



# RunCo Operations Report for September 1<sup>st</sup>—28<sup>th</sup>, 2024

*Proton PMG Meeting*

by [J. L. Barrow](#)

with Maria Casales & Yagmur Torun

The University of Minnesota  
October 3<sup>rd</sup>, 2024

# NOvA Operations Highlights

- **Thanks to all the shifters & experts for their hard work!**
- **Josh on as RunCo until Oct. 31<sup>st</sup> at 11:59pm**
  - **This is my last month!** Thanks so much to the Ops team for their support over the past > 1yr
- **NOvA souvenirs coming!** Will be preparing order forms for CM
- SL7→AL9 move is complete for all Data Quality processes!
  - Everything now functioning in SL7 containers
- Several successful power outages at MINOS, thanks to AD!
- **DAQ training sessions during week of Aug. 5<sup>th</sup> a success!**
  - Thanks so much to Leon! Lima and Biao, welcome to the team!
- APD manufacturing progressing onsite—continuing work next week
- Many Ash River recovery activities continuing
  - Many ribbon cable [swaps completed](#) as part of recovery effort—new targets identified for next week!
  - Swapping compressors, integrated with IFIX: [237577](#), [237580](#)
- Actively listening in for news regarding KR fire/transformer situation
- Detector performance improving since “indoor weather event” at AR
  - FD crashed ~2 times in last two weeks!
    - FD in good state! Thanks so much to the AR team!
  - ND crashed > 10 times in last two weeks...

# Welcome Taylor Contreras!

RunCo Training Through November with Josh & Maria

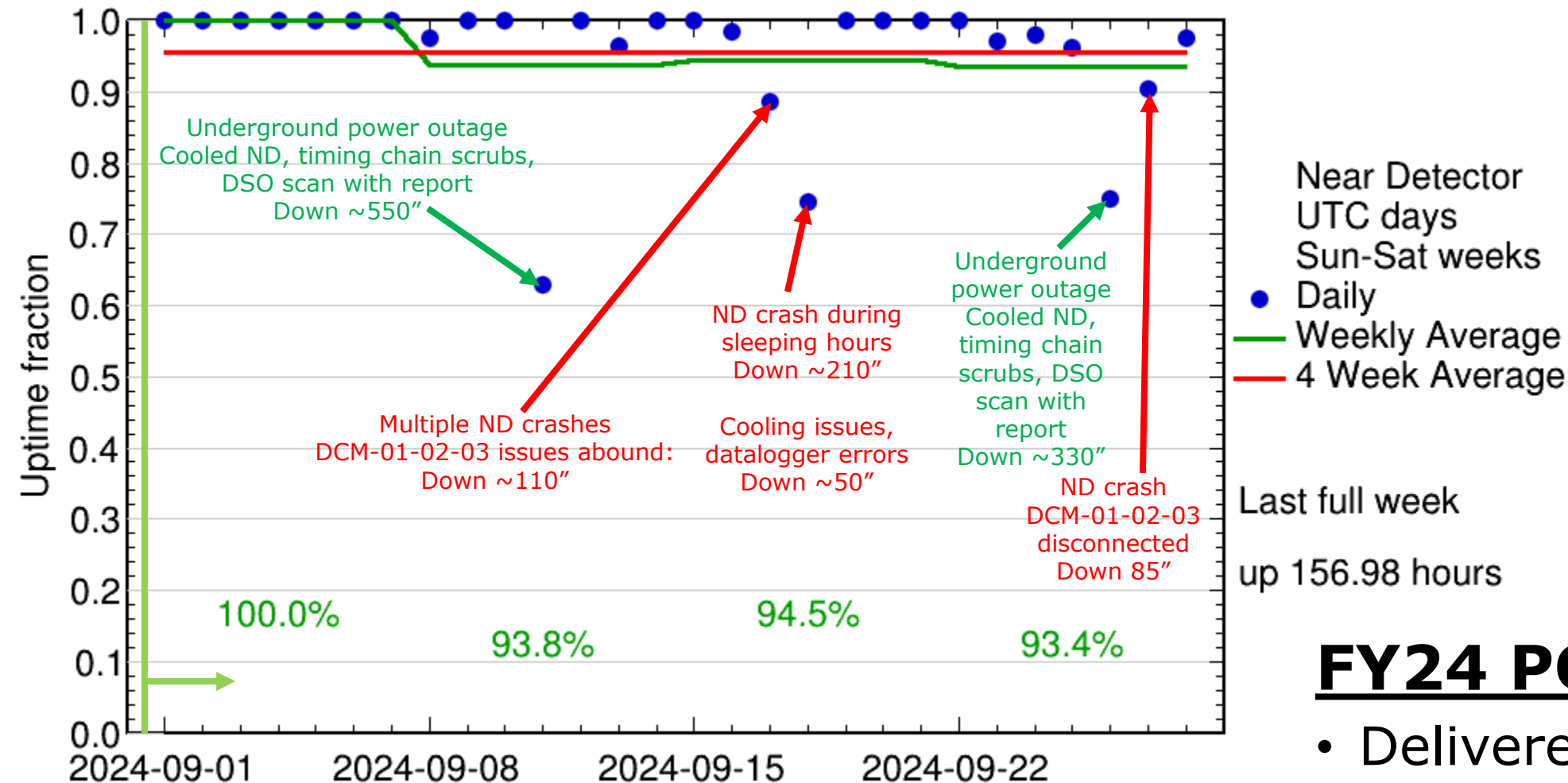


# Near Detector Summary

Monthly Average Livetime Fraction: 95.4%

## Total POT recorded

- Total:  $42.37 \times 10^{20}$
- FHC:  $26.80 \times 10^{20}$
- RHC:  $15.57 \times 10^{20}$



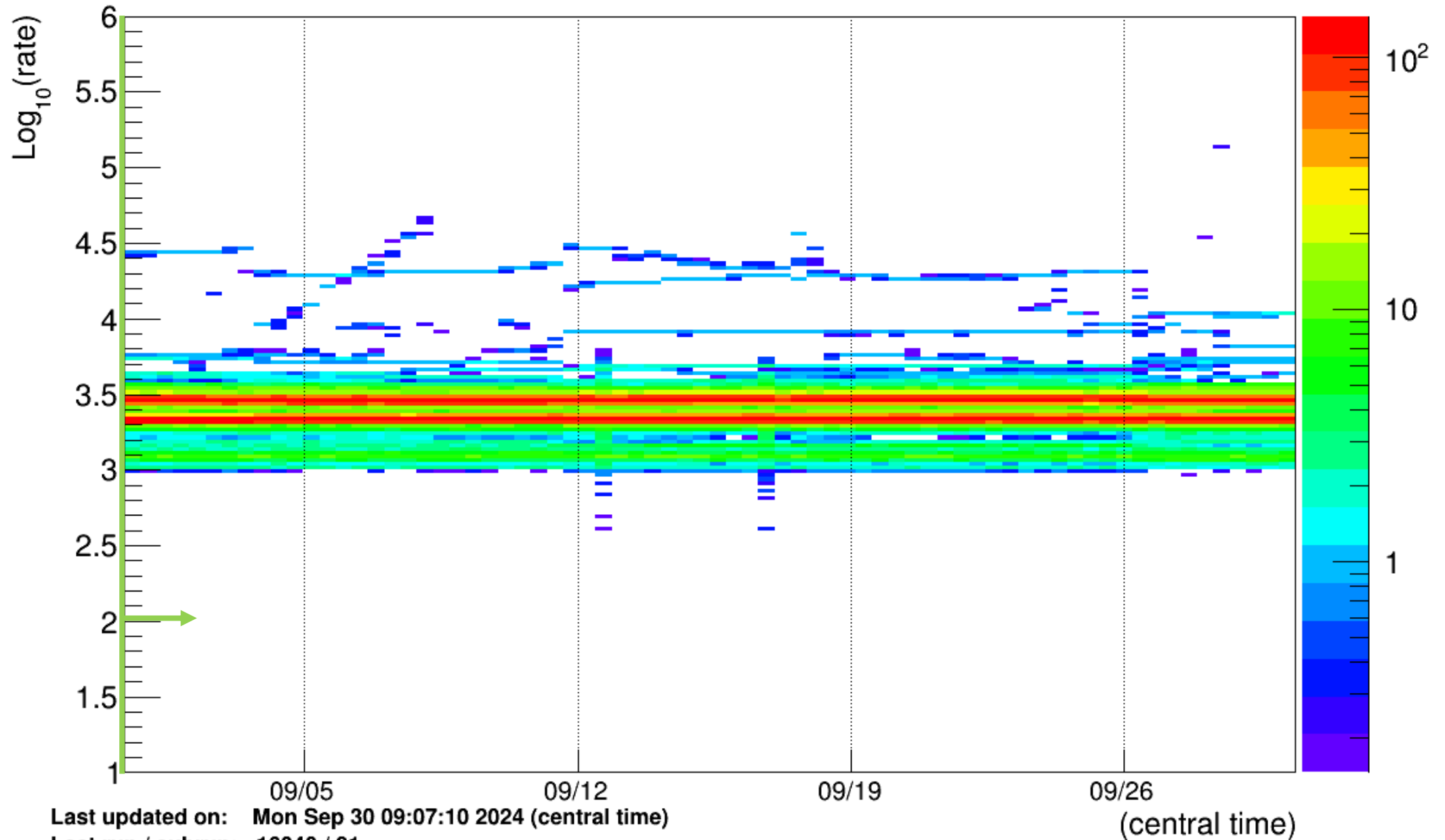
## FY24 POT

- Delivered:  $2.89 \times 10^{20}$
- Recorded:  $2.80 \times 10^{20}$
- 96.99%

# Near Detector Summary

Monthly Average Livetime Fraction: 95.4%

DDActivity FEB Hit Rate Spectra vs. Time - partition 1

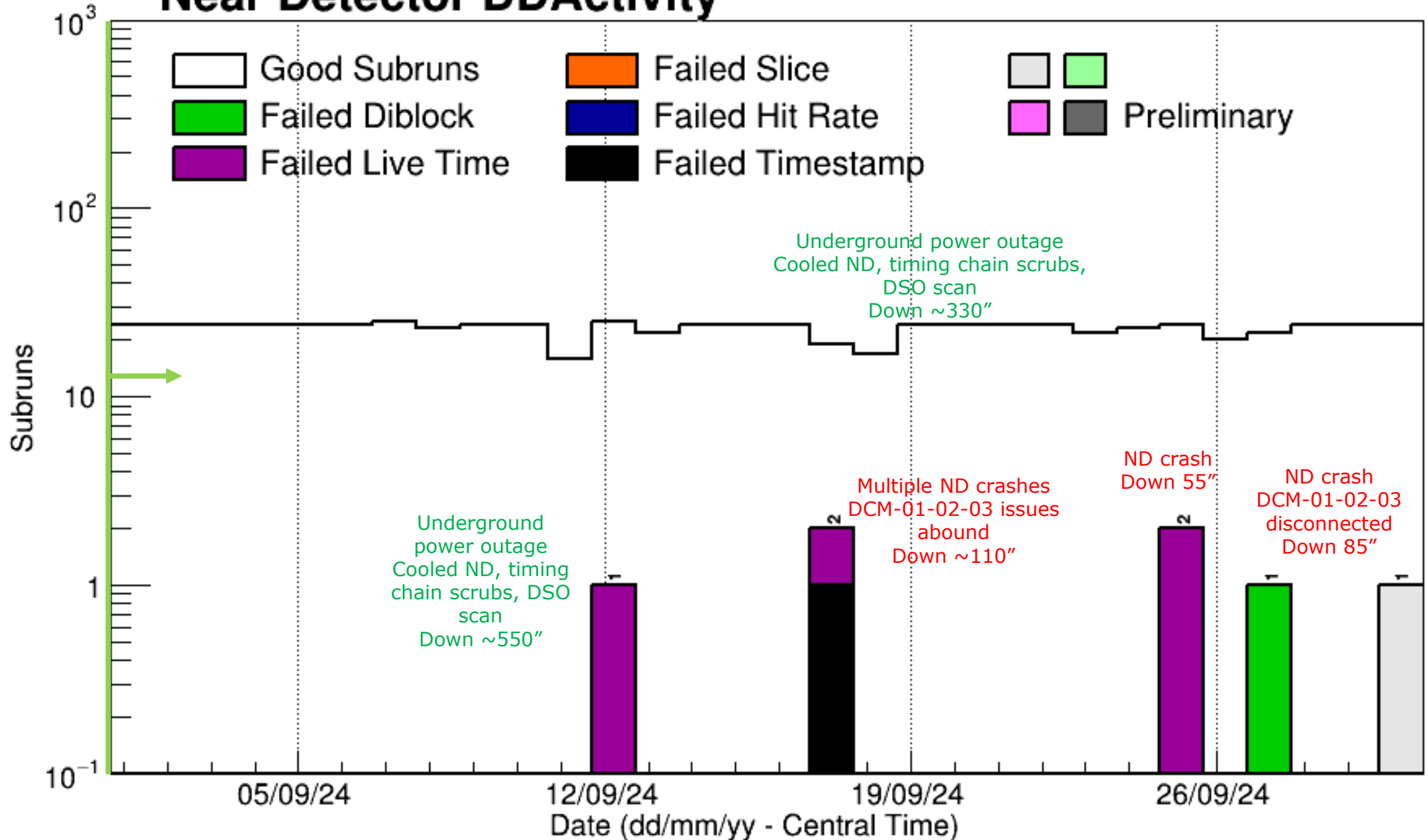


# Near Detector Summary

Monthly Average Livetime Fraction: 95.4%

Last updated on: Mon Sep 30 17:00:45 2024

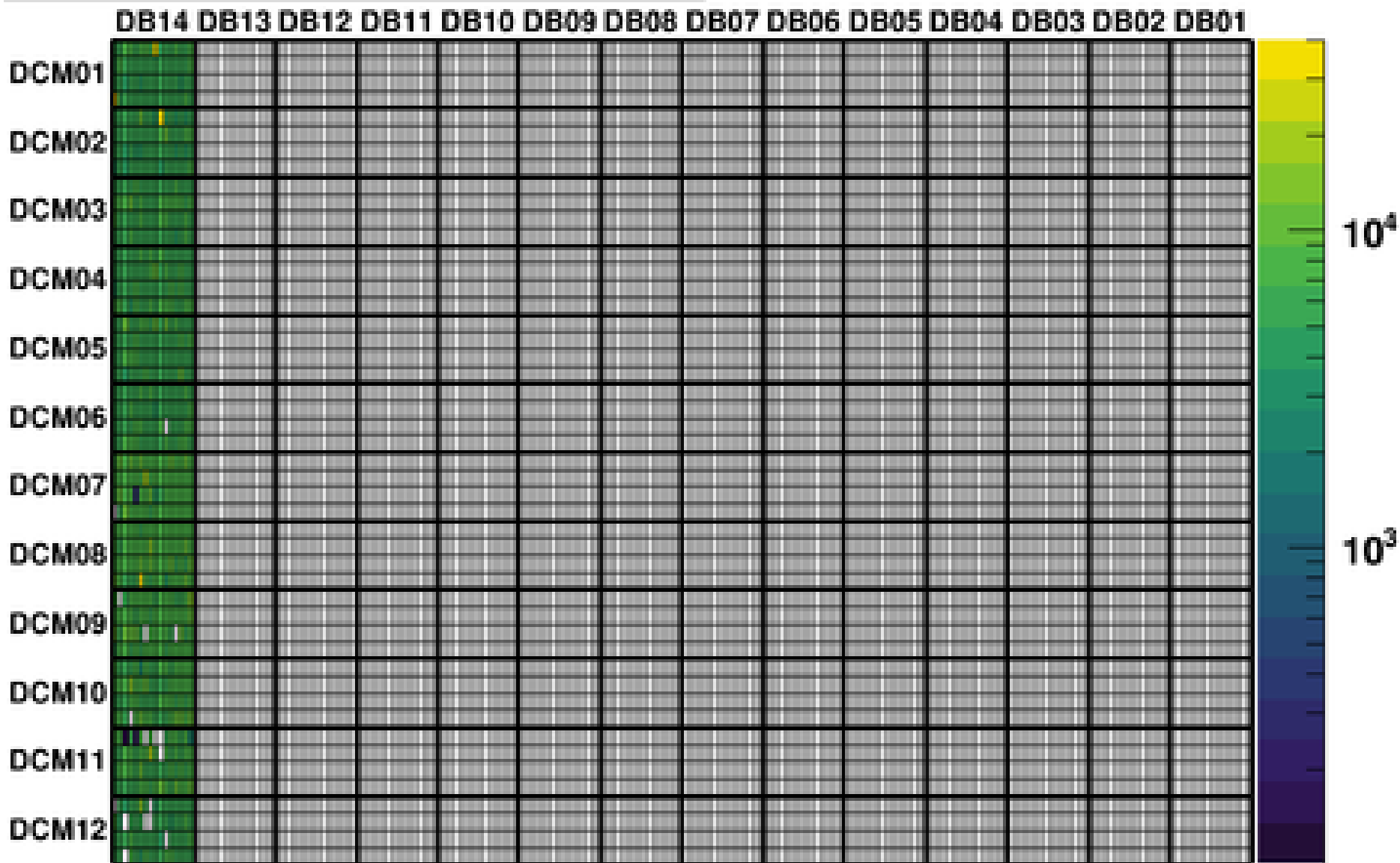
## Near Detector DDActivity



# Past Far Detector State

As of Monday, August 5<sup>th</sup>, 2024

## Hit rate recorded by FEB in Hz

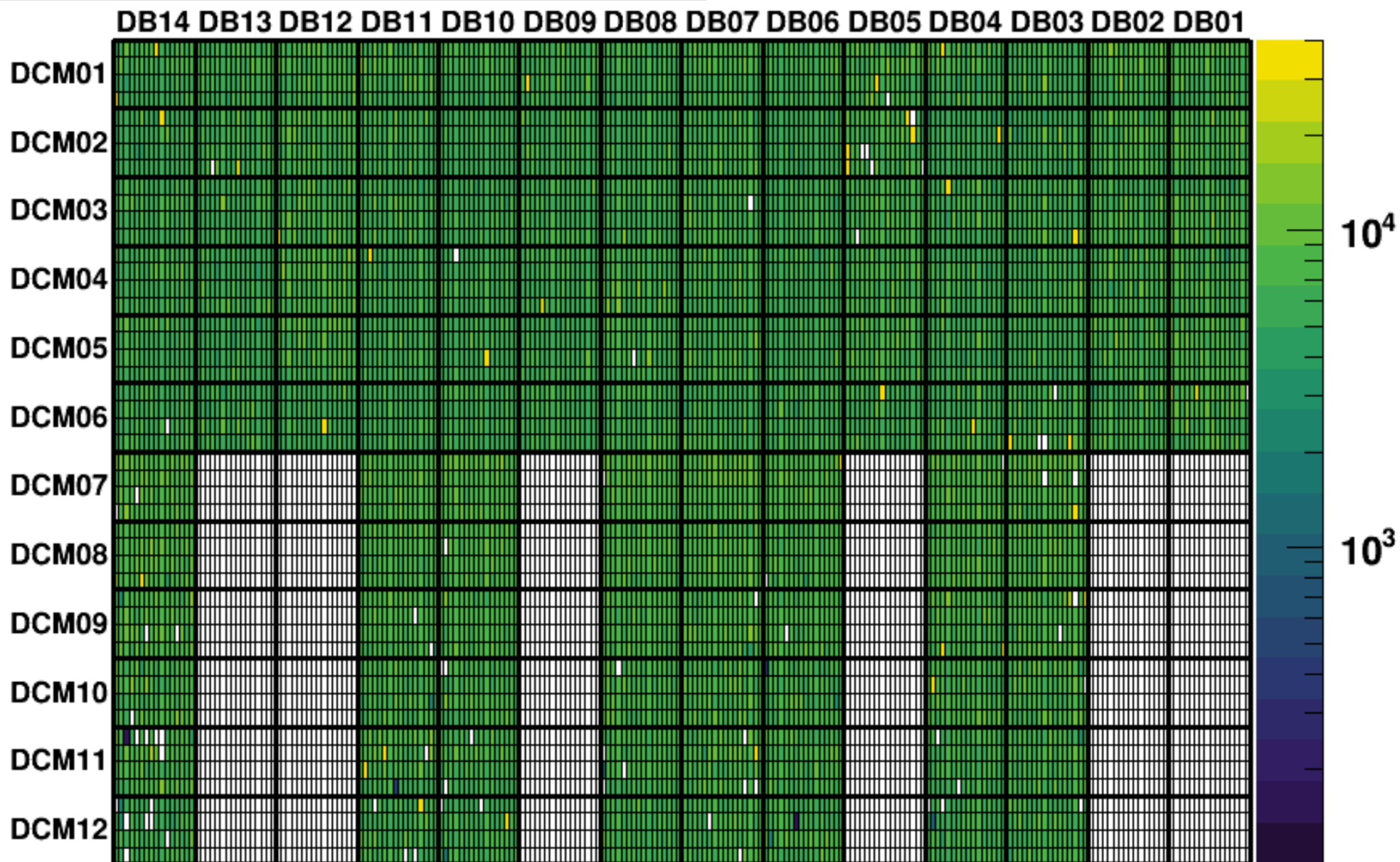


FEBHitRateMap : source = FEBHitRateMap  
EventID: 81687 / 13 / 25796  
Tue Aug 6 03:03:46 2024 (UTC)

# Past Far Detector State

As of Monday, August 12<sup>th</sup>, 2024

Hit rate recorded by FEB in Hz



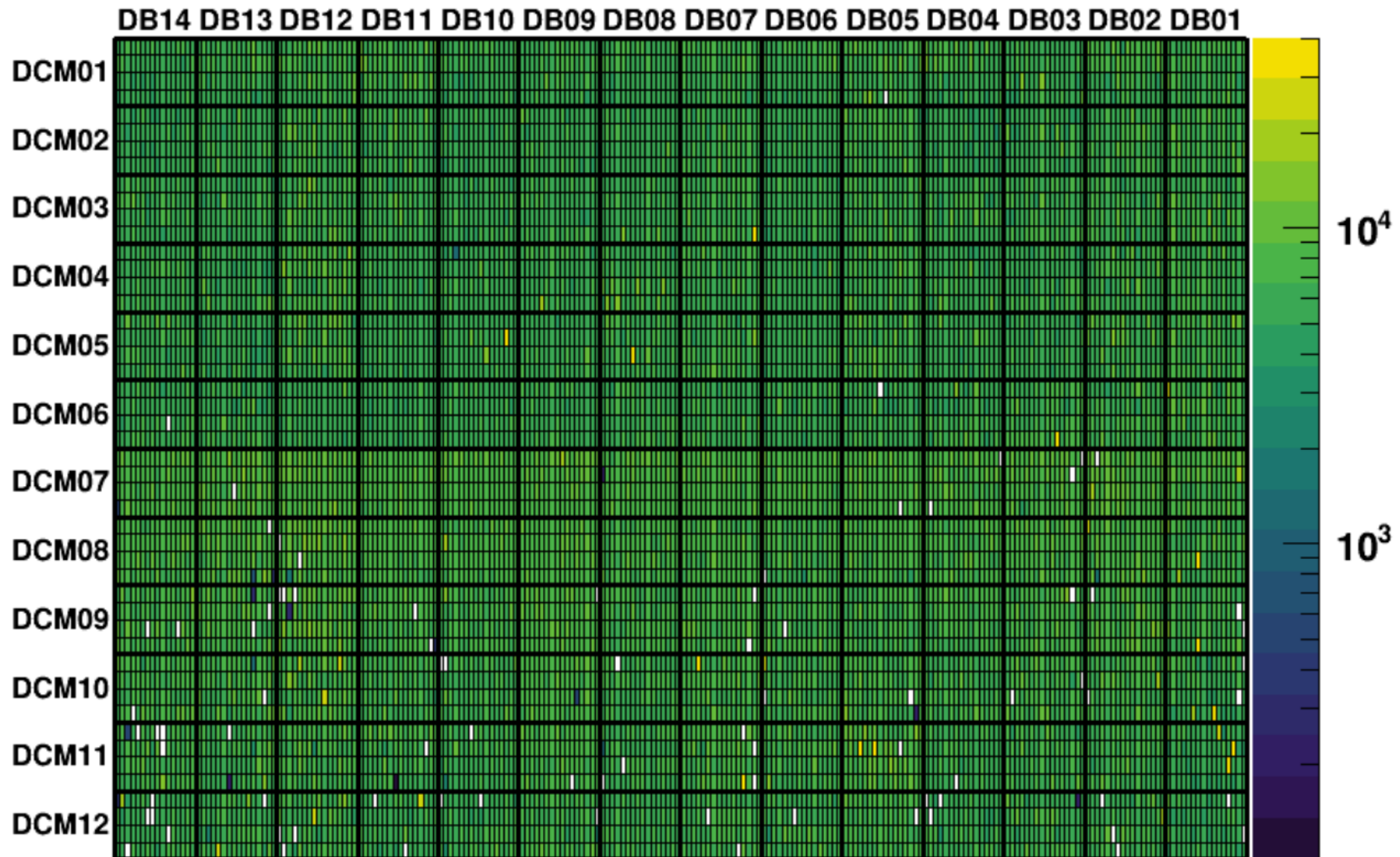
FEBHitRateMap : source = FD01.shm  
EventID: 51213 / 50 / 3766  
Mon Aug 12 14:15:53 2024 (UTC)



# Past Far Detector State

As of Monday, August 19<sup>th</sup>, 2024  
Still Had Low Number of FEBs Warnings

Hit rate recorded by FEB in Hz



FEBHitRateMap : source = FD01.shm  
EventID: 51274 / 60 / 2805  
Mon Aug 19 13:55:50 2024 (UTC)

# Current Far Detector State

As of Monday, September 30<sup>th</sup>, 2024  
Looking pretty good!

Hit rate recorded by FEB in Hz



FEBHitRateMap : source = FD01.shm  
EventID: 51663 / 47 / 2741  
Mon Sep 30 14:28:36 2024 (UTC)

# Current Far Detector State

As of Monday, September 30<sup>th</sup>, 2024  
Looking pretty good!

Hit rate recorded by FEB in Hz



Still maybe 30-40  
problem areas...

AR Recovery to  
continue with  
cable & FEB  
swaps, etc.  
next week



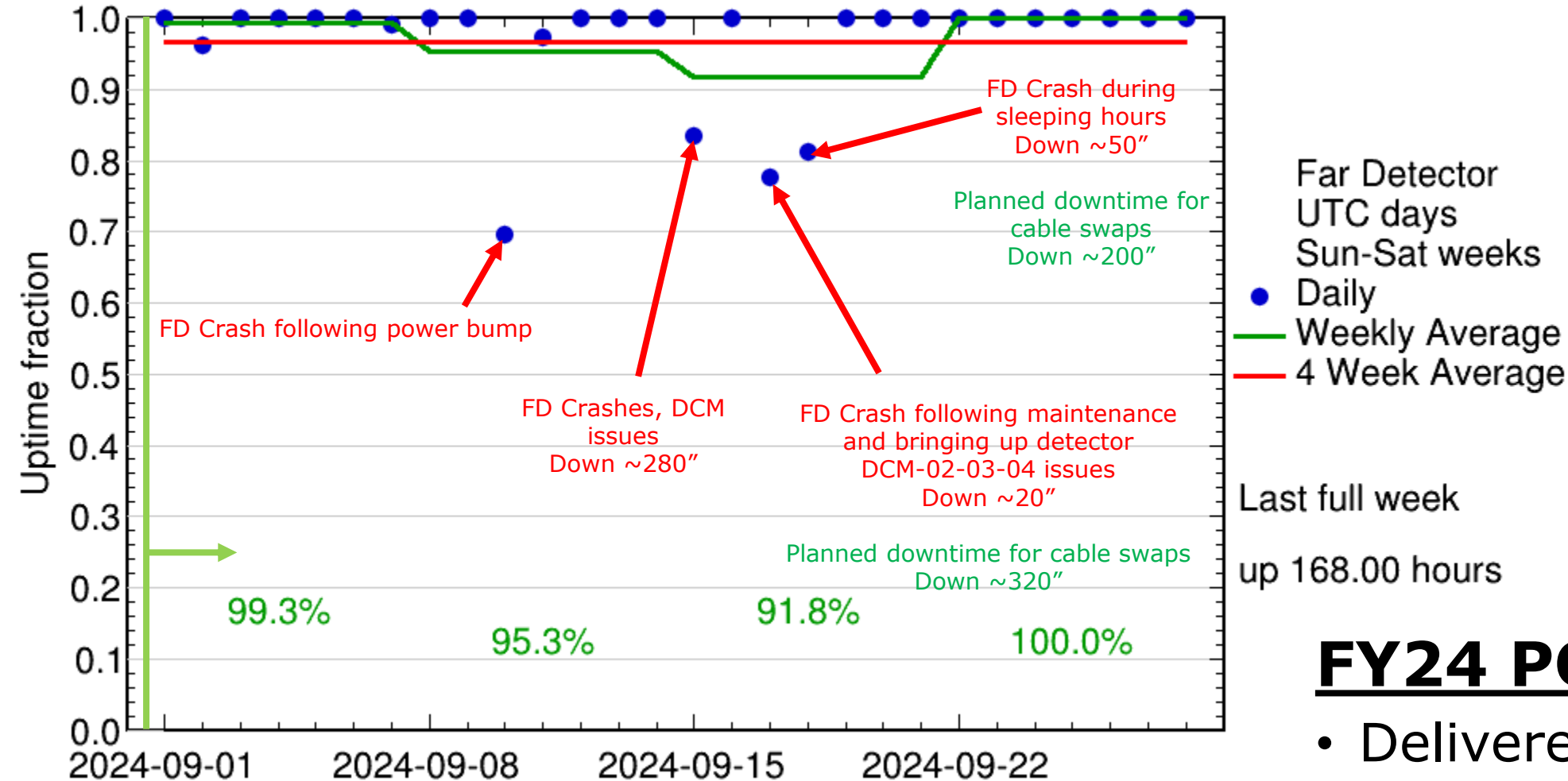
FEBHitRateMap : source = FD01.shm  
EventID: 51663 / 47 / 2741  
Mon Sep 30 14:28:36 2024 (UTC)

# Far Detector Summary

Monthly Average Livetime Fraction: 96.59%

## Total POT recorded

- Total:  $44.95 \times 10^{20}$ 
  - FHC:  $29.42 \times 10^{20}$
  - RHC:  $15.54 \times 10^{20}$



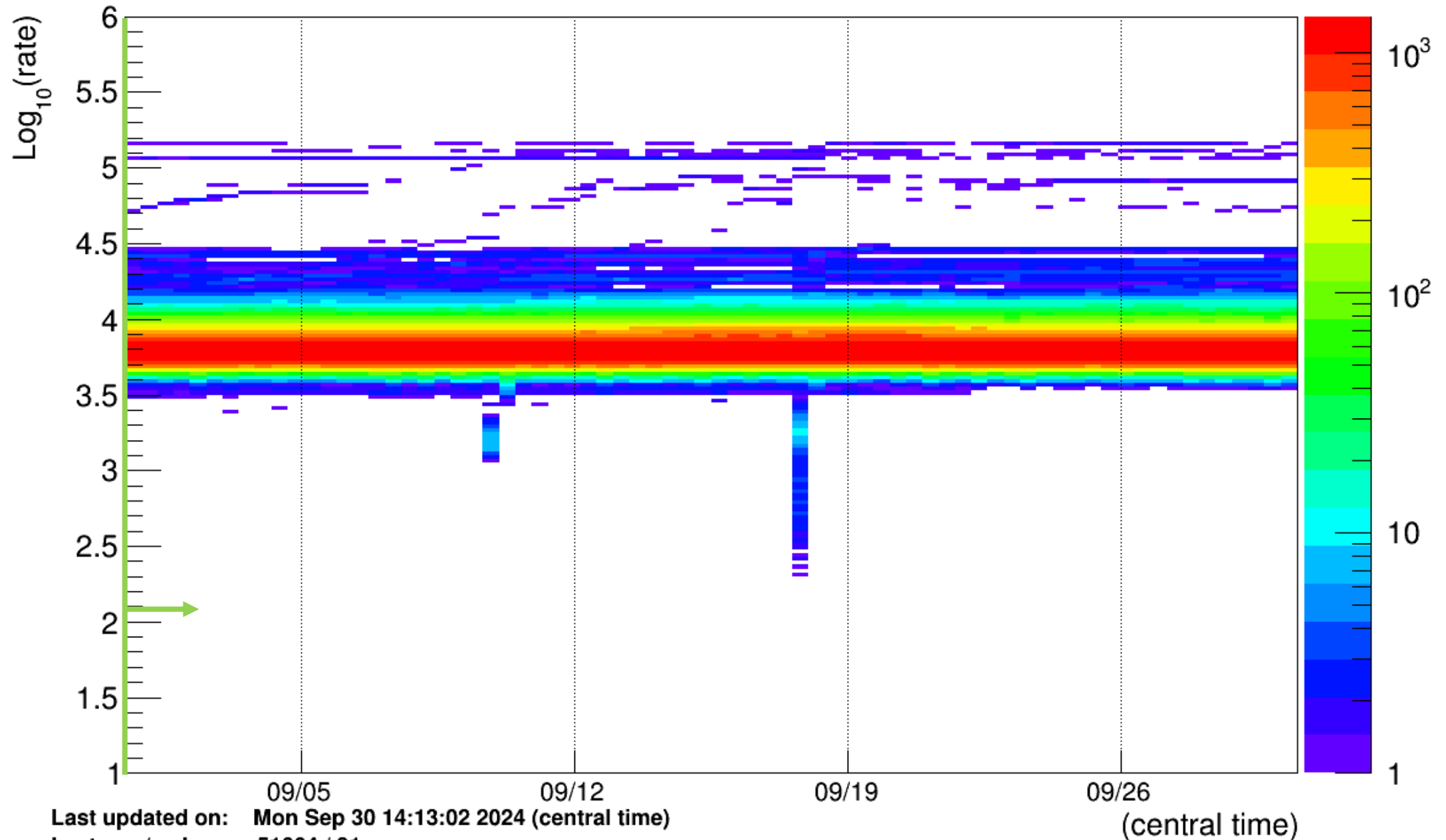
## FY24 POT

- Delivered:  $2.89 \times 10^{20}$
- Recorded:  $2.85 \times 10^{20}$ 
  - 98.75%

# Far Detector Summary

Monthly Average Livetime Fraction: 96.59%

FEB Hit Rate Spectra vs. Time - partition 1

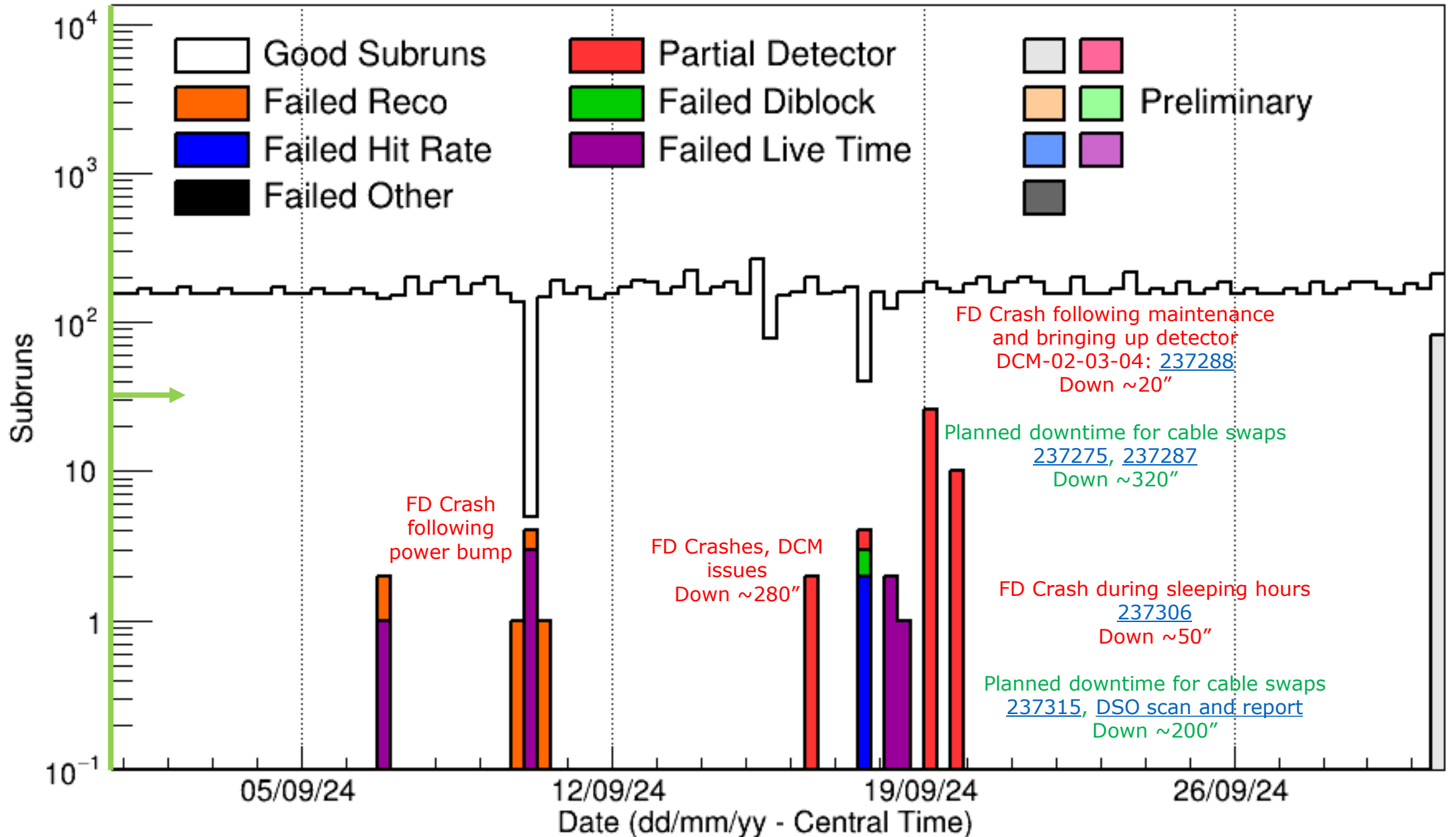


# Far Detector Summary

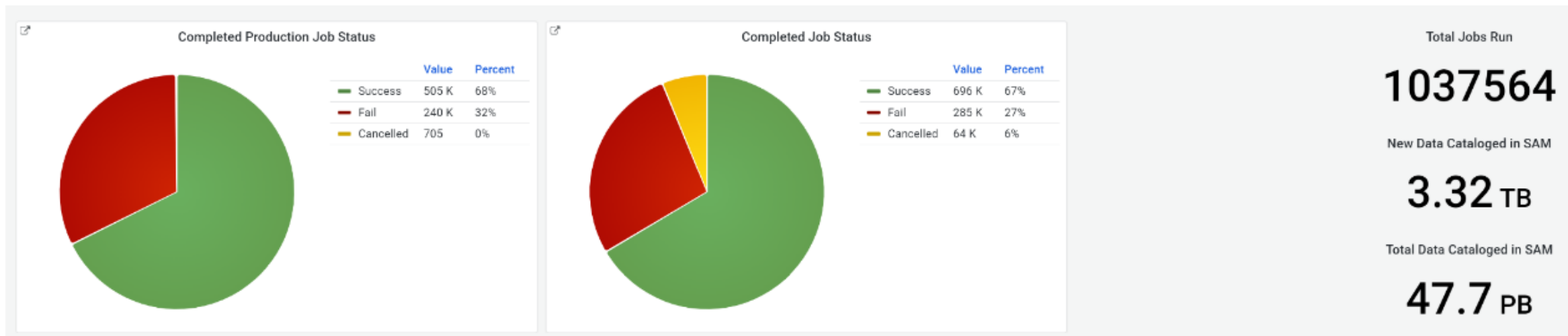
Monthly Average Livetime Fraction: 96.59%

Last updated on: Mon Sep 30 17:20:53 2024

## Far Detector



# NOvA Production News



- In Sept, NOvA ran a total of 1.0M jobs, of which 740 k were from production.
- Beam database issues are causing keepup crashes. Investigating
- Infrastructure:
  - re-organization and modernization of NOvA's grid and production tools, following AL9 update -- validation/testing ongoing.
- Preparing for second miniproducton and new big production campaign starting ~January.
  - Training new group of students to assist in these campaigns.

# DAQ Training

Welcome Lima and Biao!

