

MiniBooNE Report

Richard Van de Water
Los Alamos National Laboratory
for the MiniBooNE collaboration

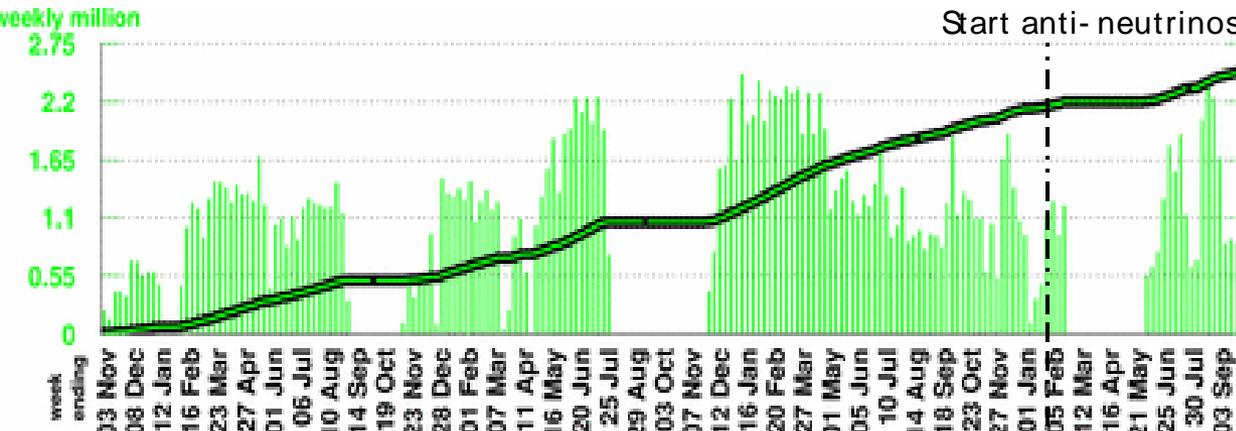
02 October 2006

Week Summary 25 Sept – 02 Oct

0.35E19 POT, 70% Uptime

- See higher proton rates from continued efforts on Linac/Booster tuning.
- Low uptime, lots of accelerator work.
- Major Downtime:
 - 9 hrs, Booster RF repairs (Sept 26).
 - 6 hrs, F-sector access (Sept 27).
 - 18 hrs, F-sector access (Sept 28)
 - 1 hr, Detector down, laser repairs (Sept 29)
 - 4 hrs, M1 sextupole magnet (Sept 30).

25 Sept – 02 Oct



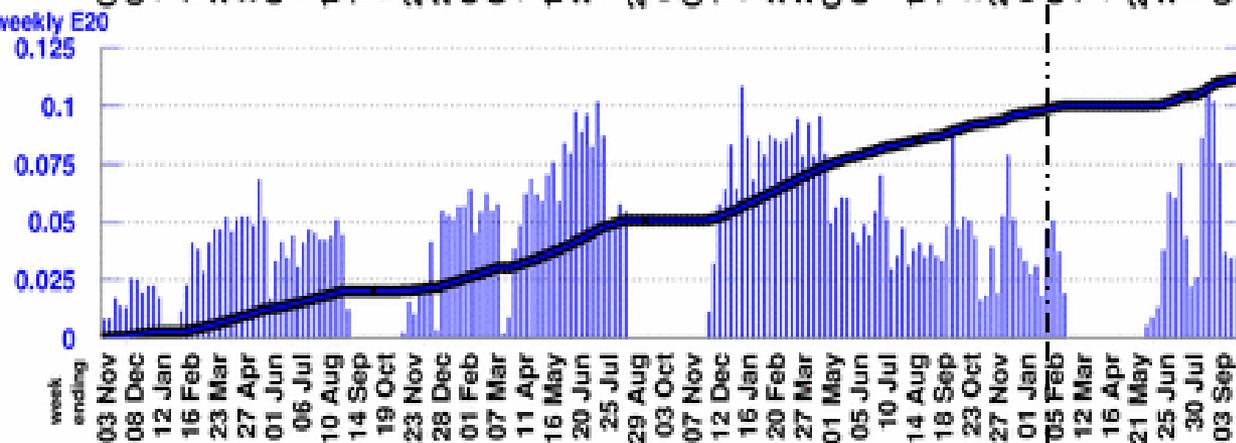
Number of Horn Pulses

To date: 197.73 million

Largest week: 2.46 million

Latest week: 0.85 million

With Beam Information Cuts

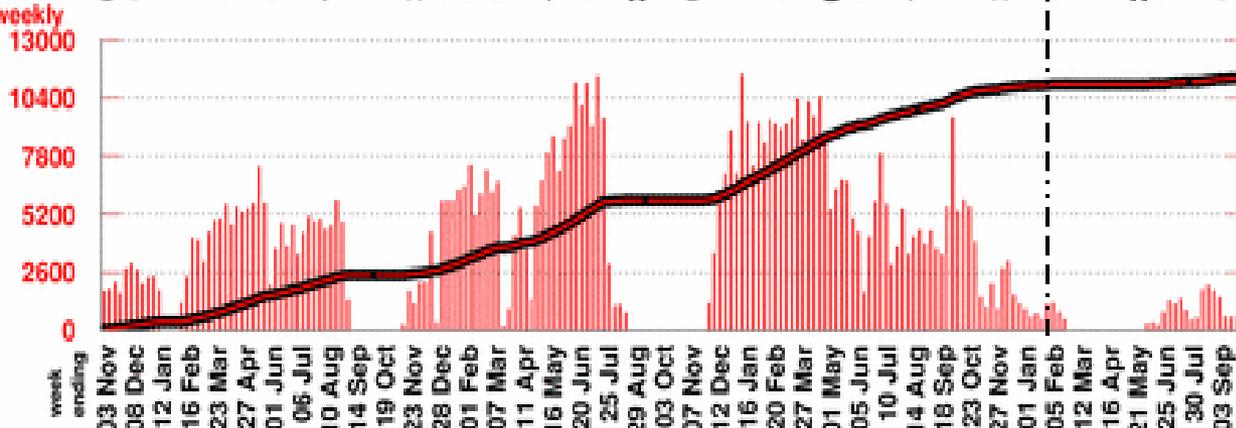


Number of Protons on Target

To date: 8.0346 E20

Largest week: 0.1085 E20

Latest week: 0.035 E20



Number of Neutrino Events

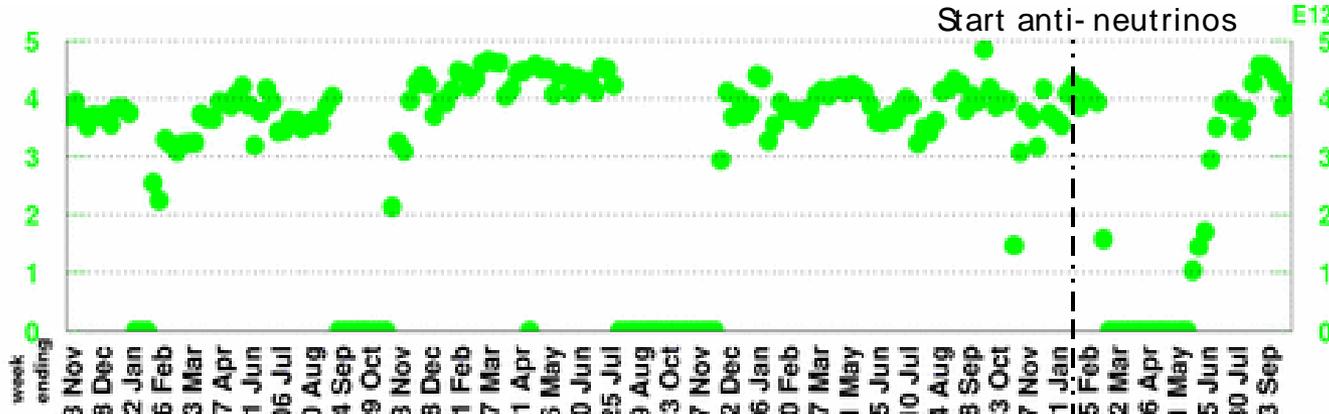
To date: 737135

Largest week: 11447

Latest week: 628

25 Sept - 02 Oct

E12

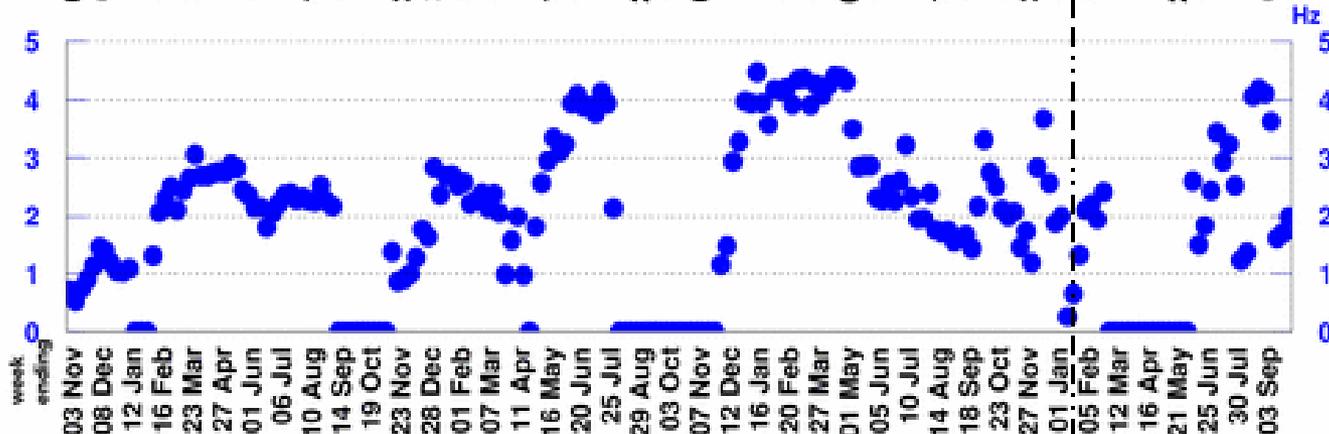


POT per Horn Pulse

Largest week: 4.85 E12

Latest week: 4.1 E12

Hz



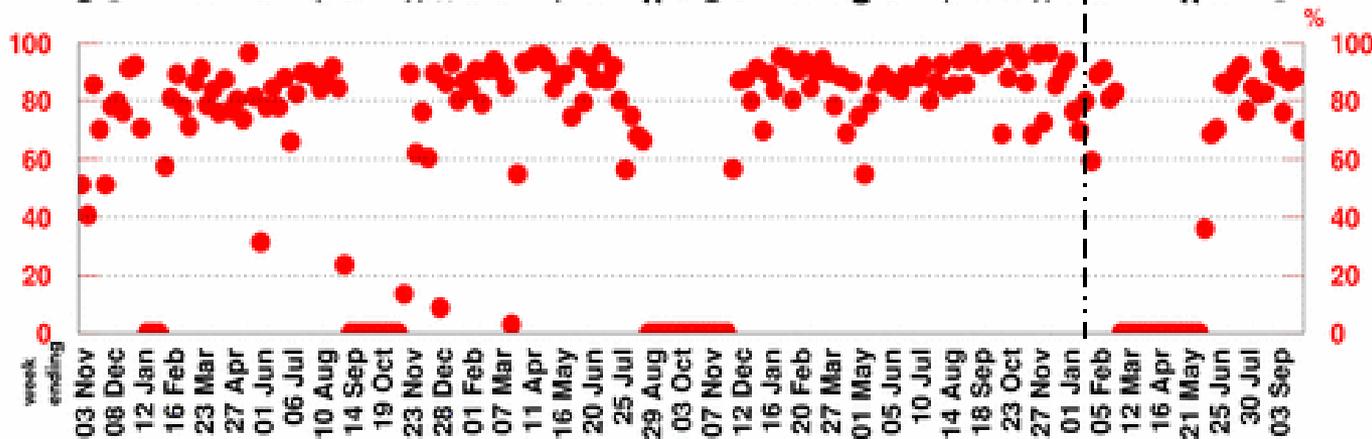
Horn Rate

(for time periods with beam)

Largest week: 4.48 Hz

Latest week: 1.99 Hz

%



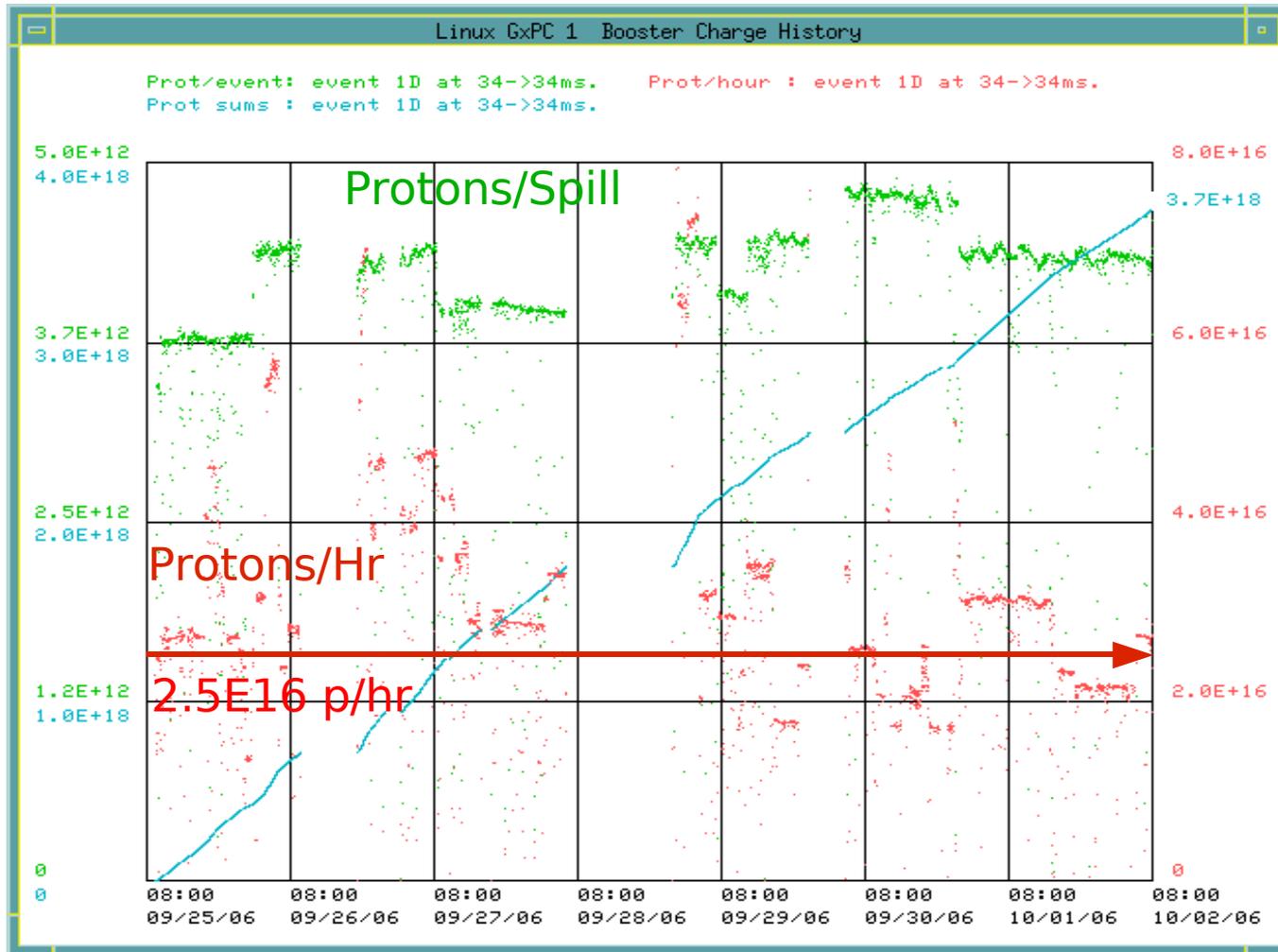
Beam Uptime Fraction

(fraction of time with beam)

Largest week: 97.4 %

Latest week: 70 %

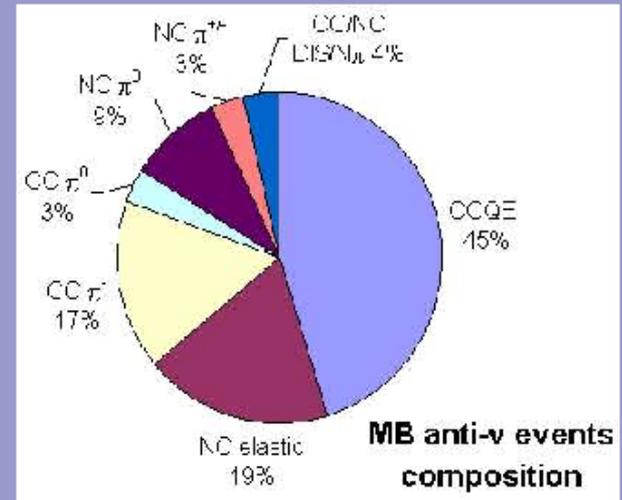
One Week MB Proton/Hr Summary



Steady running at 10-11 turns.

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



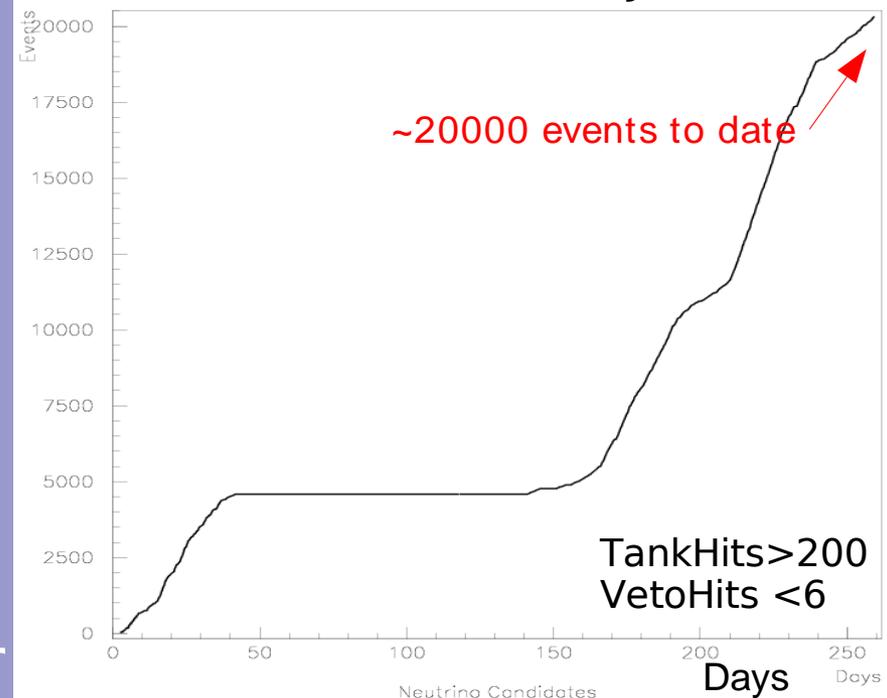
$\bar{\nu}$ channel	events
all channels	54k
CC quasielastic	24k
NC elastic	10k
CC π^-	8.9k
CC π^0	1.7k
NC π^0	4.9k
NC $\pi^{+/-}$	1.8k

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

1.06E20 POT collected so far....

$2.5E16$ Pr/Hr \Rightarrow $1.5E20$ POT/yr

Neutrino Count since Jan 18/06



This Weeks Plan

- Encourage continued Linac/Booster tuning, as we see the improvements, and appreciate it.
- Continue taking quality anti-neutrino physics data!