NOvA AEM Update

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Outline

- Since the shutdown, NOvA has remained extremely busy.
  - NDOS (prototype near detector) continues to operate
  - Far detector construction in full swing
  - Near detector cavern excavation in progress
  - Analysis preparations are ramping up
NDOS Operation

- Continue to operate (unattended) the surface prototype
- Evaluating APD performance which different surface coatings and cooling conditions
- Development platform for DAQ and DCS systems
- Recording cosmic data for analysis
Far Detector Constuction

Our first far detector block is now in place!
http://www.youtube.com/watch?v=gFpK00WJl9Q&sns=tw

• Follow the progress at
http://www.fnal.gov/pub/webcams/nova_webcam/

• Or http://www-nova.fnal.gov

• Or twitter.com/novanuz

• Or https://www.facebook.com/novaexperiment
THANKS TO THE ASH RIVER CREW FOR ALL THEIR EFFORT
Simulated data running in Ash River

DSO data from front end electronics on AR test stand
ND cavern excavation

Preparations for excavation began shortly after accelerator shutdown
ND cavern excavation

First access expected next spring
We anticipate multiple ktons of outfitted detector to be available on return of beam next year.

NOvA has formalized its analysis efforts and now has nu_e, nu_mu, and exotics groups actively preparing for the arrival of data. Mock data challenges are underway with first results expected in two weeks at collaboration meeting.
Conclusion and Next Steps

- Our prototype detector continues to operate and provide valuable systems feedback. We will continue to operate until it is no longer useful.

- Far detector construction is underway (2nd Block will be placed later this week)

- Outfitting will begin very soon and filling once several more blocks have been placed

- Near detector excavation is happening now as well.

- The CDF assembly area will be used for ND assembly. Prep is underway

- NOvA is on track to begin data taking as soon as beam returns and will quickly begin to produce meaningful physics

- THANKS!