

Denis Klimov Sorted By Project

300083 - DMO Support - LRAUV

- We have a batch of antennas that have various problems and needed careful inspection and testing, some turned out flooded, and some of new build have faulty cables; revising testing procedure (with Varsha Senthil) (Week 15)

702106 - CeNCOOS

- We are getting ready to deploy IFCB on Power Buoy. The instrument had been kept on the winter schedule in the lab and operating so far. (Week 15)
- Power Buoy with IFCB was deployed and doing good so far; there were some changes in the setup such as bigger Zinc Anode, 1" diameter x 1" long, made specifically for IFCB as oppose to re-use of LRAUV anodes which are slightly smaller at 0.75" diameter x 1" long (Week 19)
- Also "bucket test" for IFCB operation, as well as power and data link, at the dock, was easier to Power Buoy positioned in it's side. Also, installation of IFCB into Power Buoy bay was easier due to absence of the fence around the buoy; it was installed later at sea. (Week 19)
- Monitoring the IFCB operation. We have lower power generation by Power Buoy due to the condition of the heave cone not closing; we had to shutdown the IBFB several times for a duration from several hours to a couple of days. Resuming operation of IFCB so far was OK. (Week 32)

901112 - Monterey Bay Time Series

- The Power Buoy/ IFCB is scheduled to be recovered this week; both successfully performed for CANON, but lately had been on a last leg due to the comms failure to the heave plate. (Week 42)

901809 - Deep Sea Bioinspiration

- Various discussions on operating space for Geo-Sense DAs instrument; indeed, operating such an instrument in the A284 Laser Lab presents safety and scheduling issues; trying to find a work-around. (Week 15)
- Looking at the conditions in the lab A284, how to configure lab A247, and what projects could be moved there. We are looking to temporarily use lab A247 as is with deep cleaning, before the renovation could be completed in 2026. (Week 25)
- Feedback on intern dry run talks. (Week 32)

902004 - Planktivore

- Charging and equalizing the battery for Planktivore benthic deployment (Week 19)
- The battery pack for benthic deployment was charged to the max last week, and should be coming back this week. (Week 25)
- We are assembling the new Planktivore, first in a series of three. I am working on the strobe assembly and started with modifying the camera mount with insulating / heat transfer gasket, as well as designing/ printing parts to check optics alignment. (Week 32)
- Found there is 1 mm offset, that is, in order to be fixed, requires parts modification. Modifying and re-printing parts look to be easiest. (Week 32)
- We are working on a V3 build. This week, designing and printing new retainer rings for the glass ball ring. The challenge is, those rings need to be different sizes for a particular unit, so making a set of different rings with identification features. (Week 42)
- I had been designing and printing several parts for the Planktivore assembly. Namely, LED ring spacers. Several parts of different thickness are typically needed. For easy identification, making the 0.100" thick part without the notch, 0.110" with one notch, 0.120" with two notches, and so on. (Week 48)
- Also, organizing parts stock for this and future builds. (Week 48)

902101 - LRAUV Technology Development

- We had an issue with one of the PAR sensors; it turned out the power capacitor had a problem, it was drawing extra current; once replaced, the board is working now. (Week 15)
- Updating procedure of polishing PAR housings, and also ordered new metric O-rings for the front of the sensor. (Week 15)
- Interesting development on redesigning the hall sensor / actuator for the buoyancy system. (Week 42)
- We are setting up/ restoring LRAUV battery pack degaussing setup. This time, it is going to a mobile table setup which would allow easy relocation, faster setup, and likely better quality degaussing since the orientation of the table relative Earth's magnetic field can be adjusted. (Week 48)
- Evan is helping with joining two mobile benches together to extend the table top length. (Week 48)
- Daniel had assisted with restoring operation of the PC with a Labview and magnetometer, needed for setting up the table orientation, and testing battery pack degaussing results. (Week 48)

902304 - Piscivore Cam

- Assisted on a deployment of Piscivore on LRAUV from a Paragon. (Week 19)

902401 - Geo-Sense

- Looking into setting up a laser/ optics testing area in A282a; in the meantime, Sintela DAS and all Geo-Sense related items had been moved from Laser Lab A283 into the lab A282. (Week 15)
- We are working on completing Phase I items on converting inner lab A282a into Laser/ Optics space; the lab was cleaned and floor waxes with ESD wax; new dedicated lock installed; Sintela/Geo-Sense related items had been moved into A282a and we run the instrument several times in a temporary configuration (Week 19)
- Outstanding items are parts for door window closure (drawings submitted to the shop); return air grill install (ordered by Erik); and serialize/ issue dedicated keys for A282a. (Week 19)
- Configuring bitter end/ Black Hole in the Linden cable spool for the Norway deployment. (Week 25)
- We had Aaron M. and Aaron S. working hard in Norway on DAS deployment. I was working on preparing two fiber optic spools, in particular, on housing/ securing "Black Holes" termination, using 3D printed parts, inside the spool tube for Linder fiber, and on the side of the spool for FIS 900 um tight-buffer fiber. (Week 32)
- Contacting Ocean Instruments in regards to the Hydrophone installation on the DAS frame. (Week 42)
- Assembling the DAS instrument back into the sphere. (Week 48)

Out of Office

- Vacation 6/11/2025-6/16/2025

Overhead

- My office had been moved to building G107; it is nice, but still much to be organized. (Week 15)
- On the Laser Safety side, the new scanning Lidar was received and testing in the Test Tank performed over 3 days with vendor representatives; this required some TWA modifications but overall went well. (Week 19)
- Also new, better designed window closures for the Test Tank are needed, with a better seal around the edges. (Week 19)
- BSO activity: looking at the incident of a battery exposure to the seawater during ASV catamaran running aground; and what to do with exposed LiPo batteries (Week 25)
- LSA activity: New/ updated TWA as well as a set of outdoor laser safety signs had to be prepared for the Norway deployment. This or next week, we plan to review/ de-brief on any feedback. (Week 32)
- BSA activity: working on the Packard battery storage. Had quite an interesting experience and interaction with the group from UC David conducting small boat operation training; James Fitzgerald might be able to help with some links as far as expertise about handling battery fires on moving platforms such as ships are concerned. (Week 32)

- ERT: We have a monthly meeting this week. (Week 32)