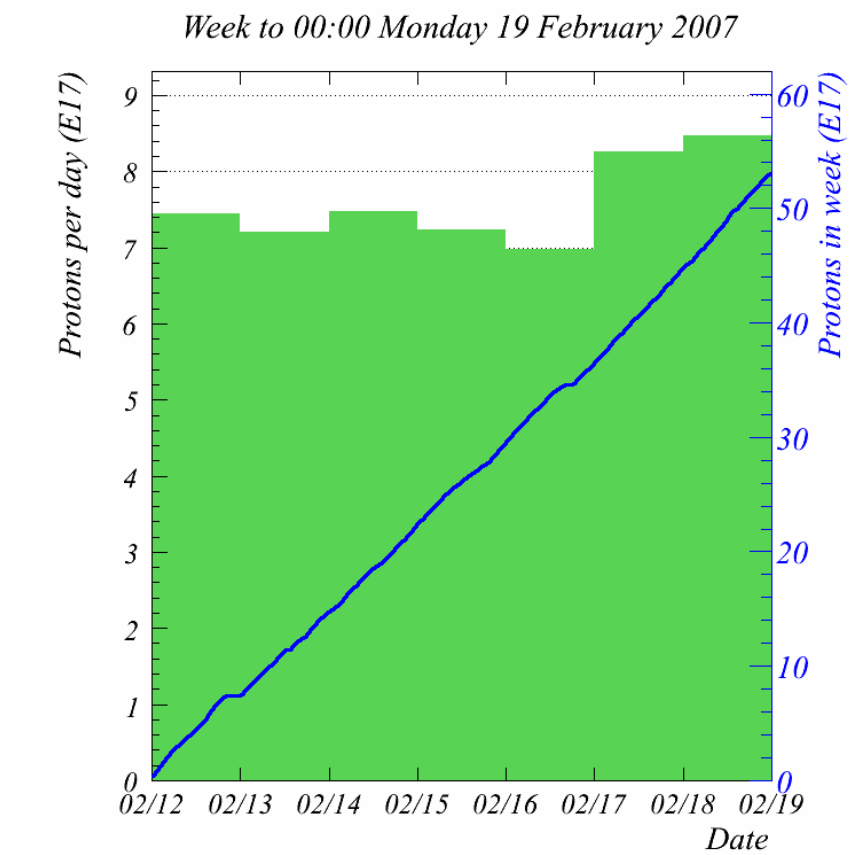
NuMI-MINOS Status Report

All Exp Mtg
19-Feb-07
D. Bogert

- Good Week
- No Significant Downtime
  - Detector uptimes during beam
    - Near > 98%
    - Far > 98%

Protons per Day
for the past week



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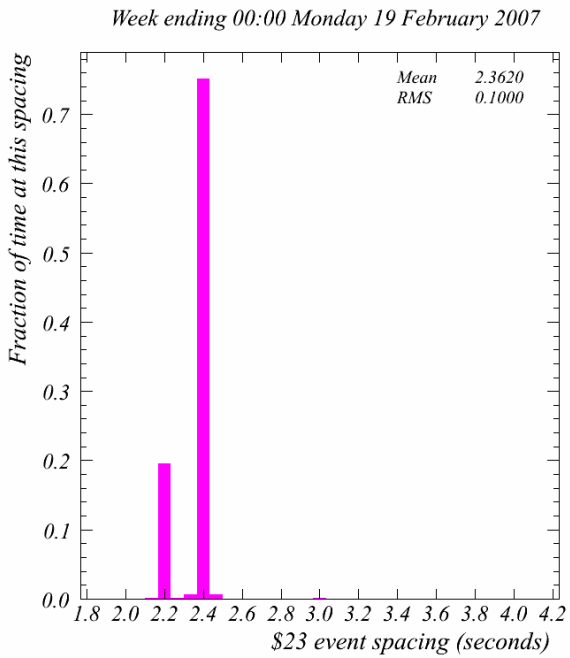
< 2.36sec/pulse >

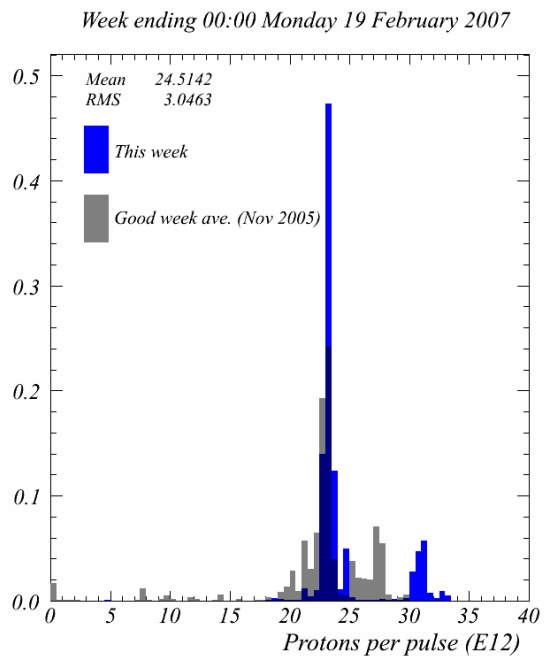
< 2.45 E13 P/spill >

< 177kWatts >

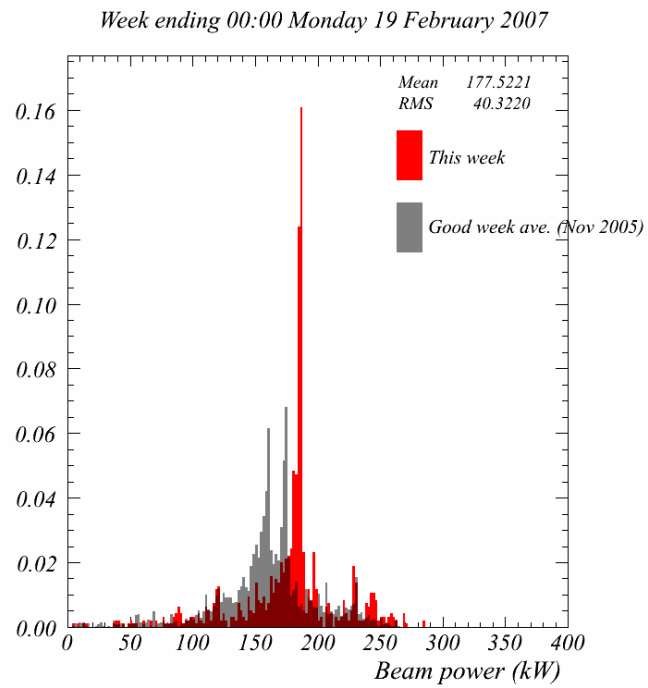
Weekly Statistics



Fraction of spills with the given Cycle Time in seconds



Protons per spill



Beam Power On Target

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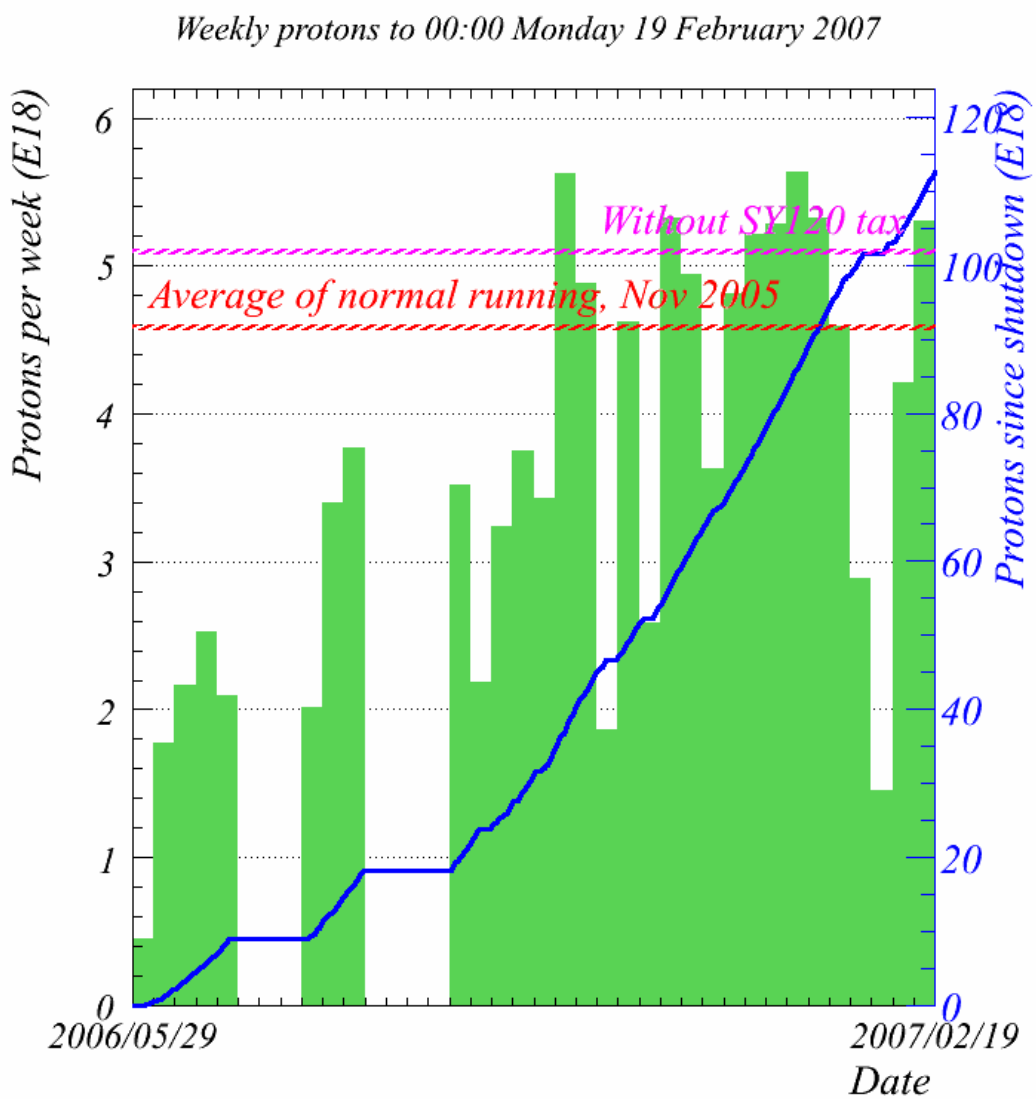

Proton Data - MINOS has not quite doubled it's data set this running period.

Physics data set = 2.54E20 since May 2005

1.15E20 = since June 2006

0.86E20 = since Oct 2006 (this FY)

NuMI-MINOS Status Report

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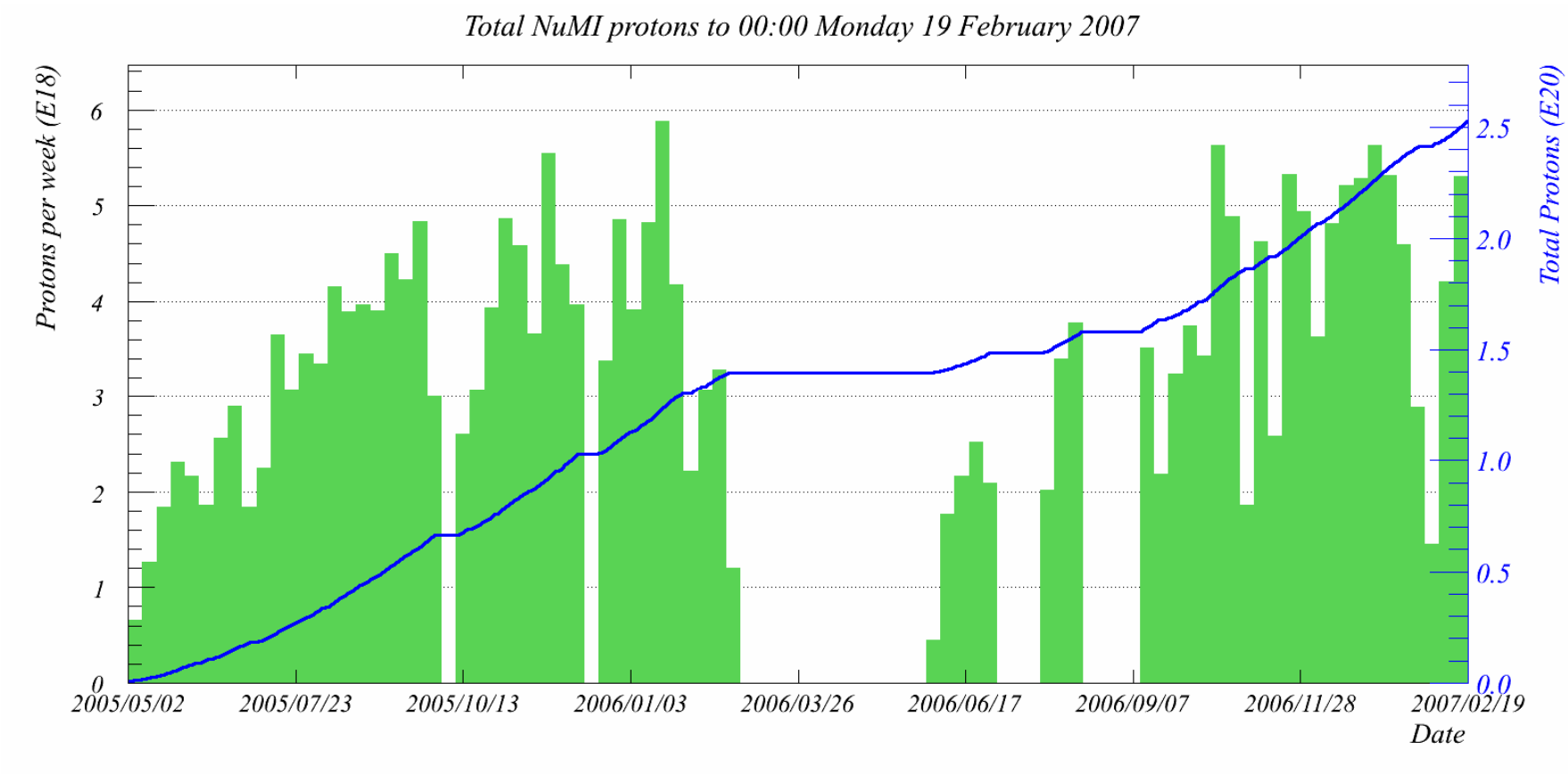
Protons per Week since May '05 *Physics Data Set* - 2.54 E20



NuMI-MINOS Status Report

Anti Proton Production Cycle Spacing Studies

Last Thursday evening a study of pbar cycle spacing was conducted. Four recycler "cycles" were recorded; two recycler "cycles" at a 2.2 sec production cycle and two recycler "cycles" at a 2.4 sec production cycles.

It is our opinion based upon the information shown in the next two slides that the pbar production efficiency was not significantly impacted by the faster production cycle, and that NuMI production measurably increased.

We therefore support and urge the continuation of these studies, since the increased NuMI production is clearly desirable if it can be accomplished without negative impact to the collider program. We thank those who organized and conducted this study.

NuMI-MINOS Status Report

All Exp Mtg
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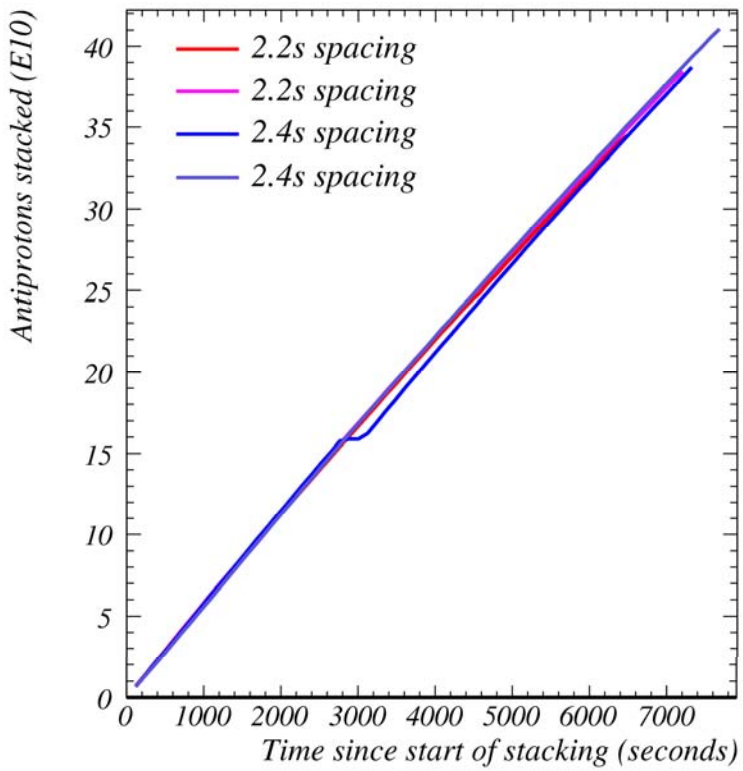
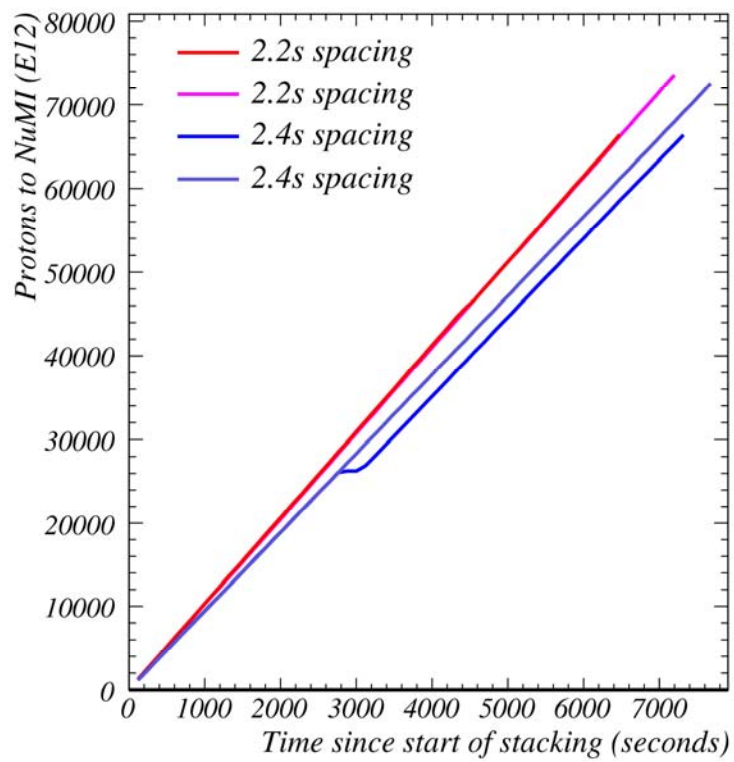
Anti Protons Stacked

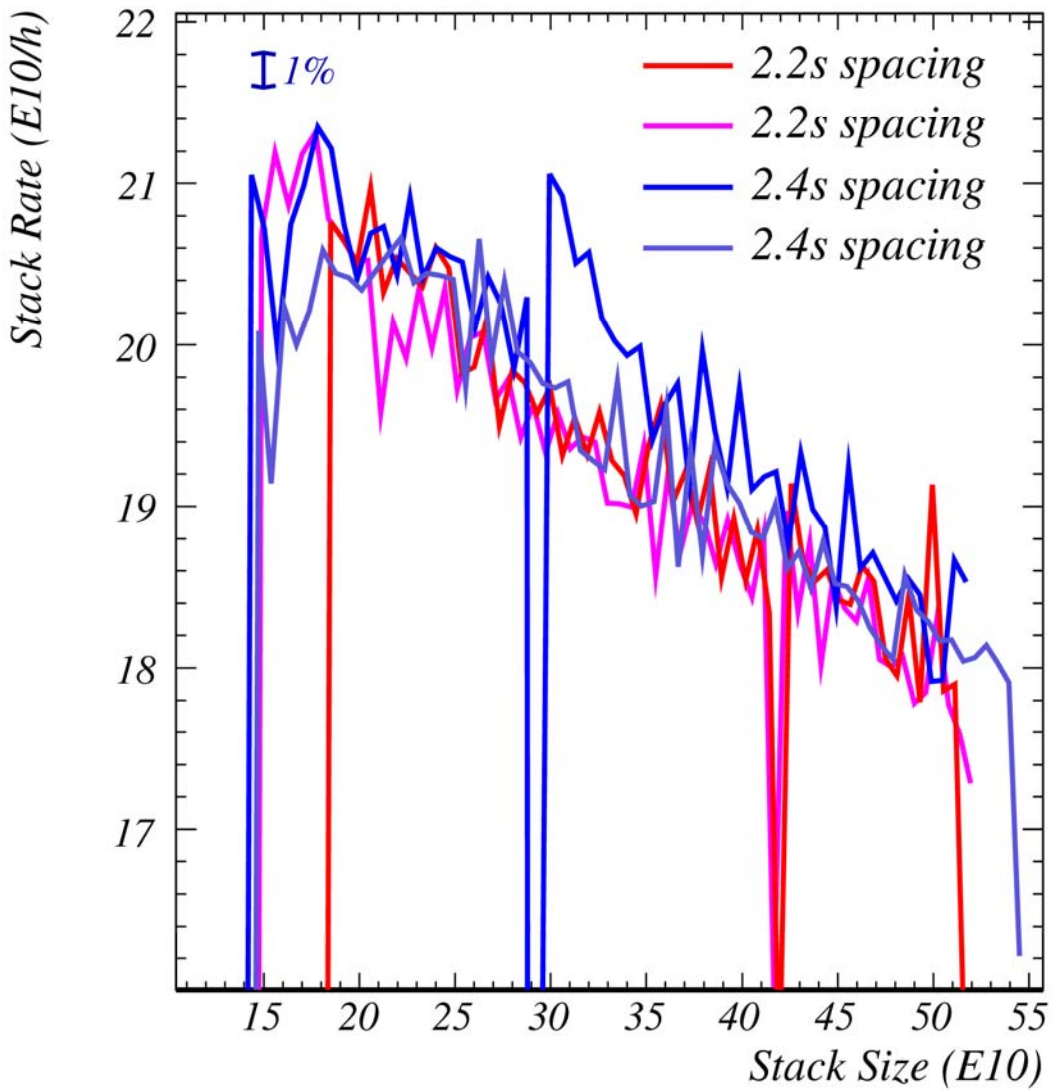


Protons to NuMI



Two complete cycles (recycler loads) at each of 2.2s and 2.4 seconds. There was a brief linac downtime once. We believe that there is little impact on p-bars, and a gain for NuMI.

NuMI-MINOS Status Report



Stacking rate not significantly altered- "Tick mark" (I) shows Phil Adamson's estimate of a 1% impact.