

NOvA Experiment Status

All Experimenter's Meeting

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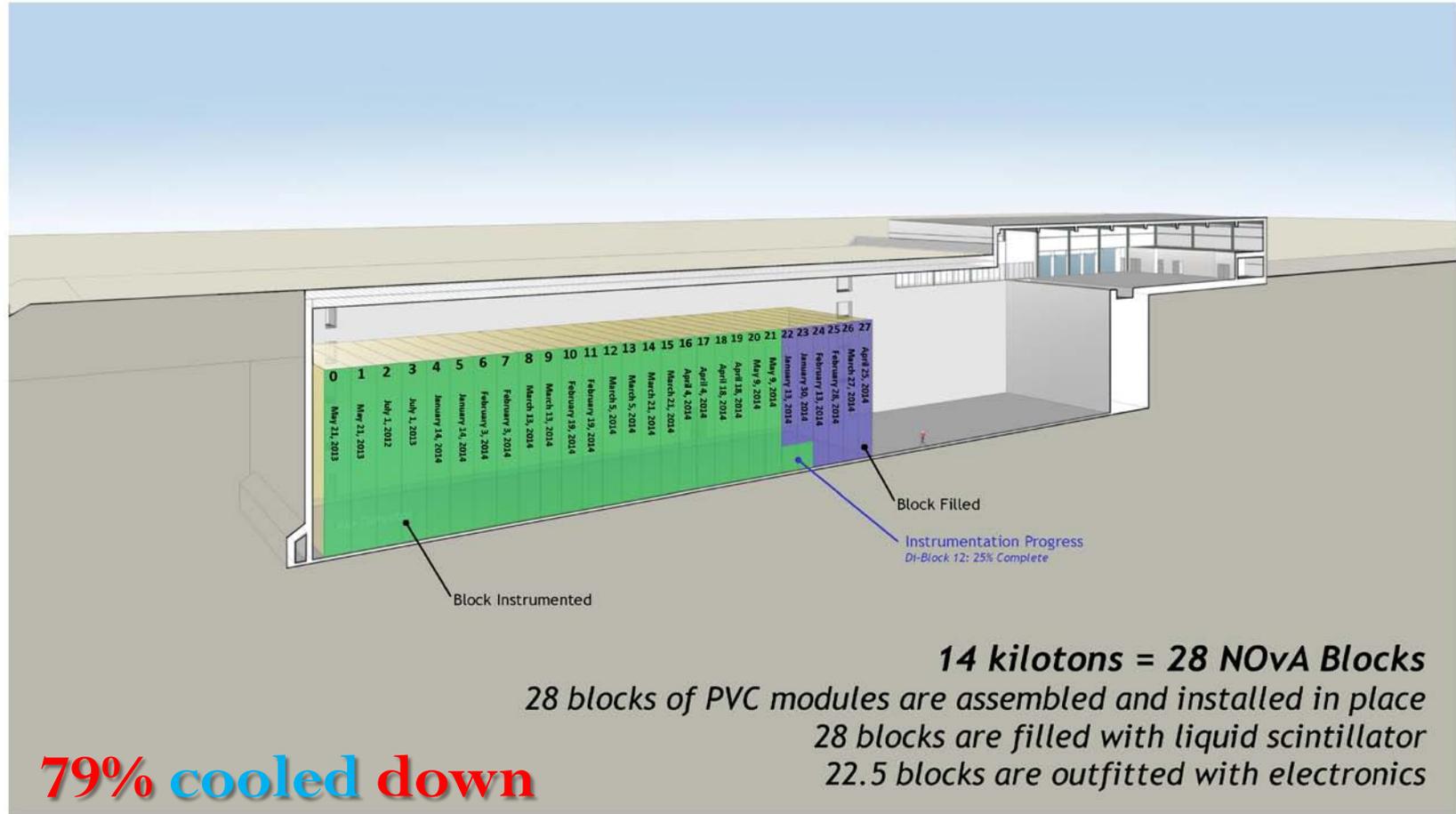
May 19, 2014

FD: Detector Assembly Progress



NOvA Far Detector Assembly Progress

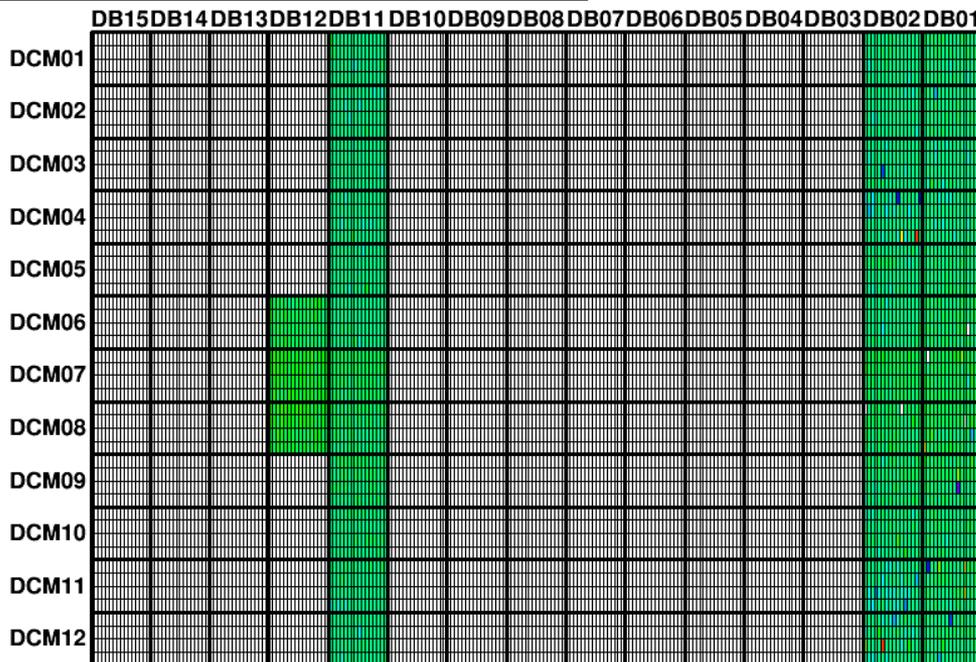
Status Date: 19MAY14



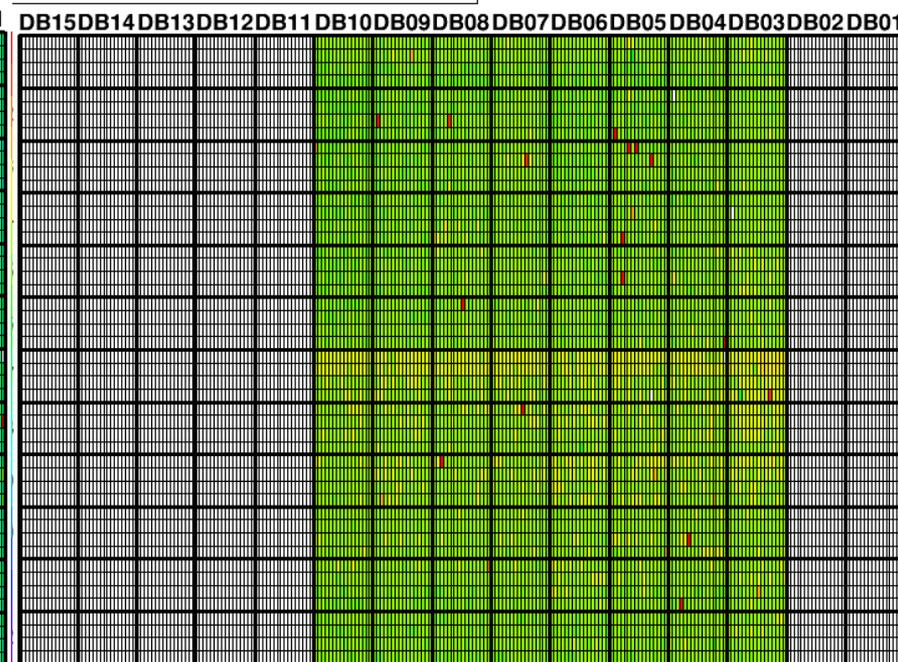
FarDet: Data-Taking



Number of hits recorded by FEB



Rate recorded by FEB in Hz

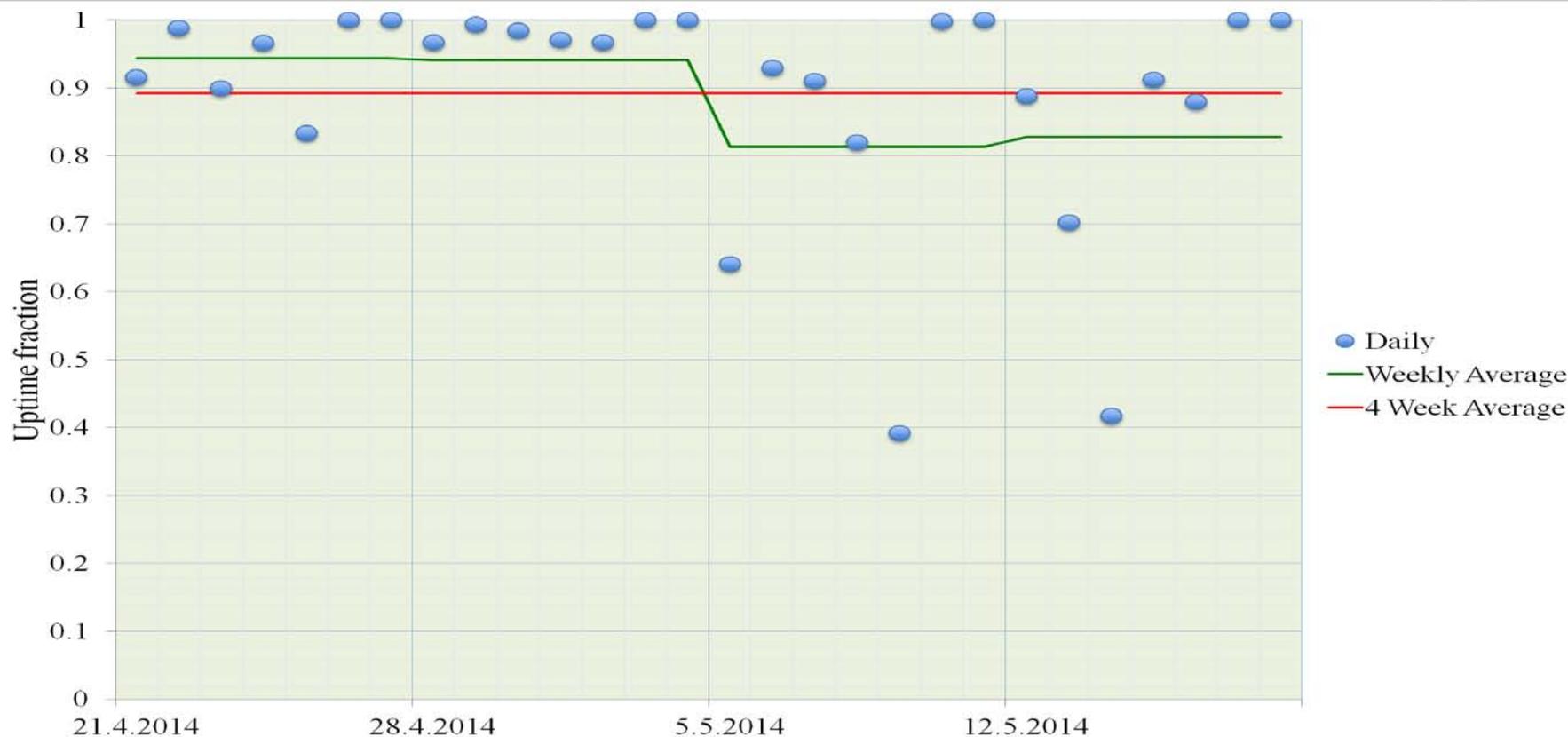


Partition 2 – Diblocks 11,12 +1,2
 Diblocks 1,2,11 cooled APDs
 Installation of new APDs on DB 12

Partition 1 – diblocks 3,4,5,6,7,8,9,10
 3 superblocs are active.
 Running ~99% active, cooled APDs
 HV at full gain values

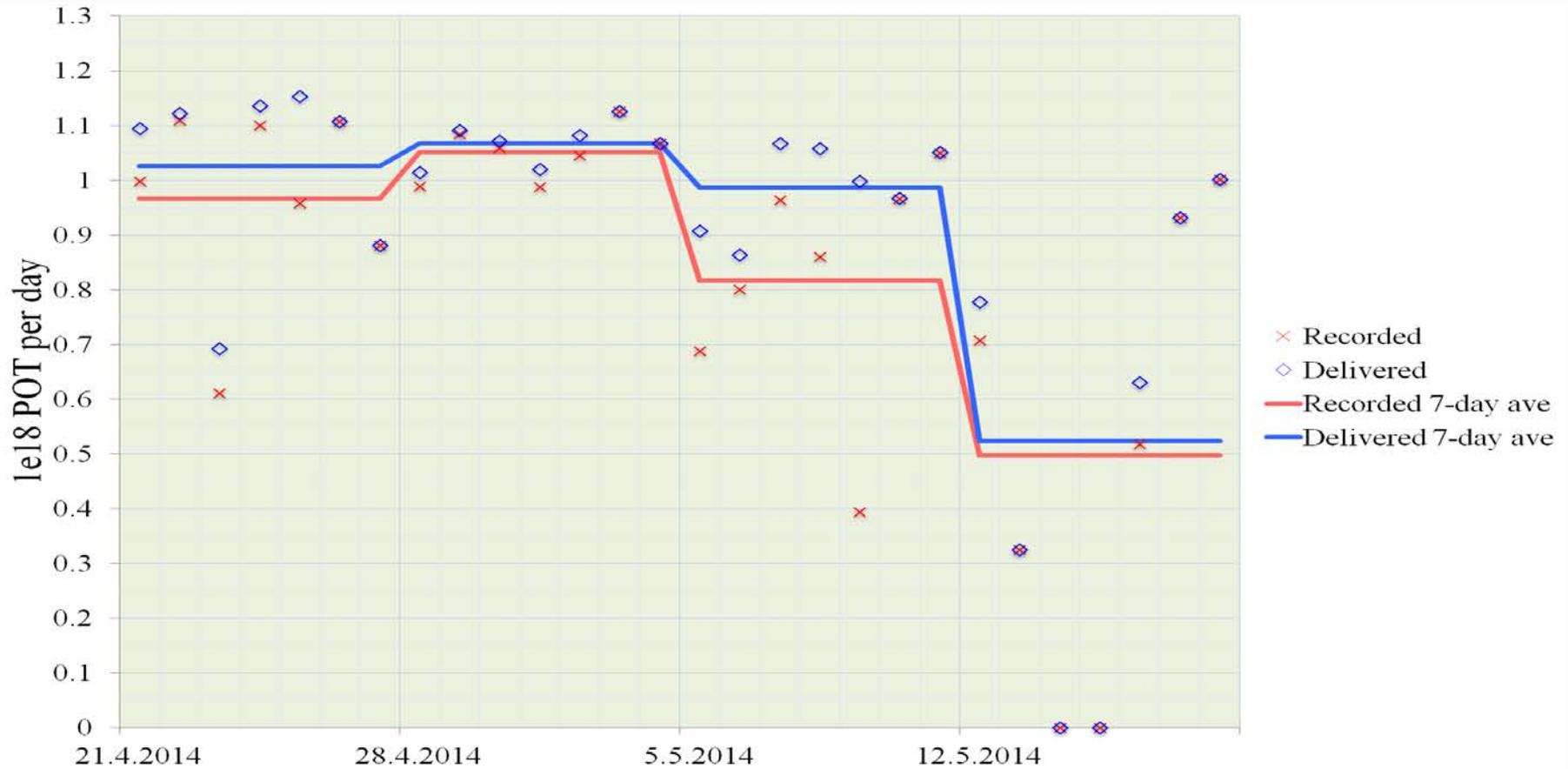
Partition 3 – running diblocks 13, 14 (Front End Boards only)

FD: DAQ Uptime



- Beam shut down used to repair and maintenance work throughout FarDet.
- This went to big data-taking downtimes but will increase quality of data in future.
- Averaging about 89% and only poor 83% in past week.
- The Partition 1 will be kept unattached till next big beam shutdown.

FD: POTs delivered/recorded



- 3 days beam shutdown clearly visible
- We recorded in average 0.50 $e18$ (from 0.52) pots/day with 95% efficiency.
- When the beam was up we were very efficient.

NearDet: Detector Assembly Progress



nova-ndug-cam-01 Fri May 16 16:19:48 2014
Exposure: 1/40 (1200) Frame: 67488634
Internal Temp: 42.0



Near Detector status



NOVA Near Detector (DETID 1)												
		3				2				1		
DIB		3				2				1		
MC		7				6				5		
BLK		7				6				5		
GP		7				6				5		
LP		dcm-1-03-01				dcm-1-02-01				dcm-1-01-01		
PRT		dcm-1-03-01				dcm-1-02-01				dcm-1-01-01		
POS 1		dcm-1-03-01				dcm-1-02-01				dcm-1-01-01		
POS 2		dcm-1-03-01				dcm-1-02-01				dcm-1-01-01		
POS 0		dcm-1-03-01				dcm-1-02-01				dcm-1-01-01		
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- FEB and APD
 - no FEB and filled
 - FEB Installed
- dcm - Data Concentrator Module Name
 Dib - DIBlock number
 GP - Global Plane Number
 BLK - Block number
 LP - Local Plane number in Block
 PRT - DCM Port Number
 POS - Module Position in View

✓ ALL FEBs installed!
 ➤ ~70 APDs installed

Summary



FarDet:

- **22,5** of 28 blocks of FarDet fully-instrumented, running with full gain mode.
- **11** of 14 diblocks successfully cooled down.
- The 'Physics' partition is setup to 8 diblocks to keep running with 3 superblocs for neutrino counting.
- The 3 days beam shutdown we used to maintenance of entire detector, affected data taking everywhere.

NearDet:

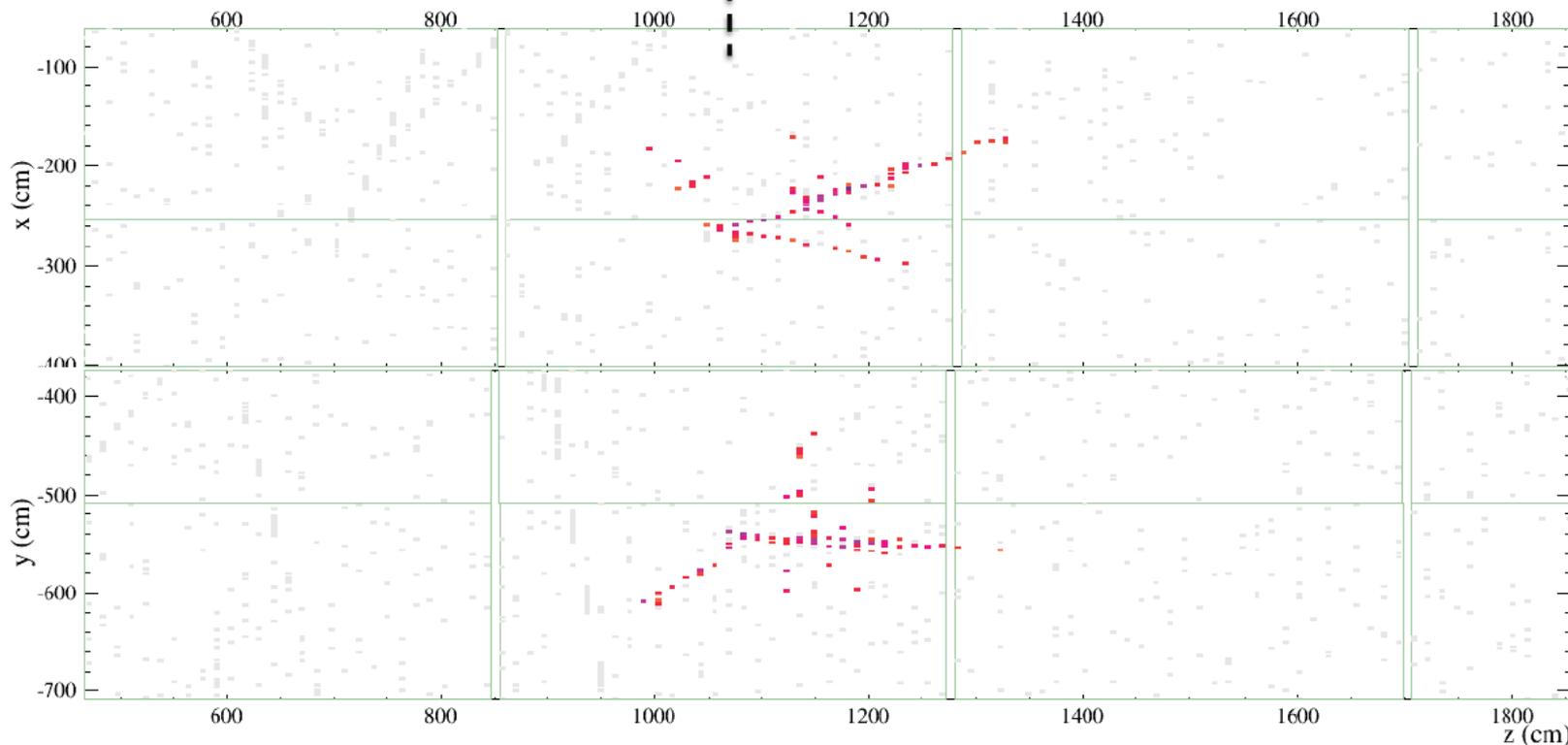
- **FEB installation is done!**
- 1st batch of 64 APDs installed on diblock3 (+8 on MC)
- Plan to install another batch of APDs this week.

FD: Golden neutrino candidate #1/R3



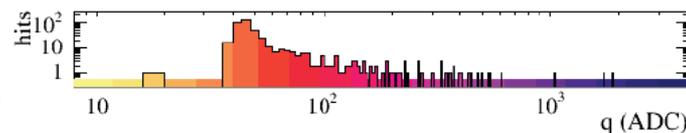
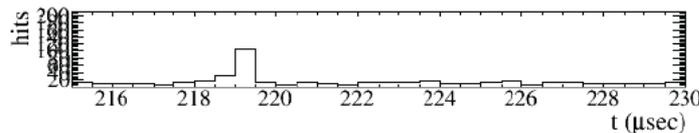
Event Displays:

1st Super-Block (SB 0) 2nd Super-Block (SB 1)



NOvA - FNAL E929

Run: 14737 / 6
 Event: 62508 / NuMI
 UTC Thu Apr 17, 2014
 21:23:10.091535768



14737 6 62508 (6/0/0) 12

IN Beam Window

NuMI Scan Results - Round 3

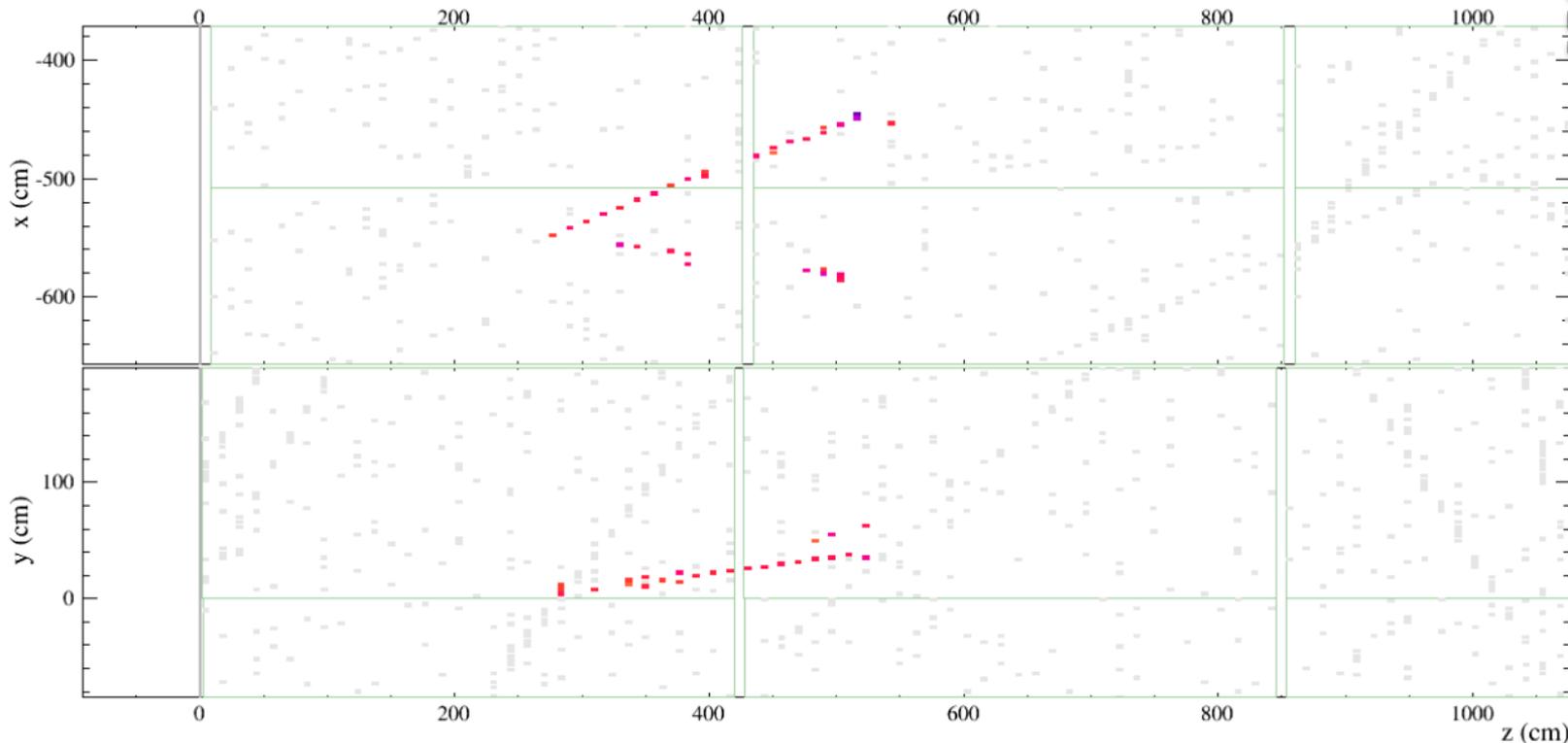
16

FD: Golden neutrino candidate #2/R3



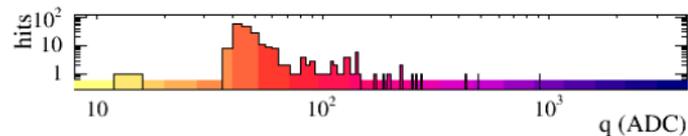
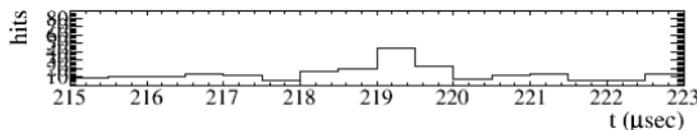
Event Displays:

1st Super-Block (SB 0)



NOvA - FNAL E929

Run: 14737 / 31
 Event: 291483 / NuMI
 UTC Thu Apr 17, 2014
 22:33:39.130709640



14737 31 291483 (5/1/0) 11

IN Beam Window

NuMI Scan Results - Round 3

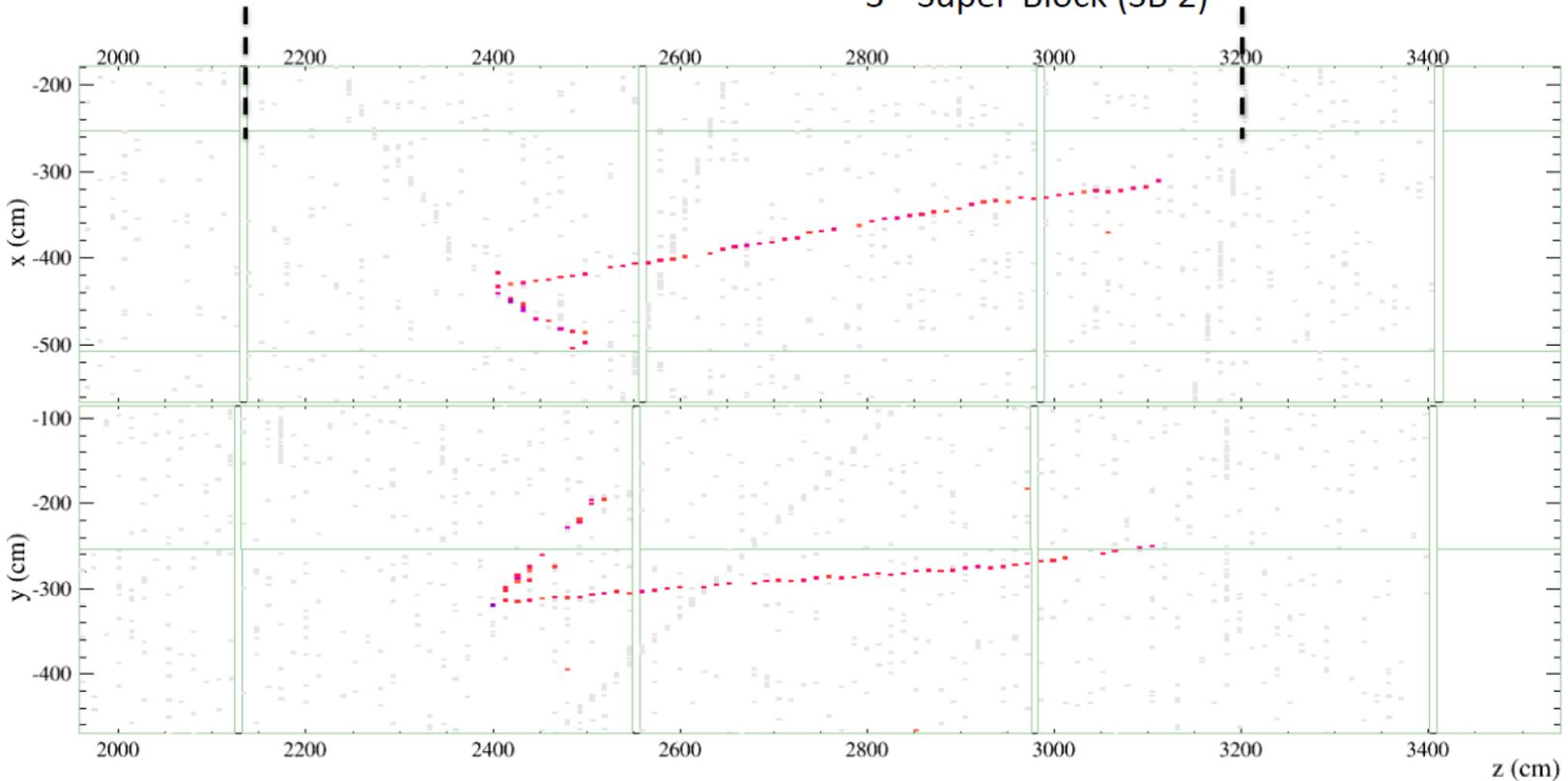
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FD: Golden neutrino candidate #3/R3



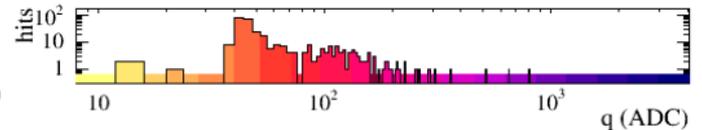
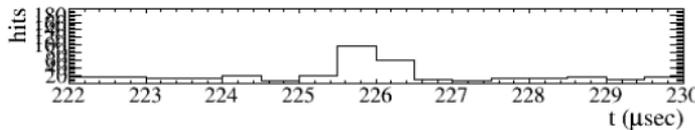
Event Displays:

3rd Super-Block (SB 2)



NOvA - FNAL E929

Run: 14828 / 38
 Event: 192569 / NuMI
 UTC Tue Apr 22, 2014
 21:41:51.422846016



14828 38 192569 (5/0/0) 10

IN Beam Window

NuMI Scan Results - Round 3

18