Controls SW Group Meeting

August 10, 2023

Agenda

1. State of the machine
2. Upcoming schedules
3. Announcements

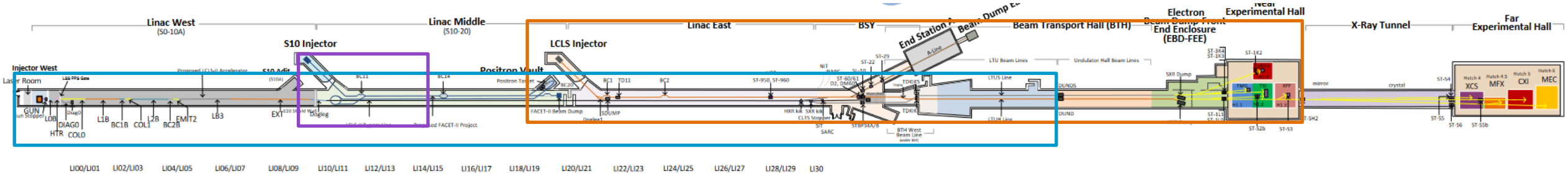
T. Summers

SLAC NATIONAL ACCELERATOR LABORATORY

State of the Accelerators

All 4 accelerators running! (Linac plus SPEAR3)

- **LCLS-SC: Beam has been sent LTU for the first time**
  - Hard X-ray line – beam made it to TDUND
  - Soft X-ray line – beam couldn't make it through spreader due to weak dipole (short found yesterday)
    Plan to fix in place then finish getting beam to TDUNDS/B
- **FACET: Beam restoration through linac progressing**
  - Currently working on laser heater commissioning
- **LCLS-Cu/NC: Running to experiments on swing/owl shifts, standby during day for SC focus**
  - Generally running well, running through HXR



Upcoming maintenance periods

Next week's PAMM cancelled, replaced with a LCLS-NC only POMM

- Purpose is to focus on meeting the SC KPPs by the end of September deadline
- Next PAMM in three weeks – 8/30-8/31
- LCLS-NC POMMs and FACET POMMs as needed could be useful for software work

Edit	Start Date	End Date	Program	Machine Status	Description
777	11/27/2023	01/26/2024	AOSD LCLS	Downtime	Nov-Jan Linac West Downtime
766	11/27/2023	12/20/2023	All Accelerators	Downtime	Nov-Dec FACET & LCLS Cu Downtime
775	09/19/2023	09/21/2023	All Accelerators	PAMM	9/19-9/21 PAMM
774	09/05/2023	09/07/2023	All Accelerators	PAMM	9/5-9/7 PAMM (cancelled, bucket locked)
773	08/30/2023	08/31/2023	All Accelerators	PAMM	8/30-8/31 PAMM
779	08/23/2023	08/23/2023	AOSD LCLS	POMM	LCLS NC-Only POMM

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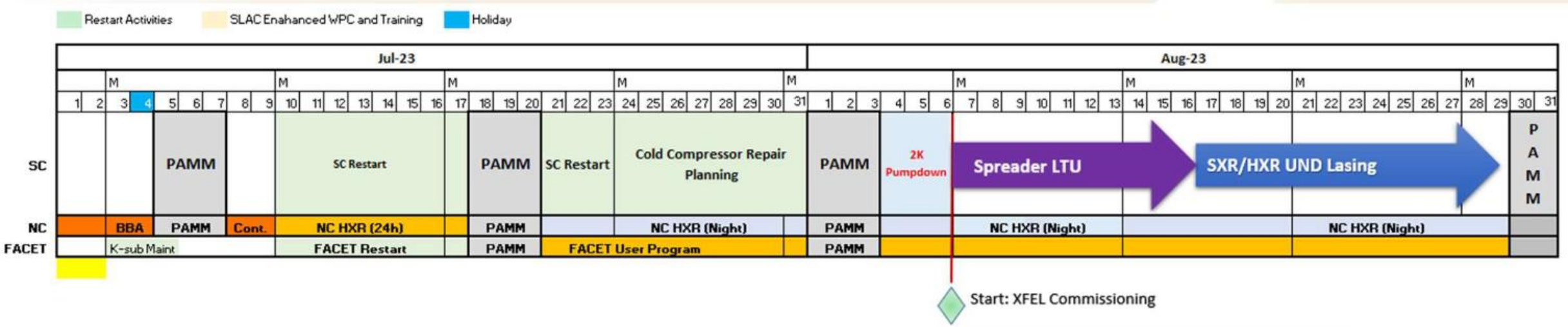
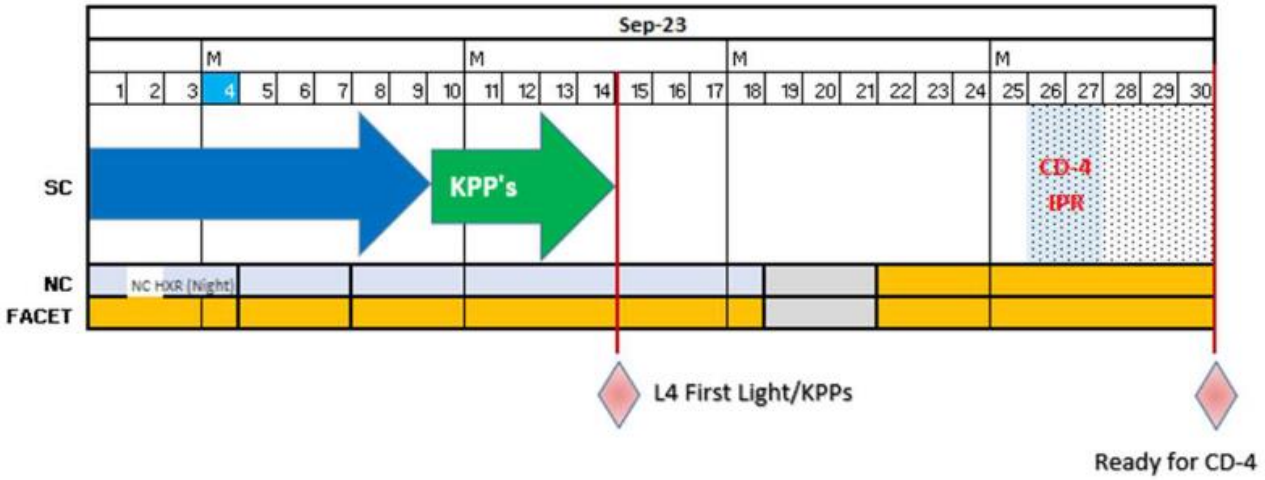
09/05/2023	09/07/2023	All Accelerators	PAMM	9/5-9/7 PAMM
08/15/2023	08/17/2023	All Accelerators	PAMM	8/15-8/17 PAMM
08/01/2023	08/03/2023	All Accelerators	PAMM	8/1-8/3 PAMM

Looking ahead – big picture for following months

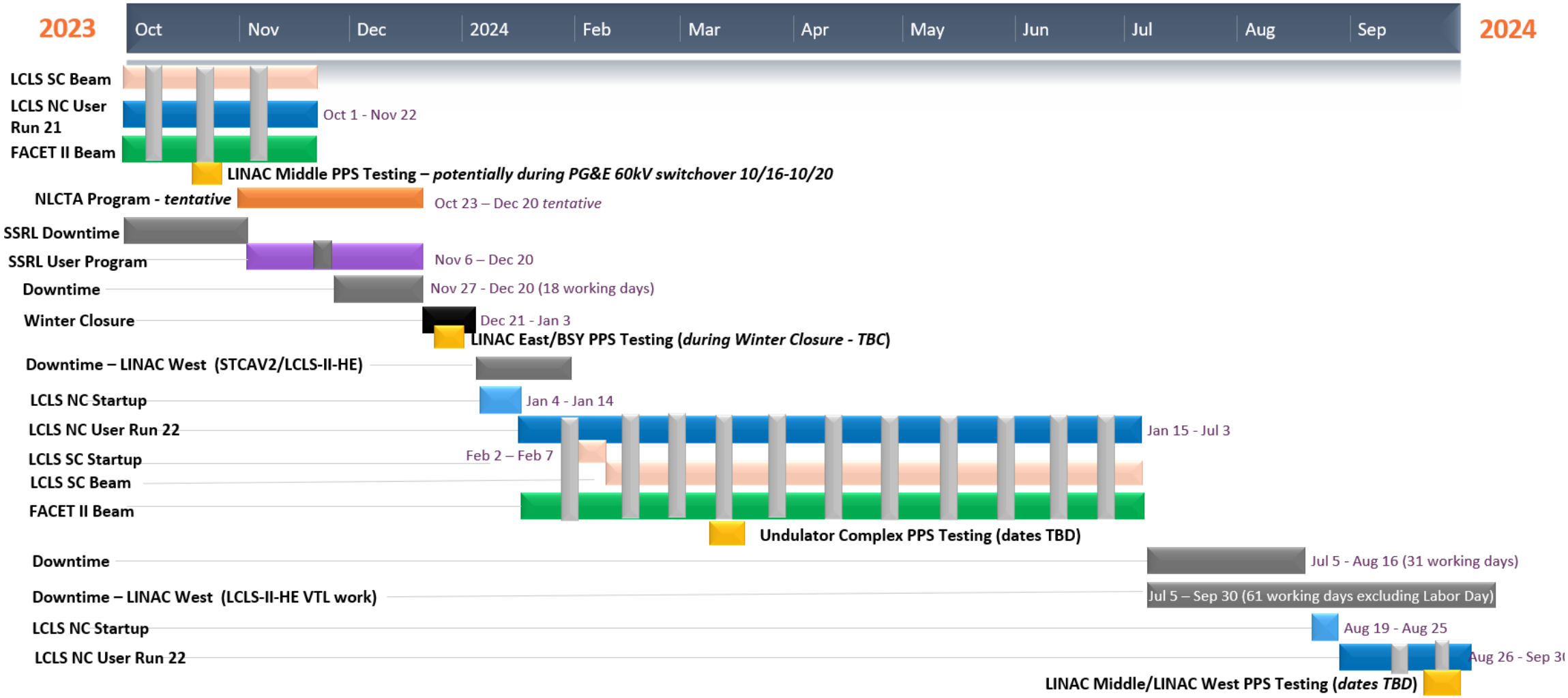




As of August 4, 2023 Activity	Durations
Restart Activities	8 days
SC Linac commissioning	14 days
PPS Recertification	4-7 days
Spreader LTU	10 days
SXR/HXR Und Lasing	22 days
Verify KPP's	5 days
1st Light	**14-Sep**
Ready for CD4	**30-Sep**

https://slac.sharepoint.com/sites/lcls/lcls-2/admin/OC/LCLS-II%20Revised%20First%20Light%20Schedule.pdf

Looking ahead – big picture for following months



From Sharon's Downtime Planning Meeting slides

Off hours support policy changes

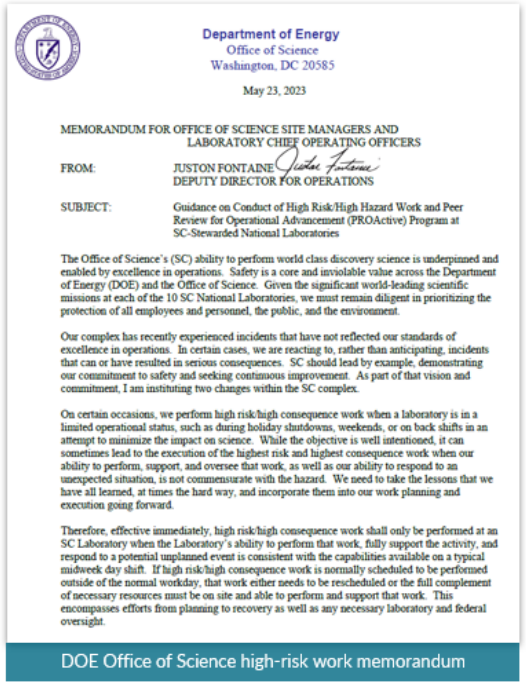
“High risk” doesn’t include software

I’d like to gather metrics for software off-hours support. Let me know if you’re called outside of business hours (8-5), and what you needed to do.

- Was it reasonable?
- Was it something that needed to wait until the next day?
- Is it something operations should have instructions for doing themselves?

DOE guidance for off-hours high-risk work

- Following safety incidents in the laboratory complex, DOE Office of Science issued guidance (right) regarding high-risk work occurring during off-hour (holidays, weekends, outside normal working hours) time periods.
- High risk work can only be done when the ability to perform the work, fully support the activity, and respond to unplanned events is consistent with capabilities normally present on a typical midweek day shift.
- SLAC requirements are being finalized, outlining the process steps for applying this DOE guidance, namely:
  - Determining whether the work can be performed during regular working hours, with acceptable impact
  - If deemed necessary to work off-hours by line manager/supervisor, determining whether work is high risk via a matrix referenced in guidance
  - Submitting the work request form for off-hours approval to responsible ALD or F&O, ESH or IT director
  - After which the work request will go through an approval process with responsible ALD or Director review and approval, including DOE SSO concurrence.



Department of Energy
Office of Science
Washington, DC 20585

May 23, 2023

MEMORANDUM FOR OFFICE OF SCIENCE SITE MANAGERS AND
LABORATORY CHIEF OPERATING OFFICERS

FROM: JUSTON FONTAINE
DEPUTY DIRECTOR FOR OPERATIONS

SUBJECT: Guidance on Conduct of High Risk/High Hazard Work and Peer Review for Operational Advancement (PROActive) Program at SC-Stewarded National Laboratories

The Office of Science's (SC) ability to perform world class discovery science is underpinned and enabled by excellence in operations. Safety is a core and inviolable value across the Department of Energy (DOE) and the Office of Science. Given the significant world-leading scientific missions at each of the 10 SC National Laboratories, we must remain diligent in prioritizing the protection of all employees and personnel, the public, and the environment.

Our complex has recently experienced incidents that have not reflected our standards of excellence in operations. In certain cases, we are reacting to, rather than anticipating, incidents that can or have resulted in serious consequences. SC should lead by example, demonstrating our commitment to safety and seeking continuous improvement. As part of that vision and commitment, I am instituting two changes within the SC complex.

On certain occasions, we perform high risk/high consequence work when a laboratory is in a limited operational status, such as during holiday shutdowns, weekends, or on back shifts in an attempt to minimize the impact on science. While the objective is well intentioned, it can sometimes lead to the execution of the highest risk and highest consequence work when our ability to perform, support, and oversee that work, as well as our ability to respond to an unexpected situation, is not commensurate with the hazard. We need to take the lessons that we have all learned, at times the hard way, and incorporate them into our work planning and execution going forward.

Therefore, effective immediately, high risk/high consequence work shall only be performed at an SC Laboratory when the Laboratory's ability to perform that work, fully support the activity, and respond to a potential unplanned event is consistent with the capabilities available on a typical midweek day shift. If high risk/high consequence work is normally scheduled to be performed outside of the normal workday, that work either needs to be rescheduled or the full complement of necessary resources must be on site and able to perform and support that work. This encompasses efforts from planning to recovery as well as any necessary laboratory and federal oversight.

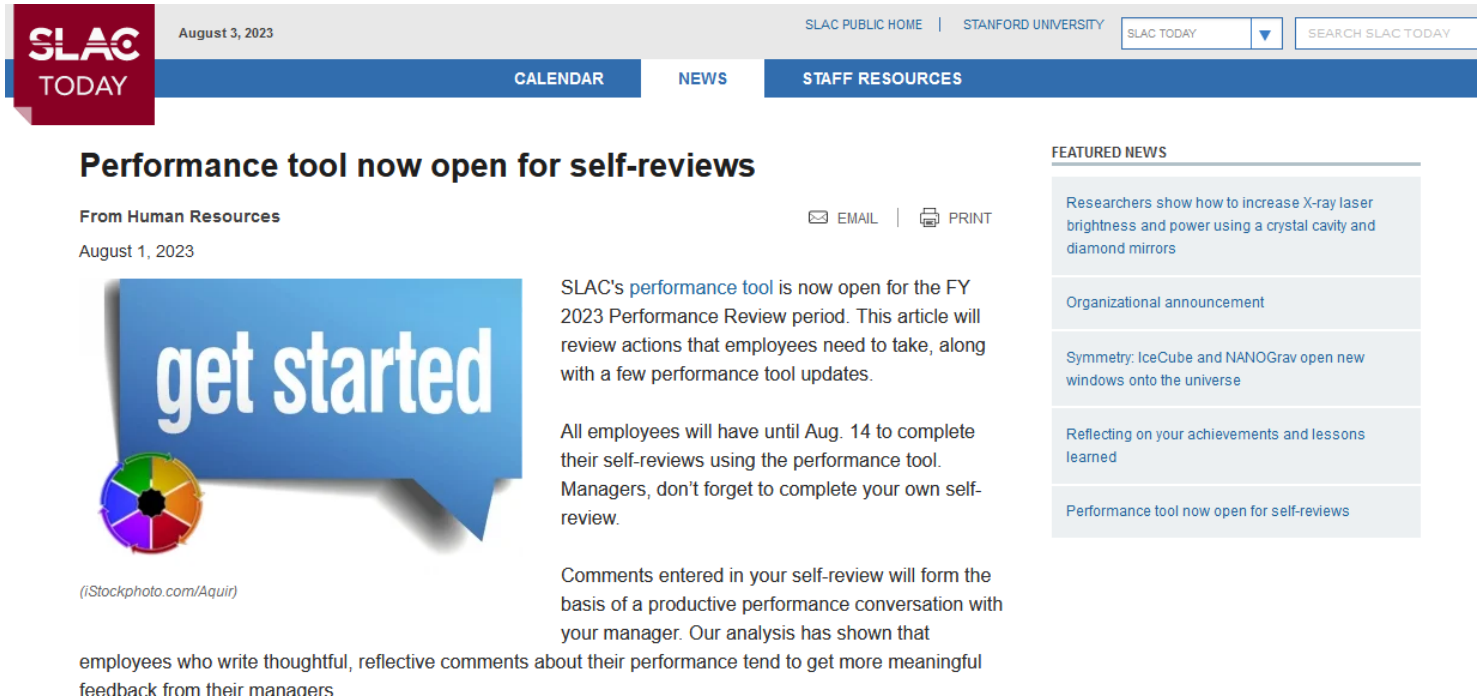
DOE Office of Science high-risk work memorandum

https://intranet.slac.stanford.edu/news/2023/08/video-slac-town-hall-aug-9 *(with responses to poll)*

It’s Performance Appraisal season!

Self-review is open until 5pm Monday August 14th

- See all-employee email sent Tuesday Aug. 1st
- https://intranet.slac.stanford.edu/news/2023/08/performance-tool-now-open-self-reviews



SLAC TODAY

August 3, 2023

SLAC PUBLIC HOME | STANFORD UNIVERSITY

SLAC TODAY | SEARCH SLAC TODAY

CALENDAR | NEWS | STAFF RESOURCES

Performance tool now open for self-reviews

From Human Resources

EMAIL | PRINT

August 1, 2023

(iStockphoto.com/Aquir)

SLAC's performance tool is now open for the FY 2023 Performance Review period. This article will review actions that employees need to take, along with a few performance tool updates.

All employees will have until Aug. 14 to complete their self-reviews using the performance tool. Managers, don't forget to complete your own self-review.

Comments entered in your self-review will form the basis of a productive performance conversation with your manager. Our analysis has shown that employees who write thoughtful, reflective comments about their performance tend to get more meaningful feedback from their managers

FEATURED NEWS

- Researchers show how to increase X-ray laser brightness and power using a crystal cavity and diamond mirrors
- Organizational announcement
- Symmetry: IceCube and NANOGrav open new windows onto the universe
- Reflecting on your achievements and lessons learned
- Performance tool now open for self-reviews

2-Factor authentication for logging onto laptops

Everyone agrees this is annoying, but the DOE is requiring it

- People who have recently got new laptops have already been ~~suffering~~ working with this
- Anecdotally, this seems to just add another step, not replace any of the authentications we do each day
- They say there are ways to request exemptions for special cases
- See email the other day, there is a link to an IT Knowledge Base with FAQs such as how to deal with times you have no signal:

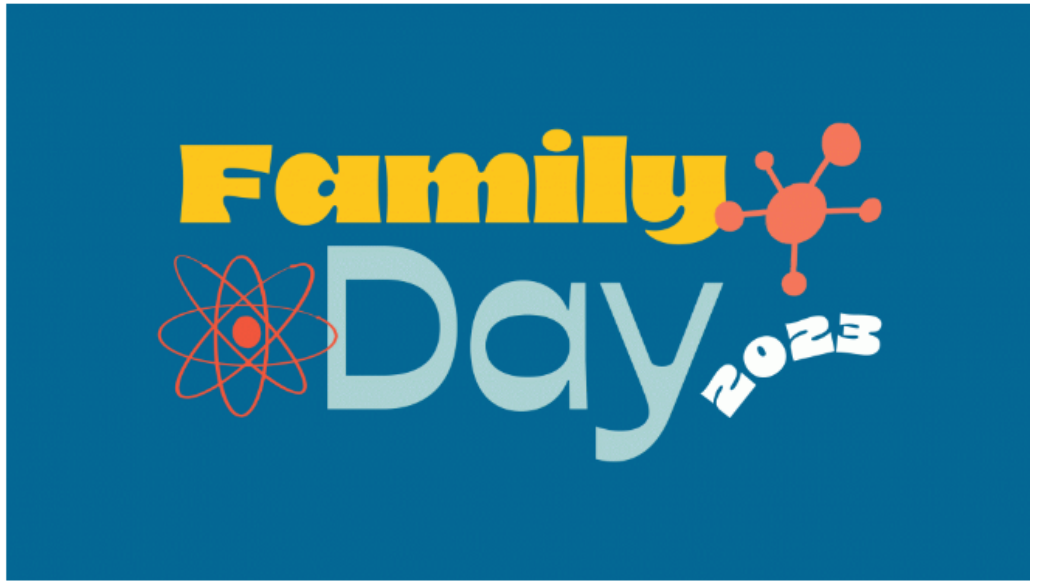
> **What if the "push" fails to get to me, or if I have no WiFi or cell coverage?**
>
> On rare occasions, "push" may fail, either because of network problems or server problems. Similarly, you may find yourself in an area without WiFi or cell coverage. In this case, your phone won't be able to communicate with the Duo servers. Do not despair! The Duo app does not need network access to function. In such circumstances (or any other time) you may **obtain a passcode directly from your Duo app**.
>
> 1. open the Duo app on your smartphone.
> 2. tap the icon of the key for your SLAC account.
> 3. note the 6 digit passcode, and enter it into the passcode prompt for the service you are trying to access.

SLAC Family Day

Saturday August 19th

- *https://internal.slac.stanford.edu/communications/family-day*
- The SLAC Market pop-up shop will make an appearance at Family Day on Aug. 19, from 1-2:30 p.m. and 4:30-5 p.m. Shirts, pins, mugs, hats, stickers, accelerator model kits [LEGO!] and more will be available. Check out the full inventory on the SLAC Market page.

  Please preorder your merchandise for your convenience, as we will have a limited inventory available for walk-up orders. Order **here** by Aug. 16.



You and your guests are invited to SLAC Family Day!

What: SLAC Family Day is an afternoon of enriching activities to learn about science and have fun doing it. Participate in interactive demos, view engaging exhibits, listen to short science talks (and ask lots of questions), take mini facility tours, enjoy free refreshments and kids get giveaways

When: Saturday, Aug. 19, 1 - 5 p.m.

Where: The Science and User Support Building (SUSB), Kavli Auditorium and the Main Quad

Who: SLAC staff, their families and guests

How to participate: **Register here** (enter password "SLAC" when prompted - you may be prompted twice). Family Day is free to attend but registration is required by Aug. 7.

SOLD OUT! As of 8/7/2023 there are no more tickets available for the event.

Please sign up for the wait list **here** and you will be contacted after August 11th to let you know if this is possible.

Volunteers are still needed, sign up **here** if you are interested.

Upcoming Special Presentations

Intern Project Talks

August 17th (next week):

Chanel (Kyle) - Python Software Support for Fast Feedback System

Dylan (Namrata) - Investigate and test Beckhoff EtherCAT modules for a single axis stepper motor system with feedback.

Boogie (Claudio) - New Logging System For Experimental Facilities

August 24th (following week):

Cade (An) - Software Support for Magnet Controls Infrastructure

Caleb (Chris) - A PyDM camera display interface optimized for EPIC7 datatypes, test archiving and methods for visualizing historical data.

Fatima (Yekta) - A new PyDM archive viewer