



NOvA Operations report for December 9 - February 2

**Maria Martinez-Casales
with Taylor Contreras & Yagmur Torun**

**Proton PMG/ All Experimenter's Meeting
February 6, 2025**

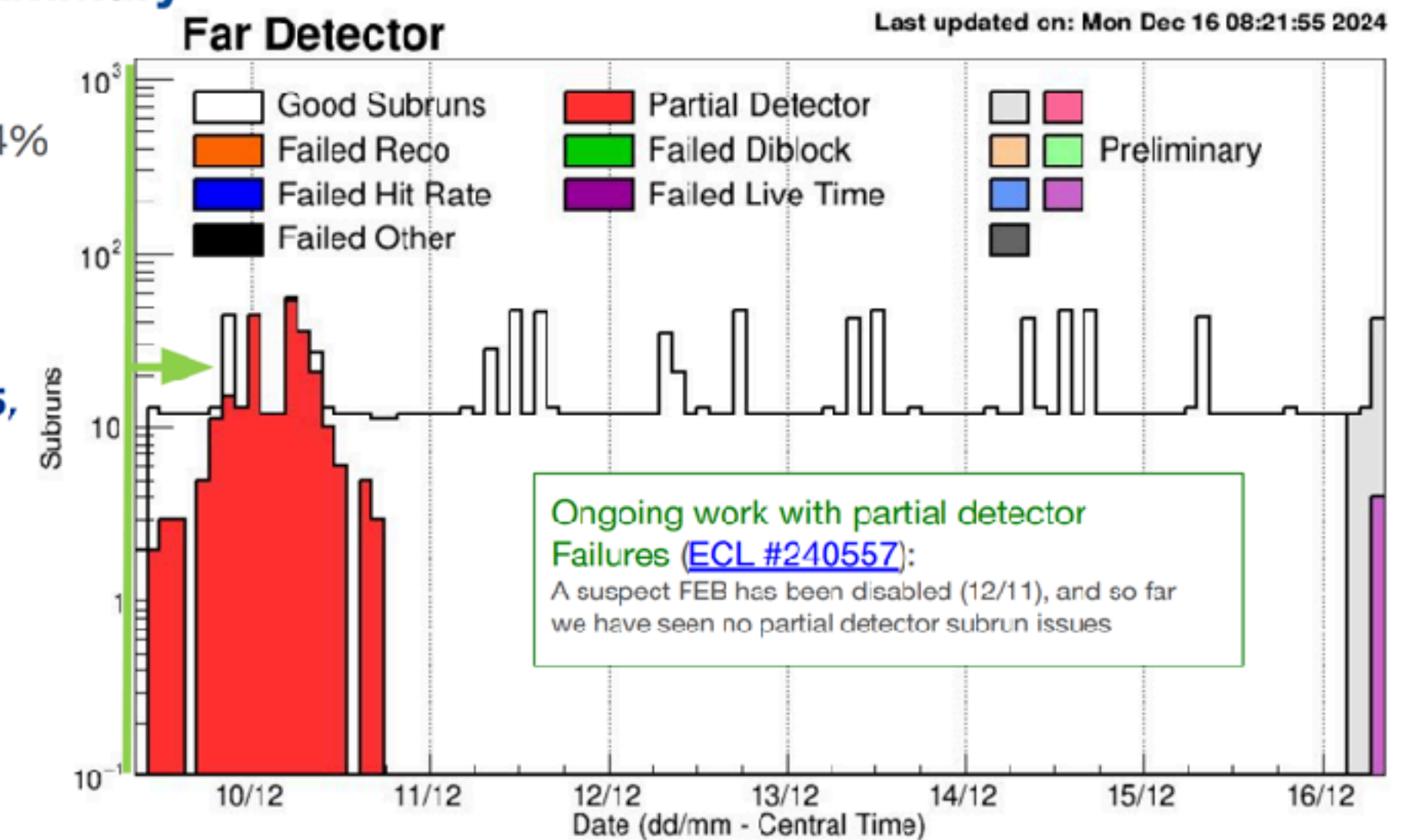
Operations highlights

- Thank you to all shifters and experts for their hard work in keeping our detectors running.
- Taylor Contreras will take over for the rest of February.
- Partial detector failure mode in Far Detector since mid-November.
 - Eventually solved by disabling a problematic front-end board.
- Other maintenance items at Ash River (FD):
 - 12/19 hardware swaps on 12 modules.
 - Chiller leads replaced.
 - Replacement of farm node disk .

Far Detector Summary

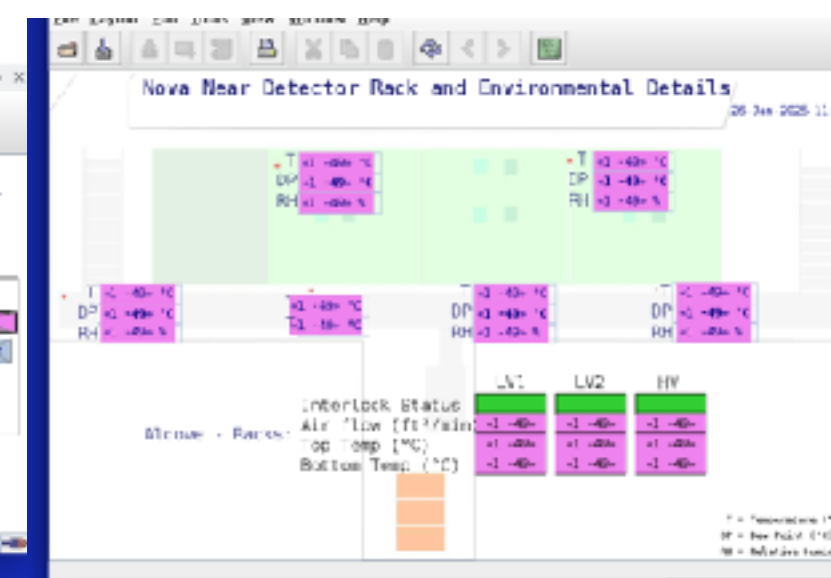
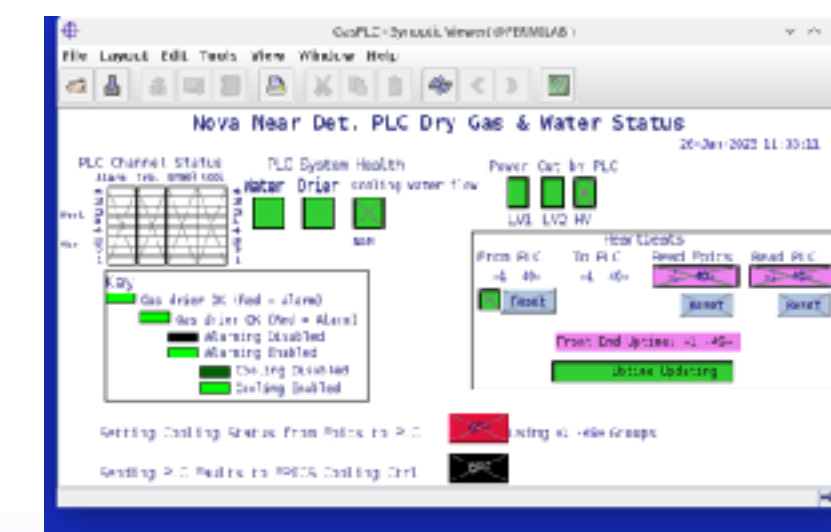
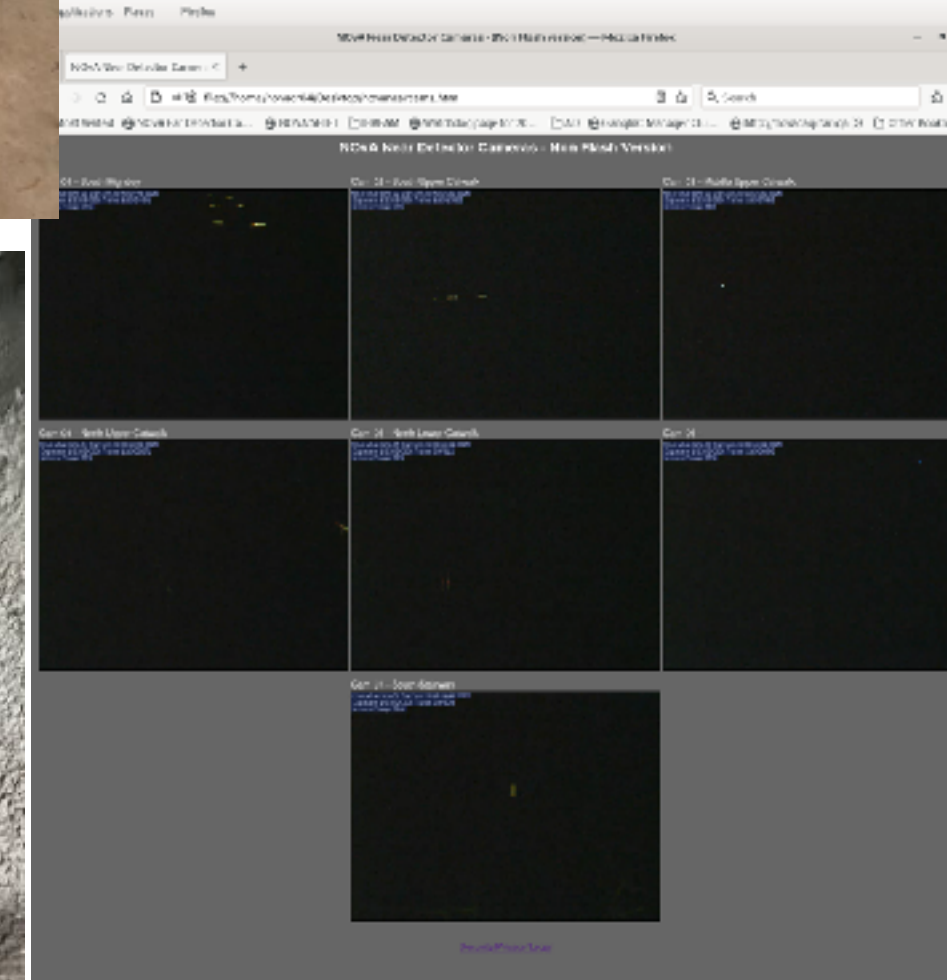
Weekly average
lifetime fraction:
98.9% + 0.7% + 0.4%

Week of
December 9 - 15,
2024

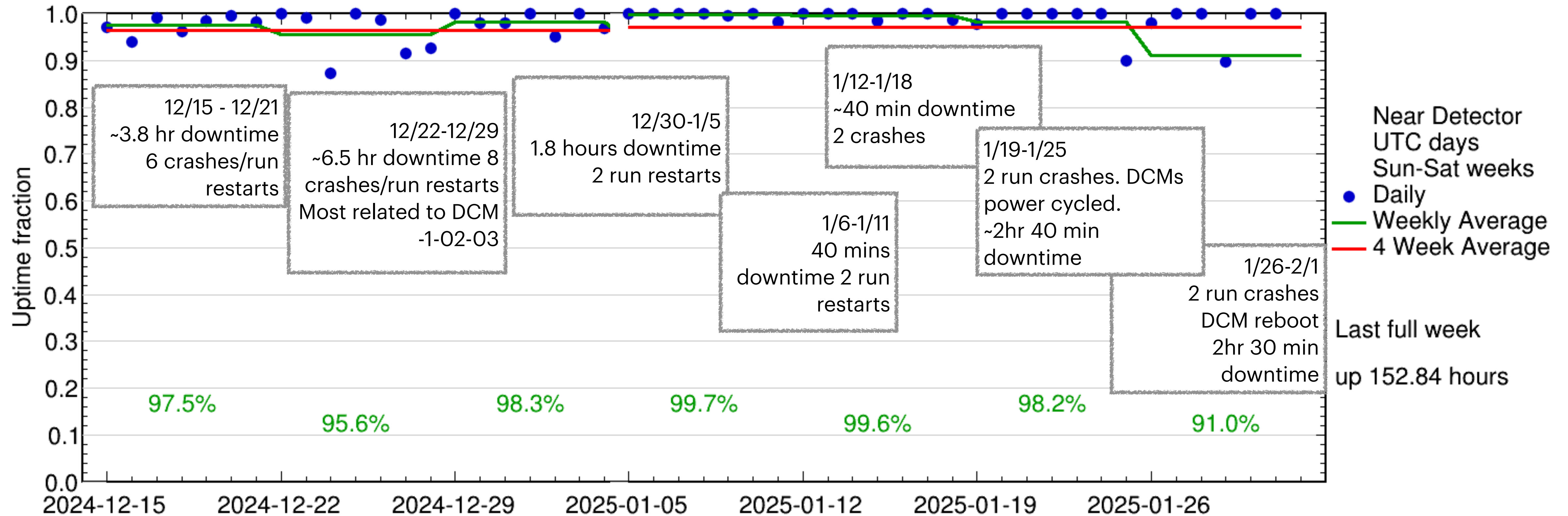


Operations highlights

- APD reassembly in LArTF finalized. APDs in packed and in process to shipping.
- Persistent cooling issues in ND, several APD's disabled since mid-December
 - Cleared water lines on 12/19 and 1/17 : APD's 1-01-03:21-23 and 1-01-03:56-61 (side of the detector), bypassed 2.
 - Maintenance will continue this month, one DCM-1-02-02 (on the top side of detector) still has 6 APDs disabled.
- Power glitch Saturday-Sunday 1/26 night due to an electrical power feeder cable at fault, (all-hands message)
 - ND synoptics errors due to ACNET being down (until 1/27 ~12-1 am, resolved)
 - ND cavern lights and emergency lights were off
- Safety walkthrough on 1/27

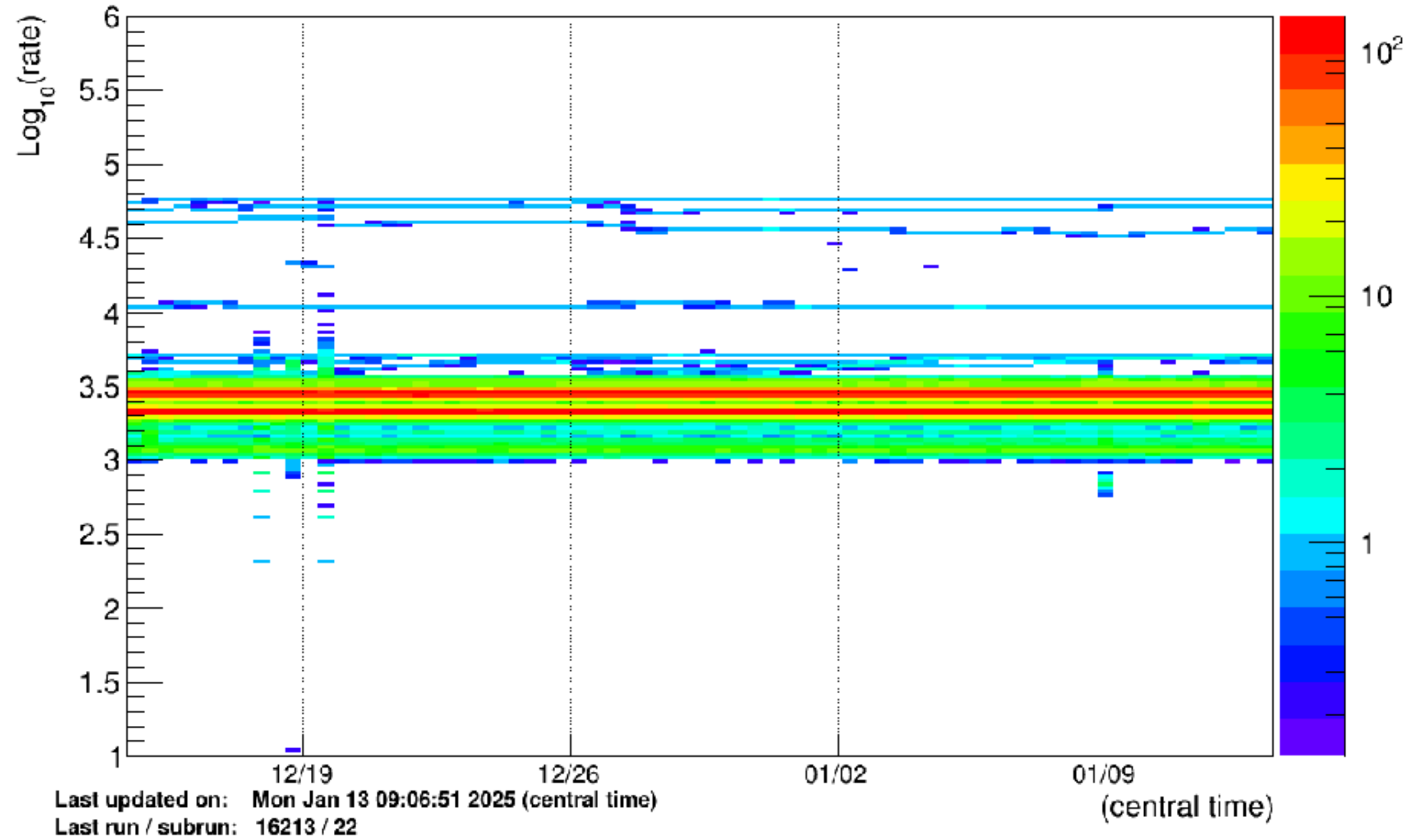


Near Detector summary

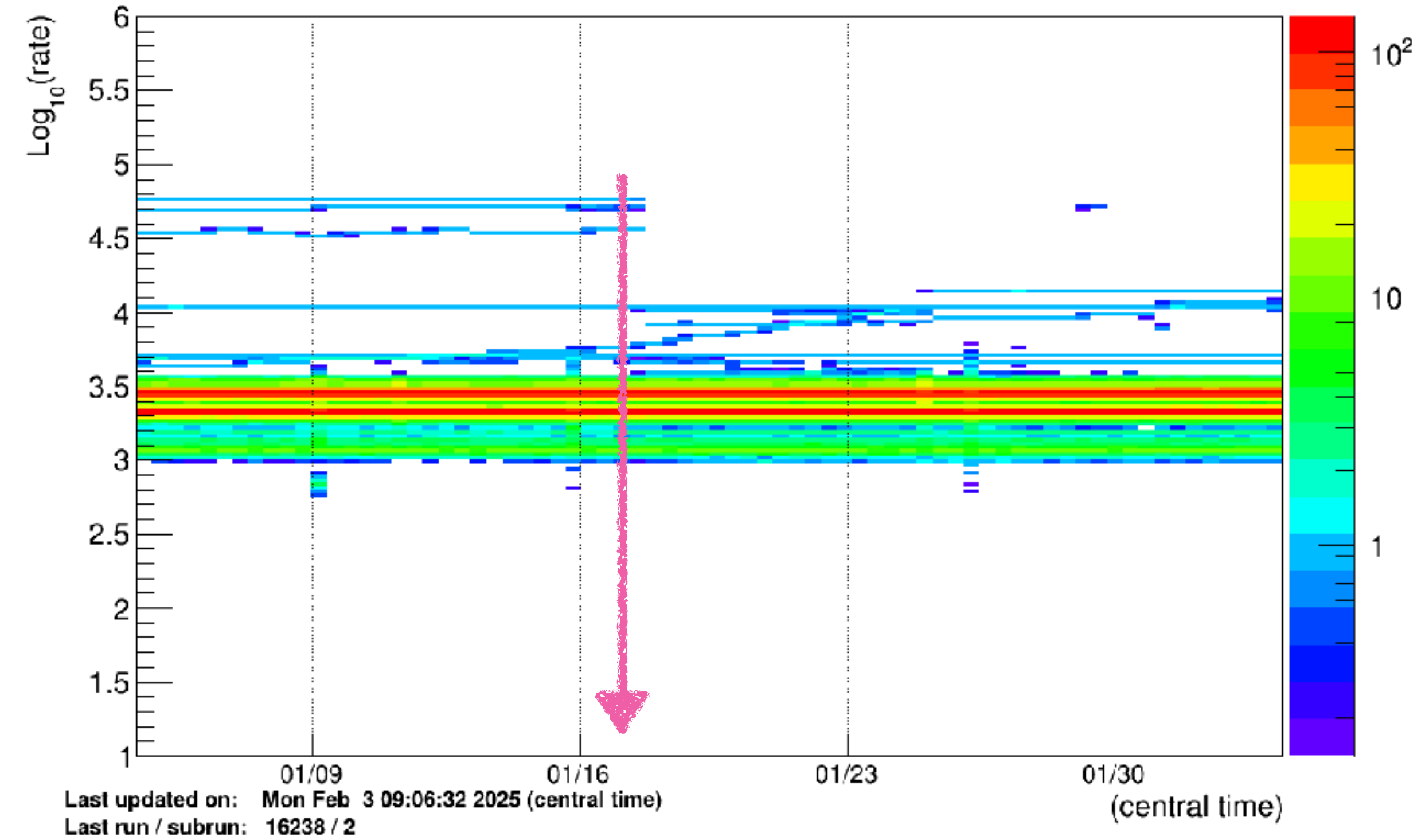


Near Detector summary

DDActivity FEB Hit Rate Spectra vs. Time - partition 1

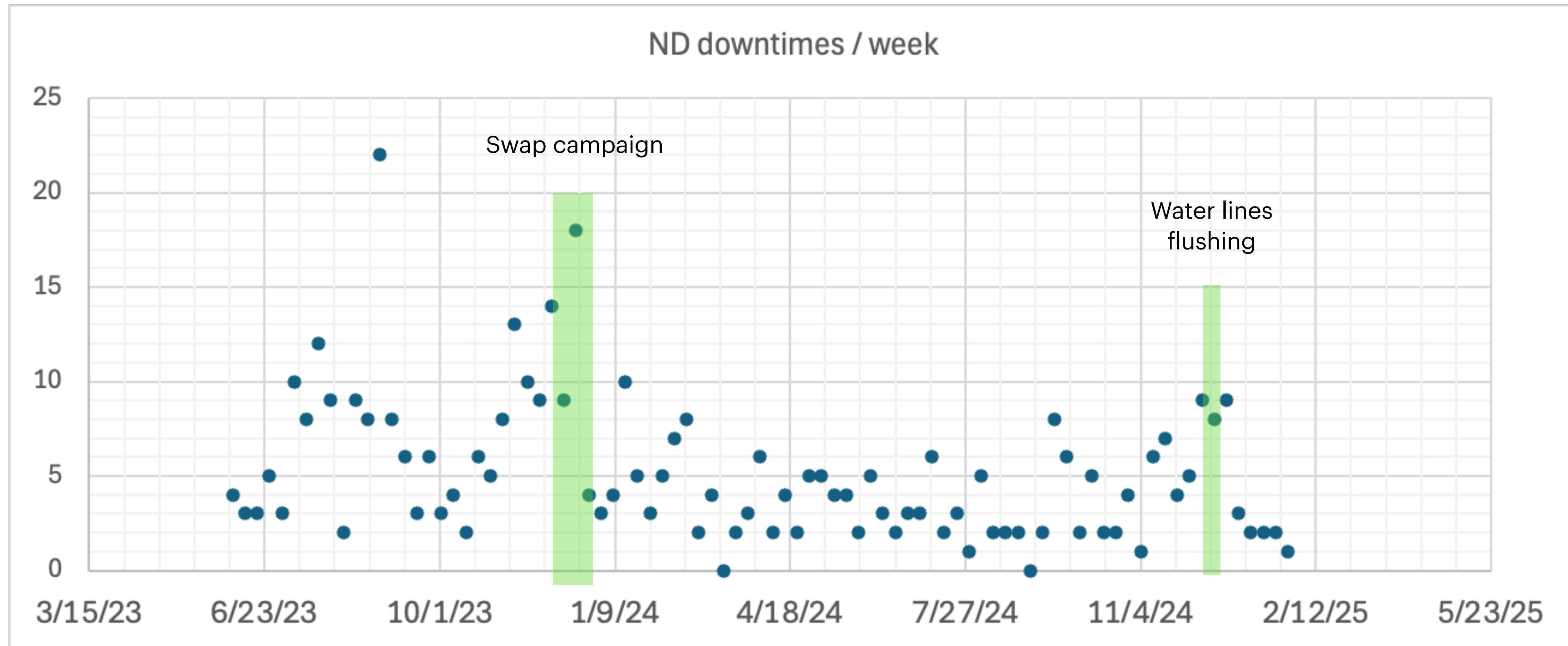


DDActivity FEB Hit Rate Spectra vs. Time - partition 1



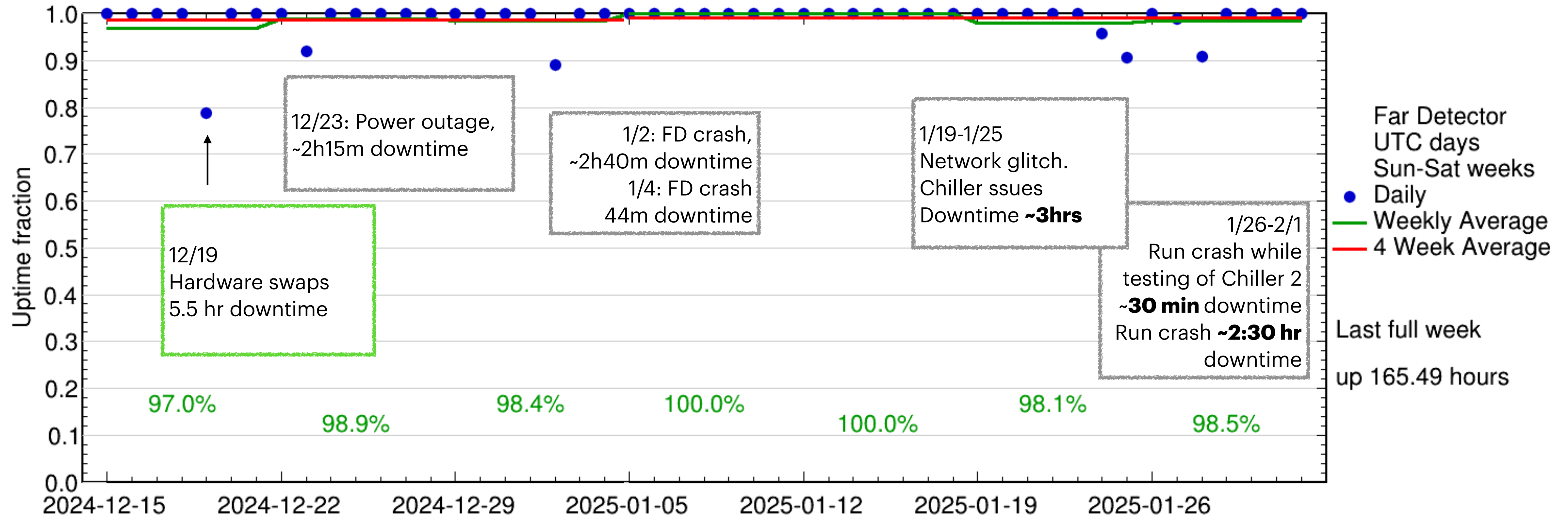
1/17
Maintenance
Recovered 2 APDs in
DCM-1-1-3

Near Detector performance over last ~18 months



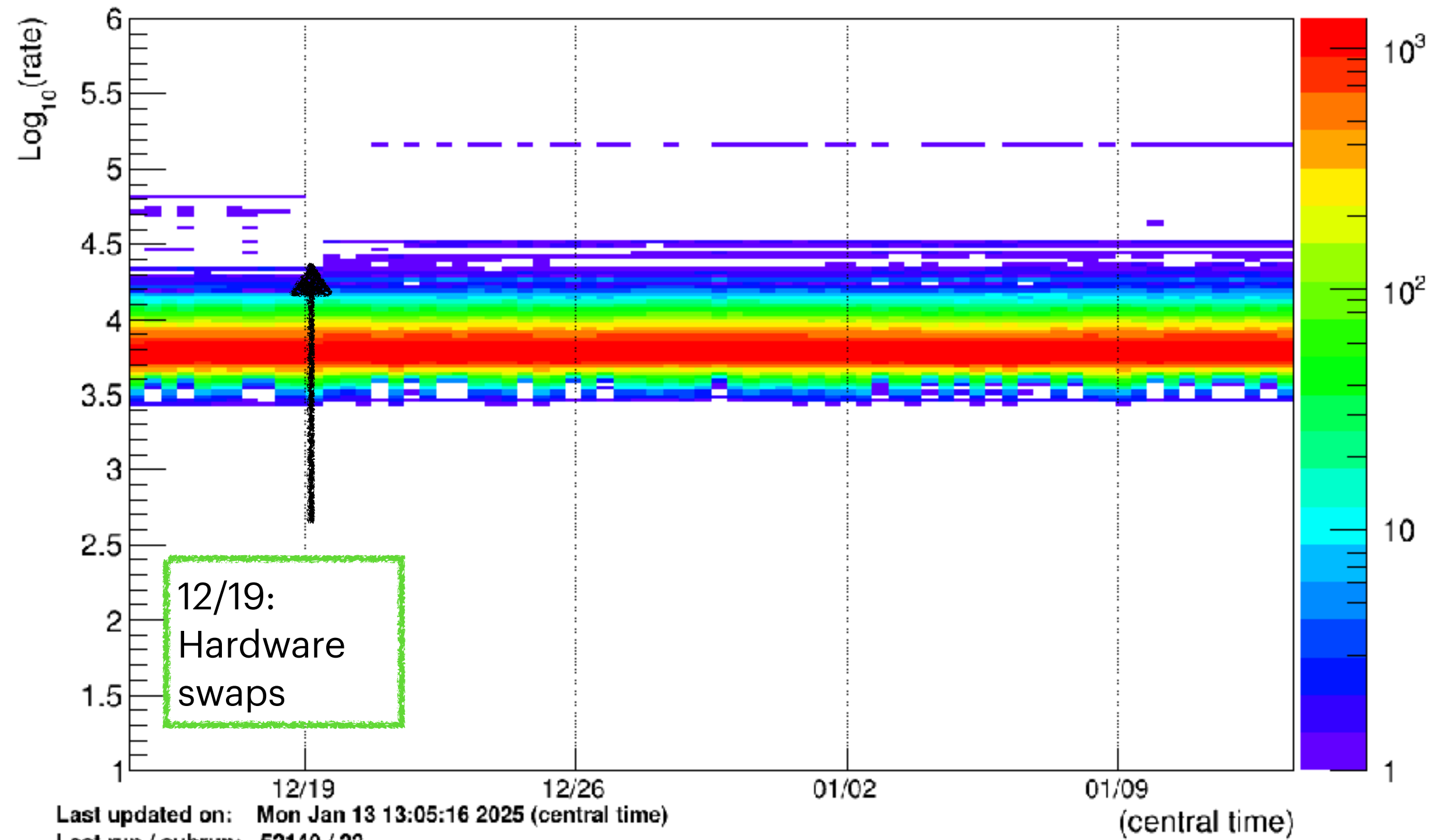
- ND run crashes decreased after maintenance (~400 APD swaps) during early late 2023.
- ND operations stable since then.

Far Detector summary

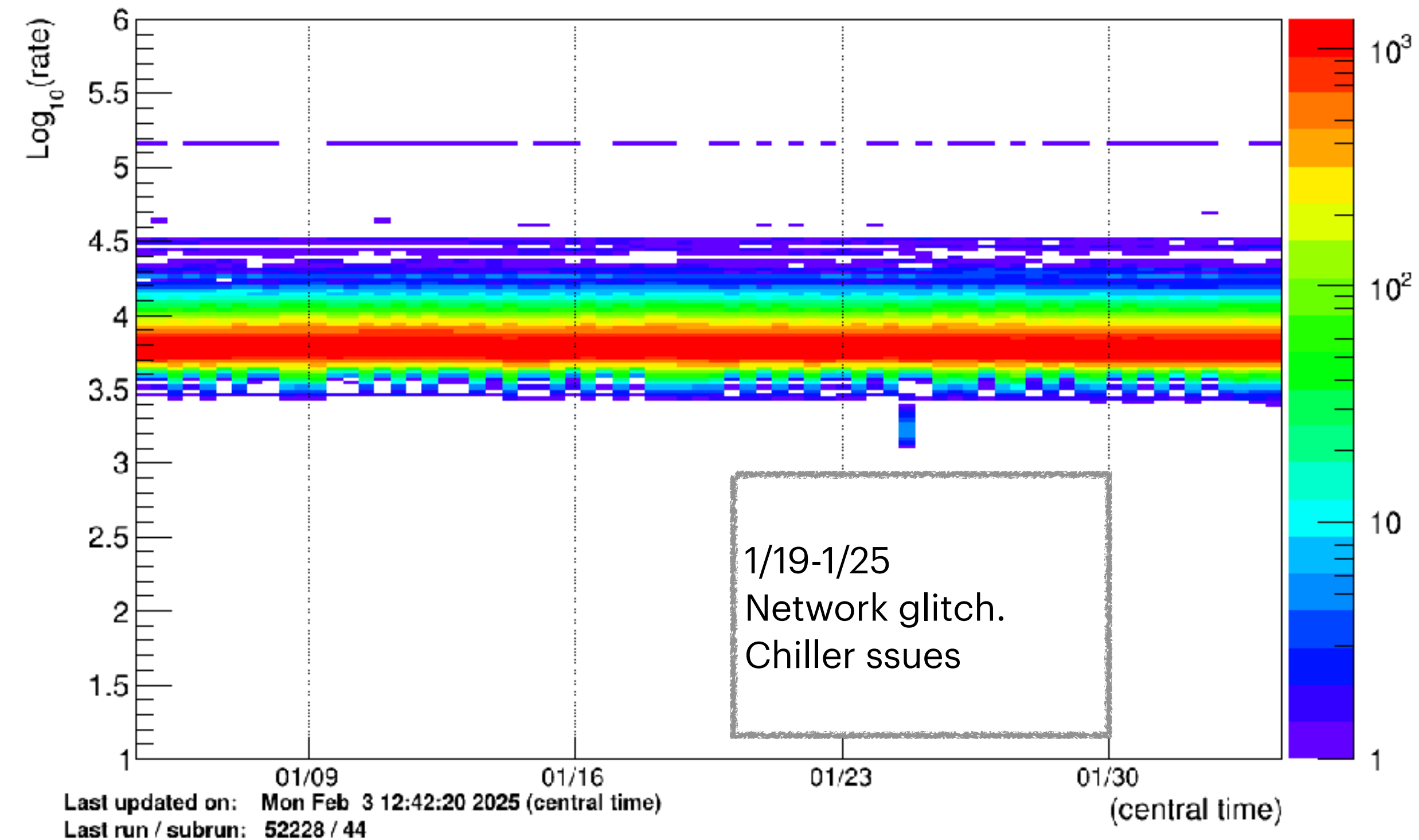


Far Detector summary

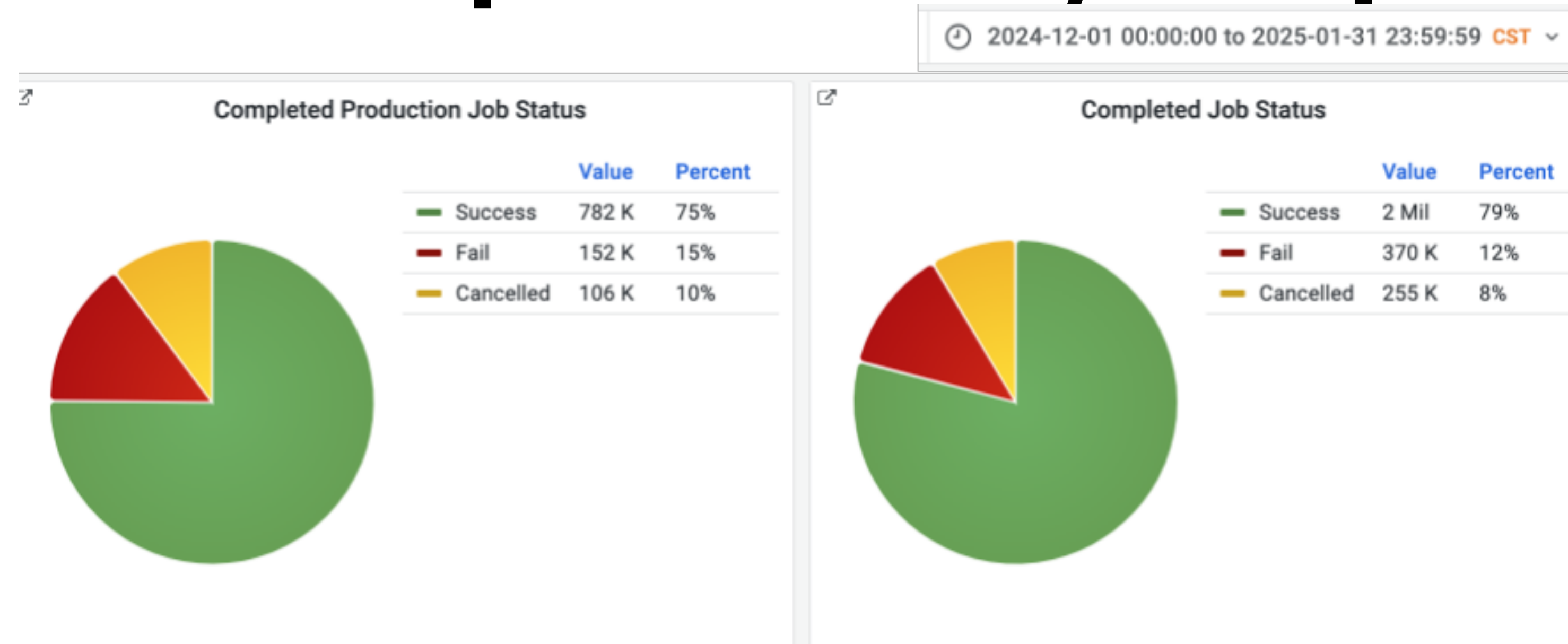
FEB Hit Rate Spectra vs. Time - partition 1



FEB Hit Rate Spectra vs. Time - partition 1



NOvA production/computing



- In December 2024 and January 2025, NOvA ran a total of 2.6M jobs, of which 1M were from production
- Testing token readiness by FIFE: Production jobs failed due to the certificate authentication— an experiment-wide issue
 - Test failed momentarily; jobs succeeded after reverting to certificate authentication
 - Issues being addressed
- Infrastructure:
 - still utilizing temporary workflows, awaiting formal infrastructure with AL9
- New big production campaign in preparation
 - “mini” productions ongoing for analysis groups to prepare for big production

Thank you!