MiniBooNE Report

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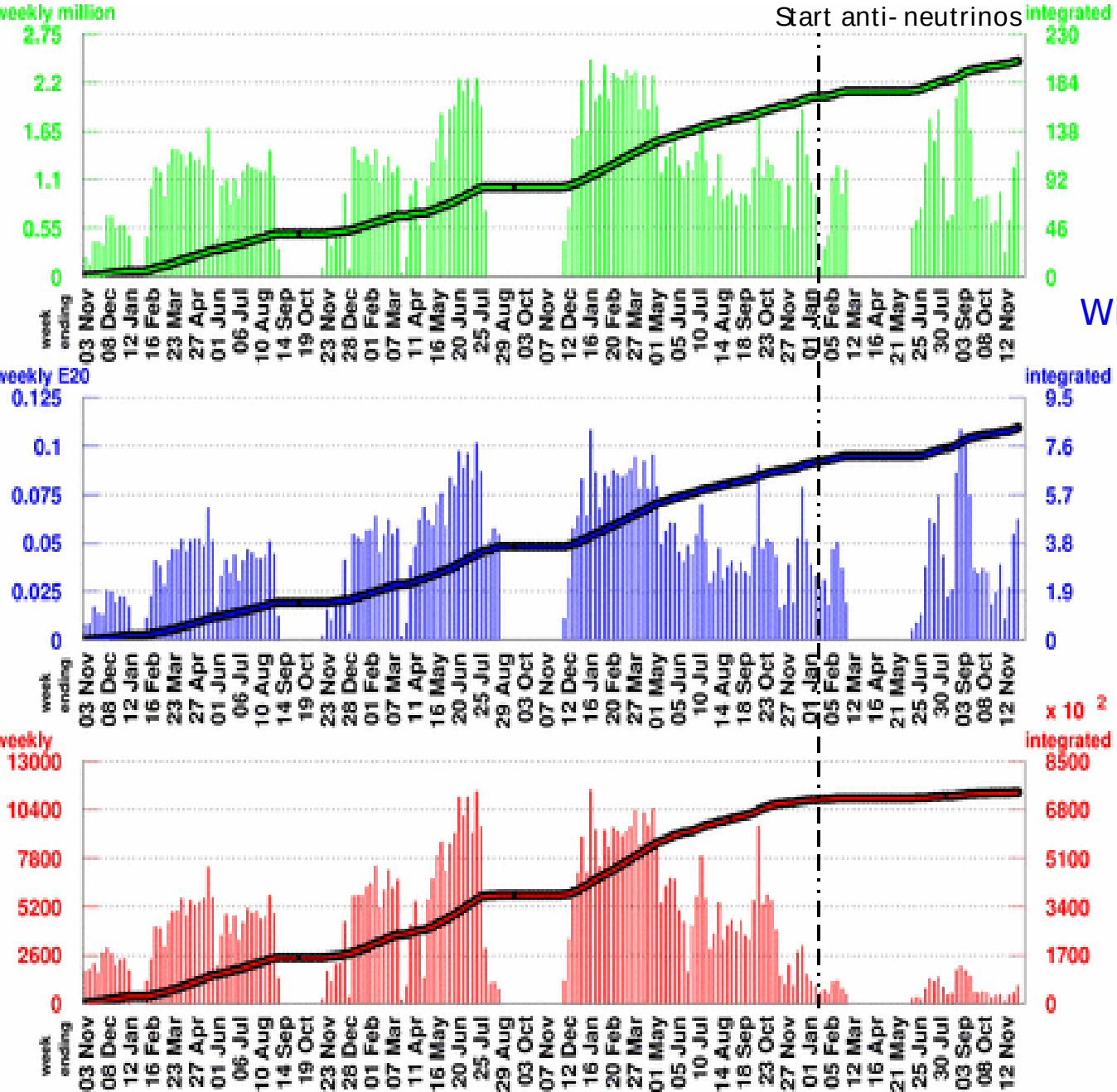
Week Summary 20 Nov – 27 Nov 0.62E19 POT, 95% Uptime

- Excellent uptime.
- Booster $1D batch intensity continues to increase.
- Record week with NuMI running!!
- Outstanding week for the Booster/Linac, congrats to Proton source group and Ops!
- Major Downtime:
  - 2 hrs, Linac tripping (Nov 21).
  - 1 hrs, Detector PMT HV supply swap (Nov 22).
  - 1 hrs, LRF3 trip (Nov 25).

20 Nov – 27 Nov



Number of Horn Pulses

To date: 204.45 million

Largest week: 2.46 million

Latest week: 1.42 million

With Beam Information Cuts

Number of Protons on Target

To date: 8.309 E20

Largest week: 0.1085 E20

Latest week: 0.0623 E20

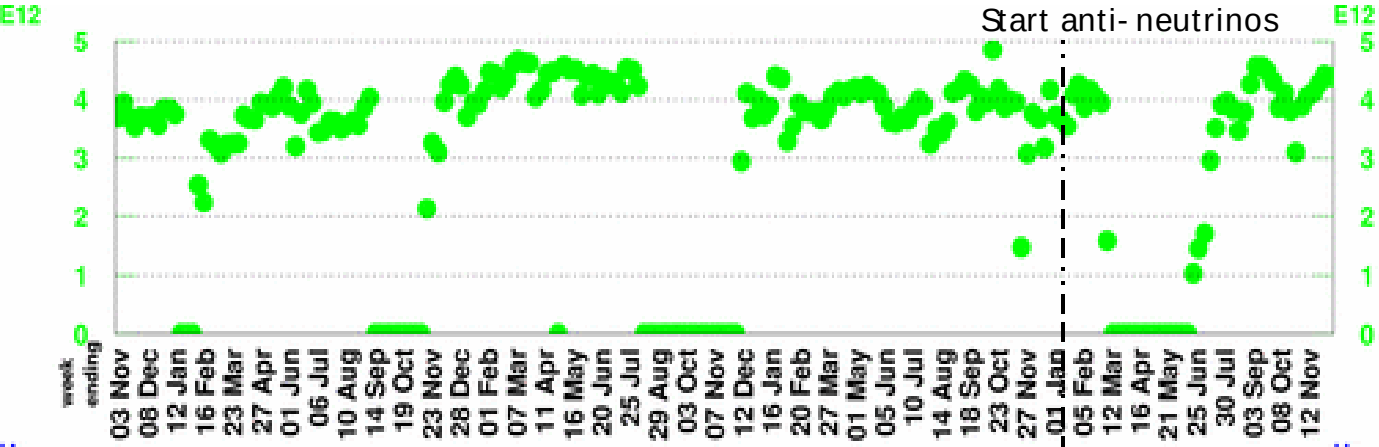
Number of Neutrino Events

To date:741135

Largest week: 11447

Latest week: 980

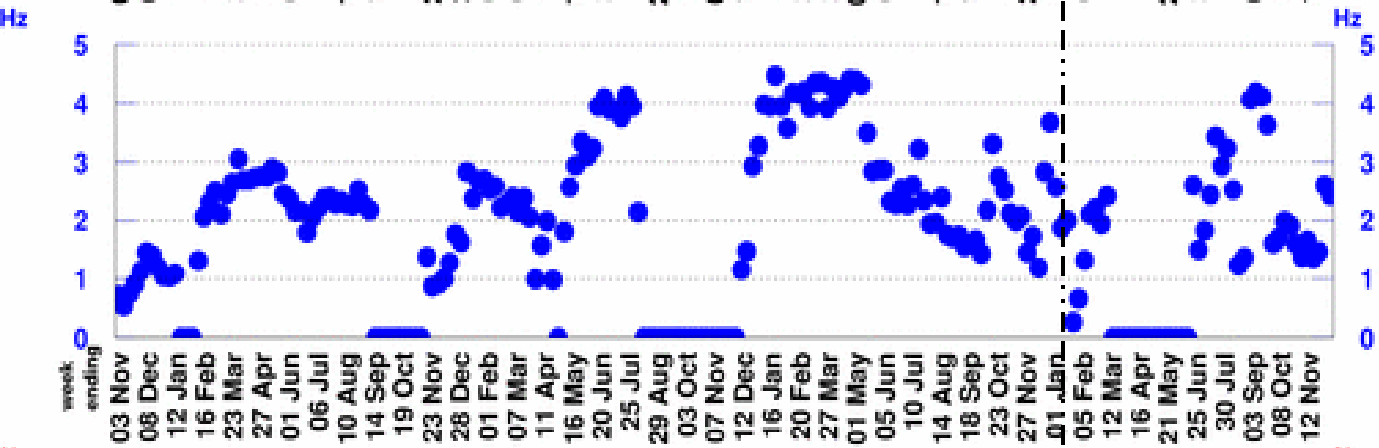
20 Nov – 27 Nov



POT per Horn Pulse

Largest week: 4.85 E12

Latest week: 4.38 E12

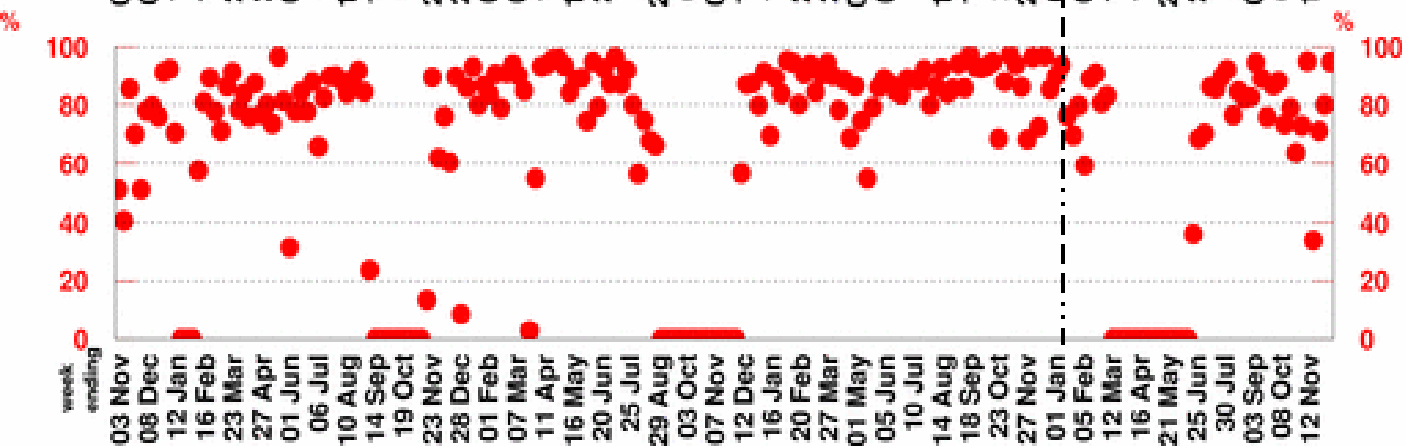


Horn Rate

(for time periods with beam)

Largest week: 4.48 Hz

Latest week: 2.43 Hz



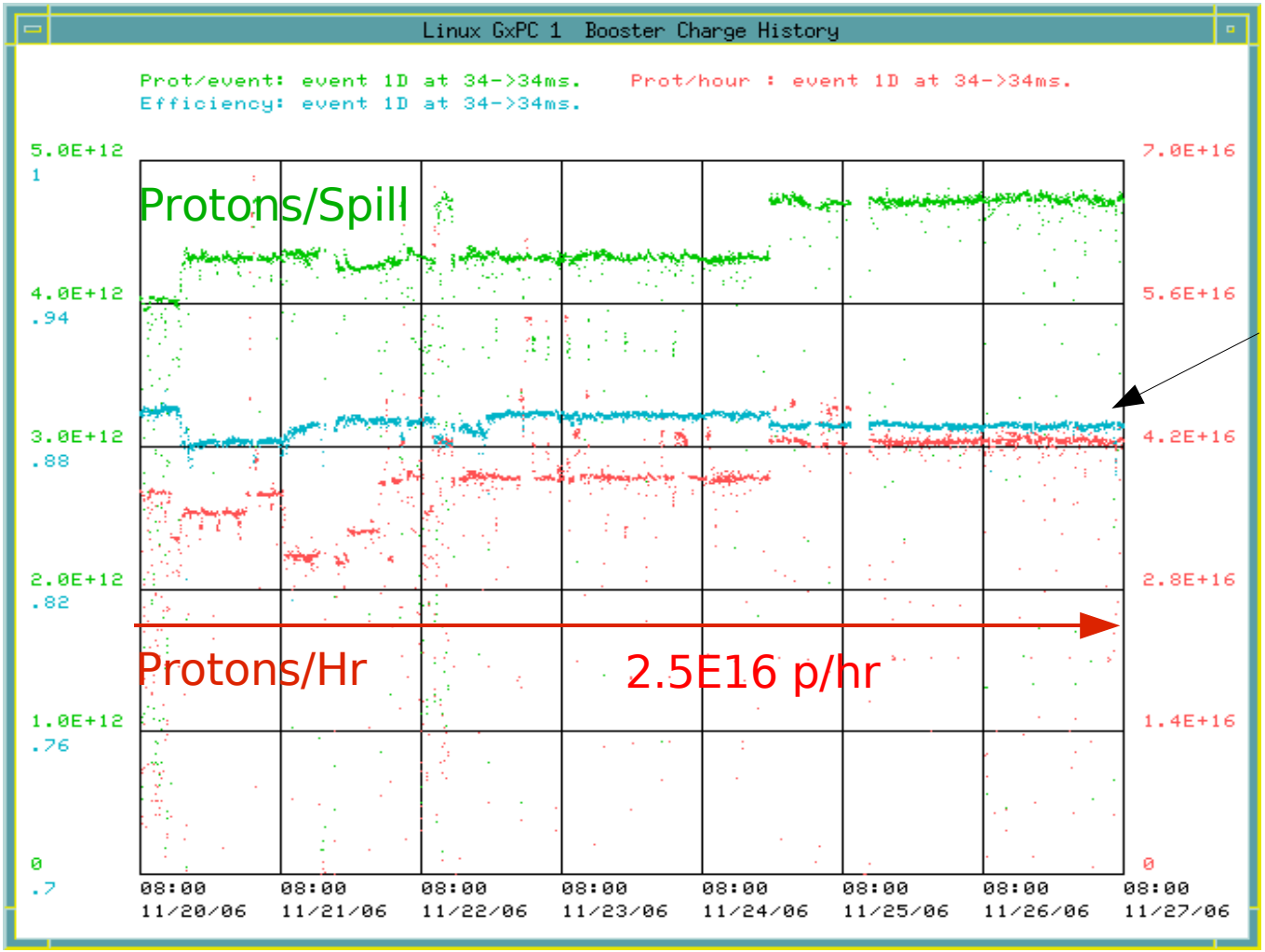
Beam Uptime Fraction

(fraction of time with beam)

Largest week: 97.4 %

Latest week: 94.8 %

One Week MB Proton/Hr Summary



Good Eff. ~89%

20 Nov

27 Nov

Running at 10-11 turns, high efficiency.

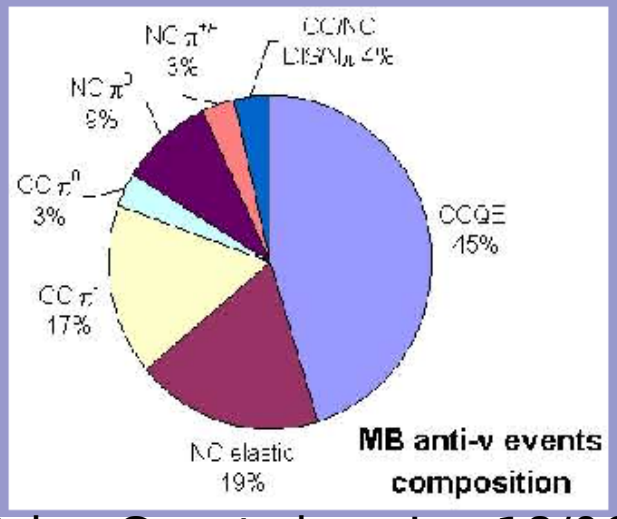
Antineutrino Scattering with MiniBooNE

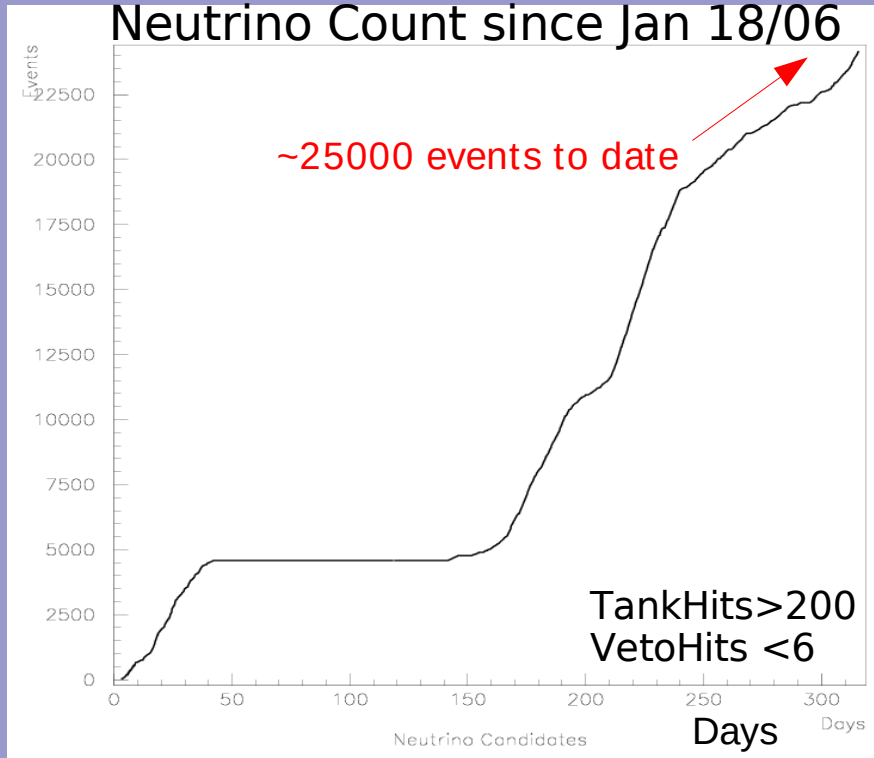
$\bar{\nu}$ events expected in next year:

- from 2E20 "protons-on-target" (POT)
- with fiducial radius of 500cm
- before cuts
- ν event (wrong-sign) contribution not included

$\bar{\nu}$ channel	events
all channels	54k
CC quasielastic	24k
NC elastic	10k
CC π^-	8.9k
CC π^0	1.7k
NC π^0	4.9k
NC $\pi^{+/-}$	1.8k

"CC" = charged current
"NC" = neutral current





1.3E20 POT collected so far....

2.5E16 Pr/Hr => 1.5E20 POT/yr

This Week's Plan

- Maintain high uptime to take advantage of good Booster output.
- Continue taking quality anti-neutrino physics data!