MINOS+ All Experimenters' Meeting Report

A.P. Schreckenberger
2016-1-25

Near Detector

- Previous week 18th - 25th was relatively quiet
  - Few DAQ crashes which were cleared with branch resets

- Week of 11th – 18th was incredibly busy
  - Jan 12: Power glitch affects ACNET devices and magnet status
  - Jan 13: Swapped HV MF card while power out (intermittent readout errors)
  - **Breaker woes at ND caused power trips (impacted clean power)**
    - New 400A breaker installed
  - Jan 16: ROP3 Master / ACNET timing issues
    - Master replaced, detector recalibrated, Saturday spent in the cozy underground confines…
      - Great rejoicing… yay…

Far Detector

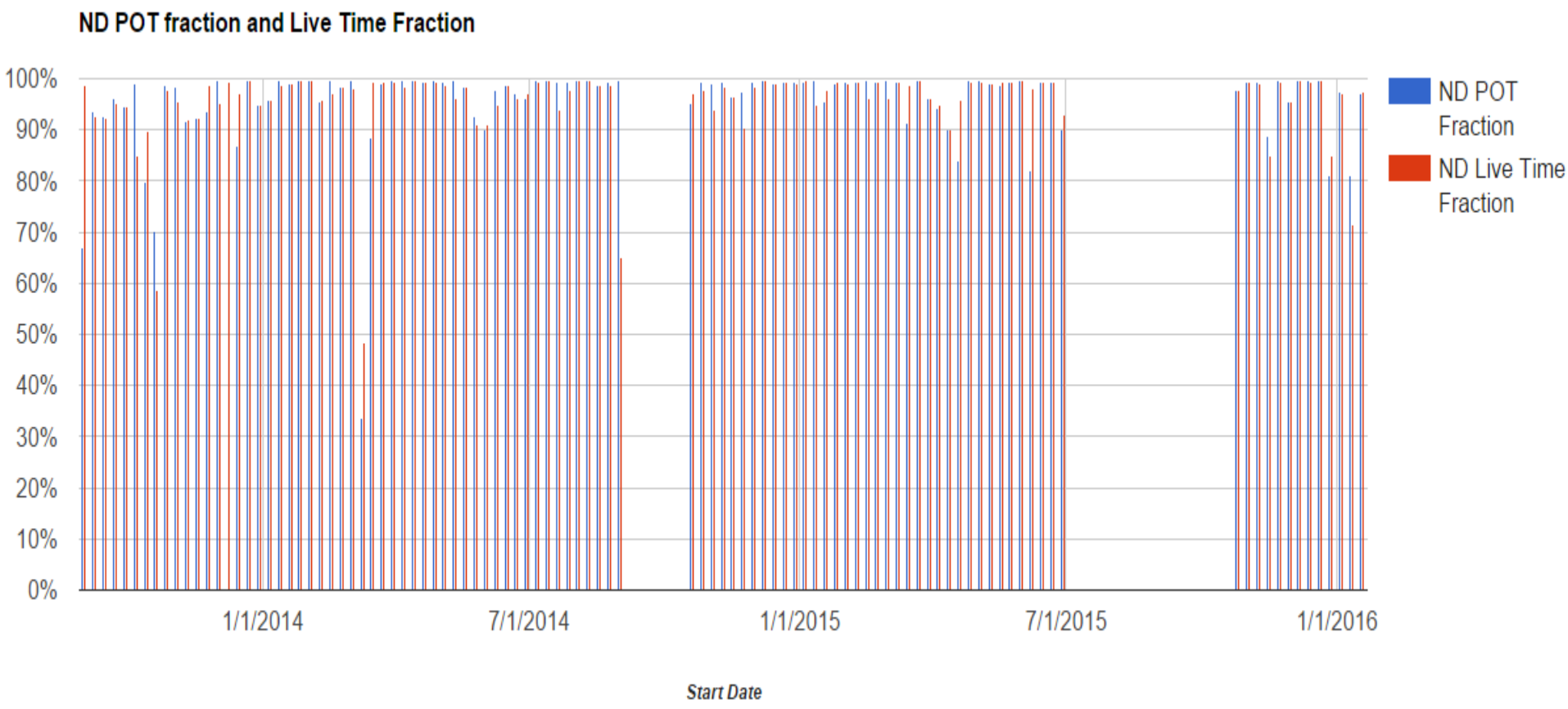
- Not to be outdone by the Near, the Far Detector had a lovely, quiet two weeks.

MINOS+ Status

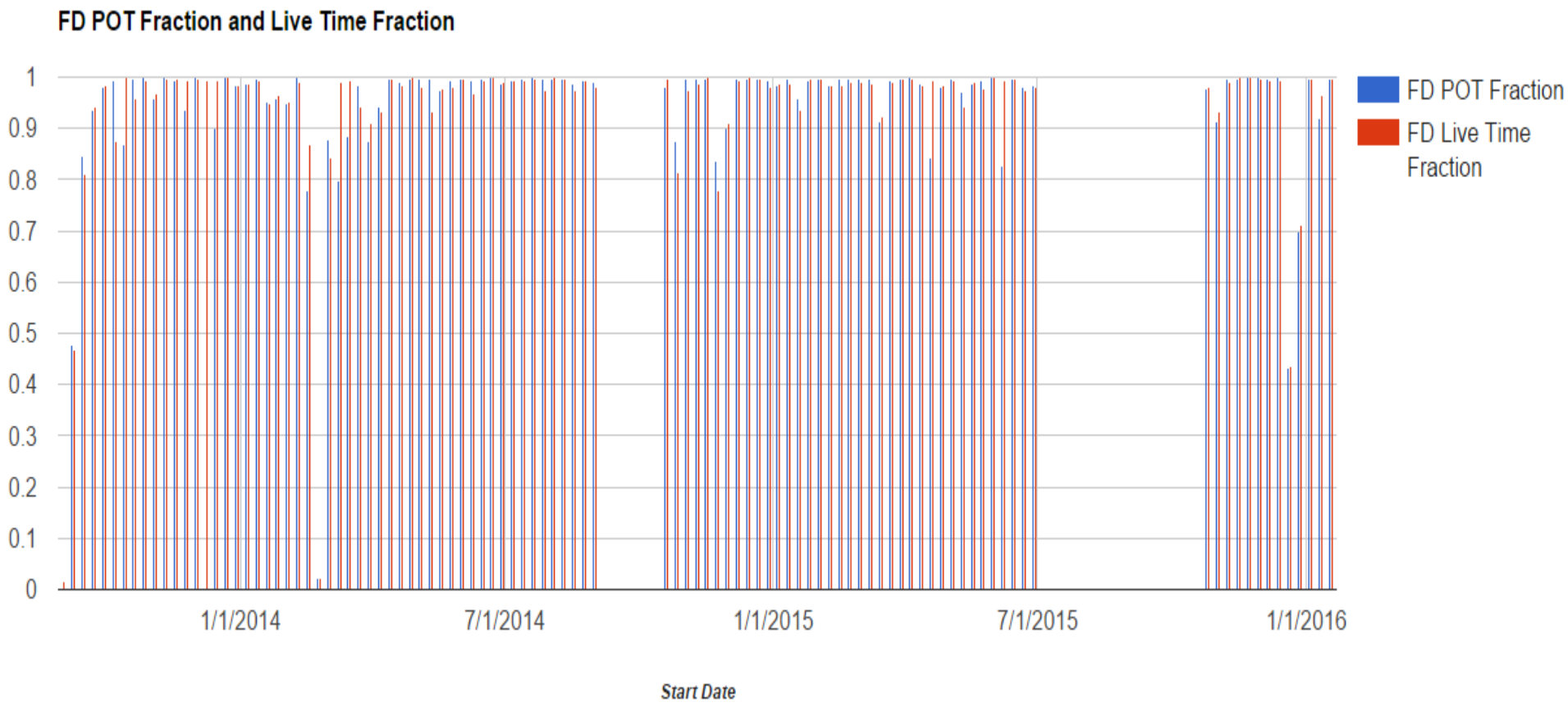
		Near Detector		Far Detector	
Start Date/Time	**End Date/Time**	**POT Fraction**	**Live Time Fraction**	**POT Fraction**	**Live Time Fraction**
11/23/15 00:00:00	11/30/15 00:00:00	99.6%	99.4%	99.9%	99.9%
11/30/15 00:00:00	12/7/15 00:00:00	95.6%	95.4%	99.9%	99.6%
12/7/15 00:00:00	12/14/15 00:00:00	99.6%	99.6%	99.7%	99.4%
12/14/15 00:00:00	12/21/15 00:00:00	99.7%	99.5%	99.8%	99.5%
12/21/15 00:00:00	12/28/15 00:00:00	99.7%	99.7%	**43.4%**	**43.6%**
12/28/15 00:00:00	1/4/16 00:00:00	81.0%	85.0%	70.0%	71.0%
1/4/16 00:00:00	1/11/16 00:00:00	97.5%	97.1%	99.8%	99.8%
1/11/16 00:00:00	1/18/16 00:00:00	*81.0%	*71.5%	92.1%	96.5%
1/18/16 00:00:00	1/25/16 00:00:00	97.1%	97.3%	99.7%	99.8%

Bold: Intermittent HV bad readings, which DQ flags whole subruns
Underline: Bad HV Controller (ND); Bad HV Controller (FD)
(*) See slide 2

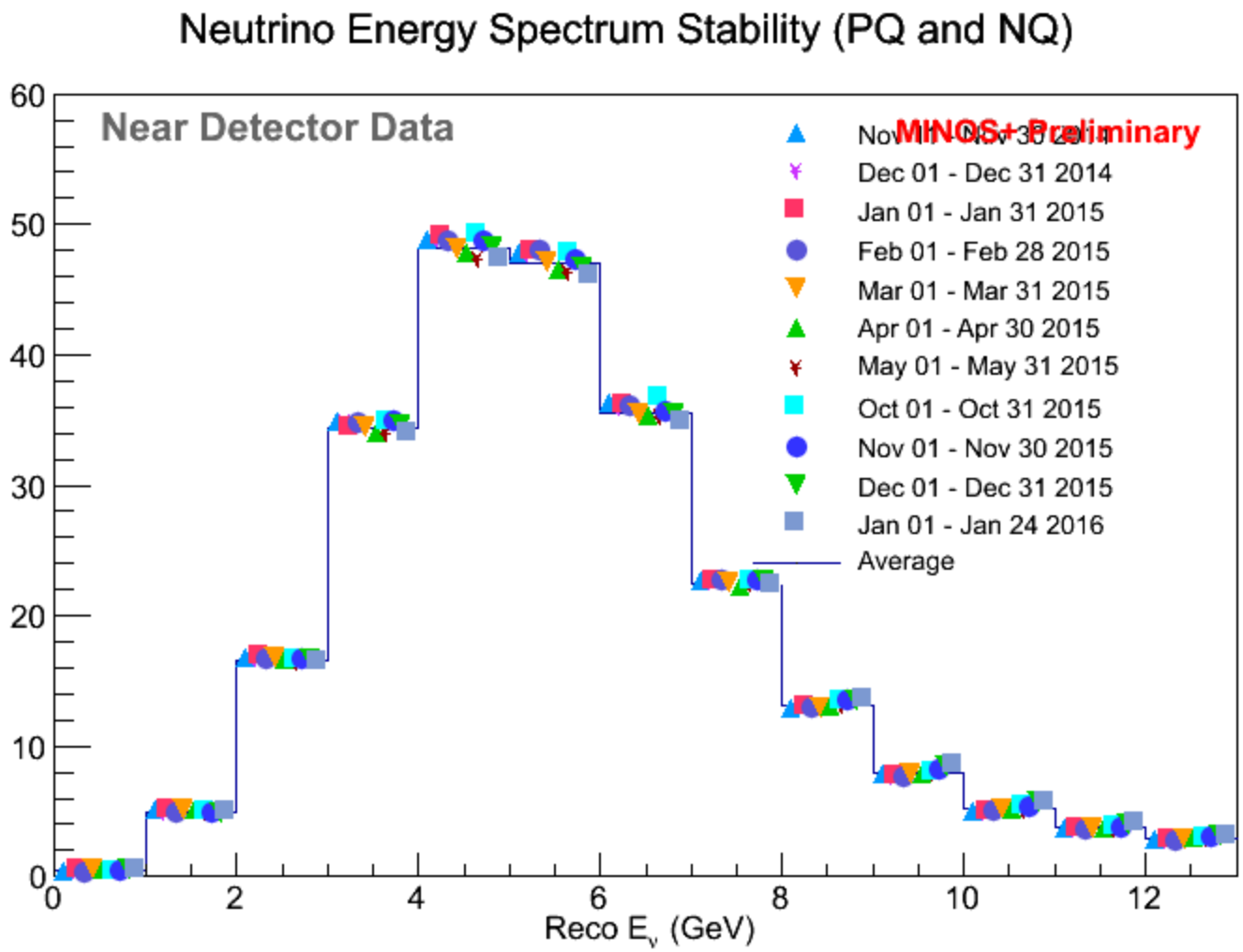
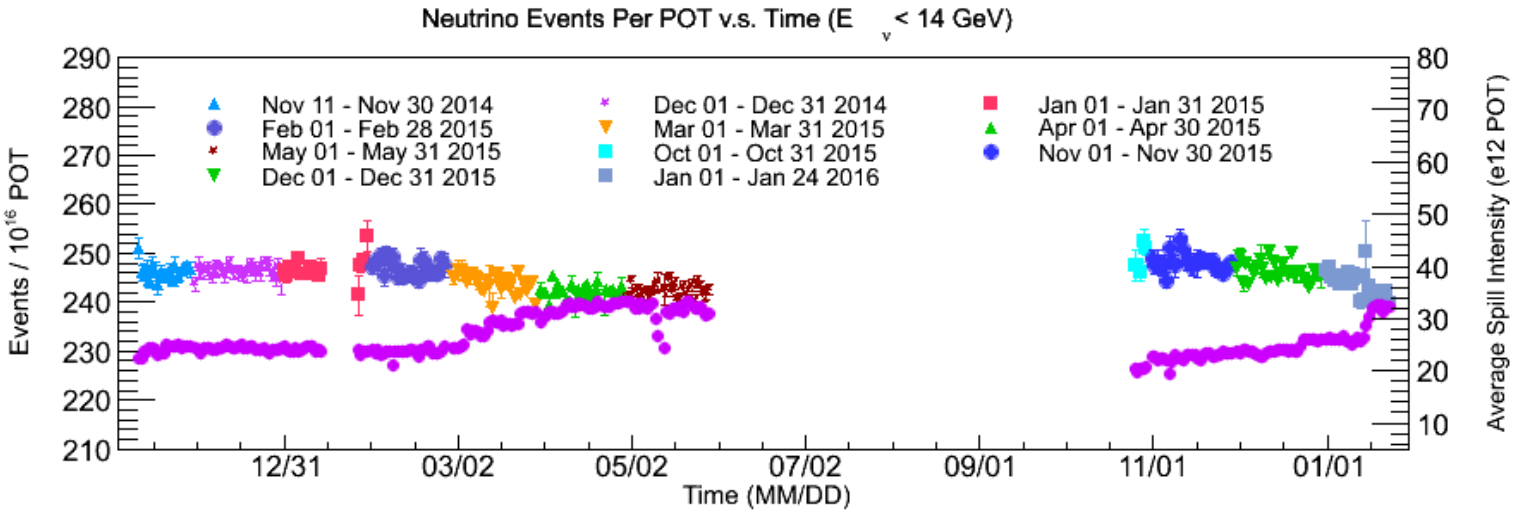
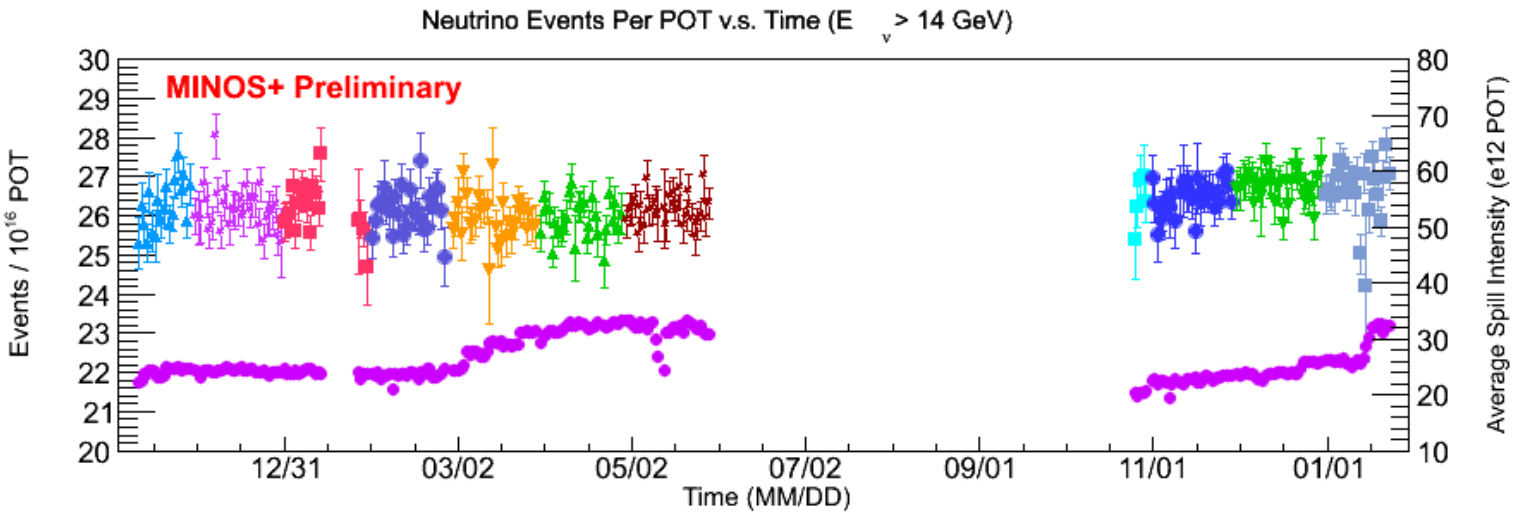
ND Status


ND POT fraction and Live Time Fraction
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1/1/2014
7/1/2014
1/1/2015
7/1/2015
1/1/2016
Start Date
ND POT Fraction
ND Live Time Fraction

FD Status


FD POT Fraction and Live Time Fraction
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/1/2014
7/1/2014
1/1/2015
7/1/2015
1/1/2016
Start Date
FD POT Fraction
FD Live Time Fraction

Spectrum!


Neutrino Energy Spectrum Stability (PQ and NQ)
Near Detector Data
MINOS+ Preliminary
Nov 01 - Nov 30 2014
Dec 01 - Dec 31 2014
Jan 01 - Jan 31 2015
Feb 01 - Feb 28 2015
Mar 01 - Mar 31 2015
Apr 01 - Apr 30 2015
May 01 - May 31 2015
Oct 01 - Oct 31 2015
Nov 01 - Nov 30 2015
Dec 01 - Dec 31 2015
Jan 01 - Jan 24 2016
Average
Reco E_ν (GeV)
0
10
20
30
40
50
60
0
2
4
6
8
10
12

Events/POT + Intensity