NOvA Experiment Report

Operations for the Week of 7/3

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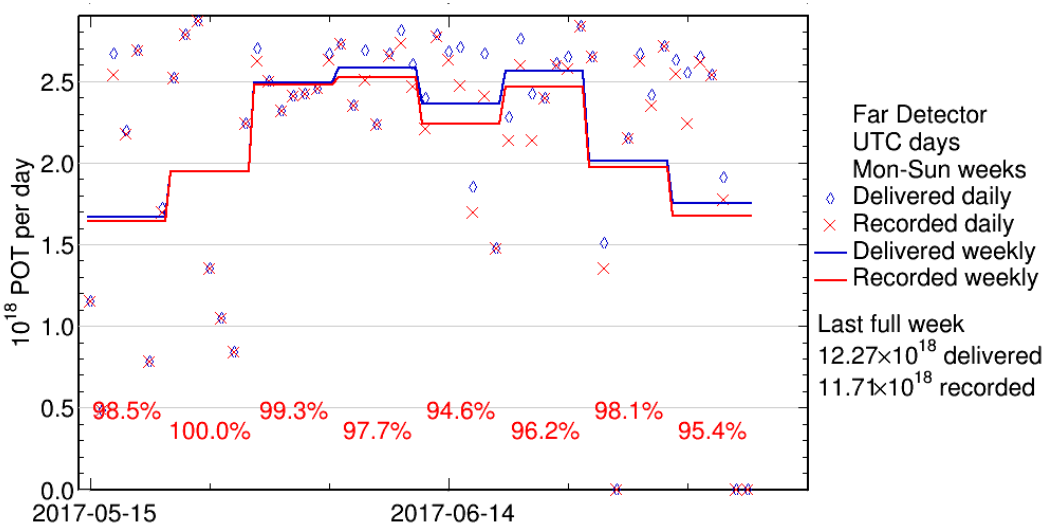
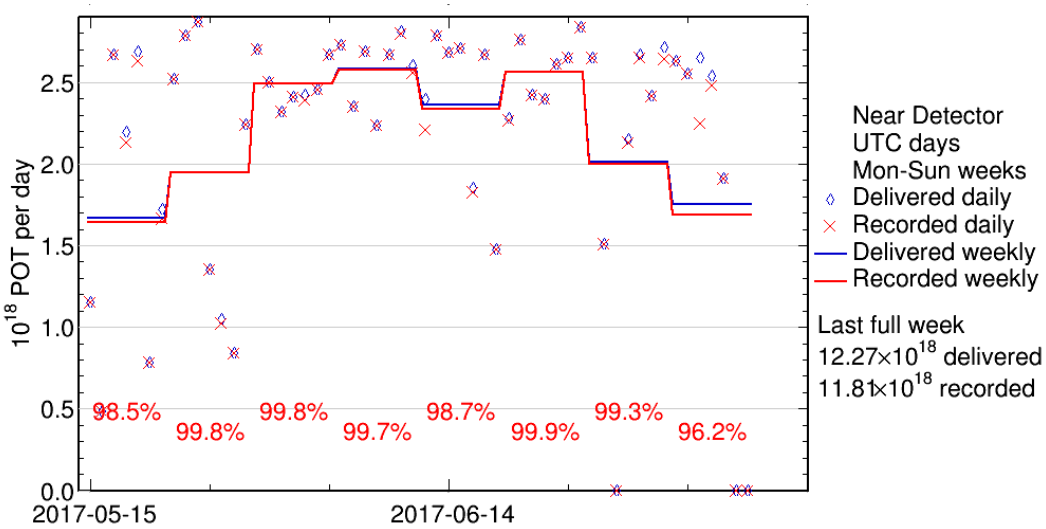
10 July 2017

DAQ Status and POT Recorded

95.7% POT recorded at the Far Detector over the last 8 weeks (95.4% over the full run period)



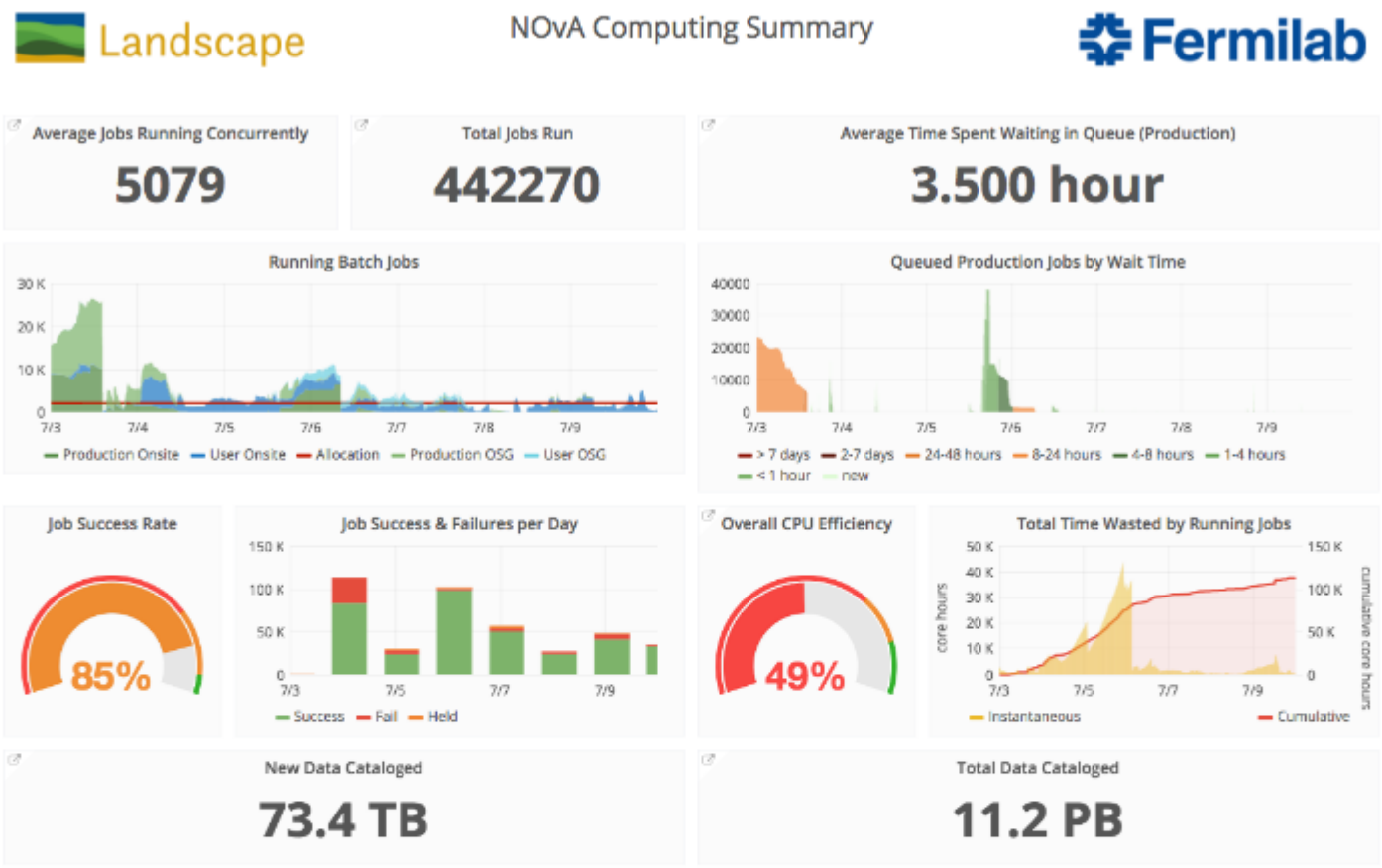
99.1% POT recorded at the Near Detector over the last 8 weeks



Comments on Uptime

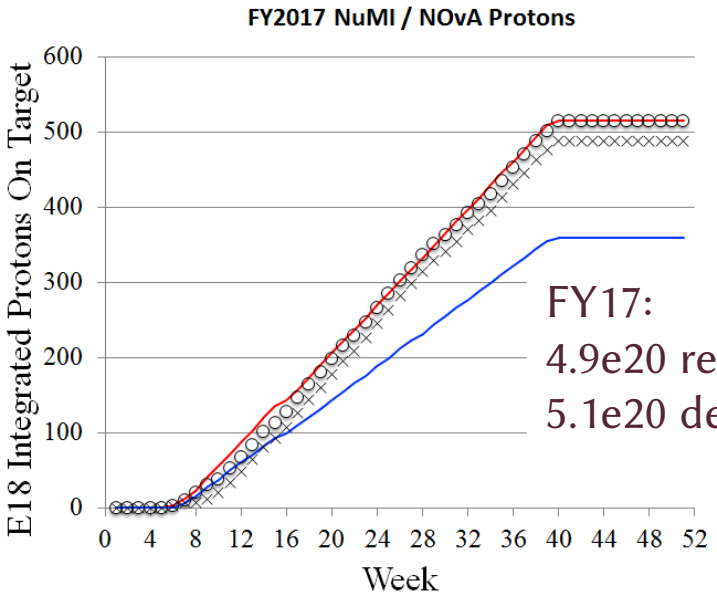
- FD
  - On 7/3, an unexpected power glitch stopped data-taking.
  - Recovering took ~7 hours and led to additional DAQ instability on 7/4
- ND
  - On 7/4, ~4 hours of downtime due to timing system errors

Computing

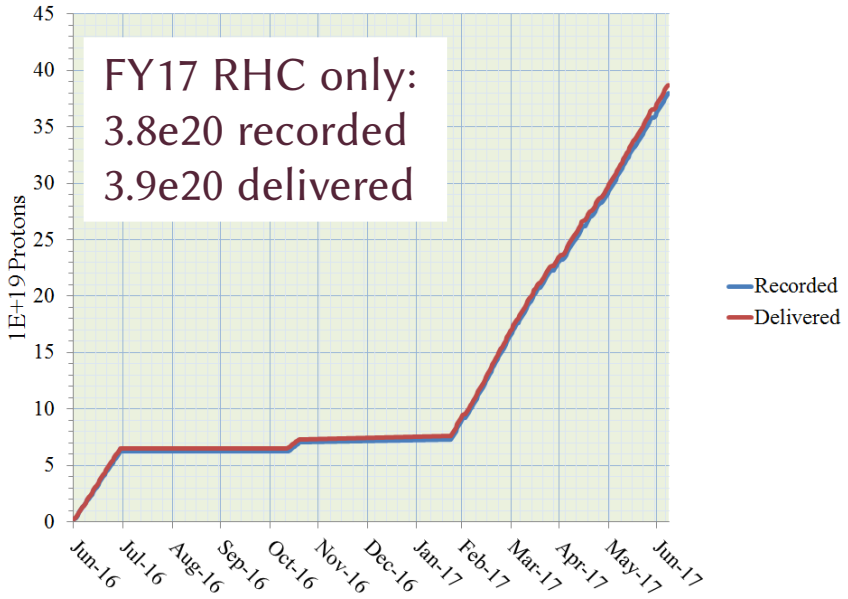


- Last week's focus:
  - Clean up of FD data samples.
  - Special samples requested by analysis groups.
  - High Human/CPU-time tasks.
- Low efficiency
  - Investigation continues. Crash-and-hang in production jobs has been addressed.
  - Low efficiency may also be coming from dCache issues in user analysis jobs. Tickets already open with dCache team.[1]

Achievements over the Run



FY17:
4.9e20 recorded
5.1e20 delivered



PRL **118,** 151802 (2017) PHYSICAL REVIEW LETTERS week ending 14 APRIL 2017

Measurement of the Neutrino Mixing Angle θ_{23} in NOvA

PRL **118,** 231801 (2017) PHYSICAL REVIEW LETTERS week ending 9 JUNE 2017

Constraints on Oscillation Parameters from ν_e Appearance and ν_μ Disappearance in NOvA

FERMILAB-PUB-17-198-ND

Search for active-sterile neutrino mixing using neutral-current interactions in NOvA

Submitted to PRDRC