Denis Klimov Sorted By Project

118000 - Safety Office - LSO activity

- Revising laser safety protocol for RAMAN group to include tech level users in order to work on building DORISS II instrument (Week 9)
- We have updated procedure for Laser Lab A283 access, with addition of ‘participant’ level personnel access, needed for several people to work on assembling a new DORISS instrument (Week 11)
- Working on short version of DeepPIV laser safety document for ship use (Week 17)
- Looking into shorter version of the laser safety document for DeepPIV ship operation (Week 18)
- Revising/ Restructuring laser safety document for DeepPIV use on ships (Week 19)
- Safety office meeting about restructuring handbook on DeepPIV use on ships (Week 20)
- Editing sections connection for revised DeepPIV handbook use on ships (Week 21)
- Reviewing new laser wavelengths for the laser lab (Week 36)
- Reviewing new lasers in A284, and working on new laser targets (Week 37)
- Another round of testing LIDAR in the test tank and we are trying to figure out how to use laser safety goggles together with face masks, and avoid fogging. (Week 38)
- Assisted Dave Caress group with revised TWA on issues of combined use of laser PPEs and masks; and goggles disinfection; reviewed LIDAR run in Test Tank (Week 40)
- Reviewing action items for lab A283 conversion into Class 4 (Week 42)
- Documenting feedback on running LIDAR in Test Tank (Week 43)
- Revising procedure for DeepPIV use on ship’s deck (Week 44)
- Working on a procedure for a lab-specific cleaning and disinfecting method (Laser Lab) (Week 45)
- Working on a procedure on disinfecting optics and electronics. (Week 46)
- Compiling a report on a procedure for cleaning and disinfecting optics, electronics, and PPE (Week 48)
- We initial release of the procedure for disinfecting / cleaning optics, electronics, PPEs (laser safety goggles). This goes under the category of lab specific procedure. (Week 50)
- We have initial release of the procedure for disinfecting / cleaning optics, electronics, PPEs (laser safety goggles). This goes under the category of lab specific procedure. (Week 51)

300083 - DMO Support - LRAUV

- Reviewing requirements for next generation battery pack (Week 6)
- Reviewing requirements for joint WHOI-MBARI battery pack development (with Daniel Gomez-Ibanez and Erik Trauschke) (Week 7)
- Reviewing new conceptual battery pack design (with Daniel Gomez-Ibanez and Erik Trauschke) (Week 16)
- Performed analysis on LRAUV flasher LED replacement. Looks like lime LED would be more visible to human eye even with reduction in LED quantity from 6 to 4 (Week 34)
- Upgrading 2 PAR sensors (Week 46)
- Upgrading another PAR sensor to amplified configuration (Week 48)

800139 - EyeRIS

- Reviewing slided for upcoming project review. (Week 13)
- Helping Paul Roberts preparing materials for strobe concept review (Week 14)
- LED cluster fatigue testing under cycling pressure (Week 28)
- Preliminary design review for LRAUV integration (Week 42)
- Setting up the test of the thermal limiter on the LED cluster. (Week 43)
- Setting up the test of the thermal limiter on the LED cluster (Week 44)

- Debugging issue with thermal limiter on potted LED strobe (Week 45)
- Debugging thermal limiter on a potted LED cluster. (Week 46)
- Completed debugging issue of failed thermal limiter on a potted LED strobe (Week 48)

901114 - E&D-Picophytoeukaryotes

- Wrapping up low temperature test being run from November, 2019 (Week 7)
- Working on debugging a computer for a spare Chemostat in B232. Turned out it was working, all along but the monitor had issues. New monitor is mounted on the wall to allow more space for working with light-tight enclosure (Week 35)

901800 - LRAUV Payload & Support

- Testing 2 more PAR sensor boards (Week 6)
- Organizing parts for PAR sensor project (Week 7)
- Checking and sorting parts inventory for PAR sensors (Week 11)
- Checking Teensy/Arduino environment configuration on Windows 10 machine (Week 19)
- Gathering parts to test Teensy board software on Windows 10 machine (Week 21)
- Inventoring PAR sensor board and parts for PAR sensor assembly (Week 23)
- Inventorying parts for PAR sensors assembly. There are 5 amplifier boards need to be tested. Also revising board specs for old PAR sensor that came from Chavez group and it has quite a bit lower sensitivity. (Week 30)
- PAR sensor boards: 3 boards tested, and 2 boards need IC replacement due to too high voltage offset. (Week 33)
- PAR sensor for LRAUV Galene is completed and tested. Working on low-light source for biolum detector testing. (Week 34)
- Working on cable entry into light-tight enclosure for low light testing (Week 35)
- Working on wire entry into light-tight box for biolum setup (Week 36)
- Working of cable entry to Biolum test chamber (Week 37)
- Mounting cable penetrator on the biolum setup, and working on biolum light emulator (Week 38)
- Ordered and organising ¼-20 hardware for the optical bench (biolum low light test chamber); mounting cable penetrators. (Week 40)
- Testing PAR sensor boards and modifying two PAR sensors into amplified version (Week 44)
- PAR sensor 8454 had some tiny leakage of the water to the inside which deteriorated the internals somewhat, requiring reconditioning. (Week 50)
- PAR sensor 8454 had some tiny leakage of the water to the inside which deteriorated the internals somewhat, requiring reconditioning. Housing had been pressure tested and is ready for assembling (Week 51)

901809 - Deep Sea Bioinspiration

- Compiling photos and text for a fiber penetrator etching process (Week 5)
- Working on 2nd safety Indicator Cap for DeepPIV. UHMW template for a glass window is missing; ordered a replacement. (Week 5)
- Template for cutting glass windows for an indicator cap is ready. Material for a separation gasket is found. Need to source double-sided tape in order to make windows (Week 6)
- Documenting etching procedure for fiber optic penetrators (Week 7)
- Taking feedback and revising a report on chemical etching of fiber optic inserts. (Week 9)
- Chemical etching report on fiber optic penetrators is complete, reviewing report on assembly procedure (with Aarong Schnittger) (Week 11)
- Reviewing new right-angle remote laser head design (by Jon Erickson) against assembly and testing procedure (Week 17)
- Reviewing right angle remote laser housing design and assembly procedure (Week 18)
- Restructuring handbook on DeepPIV use on ships (Week 20)

- Brainstorming on right-angle laser housing disassembly limiter (Week 21)
- Re-writing handbook for DeepPIV deck operation (Week 22)
- Revising DeepPIV laser safety document for ship use. (Week 23)
- Figuring out laser remote head mounting to optical table. (Week 30)
- Helping with interns (Brooke Pauken and Jill Alexander) presentations dry-run (Week 33)
- Editing fiber inserts report (Week 37)
- Editing fiber optic penetrator assembly procedure; and working on the drawings for laser target for the breadboard optical setup (Week 38)
- Revising fiber optic penetrator assembly report; and working on the drawings for laser target for the lab (Week 40)
- Revising fiber optic penetrator assembly report; new laser targets are ready for black anodizing (Week 42)
- Revising handbook for operating DeepPIV on a deck of the ship (Week 43)
- Working on the procedure for DeepPIV ship use; implementing feedback from 2019 Falkor cruise (Week 45)
- Working on a procedure on procedure on using DeepPIV on ship deck, integrating feedback from 2019 Falkor cruise. (Week 46)
- Documenting calibrating jig (Week 48)
- Making final touches to the procedure of using DeepPIV of ship's deck (Week 50)
- Making final touches to the procedure of using DeepPIV of ship's deck. Label for the fiber cable had been designed and documented in procedure. (Week 51)

901903 - Bio Raman

- Working on the drawings for the mounting brackets for a sample chamber, to accomodate new jack from Thorlabs (Week 36)
- Working on drawings for sample chamber brackets, ordering material, and fasteners (Week 37)
- Working on drawing for sample chamber mounts and ordering fasteners (Week 38)
- We did a test fit of the mounting brackets to DORISS sample chamber this week and found an issue; 2 base brackets need to be aligned; working on the drawing for an alignment plate. Also location of control points (X-Y-Z) was reviewed and determined that Y control needs to be reversed; which seems to be possible; Ed Peltzer will try to reverse it. (Week 40)
- Parts for sample chamber are ready for black anodizing (Week 42)
- Sample chamber is assembled; working on a panel lock (Week 43)
- Looking for a bumper design for panel lock (Week 44)
- Working on a drawing for a sample chamber retainer bracket (Week 45)
- Finalizing sample chamber retaining bracket. (Week 46)

902004 - Planktivore

Out of Office

Overhead

- Writing material for a performance review. (Week 5)
- Revising schematic for a BEDs 'Bridge Board" (Week 5)
- Revising schematic for bridge board for BEDs instrument (Week 9)
- The Bridge Board for BEDs instrument is in layout stage and should be ordered by the end of the week (Week 11)
- BEDS/ Bridge Board: final review of schematic and parts placement so Jose Rosal could proceed with board layout. The goal is to have a board package ready so we could place the order when it is clear when MBARI restarts and the order could be received in shipping. (Week 13)
- Reviewing Gerber Files for BEDS Bridge Board (with Jose Rosal) so the board could be ordered once it is clear the shipment could be received. (Week 14)

- Several changes to the schematic of BEDS bridge board as a result of layout review (Week 16)
- While reviewing gerber files for BEDS Bridge Board,schematic mistake was found. Jose Rosal corrected schematic and generated fab package. The board is ready for quoting. (Week 17)
- BEDS Bridge Board is ready to be ordered. (Week 18)
- BEDS bridge board is ready to be ordered; figuring out where to send and what other parts are needed (Week 19)
- Creating individual work plan for a period of re-opening (Week 20)
- Quoting BEDS Bridge Board (Week 20)
- BEDS Bridge Board - quoting (Week 22)
- BEDs Bridge Board is ordered; ordering parts for board assembly (Week 23)
- Designing BEDS bridge board test jig (Week 28)
- Four BEDS Bridge Boards had being debugged and transferred to external contractor for software development. (Week 30)
- Tested BEDS Bridge Board using Nucleo development board; it provided a response so the board is back to Elecia White for code debugging. (Week 33)
- Elecia White is having some progress with the code. This week, inventorying available BEDS instruments. (Week 34)
- Inventorying parts for BEDS instruments (Week 35)
- Elecia White had found an issue of reversed interrupt lines on the BEDS Bridge Board; figuring out what would be a good way to correct and re-test. (Week 40)