Run24 Schedules

RIKEN/RBRC
Itaru Nakagawa

Official Announcement

On 2024/01/12 19:38, Gunther M Roland via sPHENIX-l wrote:
Dear Collaborators,

We would like to update you on important developments regarding the Run 24 schedule. We are now expecting final RHIC cooldown ("4K wave") to start on **April 15**, with first collisions expected towards the end of April.

This shift by 6 weeks compared to the prior planned date for the 4k wave, March 4, was requested by us in meetings with RHIC management (Jan 11) and RHIC and C-AD leadership (Jan 12), following discussions at last week's Operations Board meeting and the EC meeting this Wednesday. The motivation for this request is to make optimal use of the limited number of cryo-weeks available in Run 24 (our default assumptions are 20 weeks of pp running and 6 weeks of AuAu running).

We continue to expect TPC mitigation work and reassembly of the detector to conclude by mid-March (on March 11, according to the latest schedule). The delay in the 4K wave will allow us to perform essential systems-tests of detectors and DAQ following detector reassembly before start of the cryo-week clock beam, preserving as much time for physics as possible.

Following today's meeting with RHIC/C-AD leadership, this request was communicated and approved by DOE NP, and communicated BNL leadership and STAR as well. With 20+6 cryo-weeks, this puts the end of Run 24 at October 14, i.e., past the FY24/25 boundary. This was explicitly noted and approved. It was also acknowledged that depending on the length of this year's shutdown and the length or Run 25, this may put the end of Run 25 past the previously discussed Jun 30 2025 date.

Many thanks to all that provided advice regarding this important request. We believe that this change significantly improves our chances to reach our pp luminosity goals, but much work lies ahead and we need to continue our push for detector readiness on the tight schedule that we have laid out. You will soon receive further communication regarding the detailed schedule and implications for, e.g., the shift schedule.

Please let us know if you have any questions.

Best,

Gunther and Dave

Subject: RHIC Run 2024 4k cooldown date
From: "Gao, Haiyan" <hgao@bnl.gov>
Date: 1/12/24, 12:41 PM
To: "Fischer, Wolfram" <wfischer@bnl.gov>, "Minty, Michiko" <minty@bnl.gov>, "Morrison, David" <morrison@bnl.gov>, "rolandg@mit.edu" <rolandg@mit.edu>, "Ruan, Lijuan" <ruan@bnl.gov>, "geurts@rice.edu" <geurts@rice.edu>
CC: "Dunlop, James C" <dunlop@bnl.gov>

Dear all:

Jamie and I just met with Paul Mantica and David Cinabro about the sPHENIX's request to start 4k cooldown on April 15th. They understand and have no issues. The final cryo-weeks will depend on FY24 budget. No issues with running into FY2025 either. So we are all good with having April 15 as the 4K cooldown date. I just wrote to the lab director about this latest development.

Have a nice weekend!

Best, Haiyan

April 15 + 26 weeks = October 14 (i.e., first two weeks of FY'25)

Update possible scenario(s) for 2024 - @ Jan 2024

RHIC cooldown or warmup, setup & ramping	R
commisssioning	c
p-p	
Au-Au	
p-Au	
half weeks indicated by left- or right-bound letters	

you are here

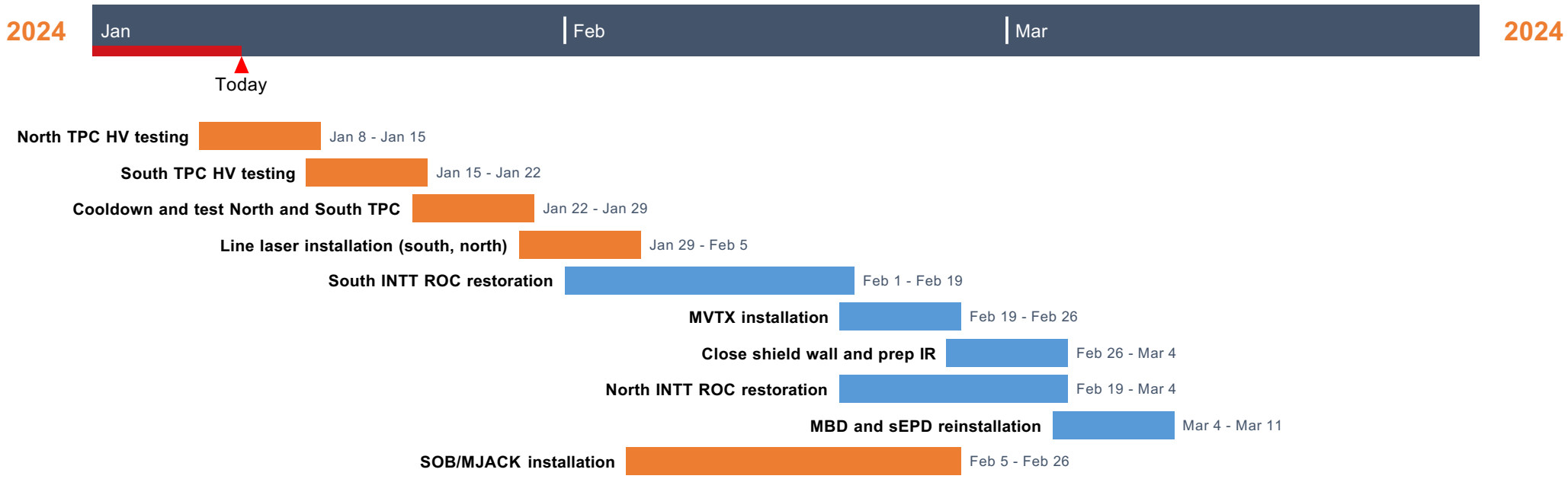
sPHENIX

	Mo	Jan 1	Jan 8	Jan 15	Jan 22	Jan 29	Feb 5	Feb 12	Feb 19	Feb 26	Mar 4	Mar 11	Mar 18	Mar 25	Apr 1	Apr 8	Apr 15	Apr 22	Apr 29	May 6	May 13	May 20	May 27	Jun 3	Jun 10	Jun 17	Jun 24	Jul 1	Jul 8	Jul 15	Jul 22	Jul 29	Aug 5	Aug 12	Aug 19	Aug 26	Sep 2	Sep 9	Sep 16	Sep 23
	week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
i											R	R	R		7 weeks p+p						R	5.5 weeks Au+Au					R			9 weeks p+p						R				
j															R	R	R	3 weeks p+p			R						R			13 weeks p+p										R

- Scenario i) = default RHIC example as of January 5 with March 4 as start of 4K cooldown, and 20 + 6 cryo weeks
- RHIC does not want to run Au+Au in the hot summer months July / August (red vertical lines), based on the experience from last year (higher magnet currents for Au)
- Observation: max 24 + 6 cryo weeks fit into the 2024 fiscal year (ends September 30) with the March 4 start date

  - sPHENIX: **push further** towards the end of the fiscal year? → scenario j)

TPC mitigation work schedule (as of Jan 11 2024)



weekly_2023-01-10.xlsx

Tasks between end of installation and first collisions

- Establish synchronization of full suite of detectors, verify correctness
- Take cosmics with full detector (~2 weeks)
- Commission zero suppression of TPC readout
- Establish TPC line laser operation
- Incorporate first delivery of CAEN HV (April 18)
- Verify high rate MVTX readout

(thanks John!)

Shift?

On 2024/01/16 21:48, Jamie Nagle wrote:
Hello Itaru,
Thanks for the email. It seems likely we will want to change the shift schedule. I do not want to do anything in a rush, and wanted to make sure this April 15, 2024 change was official and approved by DOE first.

I can send an email, including you, tomorrow and then likely schedule a discussion including Kin and John H for early next week when I am at Brookhaven.

Sincerely,

Jamie

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|| James L. Nagle
|| Professor of Physics, University of Colorado Boulder

|| EMAIL: jamie.nagle@colorado.edu
|| SKYPE: jamie-nagle
|| WEB: http://spot.colorado.edu/~naglej
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On Sun, Jan 14, 2024 at 2:13 PM Itaru Nakagawa <itaru@riken.jp> wrote:

Hi Jamie,

I am wondering if there will be any impact on the shift due by the entire slip of the Run schedule by a couple of weeks. If Run goes into October, then the shift due per each institute also changes, right? It is only two weeks of extension and it won't add much to the shift due. Just in case, I would like to confirm with you.

Regards,

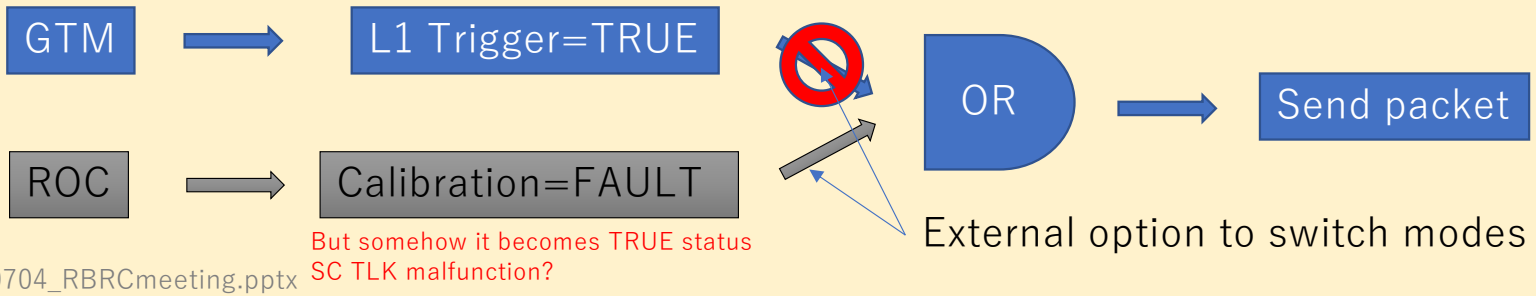
-itaru

Calibration w/ RCDAQ

Raul

- Intt1 has been barely operational since it tends to become triggerless (see below flow chart). Noisy condition of intt1 server has been a suspect, but no obvious abnormal grounding was found by Rachid within 6/21 access.
- The same symptom appeared to intt0 on 6/22 and all ROCs in 6/29 owl shift.
- Raul implemented new firmware which disables the trigger thru SC link from ROC in all felix servers on June 29th around 23o'clock. So far so good.
- We should watch if intt1 won't gets exploded with the new firmware.
- The trade off is no calibration capability for these servers.

"Triggerless Mechanism" in the present felix firmware



Slide from 230704_RBRCmeeting.pptx

Calibration w/ RCDAQ

- The external switch has been implemented in the latest firmware by Raul.
- However, it hasn't been tested yet due to no available setup.
- The plan is to move the test bench setup to 1008 today and attempt to test the calibration by Raul there.
  - Raul will be on vacation from Jan 25th – May 1st. Absolutely no contact from Feb 6th – Feb. 16th, otherwise some contact thru mattermost.
  - Genki will be back to BNL on Jan 29th and re-install ROC from Feb. 5th.
  - Itaru will leave on Jan. 18th and his next visit is Feb. 13th – March 6th.