



# MINOS+ Status Report



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All Experimenters' Meeting  
May 18, 2015



# Near Detector



## DAQ news

- Two DAQ crashes fixed within minutes
  - Wednesday 12:01
  - Saturday 16:42

## Electronics/Detector news

- One cold/hot channel
  - Replaced Minder boards a few times: needs further investigation
  - Single bad channels are masked off and do not affect DQ
- Low Gain in Plane 28 (Calorimeter)
  - LED problem ? Bad fiber connection ?
  - Investigations planned for next extended beam downtime



# Far Detector



## DAQ news

- DAQ has been running well this past week
- One failure on Tuesday morning at 2:00 am
  - DAQ expert on-call did not notice the alarm
  - Recovered at 8:00 (beam went off at 4:00) : so two hours downtime



## Electronics/Detector news

- Trouble shooted RPS issues in Crate 10 during beam optics studies
  - Reinstalled earlier by-passed bad air flow sensors
  - Needs more check at next beam downtime



# MINOS+ Status



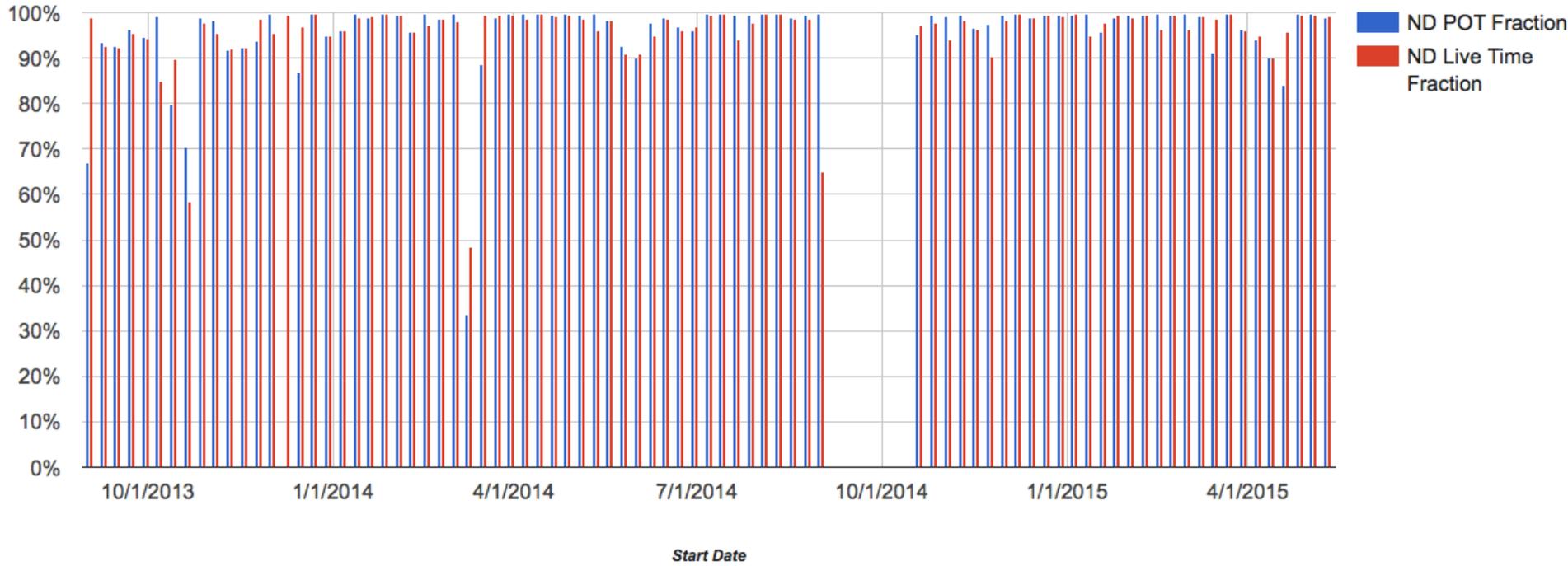
Start Date/Time	End Date/Time	Near Detector		Far Detector	
		POT Fraction	Live Time Fraction	POT Fraction	Live Time Fraction
3/23/2015 00:00:00	3/30/2015 00:00:00	99.6%	99.6%	99.4%	99.1%
3/30/2015 00:00:00	4/6/2015 00:00:00	96.2%	96.1%	99.9%	99.6%
4/6/2015 00:00:00	4/13/2015 00:00:00	94%	95%	99.9%	99.6%
4/13/2015 00:00:00	4/20/2015 00:00:00	90%	90%	98.7%	98.4%
4/20/2015 00:00:00	04/27/2015 00:00:00	84% (*)	96.7%	84% (*)	99.2%
4/27/2015 00:00:00	05/04/2015 00:00:00	99.8%	99.4%	98.2%	98.3%
5/8/2015 00:00:00	5/11/2015 00:00:00	99.6%	99.4%	99.8%	99.5%
5/11/2015 00:00:00	5/18/2015 00:00:00	99%	99.1%	97%	94%

(\*) Still waiting for the IFBeamDB data to be fixed ( AcNet devices with timestamp off 1s) to correct these fractions :

**All raw data IS fine and has been archived**

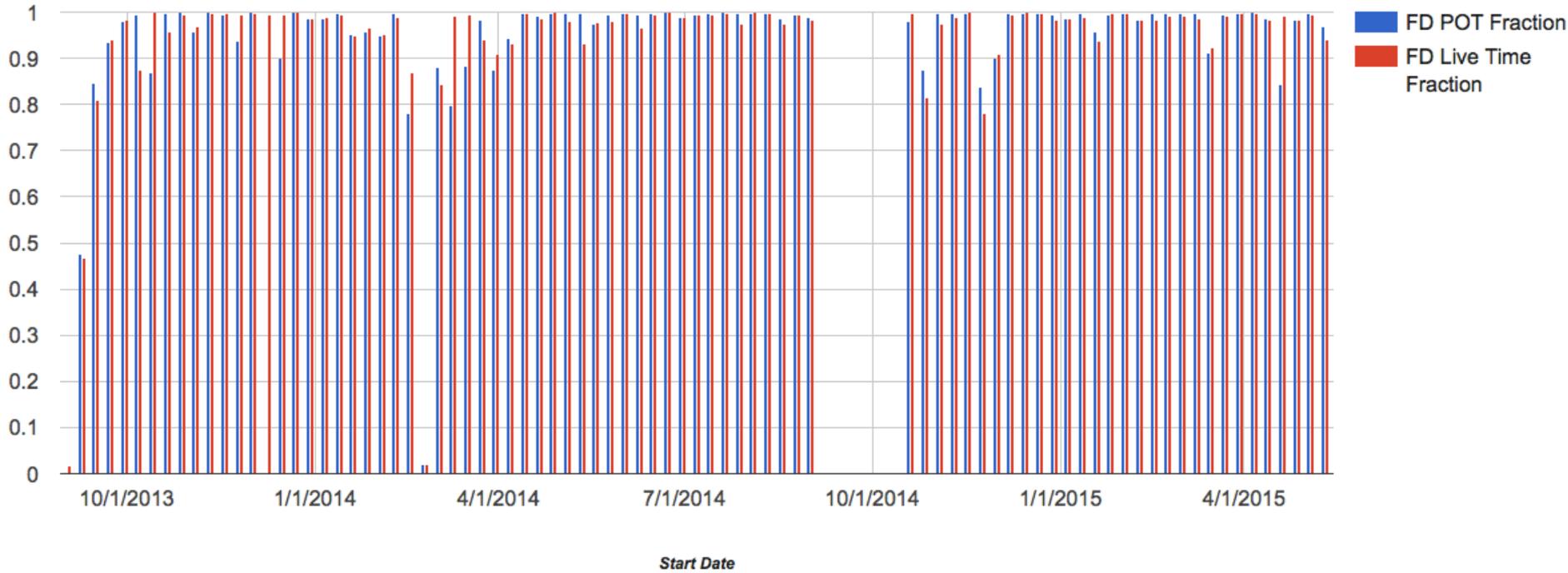


**ND POT fraction and Live Time Fraction**



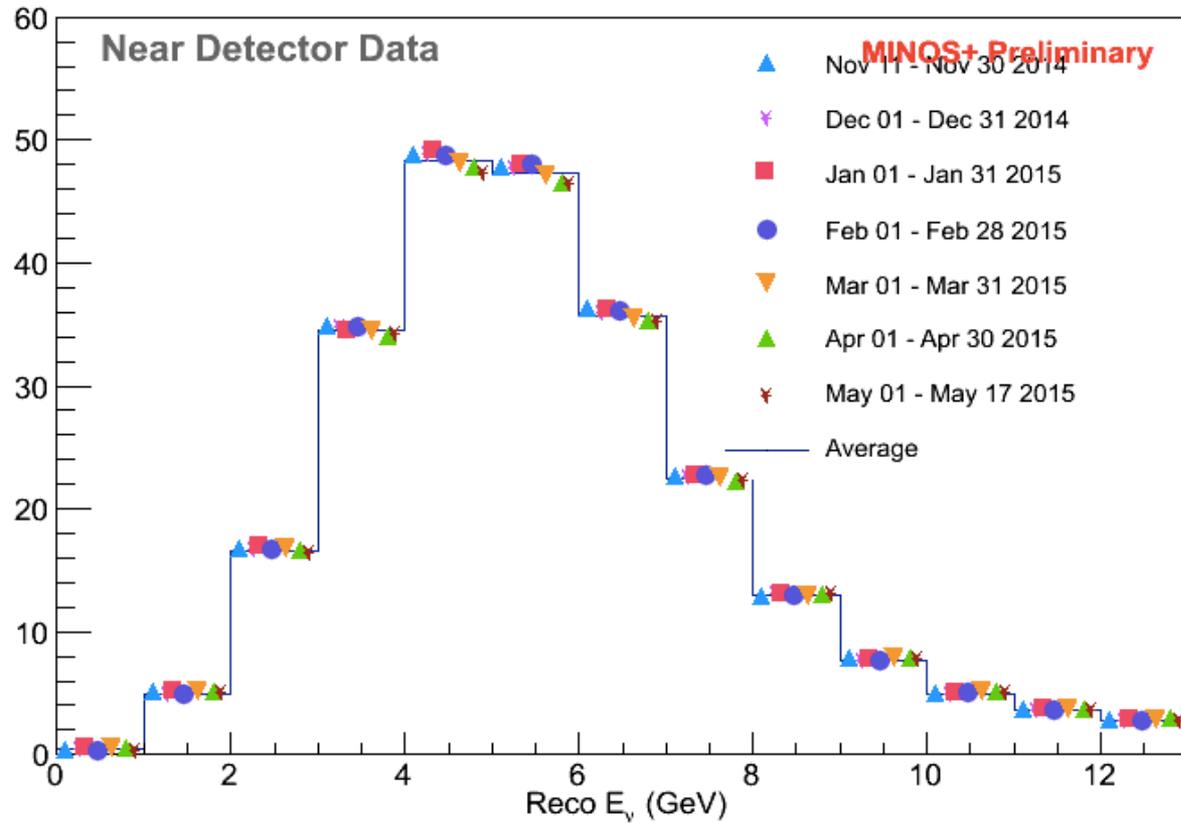


**FD POT Fraction and Live Time Fraction**

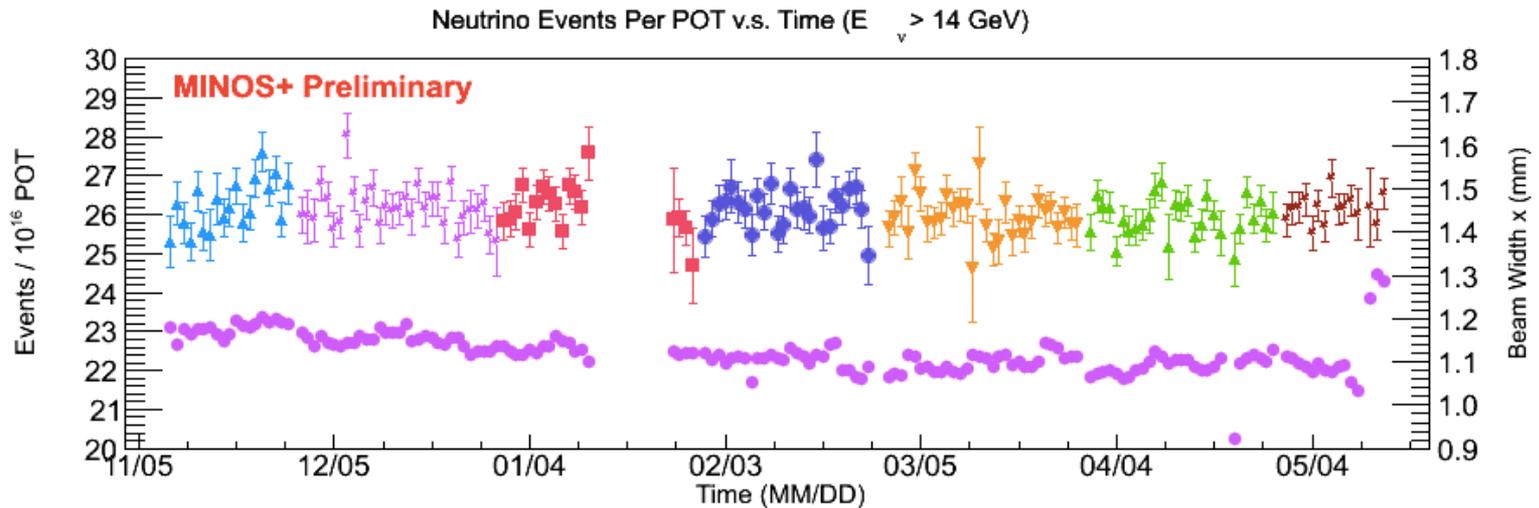
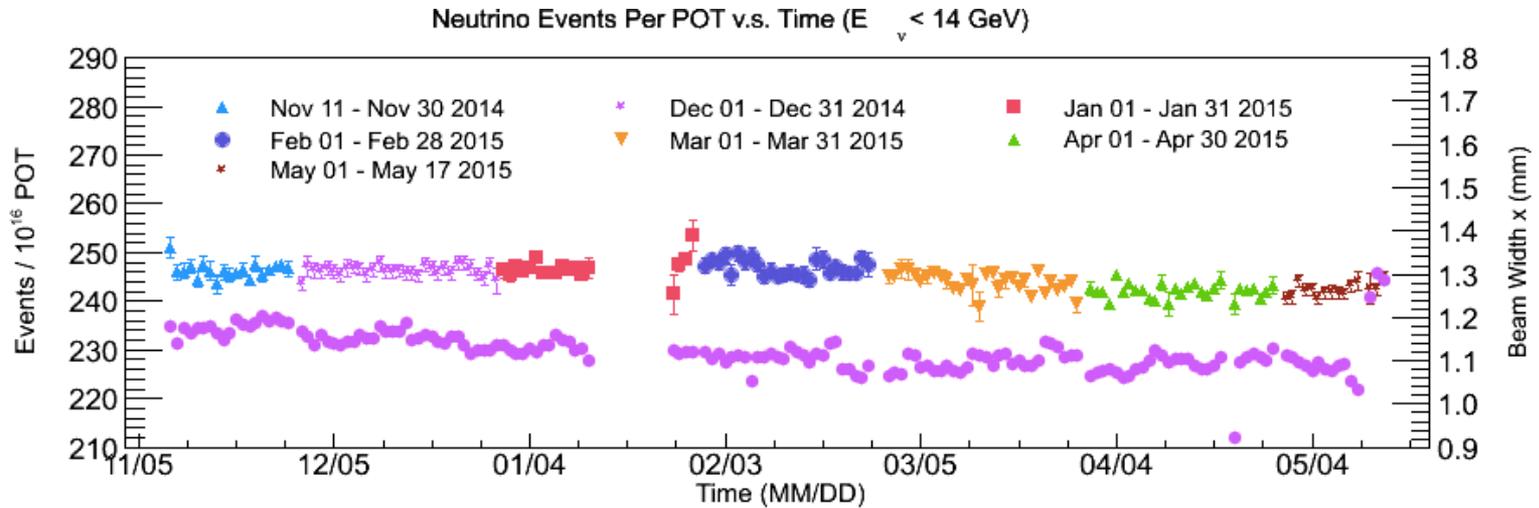




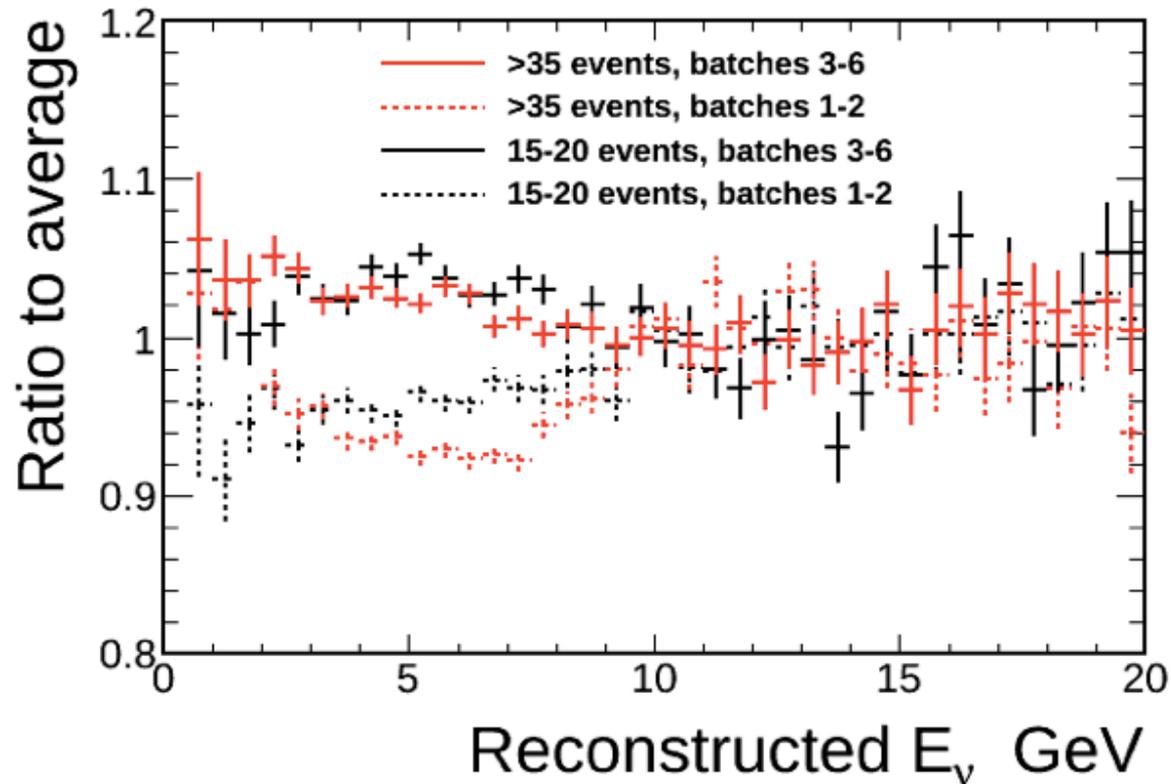
## Neutrino Energy Spectrum Stability (PQ and NQ)



Work is in progress to understand the March/April/May lower events count in the peak region.



## Intensity Investigation by Batches' updated plot



There is an effect that yields a decreased event rate in the beam peak in slip-stacked beam, not the regular batches.

We have now strong evidence that is not a detector pileup but a beam effect.  
Need input from AD to continue and deepen the investigation.