SURF User Association Executive Committee Meeting

Date: 09/05/2025

Attending:

Members: Mark Hanhardt, Brett Belzer, Ed Blucher, Frank Strieder, Sarah Keenan, Brianna Mount, David Woodward, Oxana Gorbatenko, Jeff Burghardt

Others: Christopher Kreitzinger, Jaret Heise, Stacie Granum

Quorum: Yes (9 members present, 5 members required for quorum)

Start Time: 1:01 PM MT

Welcome

- Frank: Welcomes members of the SUAEC and Stacie Granum, SURF Institute Program Manager, as a way for the SURF User Association (UA) to further collaborate with SURF.

(1:02 PM MT)

SURF Update

- Jaret:
    - Funding – Awaiting word on the upcoming federal FY26 budget. Second five-year cooperative agreement includes increasing our budget. Due to uncertainty, they have halted hiring new staff (such as new research scientist position) and some equipment. A FY26 Continuing Resolution would not be ideal, but SURF is cautiously optimistic (plus hoping government doesn't shut down in October).
    - Working with DOE regarding infrastructure funding, including Yates hoist funding totaling around $20 million over 6 years ($0 approved for FY25). Shaft work would nominally start after the hoist upgrades as a separate project. Also looking at upgrading SURF electrical distribution systems as well as pumprooms (1250L, 2450L, 5000L).
    - For additional lab space, SURF continues to explore private funding opportunities and plans to submit a newly updated proposal this fall. There has been particular interest from two large-scale experiments, (XLZD and THEIA), both of which submitted Letters of Interest to last years' SURF call.

SURF is also exploring cryogenic facility funding opportunities to fill Davis Campus space after MJD has been decommissioned and some facility upgrades are performed. Discussions are ramping up with the atom interferometry community regarding a vertical facility, possibly accommodated in the Yates shaft during the future refurbishment (~2030s).

- o Two cryostats worth of LBNF/DUNE steel is in Rapid City (15M lbs). New Ross skip cage will be installed later this month and will transport LBNF/DUNE cryostat steel starting early next year. Five contracts with Fermilab ensure LBNF/DUNE logistics go smoothly and safely (roughly 70 people).
- o SURF Science Program Advisory Committee (SPAC) meeting is coming up in just over a week: congratulations to Ed Blucher on becoming the new SPAC chair, Frank will give a UA update. Strategic plan for non-physics on the agenda (physics version completed last year, closely aligns with P5 recommendations to DOE/NSF); other topics include SURF Letters of Interest (LOIs). The SURF Strategic Advisory Committee (SSAC) meeting is coming up at the end of September.
- o 2025 has been a busy year for The Institute, which has expanded the number of programs. Hosted the 9th CETUP* workshop this year (third year under the Institute). Also hosted the XVIII International Conference on Interconnections between Particle Physics and Cosmology - PPC 2025 (3rd time connected to SURF). The Quantum Partnership Workshop (QPW) was hosted at SURF in July for the second year in a row. The Higher Education Connections Workshop (HECW) is coming up in November – invitations were sent to 13 SD institutions, workshop focus will be on the SD Science & Technology Plan released in March 2025. Deeper Talks is in its second year, including speakers from the UA as well as underground science community experts. We are happy to take any speaker suggestions.

- Frank: Status of the DOE user facility?
- Jaret: No update. Previously, DOE management indicated that SURF would be invited to submit an application once the Yates shaft was back in regular operation (return to operations was March 2025). However, recent interactions with DOE have focused on funding for the Yates hoists and shaft, which are a very high priority. There will be an opportunity to ask DOE about perspectives on SURF becoming a User Facility during the upcoming SPAC meeting. [Ed., DOE did not provide an update on this topic.]

- Frank: Ross shaft skip cage installation, the Ross shafter double-decker cage, along with installation of the Ross brow crane, and status of repairs to the Ross clutch. What's the timeline/impact for science like CASPAR and BHUC during repairs?
- Jaret: Ross skip cage installation planned for Sep 22-25, not expected to impact personnel access. Double-decker done early next year and will be performed to minimize impact. Worst case, there will be access down the Yates, with motor transportation across the next level. Ross brow crane (at 4850L Ross station), unsure on the schedule, but assume minimal interruptions. SURF has received Ross clutch proposals from the manufacturer and options are being evaluated. [Ed., Most likely option has ~35-week lead time with 4-6 days downtime during repair (Yates shaft will still be available)].
- Frank: What's the risk that this completely fails?
- Jaret: Chief Operating Officer, Wendy Straub, could give you a better answer, but there's no imminent failure. We have technical options from venders and are coming up with a plan to move forward. [Ed., Per the inspection report: "hoist remains safe for continued operation under current conditions with an appropriate monitoring plan in place."]
- David: What's the process for private investment submitting proposals? How would that money be distributed?
- Jaret: This twill be the third year we've submitted a proposal related to expanded laboratory space on 4850L. Proposals are received by people who know us well, are reviewed highly, and they understand our timeline (~2030s). Not clear that we need to strengthen the science case, but if so, we may reach out to the community.
- David: Does the money have to be targeted to a new cavern or infrastructure?
- Jaret: There is flexibility with private money. The SURF call for Letters of Interest (LOIs) has provided an important set of data points showing interest in many areas, several of which require future use of xenon. Either DOE or private funding may help purchase the xenon for use by the scientific community (recall SURF xenon currently used by LZ was purchased through several SD foundations, and those investors need to be made whole).

(1:21 PM)

Update on Outside User Association Interactions

- Mark: Between Frank, Christopher and myself, we've taken a look at other User Association (UAs). To preface, I don't think it would be incorrect to say our UA has been floundering. This was the idea we had when we spoke to outside UA. Visited

with FRIB, SNOLAB, ALS, PNNL, and spoke to Executive Committee officers to get an idea how we can fulfill our role. We came away with existential angst and need to find our purpose, our why, and gear ourselves to provide users benefits. Most UA fulfill different things and are more integrated by handling most communications. Some had full-time paid staff running, but for us they're mostly volunteers. One takeaway was that we have a unique user base since most UAs have one field/discipline, so communication is easier. SNOLAB is most similar, but because they're just starting there are few lessons. Frank, Christopher and I have met several times regarding what benefits we could provide users. We've mentioned this before in meetings, but it's time to have a more intense conversation. We should have a subcommittee that meets more often to start having these conversations.

- Frank: This is the idea based on the discussions we've had over the last couple months. This also means we have not come to a conclusion.
- Mark: Outlined the problem well but would love to have help from those who have time to join the subcommittee in order to have these conversations. We've talked about this for years, but now it's time to finally answer them.
- Frank: Any comments?
- Brianna: You can sign me up!
- Mark: I volunteer as well.
- Oxana: Happy to join as well. Was just wondering about this same question.
- Frank: One question is should we reach out to entire user base to answer this question. If we would, what's the best option?
- Mark: Conversation we can have in the subcommittee and could maybe invite some users to meetings to really ask them.
- David: Was there anything that stood out from other user groups?
- Mark: One thing they all had in common was they were more integrated in communication between users and the facility. We have communications department and Institute that's responsible for that, but perhaps we could make ourselves more integral in the process.
- Frank: FRIB controls training and badging, so there's no other way to have users engage than the UA. Of course they have a much less diverse user base.
- Jaret: That sounds more like a user office rather than an association.
- Mark: For some of these groups the office and association were the same.
- Oxana: If we plan to meet more often, perhaps we should make a document to have ready for those attending to prepare them. If we are going to ask these questions, maybe everyone can provide ideas before the meeting on a document and then discuss them in the meeting.

- Frank/Mark: That makes sense.
- Ed: Fermilab's user committee doesn't use UA as a communications path either, their primary function is an advocacy group for users, so UA just represents the users on issues. This is just another model.
- Mark: This is spelled out in our charter as well, but we need to figure out how to effectively do that. One major pillar of what we need to do.
- Frank: We should promote this pillar better to the user base. Maybe there are no problems, but we should let people know that this is an avenue.
- Mark: We do have a suggestions form but never rolled it out.
- Frank: Should add that as an action item.
- David: When I talked to ALS, they were acting as an advocacy group for users. They described it as moving the needle on what was already communicated by the user facility. On the topic of gathering feedback from users, we should ask folks who are coming onsite if they would be willing to spend 10-15 minutes talking with one of us to gather some feedback. May be more reliable.
- Frank: That's a good idea, and I think Mark has frequent conversations with those onsite.
- David: Would be a good idea to formalize it where you reach out to everyone and then individuals.
- Oxana: Do most projects come to Jaret and Christopher? If so, have you received any questions from new users?
- Jaret: Nothing comes to mind immediately, but there are some suggestions for our public website such as documentation. The user association members would benefit from that. There are with many groups a case-by-case basis of needs that need to be sorted out, we could put those materials on the website. There have been members of this committee that have tackled certain issues, like newsletters, reflecting what's been decided as a priority. This could serve a good purpose.
- Mark: Researchers often ask me for changes at SURF. Occasionally some are big enough to bring in the science department to have done, this could be a role for the UA instead.
- Oxana: If this discussion is already being held, what kind of problems could we assist with. How could we share responsibilities?
- Frank: Social media presence was brought up yesterday and suggested creating a LinkedIn account to connect with donors but could be an option for the UA. Has the Institute considered this?
- Stacie: We don't have a social media account but have talked to communications and started using slack to keep engagement. LinkedIn is something the SURF

Communication Dept is going to look further into. There's an opportunity, not sure with UA, but that's a way to better connect.

- Jaret: Any other UAs use social media?
- Mark: Nobody mentioned they did, only group that had an online space was SNOLAB and it was just a Facebook page talking about where to live.
- Frank: SD Mines Foundation people mentioned that some SD Mines departments are successful with social media, can share what I learn from them on campus.

Action Items Resulting from Discussions

- Roll out suggestions form.

(1:44 PM)

Actions Towards a Quarterly Newsletter

- Frank: Would we produce something independently, or something with the comms department adding something to Deep Talks. Thoughts?
- Mark: It's a good idea and a good way to get our name out there. Chris and I have talked behind the scenes on highlighting a researcher in Deep Talks, but we should talk about core services for Users before newsletter/random things.
- Frank: Push action on newsletter down the road in a separate subcommittee discussion?
- Jaret: Most researchers would love to have their work showcased, so this could be low hanging fruit that should be approached. Maybe one issue per month with Comms.
- Ed: Agrees.
- David: For it to be sustainable it needs to be driven by existing team, our role would be to advocate for certain stories to be included. Don't see it being sustainable for this committee to write a story, this should be handled by the comms team. There's already highlights of research, so maybe make suggestions for different kinds of stories or specific stories. Is there anything else we would want to communicate to folks? Just let comms know what's important.
- Frank: Editing work should be done by comms team, would only provide input for content and ideas. One thought is to showcase research that is SURF related but not taking place here, like proto-DUNE. This is something not reflected in Deep Thoughts.
- Brianna: Mark subcommittee could handle this and create ideas, give people tasks and then see what happens.

- Jaret: Echoing what David said, and comms has been receptive to what science is going on, would be good for it. Mike Ray has done a fantastic job showcasing science lately. If this group came to comms with ideas, they would love that.

(1:52 PM)

SURF Support and Safety Perception Survey Input

- Jaret: SPAC recommended a pulldown list of suggestions in the survey for users to comment on. In recent surveys, researchers are asked for feedback on 10 agree/disagree questions plus freeform/comment sections on a few themes (believe the recommendation was aimed at the comment sections). It's not obvious with the current survey wording how we would include a drop down. Any further comments? In previous discussions, a focus group was suggested to get more in-depth feedback instead of a pulldown. We should close this recommendation, the UA should suggest a path.
- Frank: Will stick to previous recommendation regarding focus group because on the researcher's side there's not a lot of benefit coming from this survey. It's more likely that researchers and users share concerns with their experiment leadership group, so it's better to have them bring it up.
- Jaret: Final call, anyone like the idea of a dropdown?
- Mark: Are we asking for things to populate a dropdown list?
- Jaret: There was a recommendation on adding a dropdown list because it would give more targeted feedback and could be assigned to the freeform sections. Some were difficult to add known topics. Are there topics that should be brought forward to the research community?
- Frank: It's always difficult to be put on the spot when asked in the survey, but maybe with some internal discussions when folks are onsite things come to the attention of leads and make it easier to summarize and bring up.
- Jaret: To summarize what I'm hearing, it sounds like other avenues are more productive than incorporating a dropdown list of choices for the survey.
- David: What did the survey look like?
- Jaret: I'll send it around, but the freeform ones were the main ones. Ten agree/disagree and a few free writing ones. For example, the amount of water on the Yates cage could be something to put on a dropdown.
- Mark: If SURF is aware enough of an issue to put in a dropdown box, it should just be an issue.
- Frank: Agrees.

- Jaret: I think the spirit of the recommendation was to let users provide feedback on their priorities from a list of known SURF issues that may be on the backburner due to funding or other considerations. If enough people select it on a survey, it could get more attention.
- David: Should be amended, but maybe just having one or two examples in a question may assist with getting better answers. It should be an open-ended question.
- Jeff: I thought the open-ended question format was good but does require the person completing it to take the time to think and respond meaningfully.
- Oxana: If you think some questions are important, should include three and ask those to order them according to their priority.
- Jaret: Mostly hoping for thoughtful/meaningful responses. Some things like the Ross campus bathrooms were on the back burner for a while (despite being a high priority for SURF) and are finally getting done. If there is feedback SURF management is not getting from users, then perhaps having a dropdown list would help.
- David: Have written the same suggestion on the form but have no idea if its being acted on or if it's even received. If users don't understand if their issues are being heard, they are not likely to fill out surveys. UA could provide communication feedback on the survey.
- Jaret: Good point, even internally we've struggled with closing the loop. Recently, we've incorporated some feedback from the survey in our quarterly All Hands meetings (perhaps more focused on SRF staff than users).
- Frank: Time to wrap up, thank you for your participation. We should stay in contact to kick off subcommittee and everyone will hear from Christopher, Mark, and myself.

AOB

- **N/A**

Meeting End: 2:07 PM MT