Lab Status/ AEM Meeting Notes
Monday March 20, 2017
https://indico.fnal.gov/conferenceDisplay.py?confId=14055

Incidents:

- A WDRS employee pulled a muscle in her left hip while attempting to reach out from a seated position.

Accelerator Operations:

- Weekly integrated intensities: NuMI 1.95E19, BNB 8.04E18, NMuon 3.52E16 (140 hours), MTest 6.14E14 (81.6 hrs), MCenter 5.41E+12 (101 hrs). Record for protons put on target for NuMI. Booster set a record 2.03E17 protons/hour.
- NUMI running at an average of 635.6 kW with SY, 700 kW w/o SY. One hour record: 715.88 kW (1/25/17). Will focus on staying above 641 kW with SY.
- One-day maintenance downtime planned in late April. Interlock safety system tests are coming due and will be done opportunistically.
- Future schedule: http://www-ad.fnal.gov/ops/schedule.html
- PIP-II Injector test: Operational readiness test completed last Monday. Beam through dipole by last Friday. Goal to get beam through RFQ and MEBT.
- FAST: 300 MeV beamline construction continues. 300 MeV line correctors installed. 604 dipole chamber vacuum certified. All magnet cables pulled.
- CMTS1: Cryomodule testing early or late April.
- Sitewide power outages during summer shutdown being negotiated with ComEd. Will try to schedule it for off hours and short periods (1-2 hours) to minimize impact. Stay tuned.
- Please look at the slides available at the agenda link at https://indico.fnal.gov/conferenceDisplay.py?confId=14055

MicroBooNE:

- DAQ uptime 95.6% for week.
- POT delivered: 7.9E18, recorded: 7.6E18.
- CRT top panel installation complete. Testing, cabling and commissioning in progress. Not much overhead on DAQ seen.

MINERvA:

- Uptime 99.4%, with MINOS ND 87.3% (March 9 – 15).
- Computing job success rate lower than usual at 86% due to failure of conditions database on 3/17. Overall CPU efficiency also low at 24 % for the same reason.
- New spokesperson Laura Fields replaces Kevin Mcfarland.

NOvA:

- Observed first antineutrino candidates in the RHC beam running.
- POT-weighted Uptimes: 99% for FD and 99.4% for ND (Last 4 weeks)
- Computing: job success rate 83%, CPU efficiency 87%. MC generation for ND got started last Wednesday and is running well.

SeaQuest:

- Taking good data with liquid targets.
- Station 1 now repaired; expected to be up by Thursday.

PPD Operations:

- Muon g-2:
  - Ring cold for 10 days, no helium gas flashlets seen, would have expected 1 per day at previous flashlet rate. Charcoal removal appears successful, definite test in the near future.
  - Passed Accelerator Readiness Review (ARR) last week, well defined punch list. Thanks to ESH for their leadership here.
  - Collaboration meeting later this week, including review of P.I. contribution to Ops.
- Test Beam
  - MTest: T1224 (ATLAX Pixels) and T1272 (EM Mini Calorimeter). T1224 is continuing their run for the next several weeks.
  - LArIAT: Passed ORC last week, now operational.
  - Removal of gravel roof in process (vacuum removal) in order to repair decayed metal wall at north end of the hall. Thanks to FESS for moving ahead on this repair.
- SCDMS
  - Project cryogenic system (Fermilab's principal contribution) review on Friday this coming week.
- CMS
  - Director's review of CMS HL-LHC upgrade at Cornell last week despite snow storms. Review commended the strong team and their tenacity in showing up for the review.
  - Preparations for upcoming NSF-PDR review April 12/13, full NSF review December 2017.

ND Operations:

- DUNE:
  - Project and collaboration is preparing for this week's LBNC review. Looking at the 99 recommendations from the 2016 review; of these 83 have been closed; updates to be presented at the review.

    - A production readiness review of the photon detector light guides was held at Indiana University last week.
    - The latest round of ARAPUCA (a new photon detection device) tests in TallBo has been completed. Tests of breakdown from the protoDUNE beam window will happen this week.
    - LArIAT has started data-taking with wider wire pitch (5 mm) and ARAPUCA in place.

- SBN:
    - Still awaiting completion of the CERN-DOE neutrino protocol addendum. CERN (and INFN) technical teams who were supposed to arrive at Fermilab by Monday March 20 are now delayed to May 1. However, pre-installation work is proceedings at the FD site.

TD Operations:

- Last week TD tested 8 SRF cavities, a mix of production and R&D, a mix of LCLS-II, PIP-II, and general R&D.
- The Mu2e splice test magnet testing continues for another week or two.
- Installation of the Mu2e Transport Solenoid test stand at HAB continues. Work continues on documentation for the system. Vendors continue to require constant attention.
- The cold mass and cavity string for the second LCLS-II cryomodule moved from MP9 to ICB this week. The first production cryomodule is in its cryostat and is being buttoned up before sending it for testing at CMTF. The prototype cryomodule has returned from CMTF to ICB for a few adjustments and preparation for shipment to SLAC.
- All the other balls are still in the air. LCLS-II, LARP, HL-LHC-AUP, Muon g-2, Mu2e, PIP-II, accelerator operations, magnet and SRF R&D, multiple partnerships.

Computing Operations:

<u>CCD:</u>

- Good week. One issue --last Friday (March 17) morning the ServiceDesk Call Center had trouble switching calls from after-hours distribution to normal operations service until 9:30 AM. Fixed. Cisco will analyze the root cause.

<u>SCD:</u>

- GPGrid pretty full.
- Outages were all planned ones.
- CMS production jobs for winter conferences done and now running analysis jobs. LPC claimed some slots from Tier-1, which will now be returned.

Office of Communication:

- Community Advisory Board meeting to be held March 23rd. Tritum, muon campus, etc on the agenda.

- A public lecture on Cancer Treatement using accelerators, this Friday evening.

Directorate:

- Joe reported that Nigel is in Europe meeting with Swiss and Italian officials. Meeting with Swiss went very well.