

Lab Status / AEM Meeting Notes

Monday July 3, 2017

<https://indico.fnal.gov/conferenceDisplay.py?confId=14821>

Incidents:

- None reported

Accelerator Operations:

- NuMI: 1.41E19 POT. Strategy is to keep NuMI above 641kW with SY120 running.
- BNB: 8.29E18.
- SY120: 137 hours hours of beam to SeaQuest, 43 hours to MTest, 117 hours to MCenter.
- Laser notcher studies continue.
- 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 studies continue. Plan to run until July 17, then shut down to install final 3 triplets in MEBT.
- FAST: 300 MeV beamline magnets powered for first time. Investigating apparent virtual vac. leak in large dipole beampipe..
- LCLSII: Prototype cryo module testing continues. Thursday will initiate warm-up to 330K to investigate next week overheating of HOM feedthrough.

MicroBooNE:

- Smooth running, 97.5% uptime.

MINERvA (June 22-28):

- 97.6% uptime (91.3% with MINOS ND).

NOvA:

- Running smoothly. 98.1% FD uptime.

SeaQuest:

- 83% good proton utilization. Running without D2 target.
- Dark photon trigger commissioned & recording data.

g-2:

- 75% uptime. DAQ integration ongoing.
- Started tuning M5 line -> 65% improvement in storage efficiency.
- New procedure to ramp inflector has removed previously observed large B-field variation.
- Now have track-calorimeter matching.

CMS:

- Now in machine development / technical stop.
- Last week, >6 fb-1 delivered.
- June 26: record 700 pb-1 delivered in 24 hours.
- CMS had its 25th birthday.
- HEP Software Foundation (HSF) workshop just finished.

PPD:

- Test beam doing well. Studies this week.
- Mu2e preparing for end of July DOE review.

ND:

- ICARUS on its way.
- Three out of 4 APA frames completed.
- Movement of first APA to CERN will begin July 10.
- LArIAT taking data with 3mm wire plane.
- LBNF flux spectrometer duty factor studies at MTest.
- NUINT2017 workshop last week.

LBNF:

- No report.

TD:

- The IB1 and CMTF cryo plants ran well. Maintenance on NML and MDB cryo plants has been completed in anticipation of a July cool down.
- LCLS-II: Cryomodules 03 - 07 in pipeline at different stages from characterization measurements at CMTF to QC testing of dressed cavities before assembly. Yield of cavities as delivered remains disappointing. Split quads 107 - 111 in pipeline, from waiting to be assembled into cryomodule to in transit from vendor. Active R&D on the 3.9 GHz cavities continues. Cryo Feed Cans 3-6 acceptance tested by TD personnel at SLAC. LCLS-II Distribution Box Production Readiness Review closed, all action items addressed. LCLS-II Surface Transfer Line Preliminary Design Review close, all action items addressed
- PIP-II: One spoke cavity, one 1-cell 650 MHz cavity, & two 5-cell 650 MHz cavities in various stages of processing & preparation for testing at VTS & STC. Last PIPIT quad triplet from BARC is still on test stand at MTF, to be followed by beam tube installation.
- LARP/HL LHC AUP: Coil fabrication continues. Final report from Director's CD-1/3a review received. DOE review scheduled for August. We are actively trying to figure out how to assemble the prototype cold mass & cryostat in IB2. To accelerate schedule, first & second prototype magnets will go into that cold mass. There is no hope of having ICB Addition constructed in time for prototype assembly.

- Mu2e: Preparing for DOR annual review July 25-27. Model coil winding at General Atomics will resume next week, with tooling subcontractor assisting & Fermilab observing. In the test stand at HB, we think we have eliminated enough leaks so cool down can begin when cryo system approved. Internal review was last week. We are still waiting for ferrites for 1-m model AC dipole. All other parts are in hand.
- Muon g-2, Muon Campus: As of Thursday, all parts for first MSE pulse septum magnet in hand. Magnet is partially assembled. AD & TD engineers working together on setting up corona test to verify integrity of insulation. The second of two coils for spare EDWA magnet vacuum impregnated last week.
- Main Ring/Recycler: MLAW Lambertson magnet vacuum declared good again, so assembly will resume. The nine newly constructed trim dipoles measured by vendor & appear ready to ship. We have tweaked field of first rebuilt MI quad & are preparing to measure it.

Computing Operations:

- CCD: Good week.
- SCD: Capacity for extra OSG usage of cycles not being used by CMS.

Office of Communication:

- No report

Directorate:

- No report

AOB:

- None