Run25 preparation status

Akitomo Enokizono

BNL Travel

	Month	Mar					Apr					May				Jun				Jul				Aug				Sep				Oct				Nov				Dec			

Period / Cryo Week (top axis): weeks numbered 1–14, Summer Break, 15–32. Periods run 2/25–3/3 through 12/23–12/29.

Events: JPS, QM, HQ, RHIC, IS, JPS, SPIN

Beam: Beam? (3/24--); 7/1 No Beam; 8/20 Beam (8/19--); 12/22

Institution	Name	Notes
BNL	Rachid	QM
BNL	Raul	3/17
Purdue	Wei	
Purdue	Joseph	3/22 ... 4/11
RIKEN	Yasuyuki	
RIKEN	Itaru	3/3 ... 3/13 JPS ... IS JPS
RIKEN	Genki	4/3 ... 6/17 ... SPIN
RIKEN	Akitomo	3/2 ... 3/29 ... Cover JPS period
RIKEN	Yuko	3/2 ... 3/29 QM ... IS JPS
RIKEN/NCU	Cheng-Wei	3/29 QM ... 7/8 ... 8/25 ... IS? JPS?
NWU	Takashi	
NWU	Maya	Mostly not available
NWU	Manami	not available
NWU	Mai Kano	not available
NWU	Hinako	not available
NWU	Nao	
NWU	Yui	
NWU	Mahiro	
NWU	Itsuki	
Rikkyo	Ryota	JPS not available
Rikkyo	Tomoya	JPS not available
Rikkyo	Takahiro	JPS 4/3 ... 6/18 ... JPS
Rikkyo	Hayato	not available
Rikkyo	Tomoki	
Rikkyo	Yusuke	not available
JAEA	Shoichi	
NCU	Chia-Ming	
NCU	Kai-Yu	
NCU	Wei-Che	Should graduate at the time (maybe)
NCU	Shan-Yu	7/8 ... 8/25
Korea Univ	Byungsik	
Korea Univ	Jaein	QM ... 7/31 ~ Army KR
Kyoto Univ	Ryotaro	4/8? same time as Itaru? ???

Run25 commissioning to do list

Task	Duration	Points	Beam condition	Other subsystem condition	Priority	Field	Trigger	Comment
Chip saturation study	10 mins for each	INTT in trigger mode Different open time 25, 40, 60, 80, 90, 110, 127 moderate ncollision, 2, 50, 100 If possible we need the long GTM busy window for this test	with collisions (with low rate)	With MBD, in global mode	High		MBD	This is to study the chip hit saturation issue discovered on Dec 10 2024. Whether we still see the cutoff in the chip nhit distribution even with the open time of 128 BCO? We also need to check the cluster phi size distribution We can also try to learn the correlation between the open_time and nhits
Carried over hit study	30 mins	INTT in trigger mode moderate open_time (80 or 128) ncollision 1 or 2 or 3 Short GTM busy window for this test	with collisions (with high rate)	With MBD, in global mode	High		MBD	As of Nov 25 2024, I think we never have the dataset with very narrow ncollision for the event-mixed-up study With the statistic approach, in the reality, we just cannot distinguish b/w mix-up hits and the hits from real collisions. So it's good to have such a dataset that we have the potential to believe that any abnomal behavior found in the data can be really came from anything other than the really collisions. In addition, by comparing with the previous dataset with ncollision 100, we can possibly learn where the event mixup happened.
Timing coarse delay scan	5 min x 6 points x 2 sets	lvl1 = 112, 113, 114, 115, 116, 117	With collisions	With MBD, standalone	Low	Any	MBD	After GTM is finalized
Single bunch crossing	10 mins?	one run ncollision 100 one run small ncollision	single or two bunch crossing(s) with collisions	Join the MVTX commissioning	Low			We never join the MVTX commissioning data taking. I think it's a good idea to take at least one run with single bunch crossing or five. We can learn the noise level and also the beam background, and also fraction of the hit moved to the next bin
DAC0 scan	5 min x 6 points x 2 sets	DAC0 = 15, 20, 25, 30, 35, 40	better to be with beam	Standalone	Middle	Any	MBD	Better to take data in the same condition as Run2024 Au+Au commissioning, i.e. with Au+Au beam, with other subsystems on.
Digital control test?	5 min x 2 points x 2 sets	Digital Ctrl = 2, 10	With collisions	Standalone	High	Any	Any	First try the digital control test with pedestal data with no collisions. If it's not successful, retry to take data with collisions.
Renew chip/channel mask	1 min w/ FA	Need some iterations	With collisions	Standalone	Must	Any	Any	~~Can be finished before Au beam comes.~~ This work will should be performed AFTER 1 week of stable data taking using the current mask condition. Also need Raul to unmask FELIX chip masking

INTT status

- Currently INTT is mostly in big-partition to take cosmic data

- Next week, recheck pedestal data after donuts/collars installation finished (scheduled on Tuesday)

- Try digital control test with pedestal
  - Will prepare a script to switch back and forth between normal and special digital control settings

Status of shutdown tasks

2025	Feb — Mar — 2025

Today

Task	Dates
TPC testing with Ar/CF4/Isobutane	Feb 18 - Mar 25
Install donuts and collar	Feb 24 - Mar 7
Install MBD	Mar 10 - Mar 16
Install sEPD	Mar 17 - Mar 18
Walkthrough	Mar 19
Close poletip doors	Mar 19 - Mar 21
Watch shifts	Feb 18 - Mar 24
Full shifts begin	Mar 25
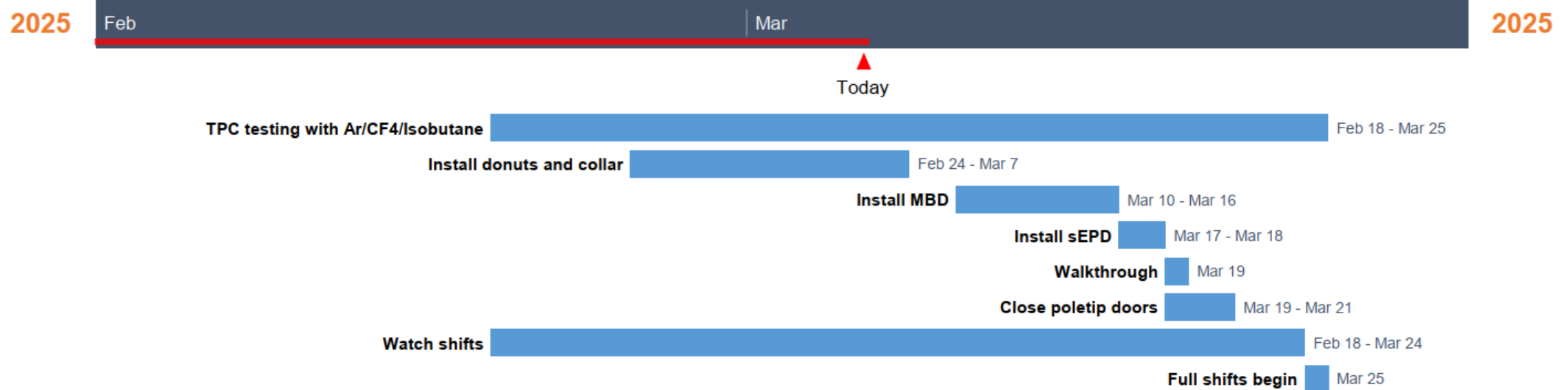
- Support structures for donuts and collars installed north and south last Tuesday
  - Dan, Jimmy, Mike, Sean did a great job getting them installed!
  - The Inner Donuts are showing signs of life
- We have been running Ar/CF$_4$/Isobutane without problems since Feb 20
- The CAEN high voltage for the TPC has been working well
- Installation of equipment for the line laser is essentially complete
  - EEI of rack 1W2 complete with some small action items (closed out?)
- Mickey has certified the MBD "ready for reinstallation" and Aaron, Jeff, and Frank installed the north stanchion
- The alarms are out of bypass as of last Friday (only "Facility Bypass Enable" is lit)
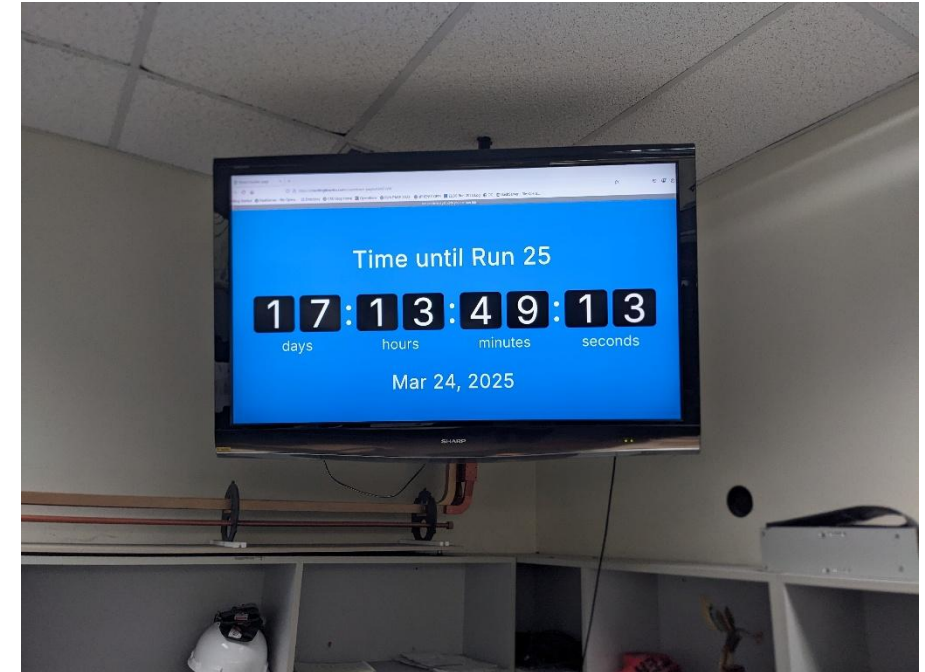- Sean is preparing the fiber bundles for the South Inner Donut

Planning Meeting Today

Collar (North)
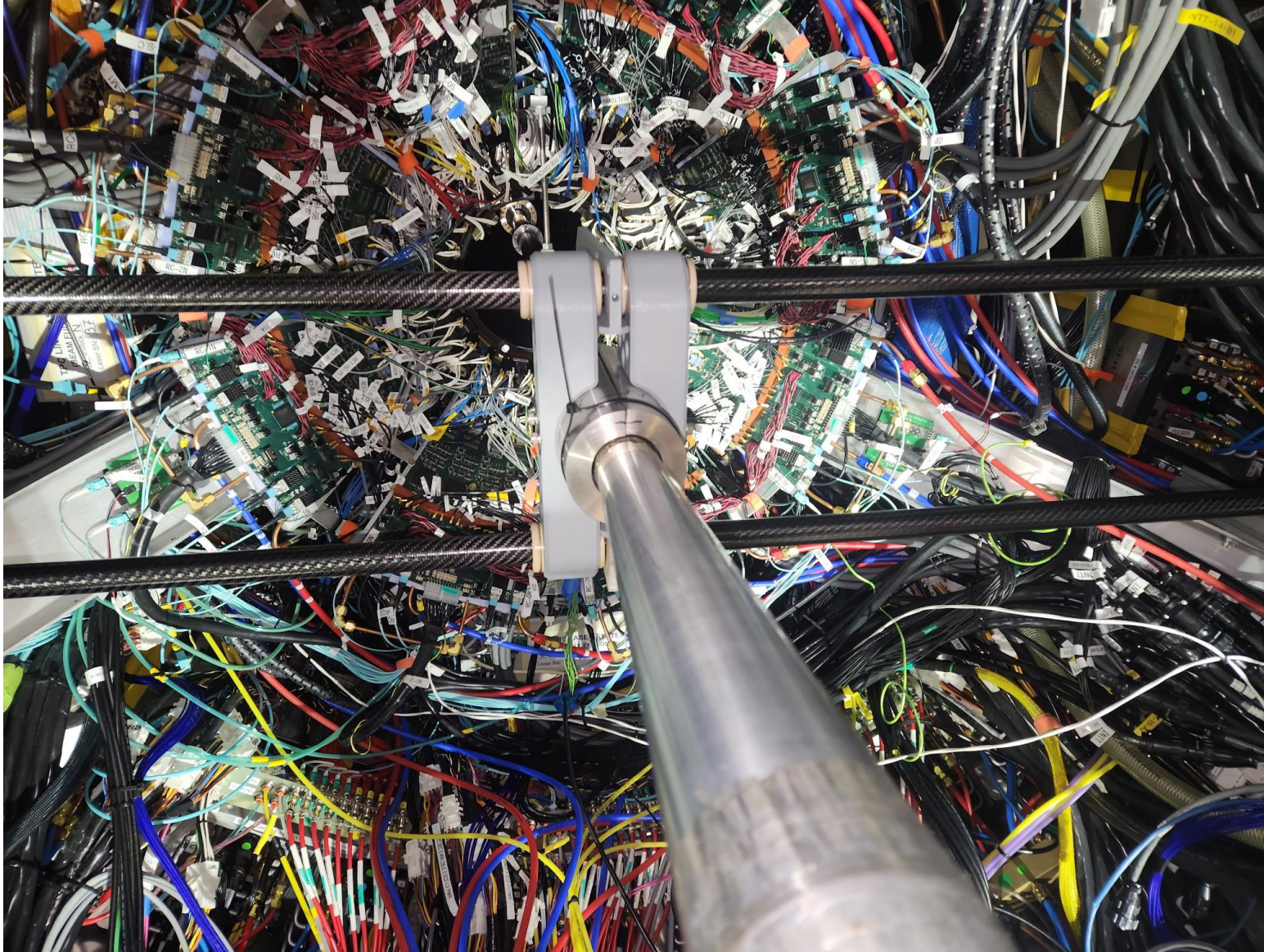
Shutdown tasks remaining

- Crane repair and removal of scaffolding on third level
  - We would like to have this done by end of next week

- Electrical work for chiller platform air conditioning
  - Mike will need help

- Complete installation of collar/donuts/MBD/sEPD
  - Can the Inner Donuts be installed after the MBD?

- Complete preparations for EMCAL SiPM chiller
  - Mike is making a panel that will need to be installed

- OT work this Saturday morning
  - Cable pullers will pull cables for inner and outer donuts
  - Finish as many Pink Sheets as possible

- There have been a few minor problems in Vision and Ignition
  - Lee Flader has trouble ticket form where you can report problems

- AESRC walkthrough Wed March 19

- Last planning meeting of the shutdown Thu March 20

- Goal for March: close magnet doors by Friday March 21 (2 weeks)

Planning Meeting Today