



# Run 25 Status RHIC Coordination

October 28<sup>th</sup>, 2025

Rosi Reed

Lehigh University

sPHENIX Run Coordinator

Ron Belmont

UNC Greensboro

sPHENIX Deputy Run Coordinator



No TPC

No MVTX

# sPHENIX Wall Time

0.025 nb<sup>-1</sup>

0.025 nb<sup>-1</sup>

0.052 nb<sup>-1</sup>

0.066 nb<sup>-1</sup>

0.049 nb<sup>-1</sup>

0.053 nb<sup>-1</sup>

0.060 nb<sup>-1</sup>

53%  
60%

34%  
77%

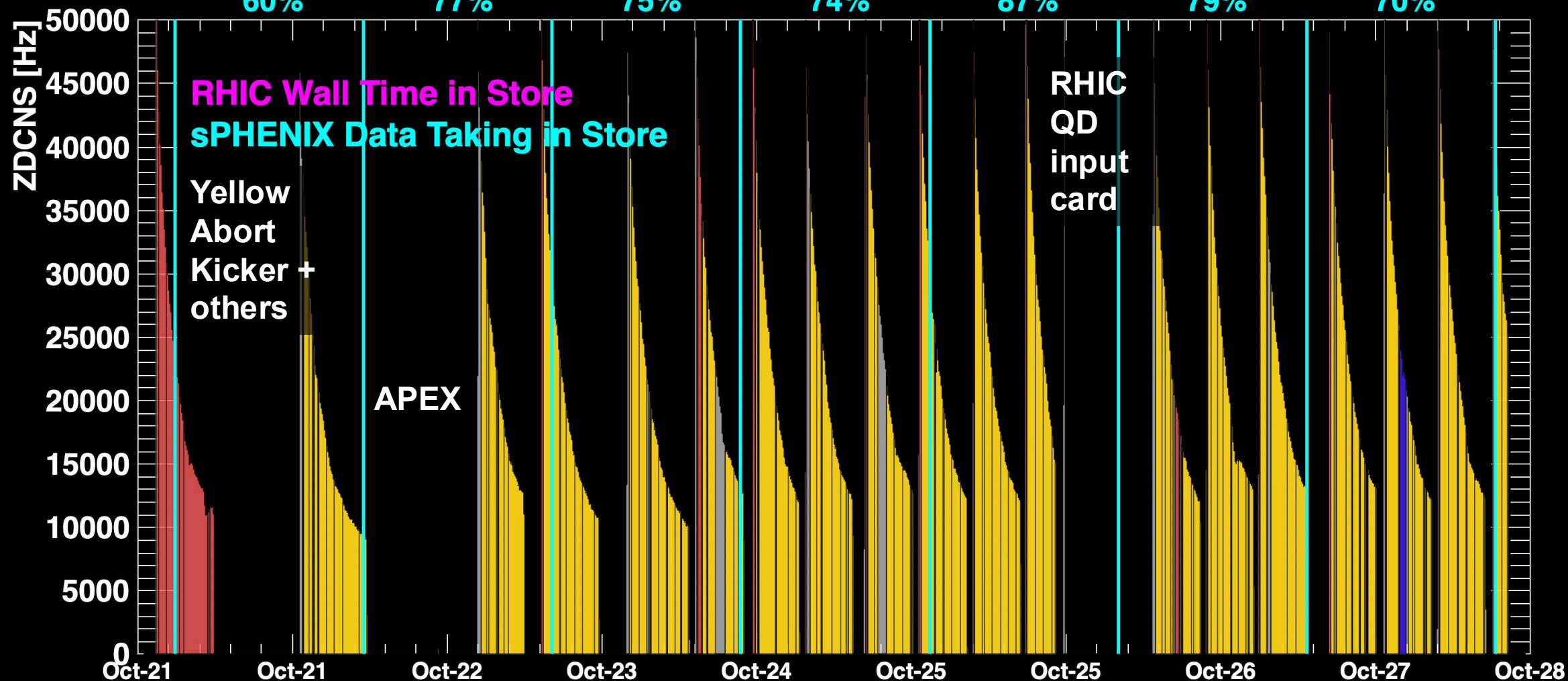
83%  
75%

87%  
74%

62%  
87%

81%  
79%

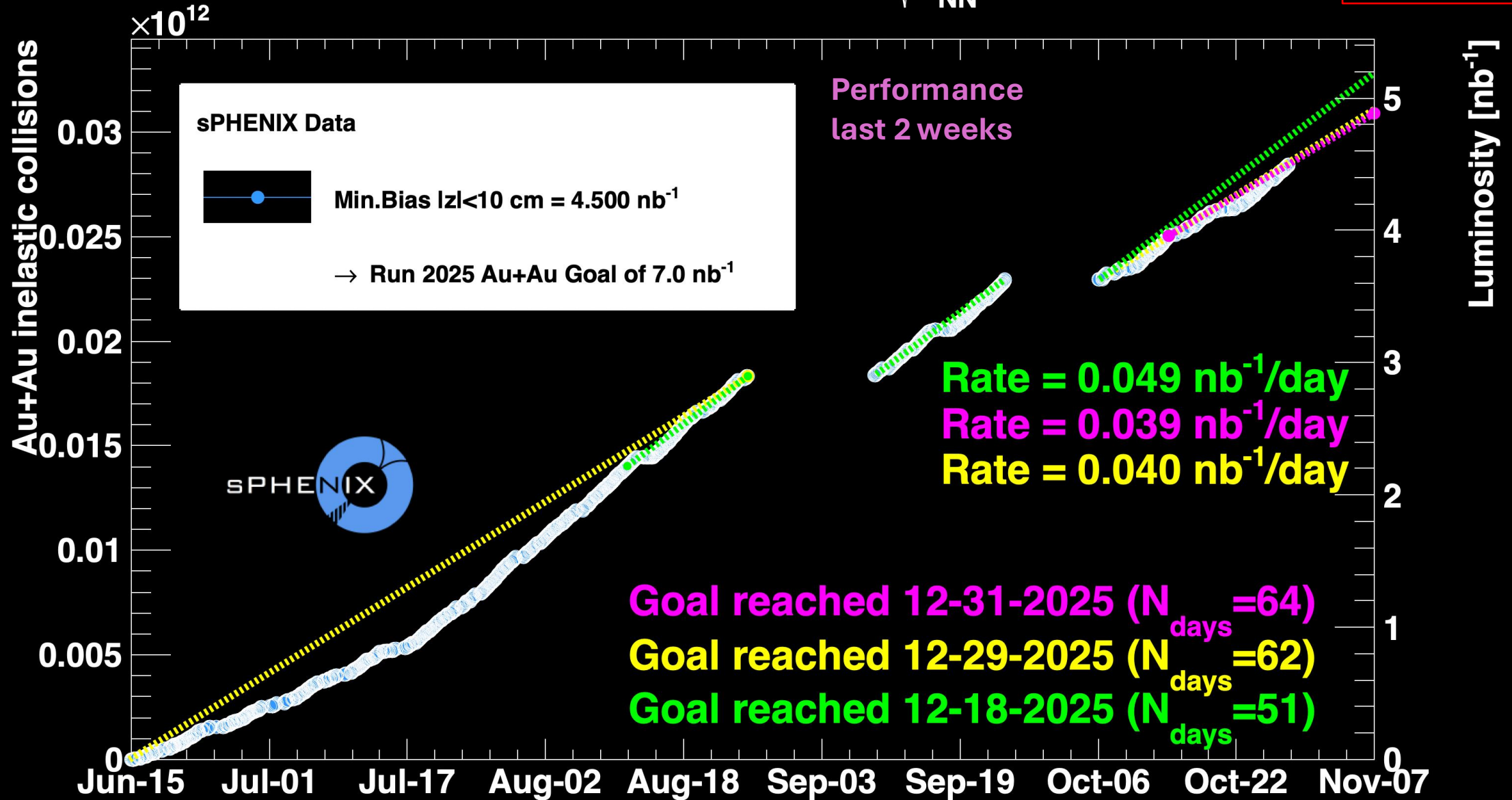
83%  
70%



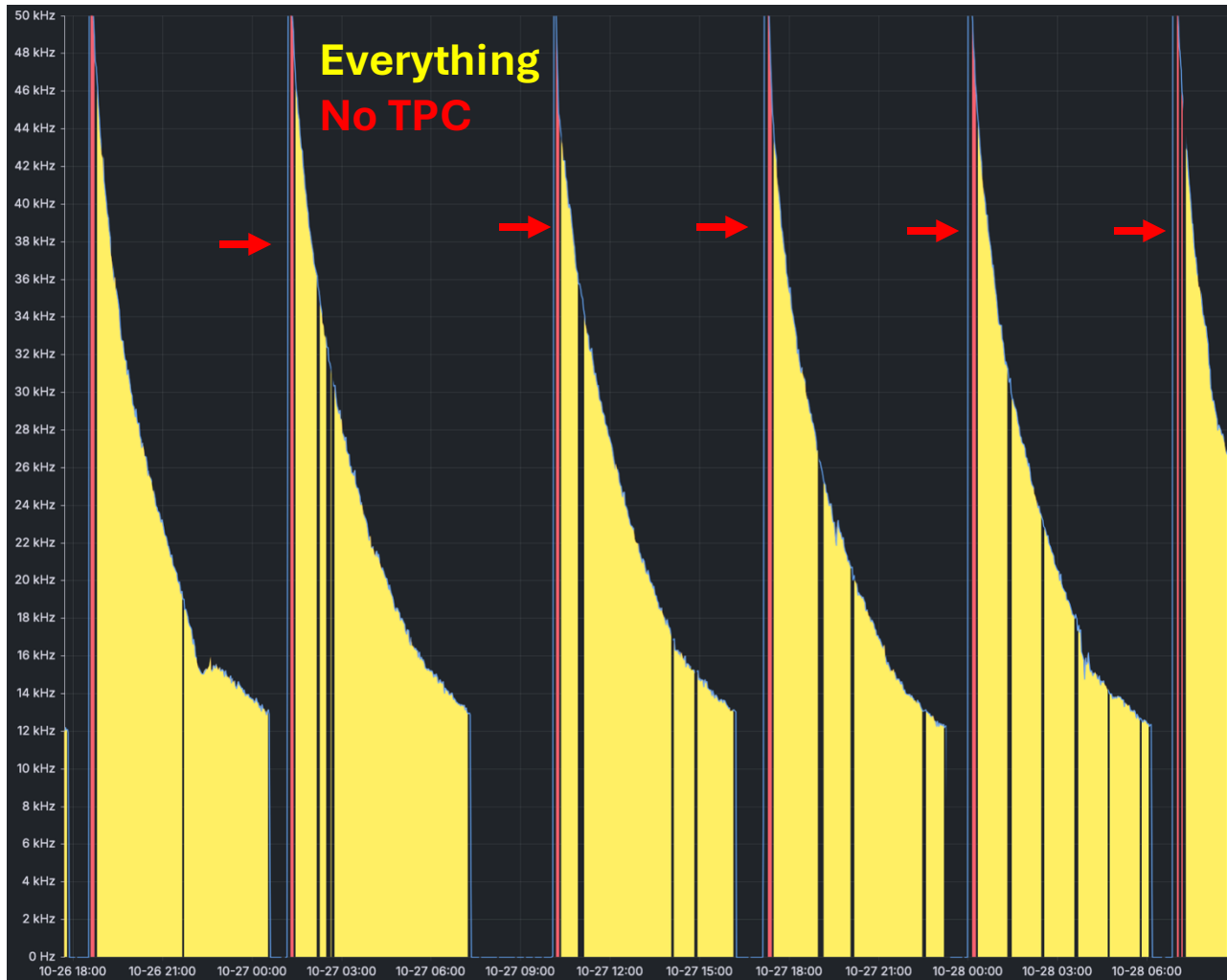
# sPHENIX Luminosity

## sPHENIX Run 2025 Au+Au $\sqrt{s_{NN}} = 200$ GeV

64.3% of our  
Au+Au goal



# Operation w/10 Hz Gap Cleaning



For most fills the difference between Calo-physics-on and TPC-physics on was 2-5 mins, with ZDC ~50-60 kHz

- **TPC Turn on when ZDC < 55 kHz**

| Time of Fill          | $\Delta t$ calo $\rightarrow$ TPC | ZDC Rate      |
|-----------------------|-----------------------------------|---------------|
| 10/26 12:23 AM        | 2 minutes                         | 58 kHz        |
| <b>10/26 11:48 AM</b> | <b>3 minutes</b>                  | <b>54 kHz</b> |
| 10/26 6:32 PM         | 2 minutes                         | 60 kHz        |
| 10/27 1:14 AM         | 2 minutes                         | 56 kHz        |
| <b>10/27 10:11 AM</b> | <b>5 minutes</b>                  | <b>50 kHz</b> |

- **Less than 1% hit to uptime**

So far all aborts since start-of-store 10 Hz gap cleaning have been more “gentle” to the TPC and no damage

# Conclusions

- We are at **64.3% of our Au+Au goal**
  - 2 week rate is  $0.039 \text{ nb}^{-1}$ , but improved to  $0.047 \text{ nb}^{-1}$  for the past week
- We are concerned about the removal of the rental chillers from BNL → Can the contract be extended until the end of the run at least for some of them?
  - ECW is vital for operations, this reduces the risk of multiday downtime
- sPHENIX tracking group would like another 6x6 magnet off (and magnet on) run due to change in static distortions with TPC damage mitigation → Next week?
  - Damage as a result of Oct 19 beam abort
- Maintenance day activities
  - ECW off to install UPS in 1008A PLC (adjust Quench Watch Dog Timer too)
  - Replace TPC CDU Flash drive (needs CDU off)
  - Fix minor EMCal SiPM cooling leak (not an issue for operation)
- Everything is running smoothly at sPHENIX!