

Lab Status / AEM Meeting Notes

Monday June 12, 2017

<https://indico.fnal.gov/conferenceDisplay.py?confId=14461>

Incidents:

- An ESHQ summer student cut her hand when the putty knife she was using slipped and contacted her left palm. First aid.

Accelerator Operations:

- NuMI: 1.78E19 POT. Strategy is to keep NuMI above 641kW with SY120 running.
- BNB: 6.04E18.
- SY120: 135 hours of beam to SeaQuest, 49 hours to MTest.
- Laser notcher commissioning continues.
- Muon Campus Commissioning continues. Beam absorber installed allowing increased beam intensity.
- Shutdown: Beam will go off at noon on July 7.
- Future schedule can be found: <http://www-ad.fnal.gov/ops/schedule.html>
- PIP-II Injector test: Beam approved Thursday. Beam transported all the way to dump.
- FAST: 300 MeV beamline construction continues. System checkouts have begun.
- LCLSII: Cool-down expected this week.

MicroBooNE:

- Smooth running, 95.8% uptime. New heavy sterile neutrino trigger implemented.

MINERvA (June 1-7):

- Two good weeks: 91.1% uptime (83.3% with MINOS ND).

NOvA:

- Running smoothly. 97.7% FD uptime.

SeaQuest:

- 83% good proton utilization. Running without D2 target.

g-2:

- Receiving beam ~60% of the time.
- >60% uptime. DAQ integration ongoing.
- Beam profile monitor installed & working.
- First muon "wobble plot" recorded!

PPD:

- Fantastic news: g-2 pilot operations!
- General support: Crane operations under review at the lab, external cranes (movable crane) are now considered construction cranes and the staff requires explicit construction crane training, one week long in the fall. Some discussion on whether this directive will include internal cranes.
- Alignment activities: Provided support for SBND position control network. Measured dimensions of SBN far detector warm vessel at the far detector hall. Provided alignment support on CM05 for LCLS II project. Measured dimensional characteristics of GMW-001 magnet at IB2. Provided alignment support for replacement of a Muon Campus magnet at V742 that need to be swapped out due to a water leak. Aligned final batch of components for FAST project.
- Test beam is running fine. A few experiments finished up. Currently, T1315 (DUNE), T992(CMS), T1041(CMS), and T1267(IceCube) are taking data or getting ready. We'll have ORC for T1267 on Wednesday. LArIAT gearing up to take data this week with new wire planes.
- T1267 is our last user to install this run. We'll take beam studies after they have finished.

ND:

- SBN program office is preparing for a briefing of the Office of High energy Physics at Germantown on June 21.
- SBN-FD: Completion of warm vessel welding and leak-check.
- LArIAT: Prepared for argon fill on June 12.
- protoDUNE: A plan to ship APA#1 from UW-PSL to CERN has been confirmed. Photon detectors for APA#1 are expected to ship week of June 19.

LBNF:

- Ground breaking 21st July.
- Preparing for LBNC meeting, 22-24 June at CERN.

TD:

- Magnets LCLS II – Quadrupoles: SPQA107 cold test under way. Power supplies are down, working on repair. Commissioning of 2nd header assembly (top plate) at stand 3 expected this week.
- Magnets LARP – QXFA106, coil fabrication for first full-length prototype magnet: inner & outer layer coil winding complete. Cold test of short model MQXFS1c suspended due to contamination of cryo plant; CD1 Director's Review this week.
- Magnets Other: AS – MSE001 Pulsed Septum (MSE) assembly in progress, MSE002 core stacking is in progress. IOTA Lambertson winding tooling in procurement. Mu2e HAB Test Stand: continued final system checkout & prep for acceptance testing with TS prototype; cryogenic safety walk-through expected this week (6/12). G-2 Inflector coil length & end configurations have been finalized & parts being redesigned. Conductor fully insulated &

- winding tooling in place, ORC for tooling received. MDP 15-17 T dipole R&D coil #1 curing completed, preparation for reaction; Winding outer coil #2 (HFD-CL-003) layer 3 completed.
- SRF R&D: Four 1.3 GHz 1-cell cavities vertical tested. High gradient R&D: ichiro 9-cell cavity N2 infusion treated. Three 9-cell cavities tested. One 9-cell has great gradient in individual cell, needs more N2 studies. One 9-cell received 120C infusion. Nb3Sn coating delayed due to Furnace repair.
 - SRF LCLS-II: Two 3.9 9-cell cavities completed dressing ... QC in progress. 3HRI02 completed 120C baseline baking. CAV0258 (bare) retest successful, 3.9×10^{10} @ 16 MV/m, Eacc reached 23.5 MV/m. CM02 needs final RF QC at ICB after transport. CM02 & CM03 swapped at CMTF. CM03 installation in progress. Cooldown expected in next week. CM04 in WS5 stage. Warm coupler installation in progress. CM05 moved from WS2 to WS3. Tuner installation in progress. CM06 completed WS0, now in WS1 for string assembly. New bellows will be installed between cavity one & gate valve. CM07 has one qualified cavity. Three more cavities to be tested this week.
 - SRF: PIP-II: Spoke cavity S111 STC test completed. Cavity did not qualify, needs re-process. Spoke cavity S107 being prepared, plan to install in STC ~6/14. One 5-cell 650 MHz cavity under optical inspection. One 1-cell 650 MHz cavity light EP completed, to be tested.
 - Cryogenic Operations: MTA will continue operation till June 23rd. CMTF being prepared for LCLS-II CM3 testing: CM3 installed in cave; Finishing interconnection; Cooldown June 14th. NML (FAST): Cooldown planned for June 12 following warm conditioning; MDB: System warm; Swapping SSR1 cavities & preparing for testing. VCTF is operational → VTS 1&2 cold testing; VMTF – MQXFS1c quench and magnetic measurements testing; Stand 3 - LCLS-II split quad SPQA-107 testing. IB1 Cryo plant contamination problem arose; weekend 100K warm up of cold box.

Computing Operations:

- CCD: Jun 6: Due to unannounced Microsoft change, !75 E1 0365 accounts were disabled. June 11: Primary NOvA circuit down, traffic automatically switched over to secondary.
- SCD: Continued good IF usage of empty slots.

Office of Communication:

- 50th birthday celebrations on Thursday. Group photo at 12:45pm

Directorate:

- Joe: Nigel visited Capitol Hill last week. On Friday this week, Annual Lab Plan presentation to Steve Binkley.

AOB:

- Wilson Hall closed Saturday for repairs.