

MINOS+ Status Report



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All Experimenters' Meeting
February 1, 2016



Near Detector



DAQ



- Currently running fine
- Some GPS timing issues
- Web server hiccup

Electronics/Detector issues

- One cold and a few warm channels
 - We'll replace the Minder boards tomorrow



Far Detector



DAQ

- Running very well
- GPS Timing issues

Electronics/Detector news

- No issues
- Taken CI special runs during beam downtimes



GPS Timing errors

- Monday evening, Jan 25 our DAQs crashed due to GPS timing errors reporting signals off by 13 microseconds: FD and ND issues were simultaneous
- Bill B. , who was on call, rebooted & power cycled several component until things got working again
- Same happened the following day, Tuesday Jan 26
- We were very worrying about our timing system's hardware
- Although times don't fully match, it turns out that an 'old' satellite was taken offline ("removed from the constellation") on Jan 25 which caused GPS ground software issues
- See the official Navy site for more details <http://www.navcen.uscg.gov>
- Press release here:
<http://www.navcen.uscg.gov/pdf/gps/AirForceOfficialPressRelease.pdf>
- "Operation procedures were modified to preclude the repeat of this"
- All OK since: NO Spill data recorded during these times

NuMI/MINOS Web servers glitch Saturday morning

- Some websites' configuration errors caused two nodes (1003-1004) to go down for about an hour
- Impaired our ability to monitor the DAQ and DCS
- Experiment did not know what was going on. Need better communication.



MINOS+ Status



Start Date/Time	End Date/Time	Near Detector		Far Detector	
		POT Fraction	Live Time Fraction	POT Fraction	Live Time Fraction
10/26/2015 00:00:00	11/2/2015 00:00:00	97.9%	97.6%	97.6%	98.1%
11/2/2015 00:00:00	11/9/2015 00:00:00	99.5%	99.5%	91.5%	93.4%
11/9/2015 00:00:00	11/16/2015 00:00:00	99.2%	98.9%	99.7%	98.9%
11/16/2015 00:00:00	11/23/2015 00:00:00	88.7%(*)	85% (*)	99.8%	99.9%
11/23/2015 00:00:00	11/30/2015 00:00:00	99.6%	99.4%	99.9%	99.9%
11/30/2015 00:00:00	12/7/2015 00:00:00	95.6%	95.4%	99.9%	99.6%
12/7/2015 00:00:00	12/14/2015 00:00:00	99.6%	99.6%	99.7%	99.4%
12/14/2015 00:00:00	12/21/2015 00:00:00	99.7%	99.5%	99.8%	99.5%
12/21/2015 00:00:00	12/28/2015 00:00:00	99.7%	99.7%	43.4%**	43.6%**
12/28/2015 00:00:00	1/4/2016 00:00:00	81%(@)	85%(@)	70%**	71%**
1/4/2016 00:00:00	1/11/2016 00:00:00	97.5%	97.1%	99.8%	99.8%
1/11/2016 00:00:00	1/18/2016 00:00:00	81.0%(&)	71.5%(&)	92.1%	96.5%
1/18/2016 00:00:00	1/25/2016 00:00:00	97.1%	97.3%	99.7%	99.8%
1/25/2016 00:00:00	2/1/2016 00:00:00	98.8%	97.2%	98.7%	96.5%

(*) Intermittent HV bad readings: DQ flags whole subruns as bad, hence lower LiveTimes.

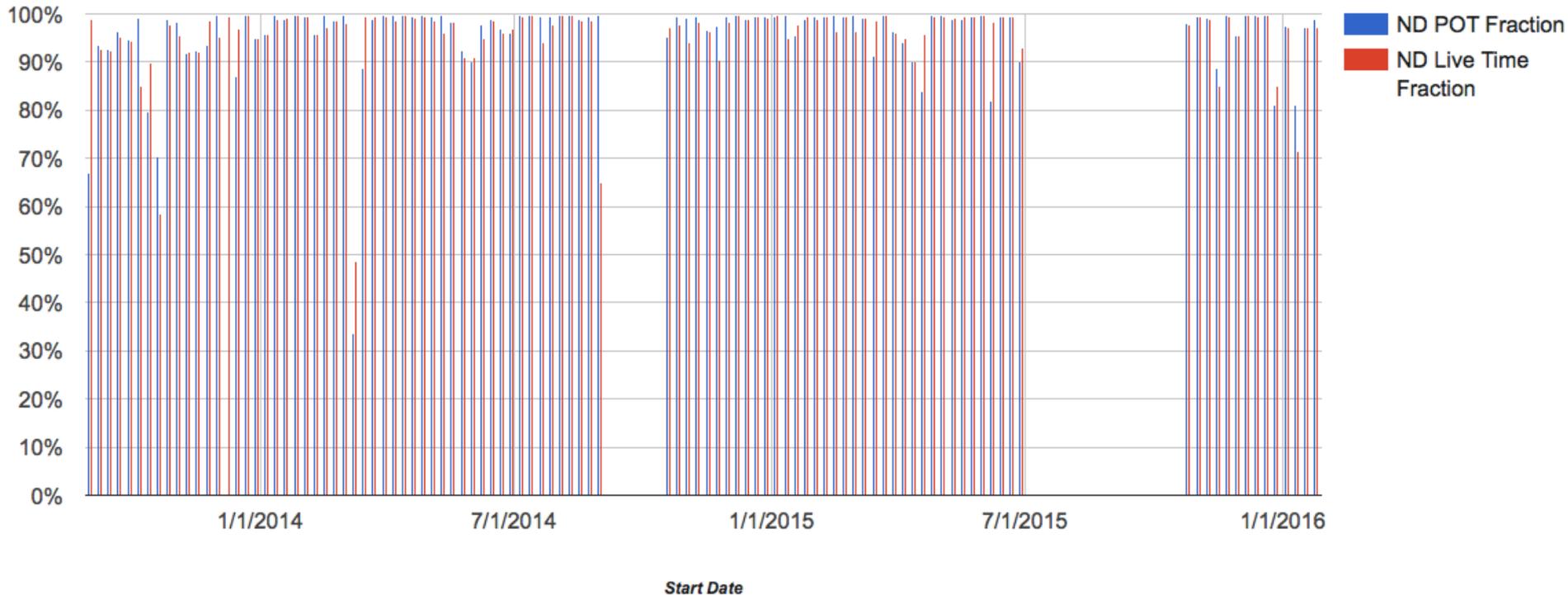
(**) Bad Field Point controller (@) Bad HV Controller (&) Numi Breaker power glitches



MINOS+ ND Status



ND POT fraction and Live Time Fraction

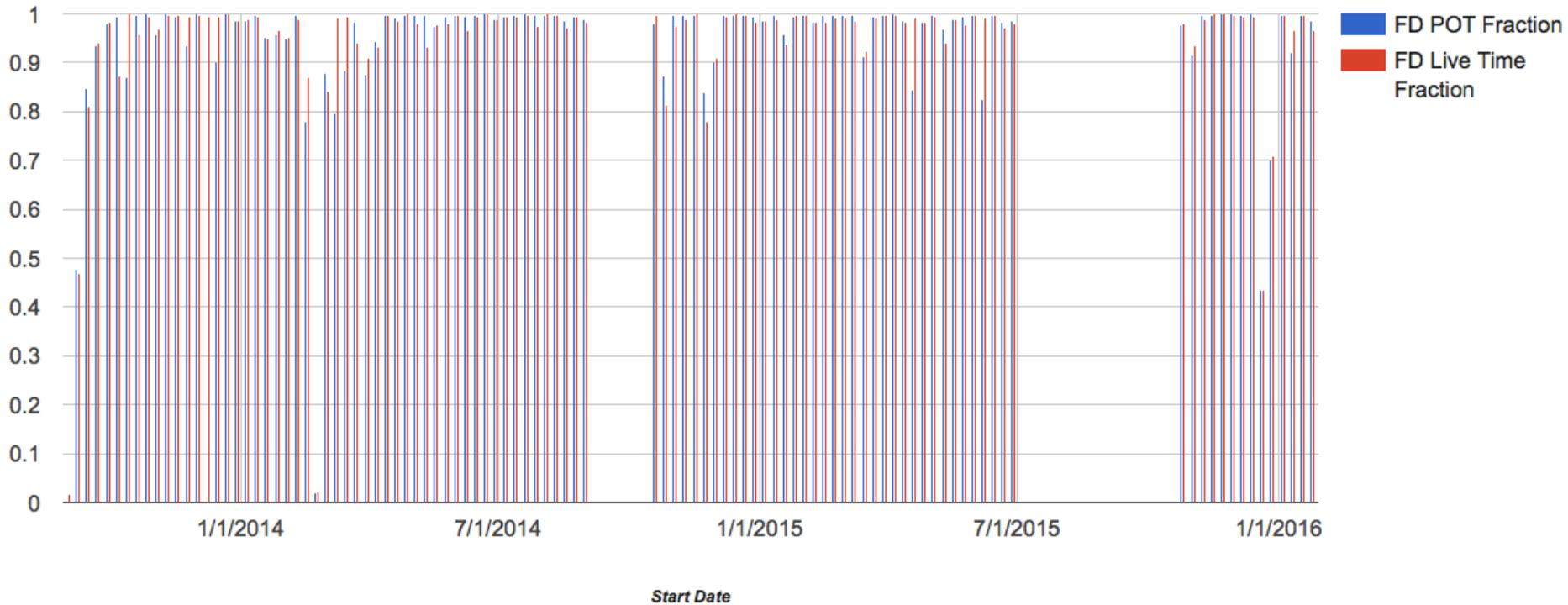




MINOS+ FD Status



FD POT Fraction and Live Time Fraction

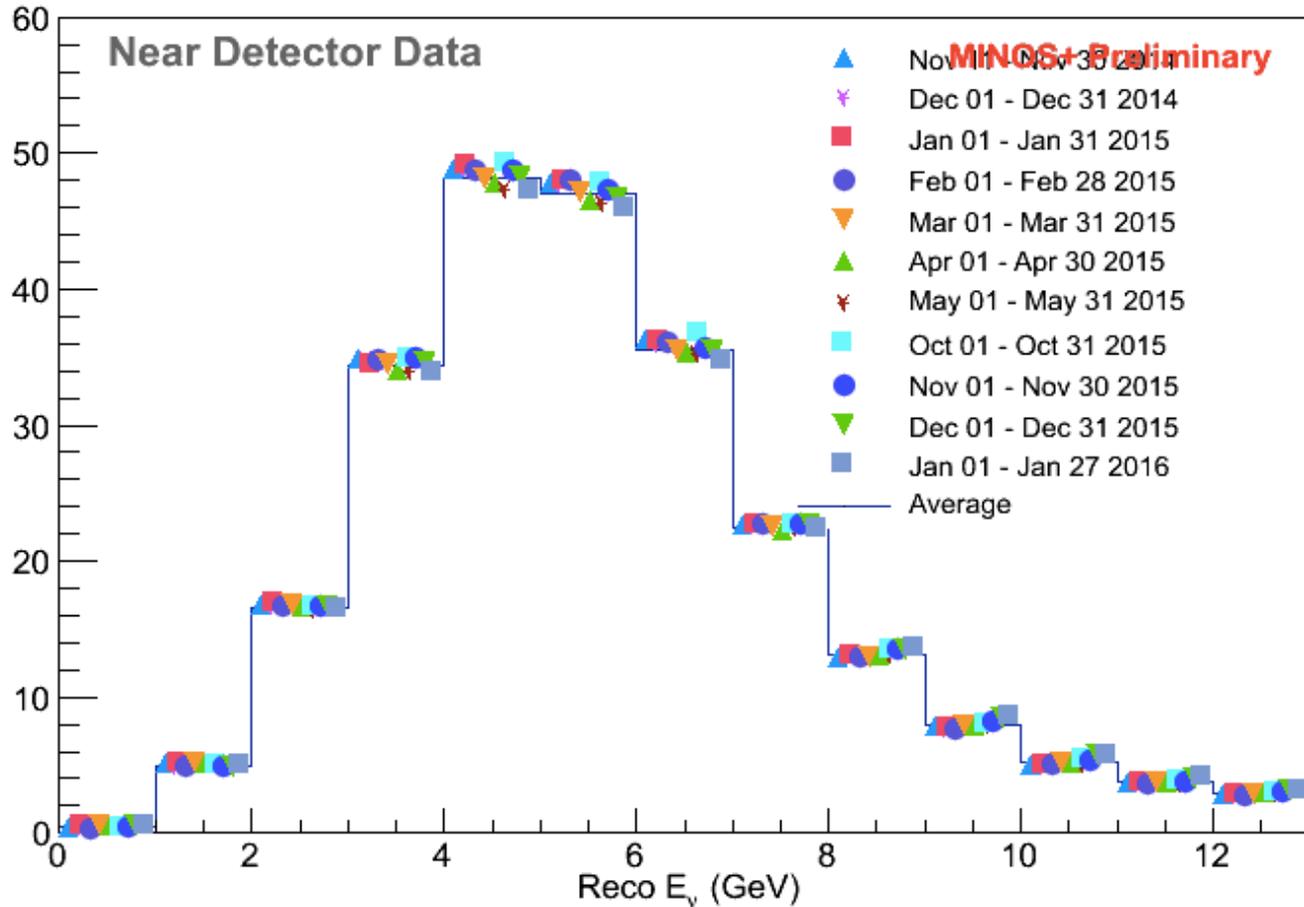




Energy Spectrum



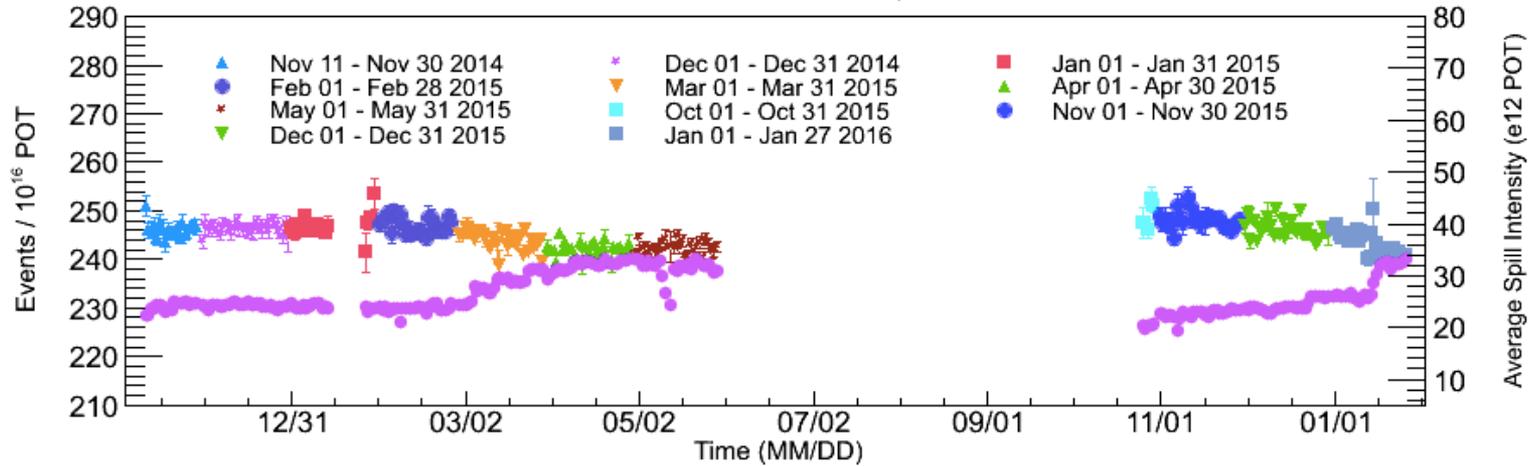
Neutrino Energy Spectrum Stability (PQ and NQ)





Events/POT + Intensity

Neutrino Events Per POT v.s. Time ($E_{\nu} < 14$ GeV)



Neutrino Events Per POT v.s. Time ($E_{\nu} > 14$ GeV)

