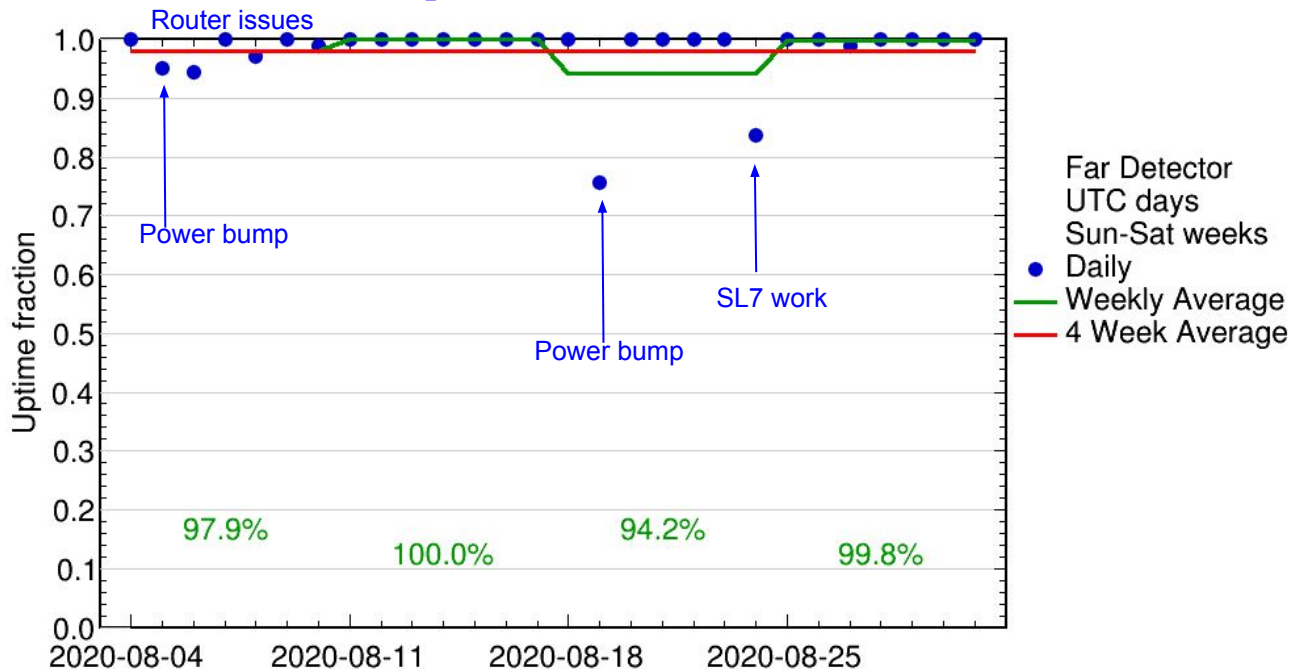


NOvA Operations Update

Hongyue Duyang (U of SC), Matt Judah (U Pitt)
Proton PMG Meeting
September 04, 2020

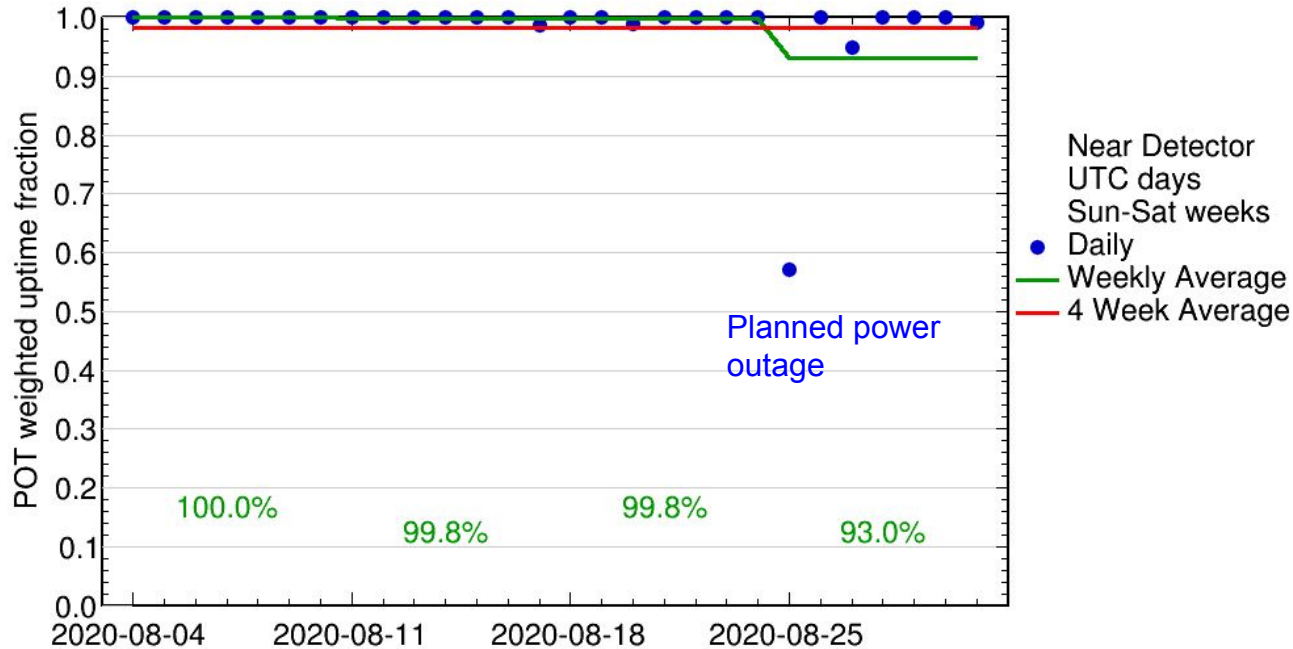


Far Detector Operations



- Planned Downtime for SL7 work 8/24: 4 hrs.
- Unplanned Downtimes: 15 hrs:
 - Issues with FD router at the beginning of August (8/3, 8/6, 8/10). Solved by switching to a 2nd router.
 - Power bumps on 8/5 (2 hrs) and 8/19 (6 hrs).

Near Detector Operations

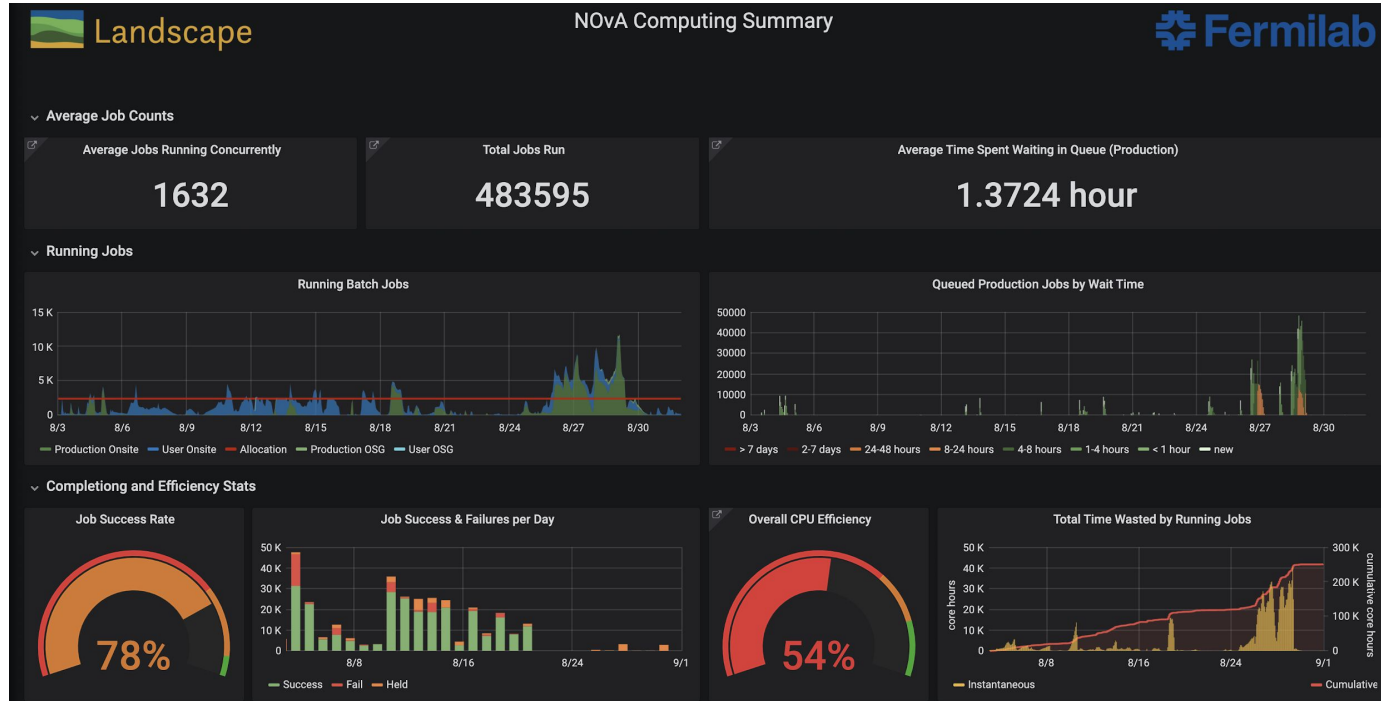


- Planned downtime: 11 hrs
 - Near site power outage 8/25 and recovery work 8/25, 8/27.
- Unplanned downtime: 1hr
 - DAQ crashes 8/2, 8/10, 8/21, 8/31

Summer Work

- Summer shutdown work continues with focus on upgrading to SL7.
- 3 FD nodes converted to SL7 and running successfully as buffernodes with full trigger processing.
- 1 FD run control node converted to SL7 for testing.
- 2 ND nodes converted for testing.
- Newly purchased SL7 hardware will be ready for ND and FD soon.

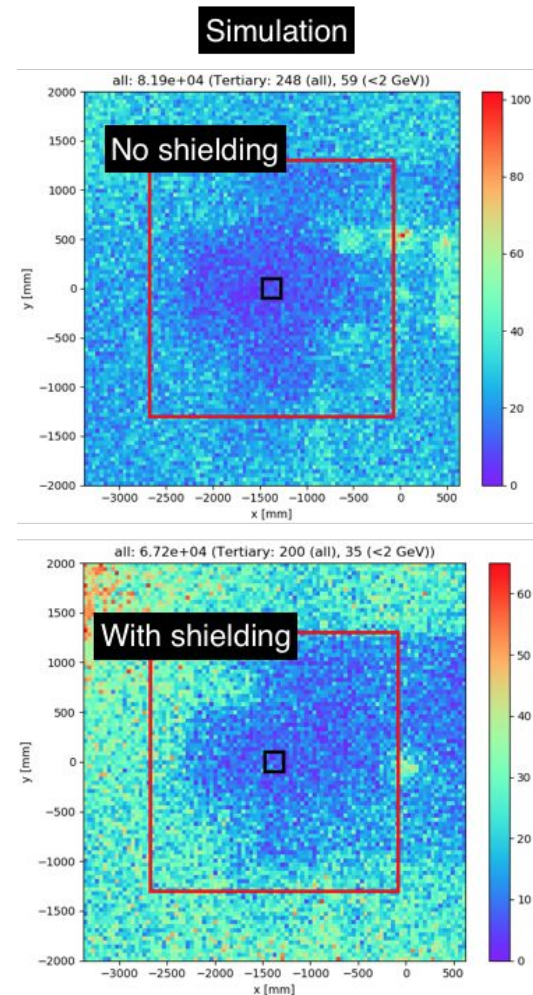
Computing Updates



- NOvA ran a total of ~483k job in August. Out of these ~166k were for Production
- Completed Prod 5.1 calibration samples and training samples for reconstruction.
- Rock samples generation is ongoing.

NOvA Testbeam Status

- In the process of preparing for our next run.
- Focusing on how to improve the beam
 - More detailed beamline simulation is able to reproduce the 'plume' particles in the Upper-West part of the detector seen in the data.
 - In the process of defining a plan to place shielding in the beam to remove the plume. (Simulated reduction shown in the figure).
- Analysis of Period 2 data ongoing.
- Also planning our operations and run plan for our final run to ensure we collect as much good data as possible before Summer 2021.



NOvA Analysis Updates

- Paper on NOvA's capabilities and sensitivity to supernova neutrinos published on Journal of Cosmology and Astroparticle Physics.
- Six Letter of Interest (LOI) submitted to Snowmass:
Overview; 3-flavor oscillations; Near detector physics; Exotics and cosmic physics; Exotic neutrino oscillations; NOvA-T2K joint analysis
- Upcoming W&C talks on NOvA's 3-flavor oscillation measurements:
Jeremy Wolcott, September 18 at 4pm CDT