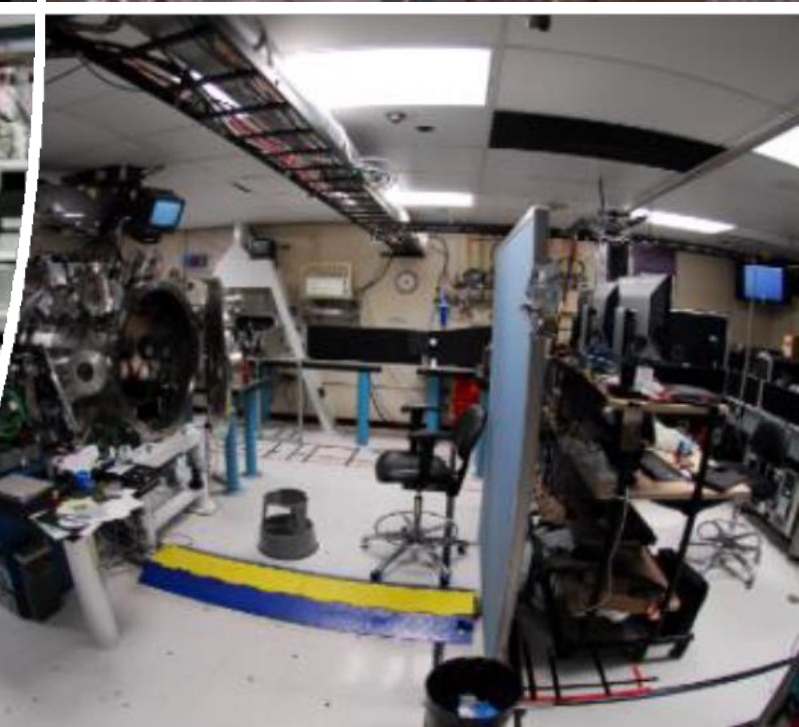
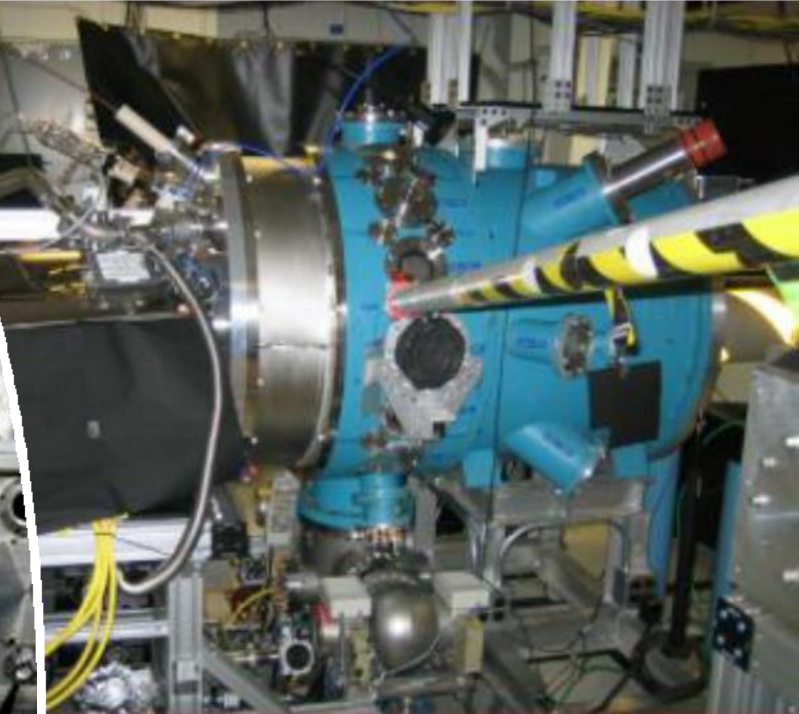


Jupiter Laser Facility
User Executive
Committee (JLF-EC)
2025-2026





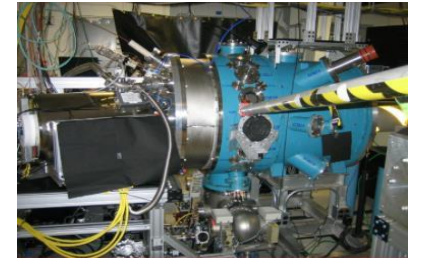
Jupiter Laser Facility



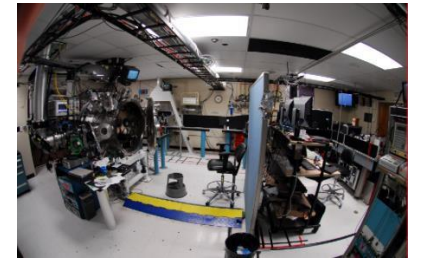
Félicie Albert
Director for Science and Technology
Jupiter Laser Facility

- JLF consists of three operating laser systems and target areas – Janus, Titan and COMET – and a main laser bay, consisting of three different beams: two long pulses and one short pulse.
- JLF includes the fifth-highest energy laser in the U.S.
- More than 100 Ph.D.s granted from JLF work
- The number of JLF users tripled from 2008 to 2017

COMET



Janus



Titan



Associate Deputy Director of Operations Sandra Brereton, Strategic Deterrence Deputy Director Brad Wallin, S&T Deputy Director Pat Falcone, Physical and Life Sciences Principal Associate Director Glenn Fox, NIF & Photon Science Principal Associate Director Jeff Wisoff and Jupiter Laser Facility Director Félicie Albert cut a ribbon for the reopening of the Jupiter Laser Facility. (Photo: Blaise Douros/LLNL)

Committee 2025-2026

Chair: Ben Ofori-Okai (SLAC)

Vice Chair: Nick Beier (U. Alberta)

Past Chair: Tom White (U. Nevada, Reno)

Titan Rep.: Chris McGuffey (General Atomics)

Comet Rep.: Andrew Longman (LLNL)

Janus Rep.: Gaia Righi (LLNL)

Student Rep.: Bella Pagano (U. Texas)

Lab. Rep.: Jackson Williams (LLNL)



Details about the JLF-EC

The JLF-EC is the formal organizational unit of the JLF Users' group. The EC communicates users' needs and desires regarding JLF operating policies, use of JLF, user support, and other relevant issues of concern to those engaged in research at this facility.

- Chair, Vice-Chair, Past Chair: Organize the committee, JLF section of the meeting, and oversee elections
- Target Area representatives (Titan, Janus/TA1, Comet): Collect feedback from users
- Early Career Representative: Provide feedback from early career perspective
- LLNL Representative: Provide feedback from LLNL perspective

The JLF-EC shall advise the JLF Director.

- Serve as an advocacy group for the Facility and its user community;
- provide a channel of communication between the JLF user community and JLF management;
- provide advice to the JLF Director.

Changes to the committee in 2025-2026

New bylaws enacted starting this year:

- Specific target area representatives as additional points of contact for users
- New chair track and fixed member terms for chair and target area representatives

Regular Meetings with JLF Director

- Additional open discussion with senior JLF management

Topics discussed during JLF-EC meetings

- **User Engagement and Feedback:** Discussed active engaging with users and obtaining their feedback. Consistently discussed need for mechanisms to gather insights from users about their experiences, concerns, and suggestions for improvements.
- **Operational Efficiency:** Discussions surrounding the efficiency of operations within the facility. This includes addressing the status of equipment (like the Hydra laser and VISAR cameras) and data transfer processes, as well as adjustments to schedules (e.g., the POD schedule).
- **Updates on Funding and Proposals:** The status of LaserNetUS, including funding concerns and proposal deadlines.
- **Communication and Accountability:** There is a strong focus on enhancing communication channels within the committee and between the facility and its users. Efforts to establish accountability systems (such as tracking user issues) demonstrate a commitment to transparency and improvement.
- **Adaptation to Changes:** The notes reflect the facility's ability to adapt to various challenges, including shutdowns and budget uncertainties, while continuing to support experiments and user engagement.

Thanks to our outgoing committee members!



Tom White, UNR, Chair 2023-2026



Chris McGuffey, GA, Titan Rep 2023-2026

Wednesday Morning JLF Session -- Chair: Ben Ofori-Okai

8:00 AM: Glenn Fox, LLNL, Félicie Albert, LLNL,

- Opening Remarks

8:10 AM: Gaia Righi, Lawrence Livermore National Laboratory

- Measurements of Rippled Reflecting Shocks in Epoxy

8:30 AM: Sheron Tavares, University of California San Diego

- Extreme Tensile Strength of High-Entropy Alloys by Laser Shock

8:50 AM: Mike Armstrong, Lawrence Livermore National Laboratory
Tamped Ablator Pressure Dependence on Intensity and Tamper

9:10 AM: Heath LeFevre, University of Michigan

- Progress Toward a Short-Pulse Laser-Driven X-Pinch on the Titan Laser

9:30: Andrew Longman, Lawrence Livermore National Laboratory

- Plasma Probing and Single-Shot Crossed-Beam Energy Transfer Measurements Using a Broadband Probe

9:50 AM: Sallee Klein, University of Michigan

- Michigan Target Research and Fabrication

10:30 AM: Félicie Albert, and Brent Stuart, LLNL

- JLF Updates and Overview

11:30 AM: Ben Ofori-Okai, SLAC

- Community Feedback and Discussion

12:30 PM: Lunch (Transitioning into The Poster Session)

10:10 AM – 10:30 AM: BREAK

JLF Community Feedback and Discussion

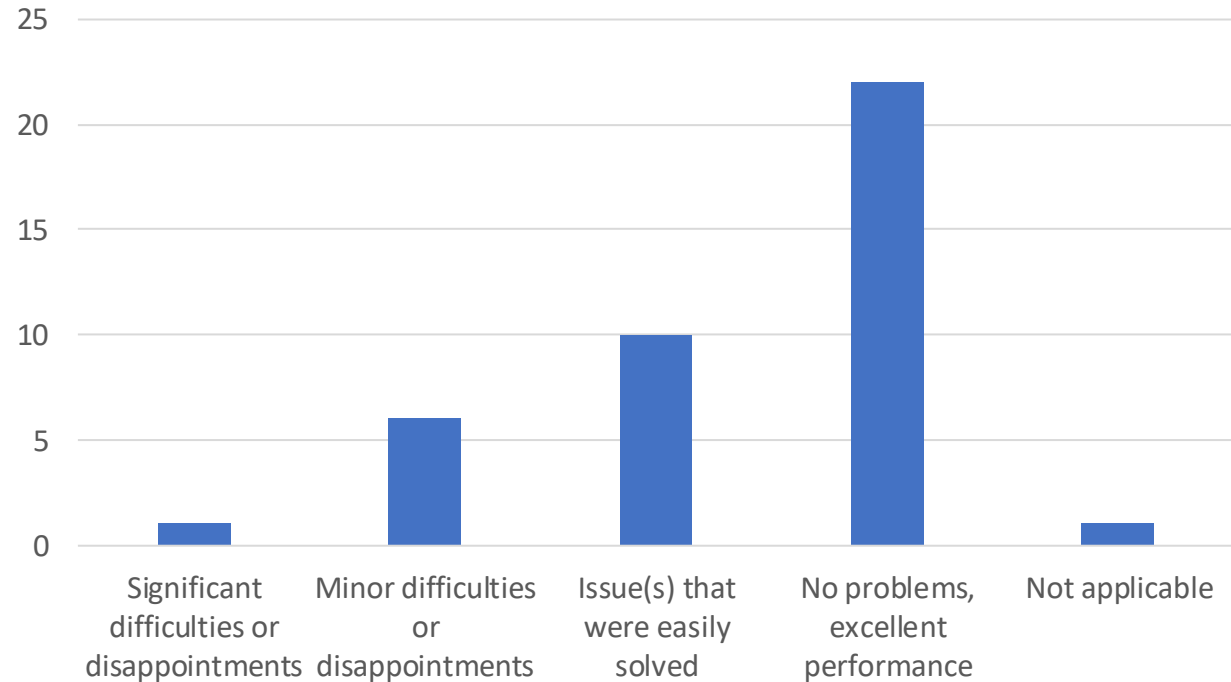
Wed. 11:30 am – 12:30 pm

Survey results from 2025-2026

Were there problems encountered in the following aspects of the experiment time?

	Significant difficulties or disappointments	Minor difficulties or disappointments	Issue(s) that were easily solved	No problems, excellent performance	Not applicable
Laser	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target chamber (vacuum, ports, feedthroughs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facility optics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facility diagnostics and equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User-provided diagnostics and equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Targets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experimental design/plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal or facility safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5 responders in 2025-2026



~80% of experiments reported they achieved their primary objective(s)

Many staff mentioned by name for going “above and beyond”

Breakdown by area

No issues experienced in the following areas

Personal and facility safety

Target Chamber

Only simple issues experienced in the following areas

Facility optics

Facility diagnostics and equipment

Breakdown by area: Experimental Design and Plan

2025-2026 Results

1/5 teams experienced difficulties

2024-2025 Results

Continuing to provide written procedures, especially for complex experiments.

If there could be dedicated staff to help the users at all times.

Having clear schedules of facility work made available (no-shot days, limited staff availability, etc.)

The timing of the experiment was difficult. As the experimental PI, it was very difficult to leave classes for extended periods to run the experiment.

Communication on the expected status of the system could be improved. Specific to our experiment, we needed the split pulse with spatial and temporal overlap. Originally we anticipated this would be available upon arrival but required a lot of time to get to the state we needed. This was likely beyond anyone's control based on extenuating circumstances.

Breakdown by area: Laser

Issues reported on 4/5 experiments

- Conversion efficiency to 2ω dropped throughout the day, making it more difficult to anticipate signal levels.
- East beam energy decayed throughout the day
- Fix the issue of the 2ω doubling of the East beam
- Motors to control CW alignment beams were malfunctioning/disconnected so to do fine adjustments of beams (east in particular) we needed to call in facility support (to use a ladder).
- Issues with Hydra: It would not trigger on a shot for $\sim 1/3$ of the total shots. Intensity varies by a factor of 3-5 shot-to-shot, frequently drops modelock and takes a long time to return.

Other user comments/suggestions

- Recording of laser energy and pulse shape should not rely on humans. Is there a way to archive these essential parameters automatically?
- Computers that control VISAR and SOP streak cameras are not reliable. Needed to be restarted a few times.
- For facility: improved control systems for motor movement(s) and new computers for streak cameras
- Target preparation challenging thick targets (50 μm). Access to a lapping machine, would help reduce thickness more precisely

Recognized Staff and Positive Feedback



Sincere thanks to the devoted JLF staff for a very smooth experiment! We appreciate great support from Gaia, Suzanne, and Nicky!

Stephen, as always, shows an exceptional level of support for Janus/TA1.

Nicky was also always open to be a second set of hands. I also noticed that she is shadowing Stephen for TA1 operations (which is much needed knowledge transfer for this target area).

Stephen, Brent, Nikki, Austin, Jonathan were incredibly helpful!

Shoutouts:

Gaia Righi, Austin Linder, and Matt Jamison

Open discussion

We have to sit here until lunch, so let's have a discussion!

Guiding questions

1. Have you interacted with your JLF ExComm representative during a beamtime? Was it useful? Did you know that you can email them to discuss issues during a beamtime?
2. What can the facility do to make it easier for users to give feedback?
3. As JLF is part of LaserNetUS, does giving feedback in this way feel redundant? Do you feel that you've already given feedback through LaserNetUS?
4. Was there anything in the responses that you feel was surprising (good or bad)? Anything you think was missed?
5. Given the comments from peers, is there anything you might think to do to address issues?
6. Are there things you've seen at other facilities you would like to see implemented at JLF?

Committee 2026-2027



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Vice Chair: **Simon Bolanos (General Atomics)**
Past Chair: Ben Ofori-Okai (SLAC)
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Comet Rep. Andrew Longman (LLNL)
Janus Rep. Gaia Righi (LLNL)
Lab. Rep. Jackson Williams (LLNL)
Early Career Rep.: **Alex Pietrow (UCSD)**

