NOvA Experiment Status

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All Experimenter’s Meeting, October 14, 2013
Far Detector Progress

NOvA Far Detector Assembly Progress

Status Date: 07OCT13

- Block 22 Assembly Progress: 55% Complete
- Block 17 Fill Progress: 8.3% Complete

- Block Instrumented

14 kilotons = 28 NOvA Blocks

- 22 blocks of PVC modules are assembled and installed in place
- 17.8 blocks are filled with liquid scintillator
- 4.17 blocks are outfitted with electronics

S. Dixon
FarDet APD Cooling

Diblock 01 - Cooling enabled
- Light green – cooled
- Dark green – warm

Shown by Data Concentrator Module (DCM)
- 64 FEBs/APDs per DCM
- 2048 channels per DCM
Diblocks 1,2 cooled and with HV set for gain=100 on all APDs
Tues-Wed 01-02 Oct – 1st try cooling overnight
Wed 02 Oct – start cooling diblock 02 (gain=100 - 30V)
Thurs 3 Oct – work on detector at AR
Fri 04 Oct – Diblock 2 cooling HV set at gain=100
Fri-Mon 04-07 Oct – steady running with 2 diblocks at nominal gain
Mon 07 Oct – work on detector at AR
3rd Block installed at Near Detector
• Power Distribution Boxes and Data Concentrator Modules installed
• Testing for leaks after block transport/installation
Near Detector Schedule

**News and Weekly Schedule**

- Block #3: *as-build survey Monday*
- Block #4:
  
  *Monday: assembly complete;*
  *Tuesday/Wednesday: transfer;*
  *Wednesday/Thursday: module position survey;*
  *Thursday/Friday: installation*
- Block #5: *Oct 16 – 30 assembly*
- pORC for electronics unattended operation – *Ralf's photos to ORC committee*
- DCS readout plan using PLC – iFIX
- We have a plan for scintillator delivery
- Started to plan DAQ readout and commissioning details
- Expert “Training” at Ash River – Oct 31 – Nov 1
  
  *You are encouraged to attend!*
NUMI Beam Timing in NDOS

- NOvA prototype detector still running continuously
- Useful for beam timing measurements, FarDet prediction
- Test Stand (30 APDs) used to study APD noise rates
Summary

- Continue to take data at Far Detector
  - 2 kilotons with full electronics (warm APDs at nominal gains)
  - Total of 8 kilotons with scintillator, Front-end boards
- 2 ktons of FarDet running cooled at nominal gain
- Near Detector installation continuing
  - 3rd Block installed, 4th Block this week.
- NUMI beam seen in NDOS
  - Continuing to monitor with beam