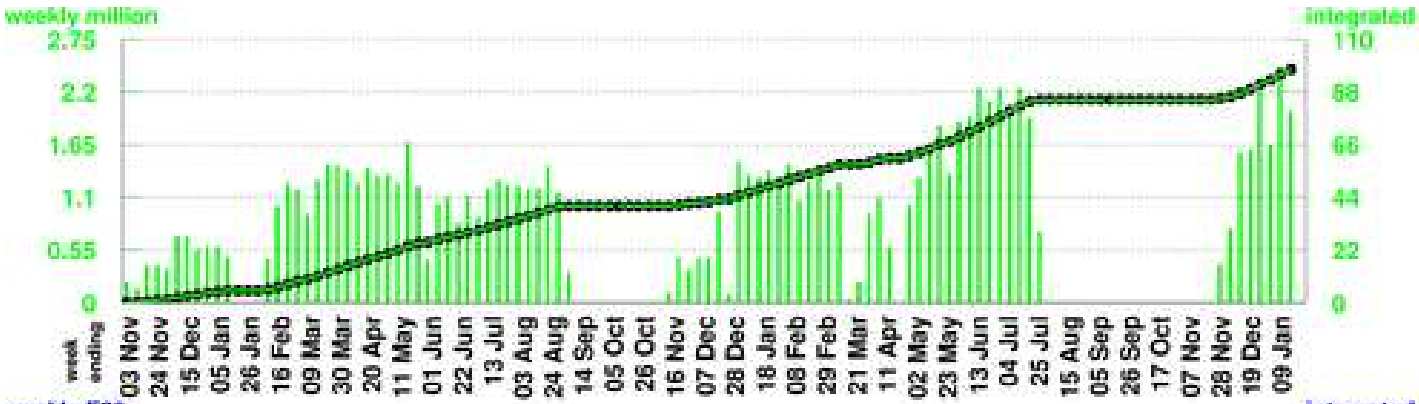
are completed.

Other activities in progress

- toroid calibration (absolute, relative, stability)
- neutrinos/protons (requires above)
- target temperature vs POT intensity
- Beamline studies
  - target scans
  - Profile comparisons



Progress Update



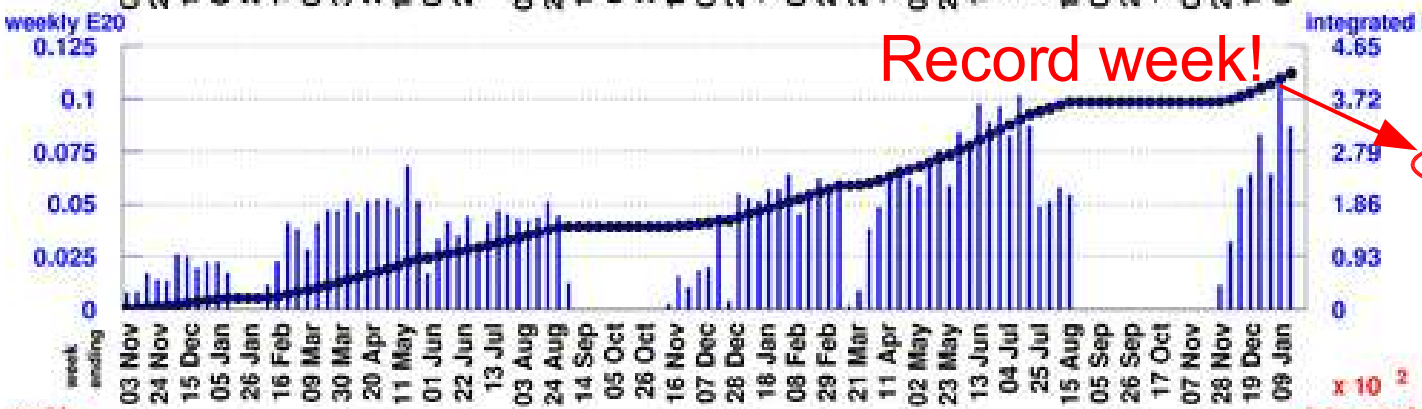
Number of Horn Pulses

To date: 97.47 million

Largest week: 2.46 million

Latest week: 1.99 million

(both horns)



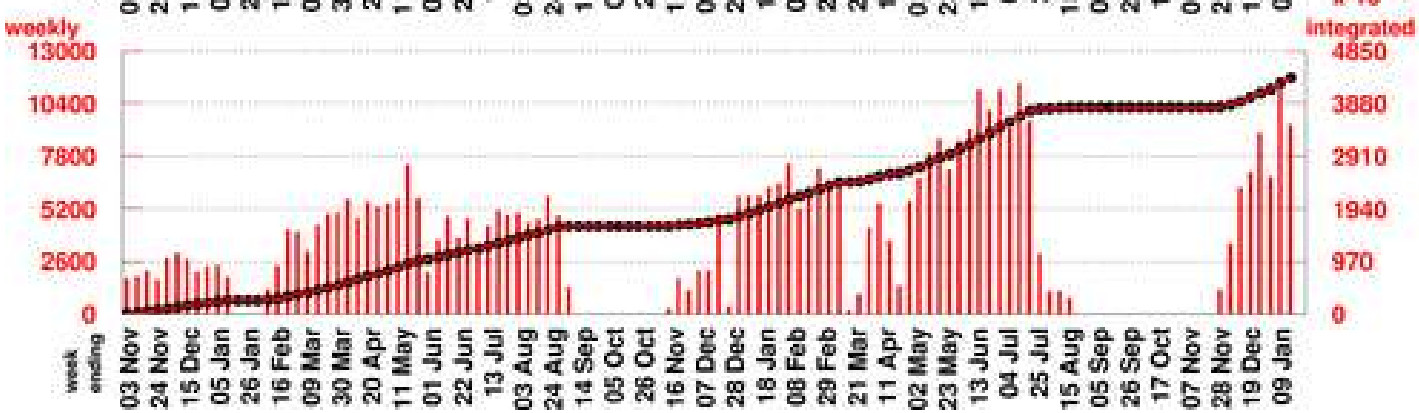
Record week!

Number of Protons on Target

To date: 4.1684 E20

Largest week: 0.1085 E20

Latest week: 0.0866 E20



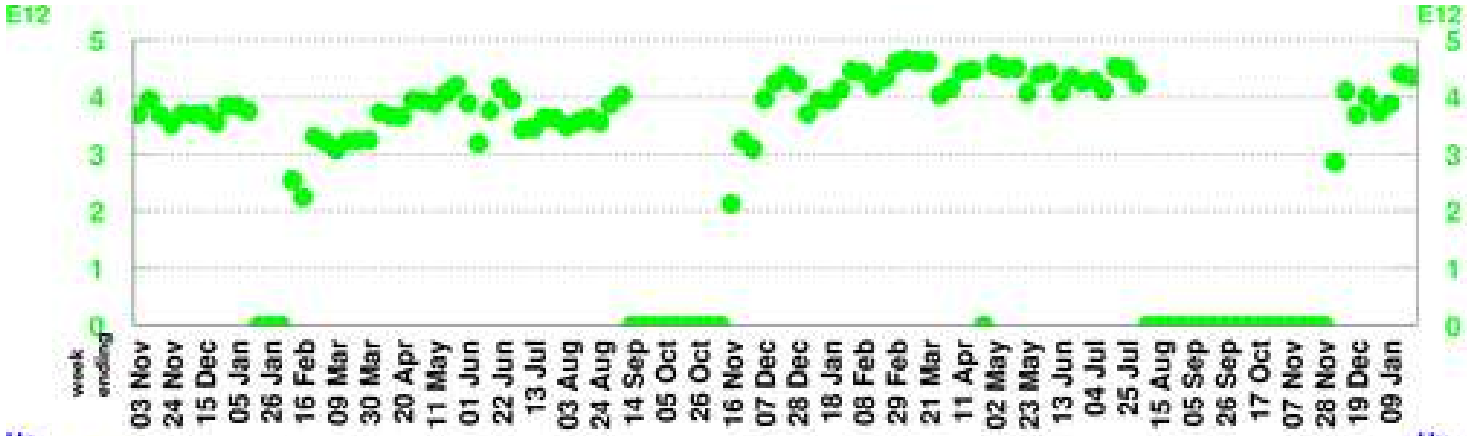
Number of Neutrino Events

To date: 435187

Largest week: 11447

Latest week: 9328

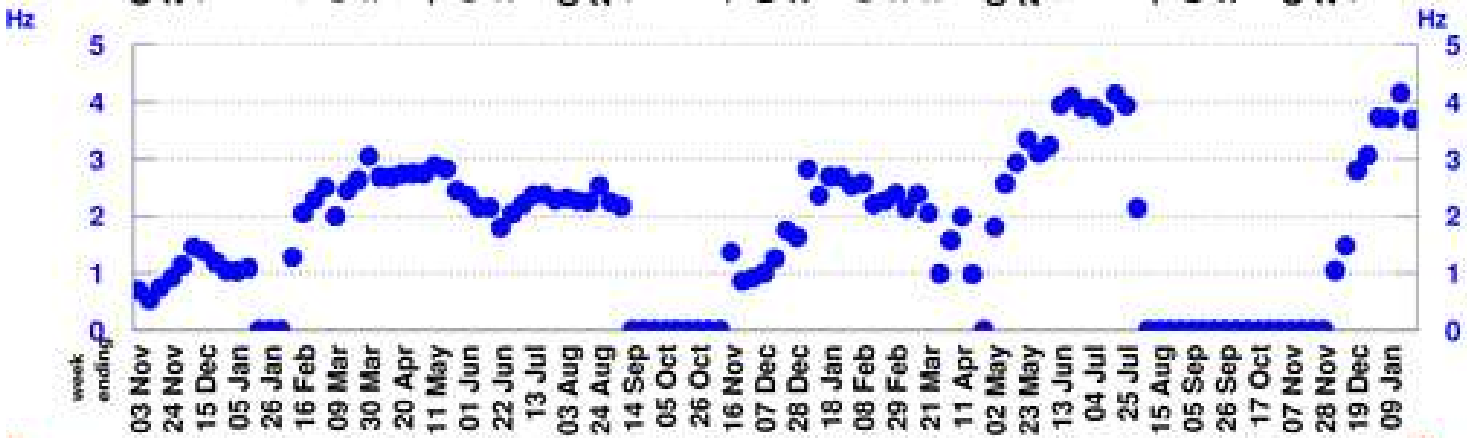
Proton Delivery



POT per Horn Pulse

Largest week: 4.66 E12

Latest week: 4.35 E12

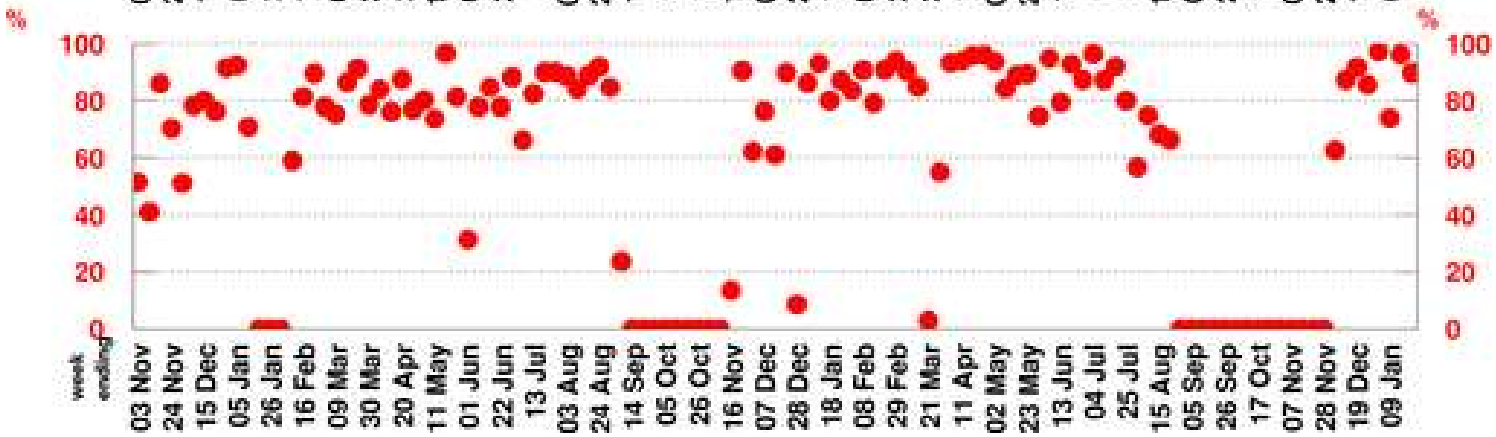


Horn Rate

(for time periods with beam)

Largest week: 4.16 Hz

Latest week: 3.69 Hz



Beam Uptime Fraction

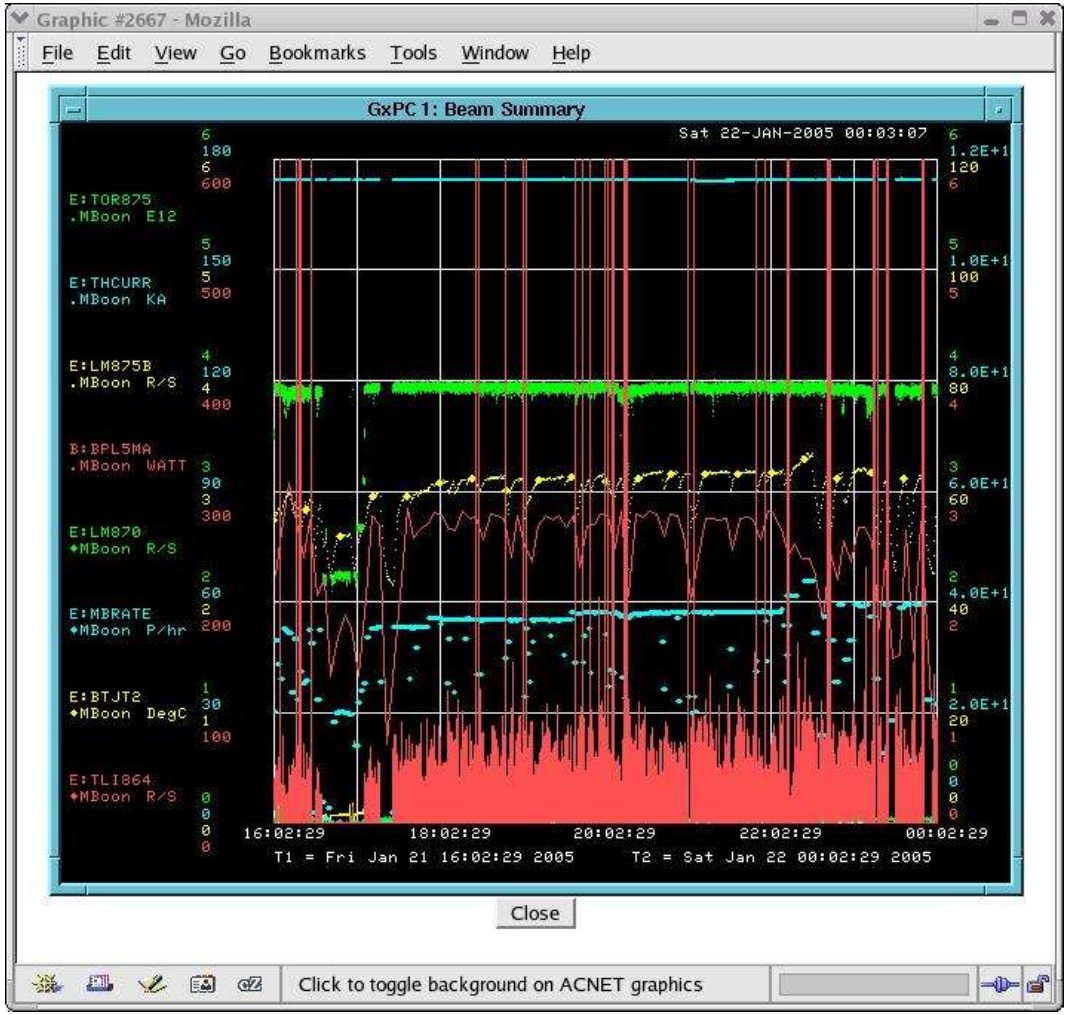
(fraction of time with beam)

Largest week: 97.3 %

Latest week: 89.8 %

Other beam related issues

- Beamline trips in non-M'Boone events
  - Trip does not eliminate loss
- EB and MI depts investigate possible adjustment of loss monitor trip limit on MI side.



Summary

- Good progress on pre/post shutdown checks
  - Finalize a lot of studies
- Record 1st of 2 weeks in protons delivered
  - We now have a total of 4.17E20
- 2nd of 2 weeks not as good, but still 0.0866E20 protons delivered
- And BTW, congratulations to the “other” neutrino experiment for their first events!