

## Lab Status / AEM Meeting Notes

Monday February 27, 2017

<https://indico.fnal.gov/conferenceDisplay.py?confId=13941>

### Incidents:

- TD: Technician was setting the brake on a manually operated lift cart Friday when he heard a pop in his wrist. Medical restricted his duties. On a return visit today he was given a rigid splint and directions to seek orthopedic advice. The especially unfortunate feature of this incident is that the brake is a foot brake that, we are now told, has been broken for 15 years in such a way as to require setting by bending over and using both hands. DART.
- AD: Tech received first aid after pipe wrench slipped.
- PPD: Employee experienced a strain from overexertion in his right shoulder while dressing and terminating cables. The employee was given first aid treatment and put on limitations that prevent him from performing some of his routine tasks. DART.
- ESH&Q: Head injury caused by accident with file cabinet.

### Accelerator Operations:

- LINAC, Booster, MI & Recycler running well.
- NuMI: 1.8E19 POT, 625-650 kW with SY. Horn polarity in antineutrino mode.
- BNB: 5.93E18 POT.
- SY120: 3.45 E16 POT, 92 hours to MTest, 8 hours to MCenter.
- Future schedule can be found: <http://www-ad.fnal.gov/ops/schedule.html>
- PIP-II Injector test: Fifth week of Shut down to install 30deg bend in LEPT. Planning for ORC next week.
- FAST: Shutdown for 300 MeV upgrade continues. Work progressing
- LCLSII prototype cryo module. Over next several weeks pCM will be replaced by CM02.
- Loads being added to Master Substation during the week. Various short power outages. MI will not see any power outages.

### MicroBooNE:

- 88.5% uptime, but with HV issues data is not for physics. HV problems may have been resolved (fingers crossed). Problem seems to have been associated with ice formation at bottom of HV feedthrough flange. With ice removed, detector ran stably over weekend at 15KV. Ramping up slowly ... now at 30KV. Hope to be back stably at 70KV by next week when BNB returns after Horn 4 testing.

**MINERvA:** (Feb 16-22)

- 95.1% uptime (90.5% with MINOS ND).

**NOvA:**

- Running smoothly. 98.5% FD uptime.

**SeaQuest:**

- Taking data with solid targets. 90% utilization of un-vetoed protons. Solid targets only.

**PPD Operations:**

- HL-LHC CMS
  - Preparing for NSF pre-PDR review April 12-13 @ NSF. This review will cover the HL-LHC Muon upgrade subsystem and project management. There will be a Cornell "Director's Review" March 16/17 to prepare for this
  - Continuing with OPSS reviews of the sub-projects. Completed the project management area, now working on the Muons section
- Muon g-2
  - The ring cool-down is underway after repairing the He leak in the lead can and extracting the charcoal. The cool-down ended up being delayed by an additional week due to a new leak large leak that formed in the lower ring interconnect (weld we made 2 years ago failed).
  - Accelerator Readiness Review scheduled for March 14...success of review is critical for being able to start beam commissioning on schedule.
  - The last of the TD-produced MDC magnets have now been delivered. The project ended up buying the spare EDWA in stock. Construction of a spare will be done by Accelerator Operations.
- FTBF
  - T1044 – sPhenix completed a successful 5 week run in MTEST and equipment was de-installed and shipped back to Brookhaven.
  - T1224 – ATLAS pixel telescope was installed in MT6.2 and an ORC was completed late on Friday and beam requested Friday night and over the weekend for commissioning the telescope. Telescope will soon be used to test candidate sensors for the ATLAS Phase-II ITK Pixel Upgrade.
  - MCenter: LArIAT (T1034) worked on re-installing TPC in cryostat in MC7. Work continues this week. Large Area Fast Timing Beam ToF for ProtoDUNE (T1274) took data periodically in MCenter.
  - Working to get gravel pulled away from rusting MDB wall during two-day AD shutdown Wednesday/Thursday.
- Electrical Engineering Department provided engineers and technicians to assemble tests for MicroBoone and to develop a SPICE model of the field cage.

**ND Operations:**

- DUNE: HV test at PC4 progressing.

- On Thursday afternoon DOE FSO and DUNE-US management visited D0, Lab 7 and PC4 to see work with ongoing electronics, photon detector dipped bars and the HV test.
- The installation of the membrane insulation inside the protoDUNE-SP cryostat at CERN is progressing quickly.
- The first ICARUS cold vessel is undergoing a final vacuum test with the TPC inside.

### **TD Operations:**

- Cryo plant running well. Have a full ORC for the new compressor and purifier. Plan is to start routine operation today.
- Last week tested 10 SRF cavities, a mix of production and R&D for LCLS-II and PIP-II.
- Finished testing second production split quad for LCLS-II (sixth in all).
- LARP coil fabrication continues. HL-LHC AUP (High Luminosity Large Hardon Collider Accelerator Upgrade Project) held its first PMG meeting last week. Plan is for CD-1/3A in August. Critical milestone for magnet scope is delivery of eighth cryo-assembly for installation by mid-2024. For the crab cavities, critical milestone is delivery of eighth dressed cavity by mid-2023.
- SNS Proton Power Upgrade Project paid us to design set of challenging chicane magnets for injection region. Design well received, so we may eventually have the opportunity to build them.
- Mu2e vendors were visited in Italy and Brazil. Delivery of first production module for Transport Solenoid slipped to June, unless project decides to air freight it from Genoa. Test set-up at HAB coming together nicely with usual last-minute push to get all documentation in place. Plan is to commission system using prototype module in March.
- Other balls in the air: LCLS-II, LARP, g-2, Mu2e, PIP-II, accelerator operations, magnet and SRF R&D, multiple partnerships.

### **Computing Operations:**

- CCD: Good week. Nothing to report.
- SCD: 2/22: CMS dCache problem for 2 hrs. 2/25: CMS FTS problem for 1 hr. 2/24: fifemon problem for 8 hrs.

### **Office of Communication:**

- No report.

### **Directorate:**

- Joe: FY19 Budget briefings in Germantown last Tuesday. Tomorrow visit of delegation from Mexico to sign CRADA.

### **AOB:**

- FESS: ICW work continues. More digging tomorrow.