

NOvA Operations Status

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03/07/2016

Detector Operations

02/29 — 03/07

NearDet: ~175 minutes DAQ downtime with beam

Mar 06@ 02:55 (~155 min): ND run stopped “Error in dcm -1-01-02 due to Ctrl Register General status error.” Rebooted DCM, didn’t come back. Power cycle, reboot again, recool.

Mar 02@ 01:16 (~10 min): “Error in bnevb004 due to undefined error” RC turned red. Shifter followed instructions to restart RC from such a state. ECL 81254.

Feb 29@ 21:16 (~10 min): RC Server disconnected. Shifter called DAQ expert, who stopped and restarted the run. ECL 81187-81189.

FarDet Ganglia Node: Replaced

novadaq-far-daqmon: Disk began to show signs of failing; repurposed novadaq-far-farm-46 to take its place. Longer term plan to put new disk in original machine.

Standard Maintenance: FarDet and NearDet

FD, Feb 29: Swapped FEBs at 4 locations.

Recovery Site-wide Power Outage

Summary

Mar 4, 22:00-23:45

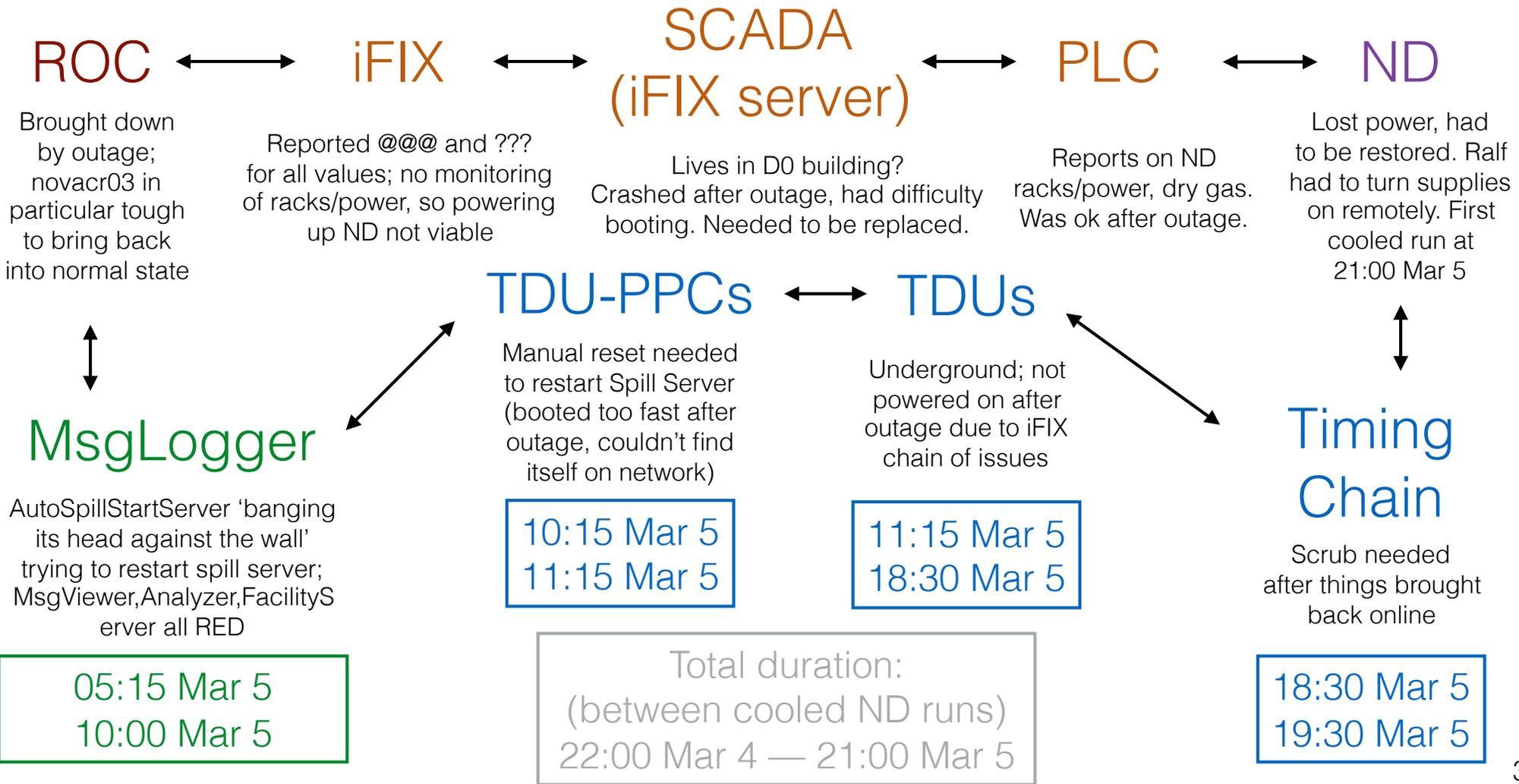
Time Identified
Time Resolved

Information Flow

22:00 Mar 4
03:30 Mar 5

03:30 Mar 5
18:30 Mar 5

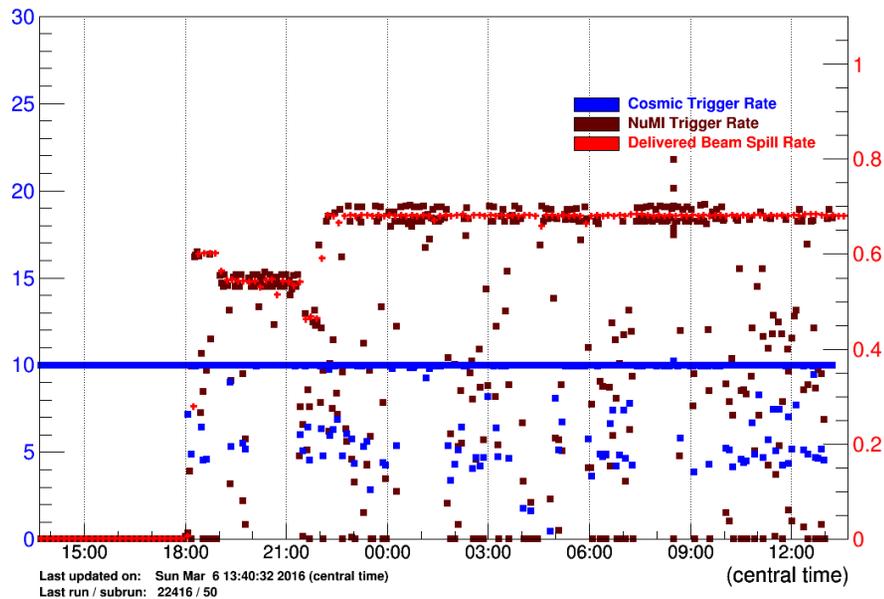
22:00 Mar 4
21:00 Mar 5



Trigger instabilities

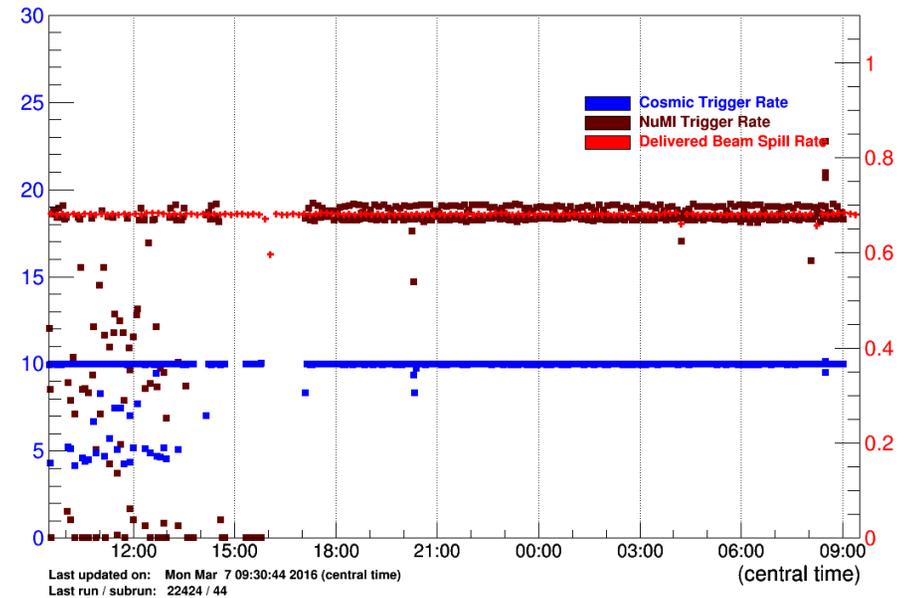
Began night Mar 5 — Mar 6

Average Trigger and Spill Rates (Hz) - partition 1



Resolved by ~17:00 Sunday, Mar 7

Average Trigger and Spill Rates (Hz) - partition 1

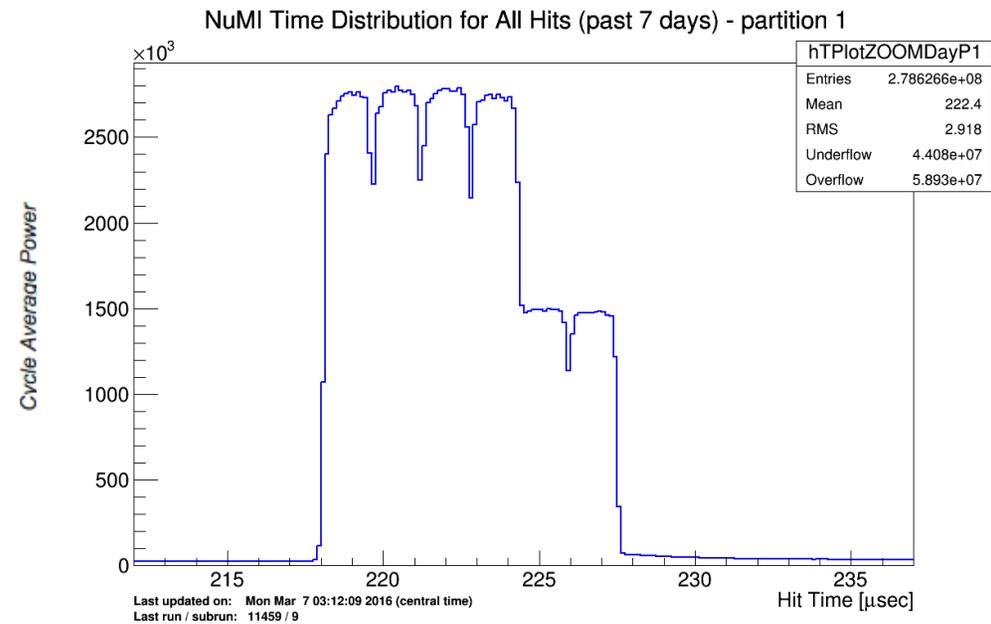
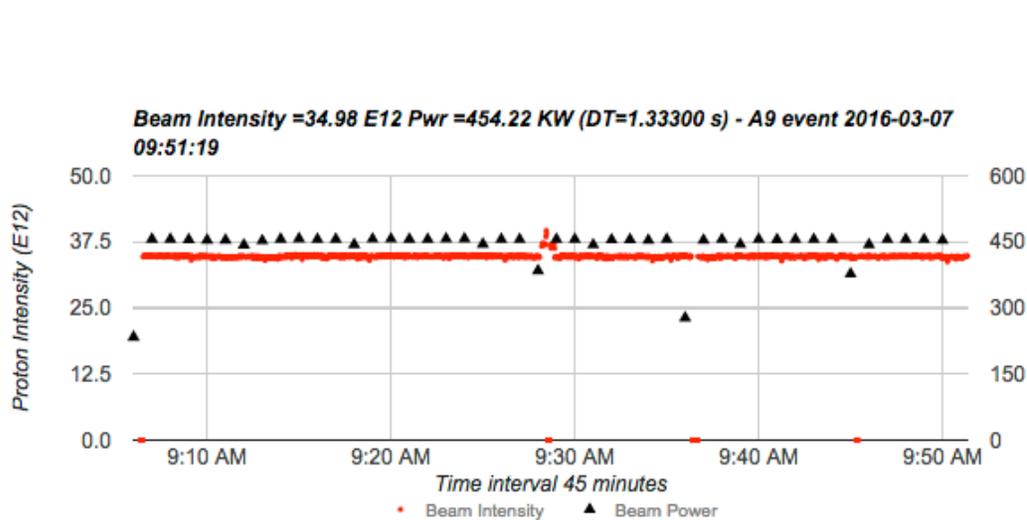


Expert believes it may have been due to too many signals being broadcast by the spill server (including to non-used partitions)

This had not been a problem in the past; believed that after the outage, network came back in some new/weird state.

After broadcasts to non-used partitions were eliminated (6 → 2), issue disappeared.

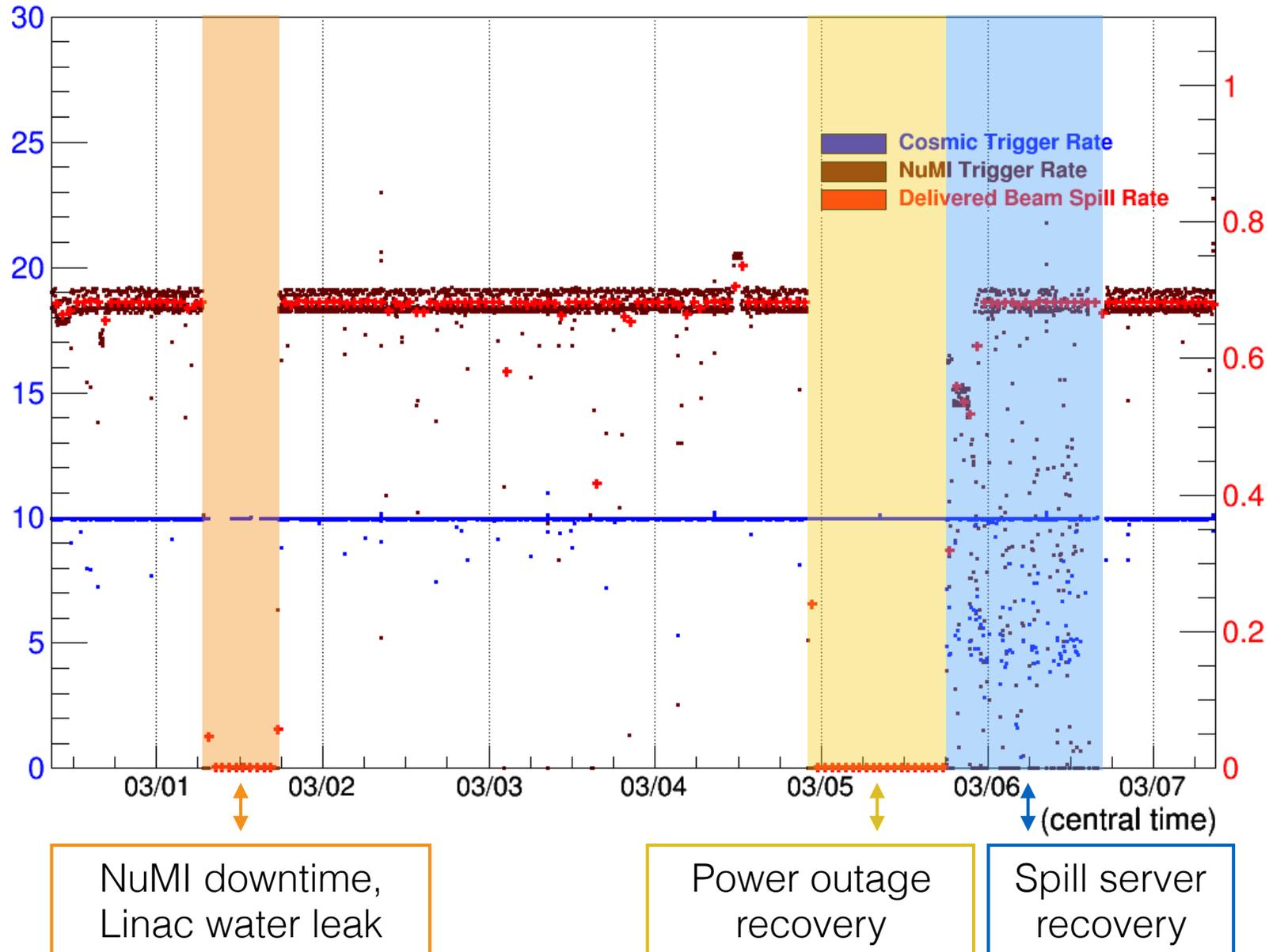
4+6 slip stacking, ~ 450 kW



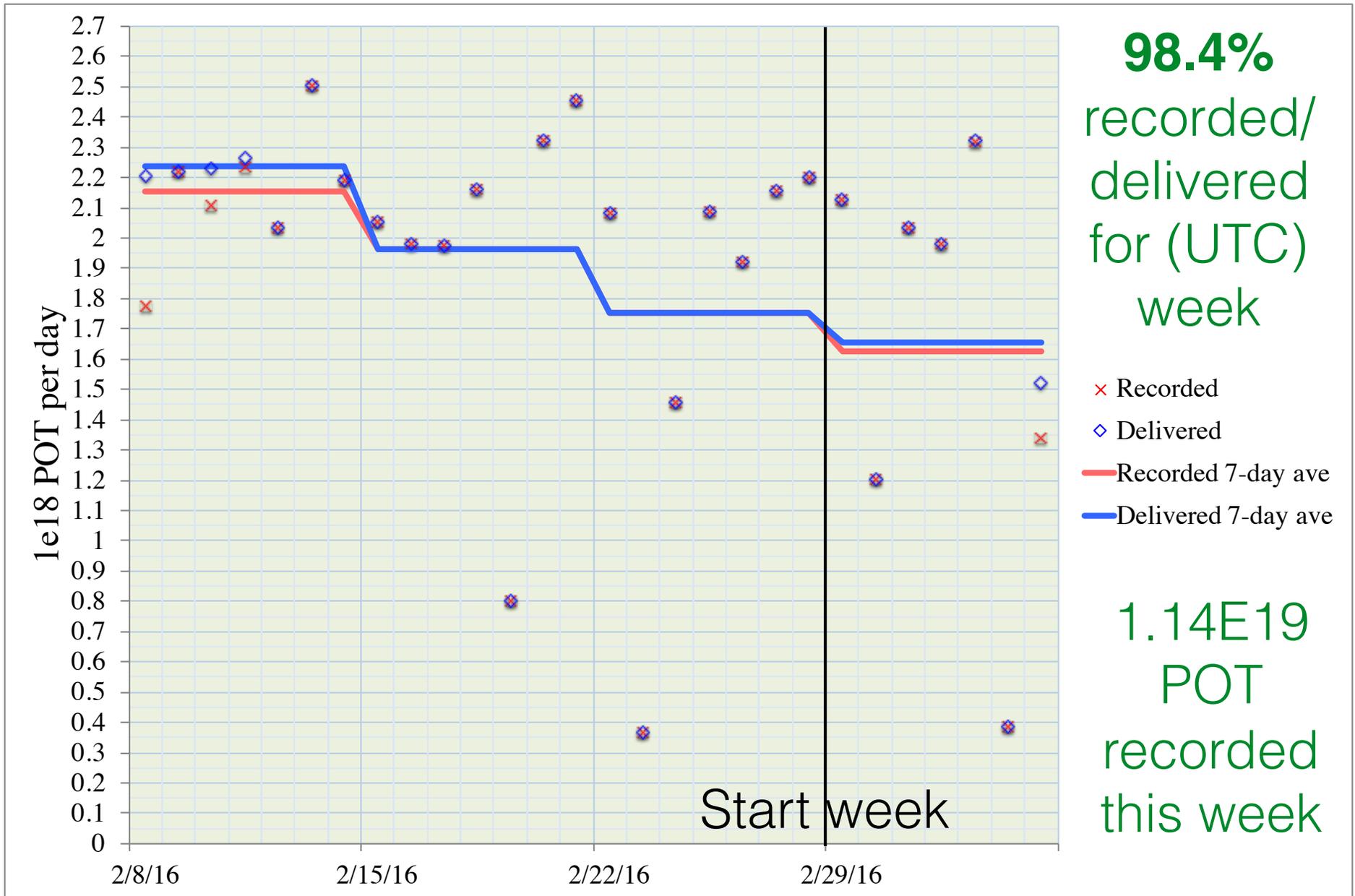
Plots taken from this morning

Recorded POTs good, considering

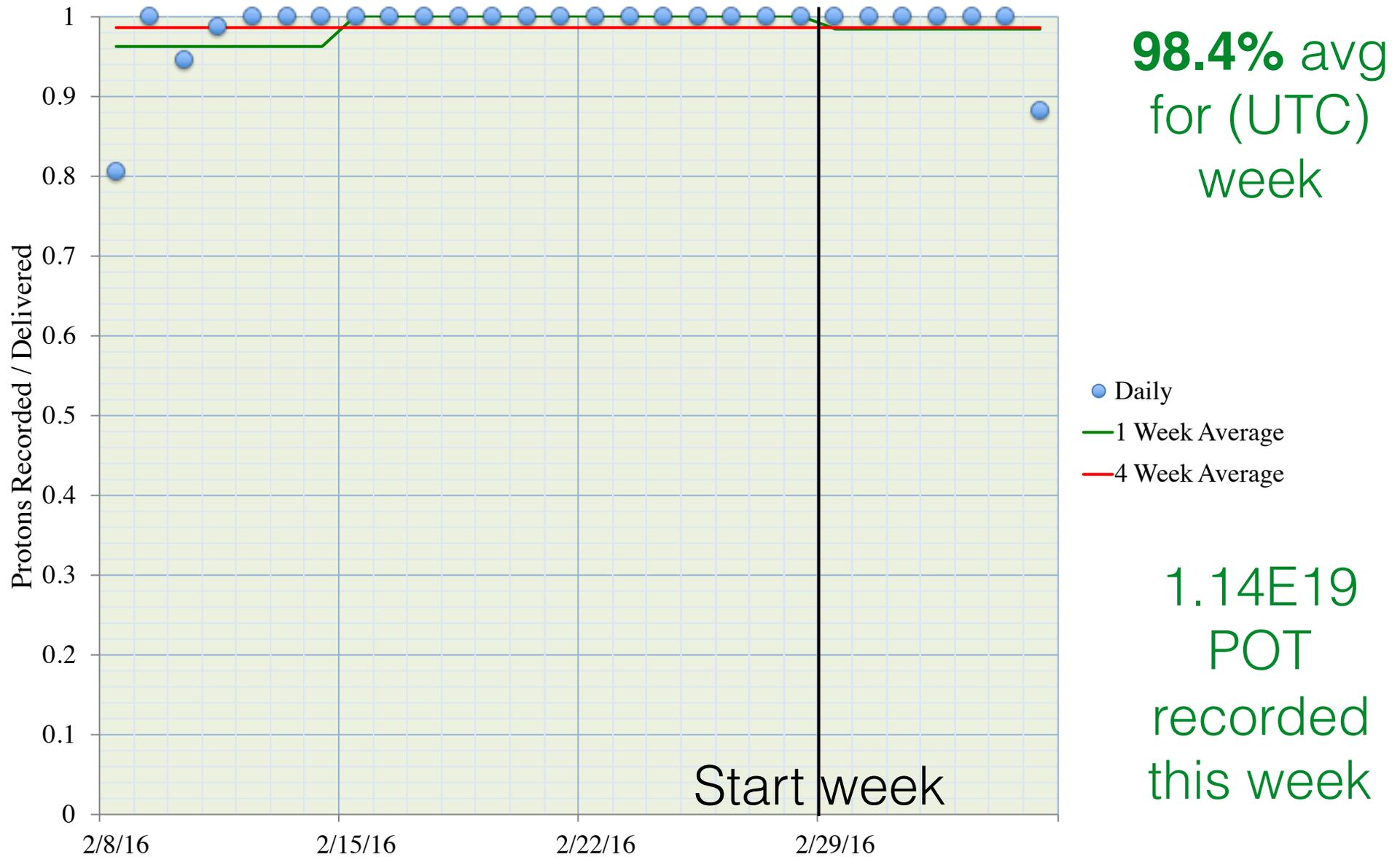
Outside of the power outage, things went well



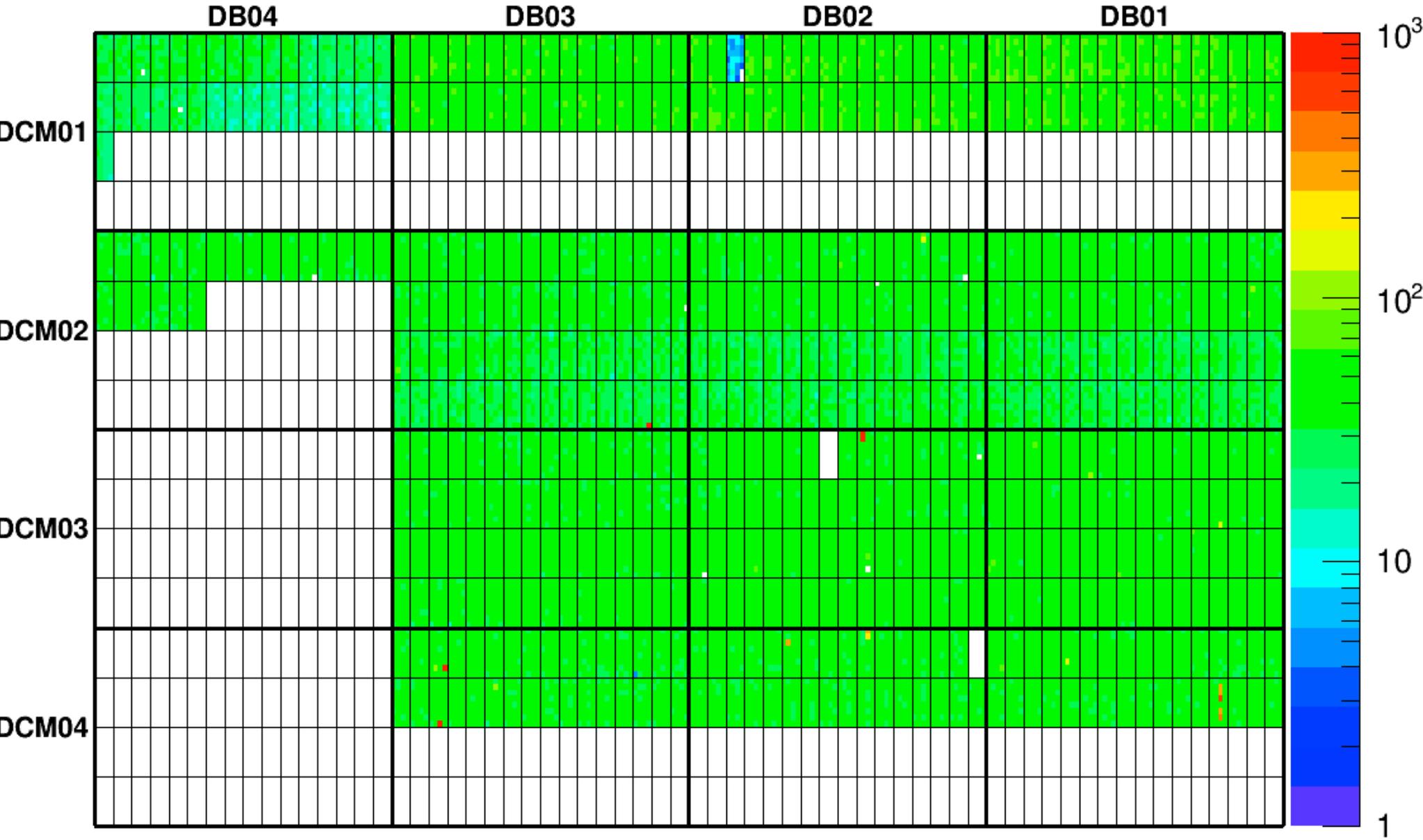
FD: Accumulated POTs



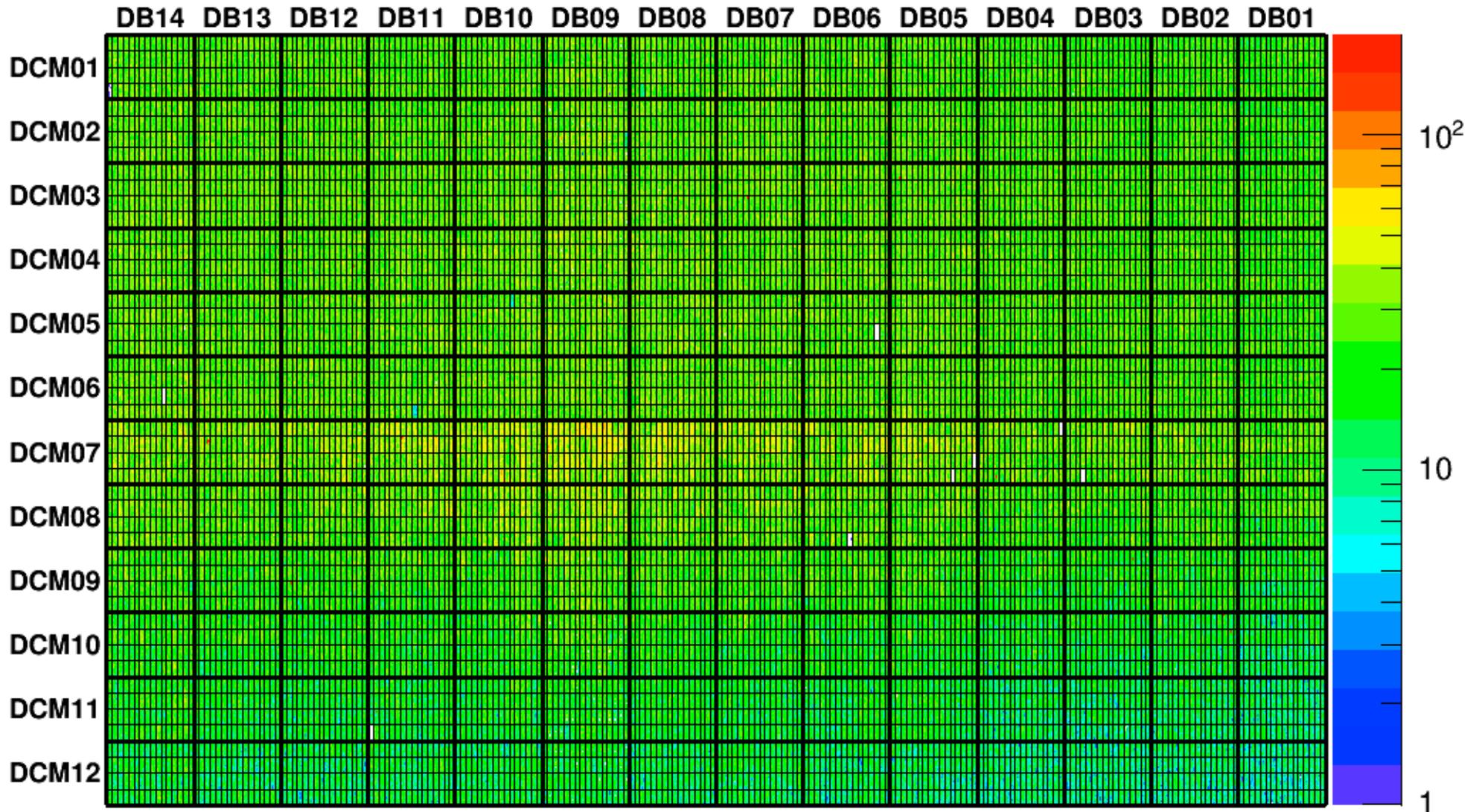
FD: Protons Recorded / Delivered



NearDet FEB MIP Hit Rates (by pixel)



FarDet: FEB MIP Hit Rates (by pixel)



PixelHitRateMapMipADC :
/nova/data/nearline-OnMon/FarDet/S15-11-06/000224/00022426/102-100/fardet_nearline_r00022426_s004.onmon.root
Mon Mar 7 19:23:03 2016 (UTC)