

Lab Status / AEM Meeting Notes

Monday May 7, 2018

<https://indico.fnal.gov/event/17077/>

Incidents:

- None reported.

Accelerator (April 30 – May 7):

- NuMI: 1.89E19 POT.
- BNB: 0.87E19 POT.
- Muon: 5.02E18 POT.
- MTest: 76.8 hours.
- MCenter: 0 hours.
- Booster & MI tuning continues.
- NuMI target started leaking helium over weekend – assessing situation. Note that this happened with previous target after about the same exposure and it continued to run after initial discovery for a few weeks until being replaced.
- PIP-II Injector test: starting up.
- FAST: IOTA installation under way.
- LCLSII: Cryo-plant repairs proceeding.
- Schedule: <http://www-ad.fnal.gov/ops/schedule.html>

MicroBooNE:

- POT weighted uptime 93.3%
- Some readout instabilities – under investigation.
- Some fluctuations in TPC HV – has not impacted data taking.

MINERvA (April 26-29):

- Uptimes: 97.0% (96.6% with MINOS ND).

NOvA:

- Uptimes: ND/FD = 100%/99.5%
- Bi-annual maintenance at Ash River Monday & Tuesday.

Muon g-2:

- Best integrated week.
- 3 trolley runs.
- Uptime: 88%
- Temperature in hall of some concern with the warmer weather.

CMS:

- LHC restarted. First stable collisions April 17.

- May 5-6th, the number of bunches in fill reached the target, 2556
- Luminosity leveling tests were successful.
- Pixel DC-DC converters fine so far ... only one failure so far & failure mode different to the failures observed last year.

PPD:

- Mu2e Solenoids: Progress on solenoids continues.
- Mu2e Detector: Tracker - UMN built first panel CRV – 99% of scintillator extrusion completed.
- Astro: SuperCDMS approved to start construction.
- Test Beam: (i) sPHENIX calorimetry test completed. (ii) Currently T992 (CMS telescope) bringing telescope back to working condition. Will be hosting a variety of CMS studies through June.

ND:

- protoDUNE-SP: Closing of the temporary construction opening progressing.
- DUNE Collaboration meeting at FNAL next week 15-19 May.
- ARAPUCAS: more tests of coating stability of dichroic filters in LAr.
- The SBN-FD (ICARUS) building cranes were upgraded.
- Assembly of the ICARUS nitrogen cold shield panels continues. Four panels were assembled in the past week.
- SBND anode plane wiring has paused at the UK site due to shortage of geometry boards. Wiring at Yale continues with first layer complete.
- SBND CPA is now complete.

TD:

- **SRF**
 - (i) R&D: Quantum computing measurement continues. First 9 GHz cavity performed well. High field QSlope: HF rinsing study in progress. Plasma processing continues. Nb/Cu vac. Chamber installation in progress.
 - (ii) LCLS-II 1.3GHz Cryomodule work progressing.
 - (iii) PIP-II spoke cavity tested.
 - (iv) LARP: One RF deflecting cavity tested. Did not meet Q0/Eacc specs.
- **MAGNETS**
 - (i) HL- LHC, AUP – work on 3 coils for LHC inner triplet quads continues.
 - (ii) LCLS II – test and qualification of the quadrupoles continues.
 - (iii) Mu2e – work on solenoids continues.
 - (iv) G-2: winding of inner and outer coils for new inflector complete.
 - (v) MDP 15-17 T dipole R&D - Coil fabrication for 15 T dipole continues.
 - (vi) Accelerator Support – Coil winding for leaking MDCC progressing.
- **Cryogenic Sector**
 - (i) PIP-II, LCLS-II and Mu2e procurements. LCLS-II procurement – DOE review scheduled for May 8-10 at SLAC.

- (ii) Various sub-kelvin cryogenic activities for SuperCDMS, ADMX, Nexus & Quantum Lab. SuperCDMS operations review June 19 in Germantown.
- (iii) Cryomodule Test Facility: plant under repair. Plant cool down anticipated May 14. VTS: various RF cavities tested.

Computing Operations:

- CCD: Good week. Weds 5/2: FermiWorks down for 1 hour due to Workday changing network addresses without notification.
- SCD: Good week.

Office of Communication:

- Saturday evening lecture series: Story Collider. Five of our folks featured.
- Saturday: Annual Chicago Science Festival. See <http://www.illinoisscience.org/event/chicago-science-fest-2018/>

Directorate:

- Nigel at SLAC.
- On Saturday will have 7 congress people visiting.

AOB:

- None