

MiniBooNE Report

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for the MiniBooNE collaboration

04 June 2007

Week Summary 21 May – 28 May

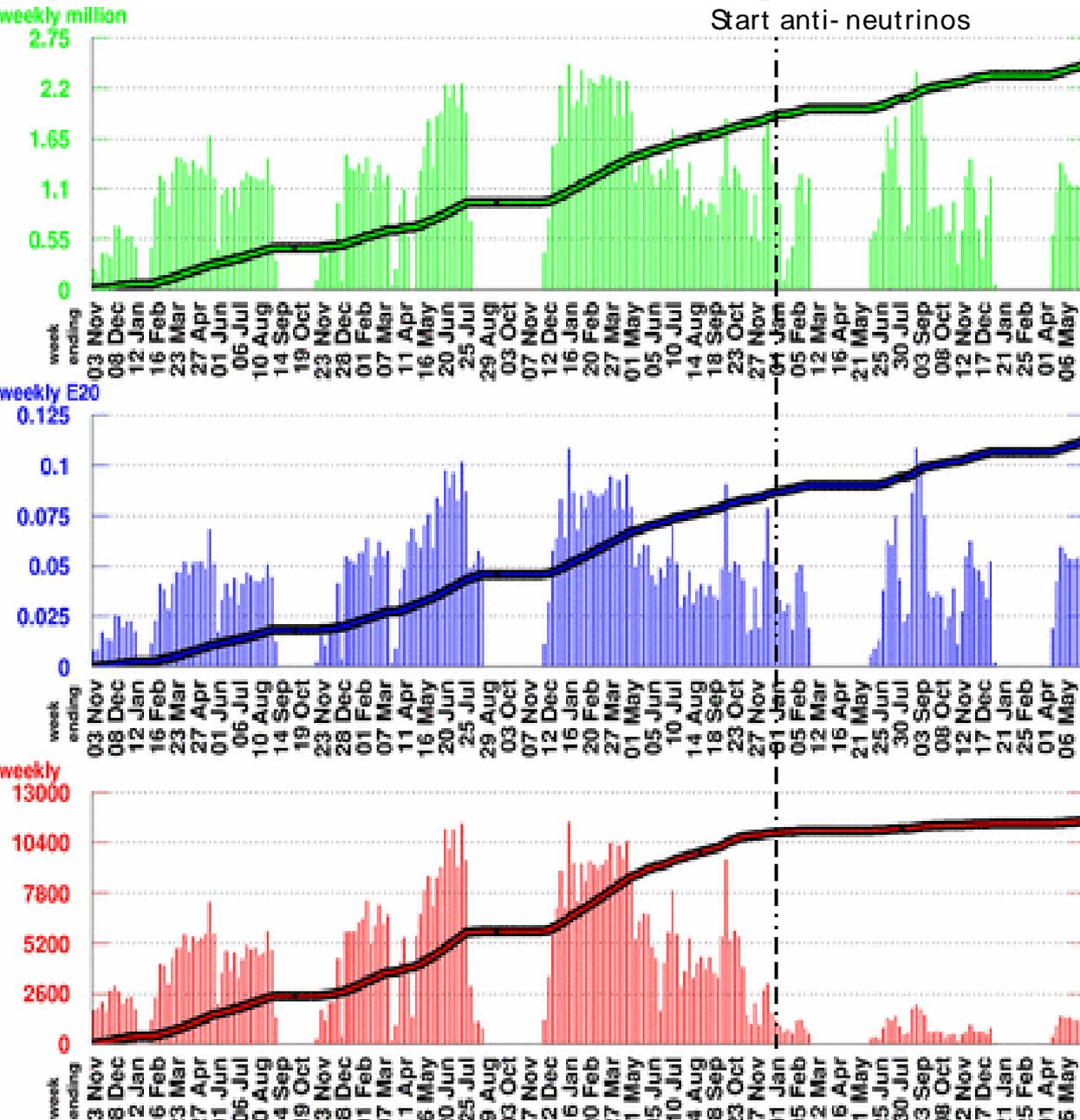
5.4E18 POT, 86% Uptime

Week Summary 28 May – 04 June

5.6E18 POT, 91% Uptime

- Booster continues to deliver stable beam to MiniBooNE at $\sim 4E16$ protons/hr.
- Record averaged $4.9E12$ proton per pulse!
- Major downtime over past two weeks:
 - 8 hrs, Linac RF repairs (May 25).
 - 2 hrs, H- source repairs (May 26).
 - 2 hrs, Detector DAQ problems (May 31).
 - 4 hrs, ACNET problems due to FCC shutdown (May 31).
 - 2 hrs, LRF3 repairs (June 1).

21 May - 04 June



Start anti-neutrinos

integrated million

Number of Horn Pulses

To date: 217.47 million

Largest week: 2.46 million

Latest week: 1.13 million

With Beam Information Cuts

integrated E20

Number of Protons on Target

To date: 8.9293 E20

Largest week: 0.1085 E20

Latest week: 0.0554 E20

$\times 10^2$

integrated

Number of Neutrino Events

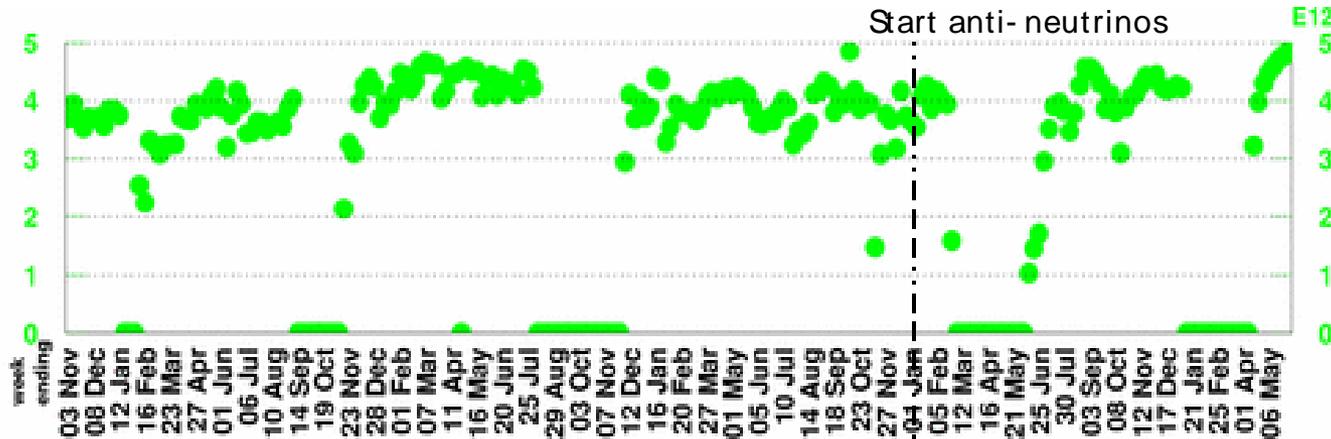
To date: 753412

Largest week: 11447

Latest week: 1306

21 May - 04 June

E12



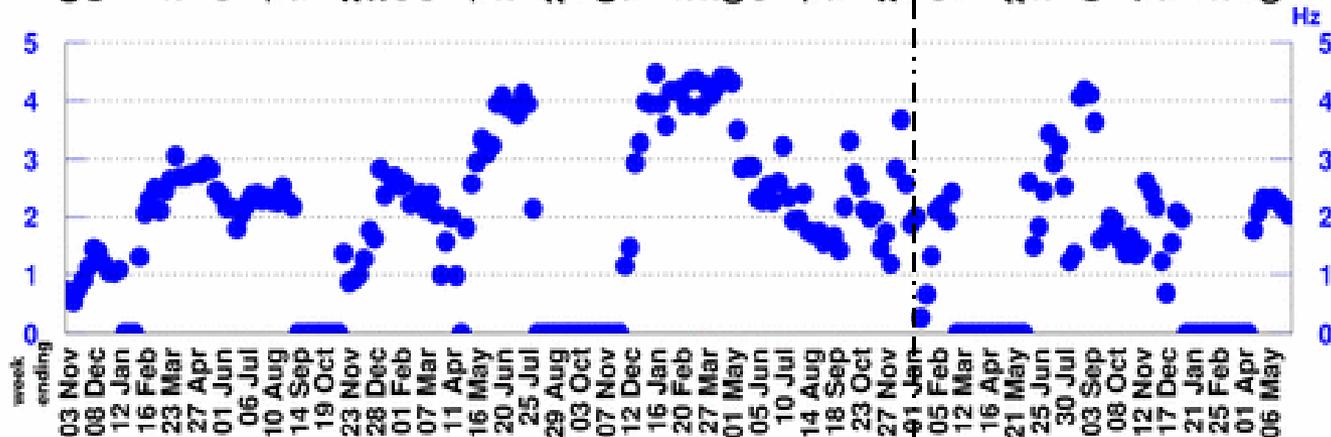
POT per Horn Pulse

Largest week: 4.89 E12

Latest week: 4.89 E12

Record weekly average!!

Hz



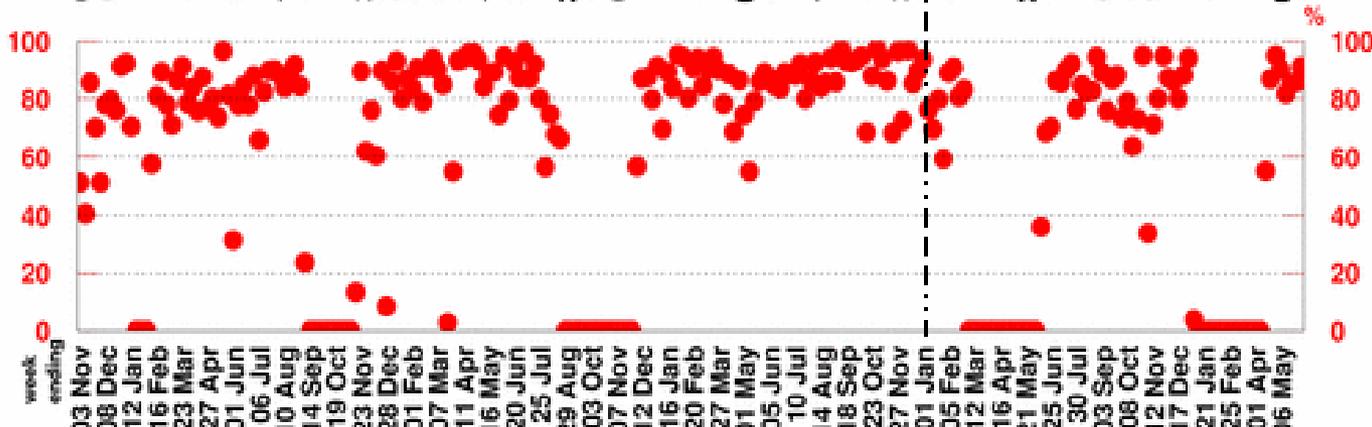
Horn Rate

(for time periods with beam)

Largest week: 4.48 Hz

Latest week: 2.04 Hz

%



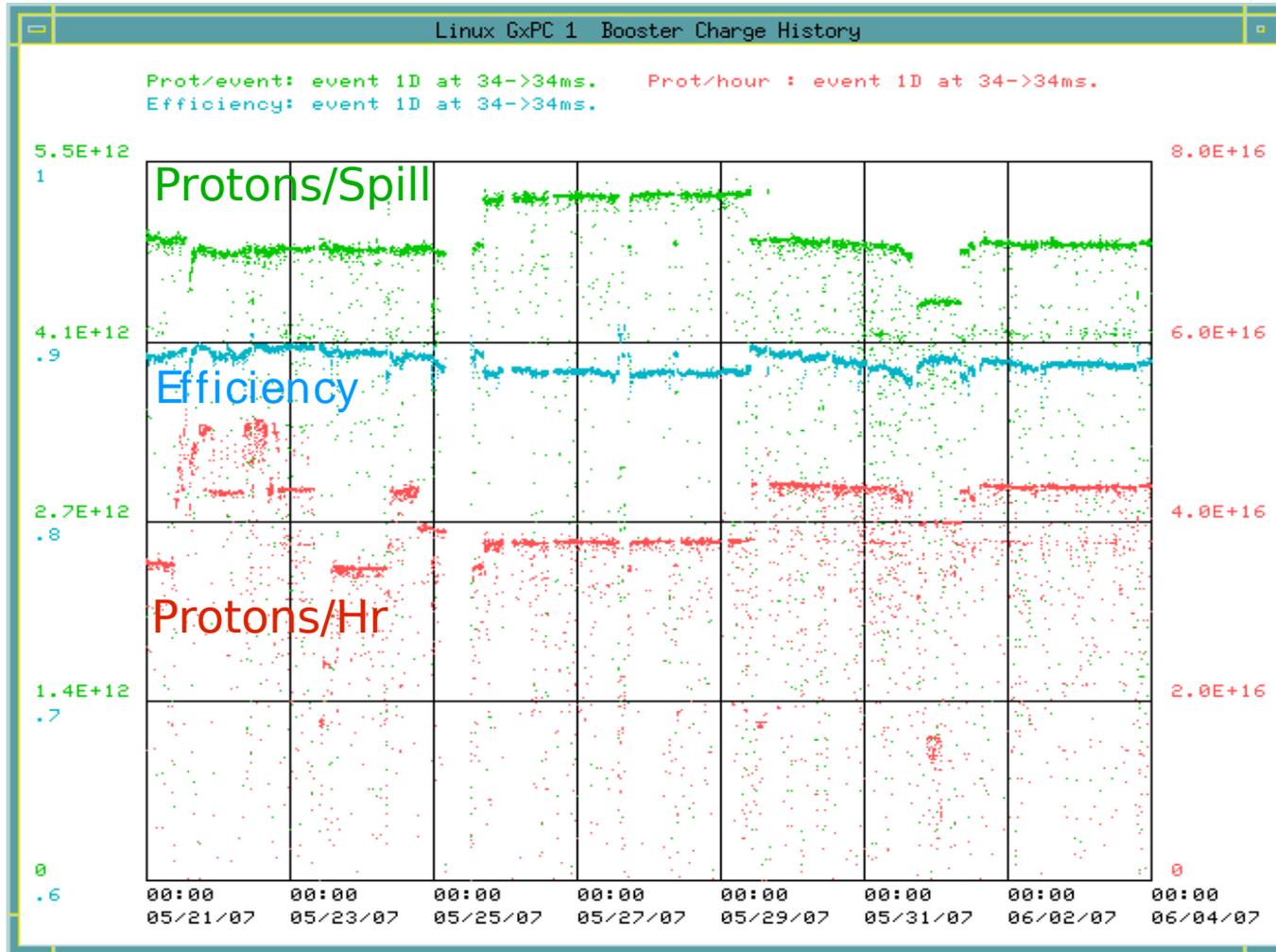
Beam Uptime Fraction

(fraction of time with beam)

Largest week: 97.4 %

Latest week: 91.1 %

Two Week MB Proton/Hr Summary



Steady running at 11 turns, 89% Eff, 4×10^{16} p/hr

This Week's Plan

- Continue running, take advantage of excellent Booster output. **Good job proton source and operations!**
- Plan is to collect $\sim 0.6E20$ POT in anti-neutrino mode and no absorber. Totals to date:
 - $0.2E20$ POT no absorber.
 - $0.7E20$ POT absorber #10 down.
 - $0.6E20$ POT absorber #10 and #7 down.
 - **$0.36E20$ POT since startup 8 weeks ago (no absorber)**

MiniBooNE at NuInt07

- Seven MiniBooNE collaborators gave presentations at last week's NuInt07 conference here at Fermilab
- significant and/or new results:
 - CCQE: report of value for M_A and a solution to modeling of low Q^2 behavior – paper submitted this week (Taylor, Kattori, Zeller)
 - resonant/coherent NC p^0 production (Link) and Q^2 distributions in CC p^+ production (Fleming)
 - differential cross section for NC elastic scattering & comparison to BNL E734 result (Cox)
 - anti-neutrino results (wrong-sign CC p^+ production, etc.)