

WeeklyReport

Engineering Weekly Report 9/25/2025 - 10/2/2025

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2025/>

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Oct 13, 2025 - Oct 15, 2025
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Planning buoy recovery
 - Preparing for PTO tether assembly and break test
 - 902106 - Niobicon-Based AUV Docking Development
 - Assembling and testing new power transfer device
 - Finished the design of the deflector for the Triton camera
 - 902204 - Scalable Robotics
 - Met with Eric above future projects
 - Out of Office
 - 2 days Vacation
- Danelle Cline
- Duane Edgington
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Focused on verification of Egregia and Kelp localizations in UAVS database to enable clean [detection](#) dataset
 - Prepared data for training [new yolo11x detection model](#)
 - Running [training](#) 10/1/2025 on Colab A100 Hi-Ram instance
 - Out of Office
 - Doctor appts.
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - Out of Office
 - 10/17-20 vacation
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Scoping new behaviors for efficiency
 - Analyzing automatic threshold adjustments
 - Addressed issue that prevents modem communication
 - 902401 - Geo-Sense
 - Finished DAS controller clock drift analysis

- Less than 1 PPM in most realistic test case (< 100 ms a day)
 - 902405 - Precision Control Technologies
 - Working on “Hello, TRN” application
 - Out of Office
 - Mon Sept 29 and Wed Oct 1: WFH
- Akshay Hinduja
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Reorg’ed code for mpHOx revB, wrote and tested alkalinity + pH code
 - After coordinating cables with Joe, mini ISUS 001 was deployed in the test tank. Data looked ok, still too much heating.
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Help Paul with chassis wiring and various troubleshooting after wiring, updated documentation
 - Out of Office
 - Oct 7: dr appt
 - Nov 5-6: WFH / vacation
- Scott Jensen
 - 706008 - READI-Net
 - Working towards Bozeman trip. Testing system and pulling together required equipment
 - 708178 - Marine E Development NAV
 - Meetings to continue development of Battery
 - 808015 - Monitoring McCloud
 - Monitoring power system health
 - Out of Office
 - 9/26 Vacation
 - 10/(2-3) Vacation
- Brent Jones
 - Out of Office
 - vacation
- Chad Keycy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 07/23
 - 07/28-08/01 (MST)
 - 08/25-29 (PDT)
 - 9/15-30 (UTC+2)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - LASS Cruise prep
 - Phins cal cruise last Friday was unsuccessful, we will attempt again tomorrow.
 - 901103 - Biodiversity and Biooptics of Zooplankton (ROVVR Support)
 - Silverdraft call this Wednesday.
 - 902204 - Scalable Robotics
 - Getting end of year efforts going.

- Out of Office
 - Doctors' appointments Monday and Wednesday.
 - Next Friday 10/10
- Thom Maughan
 - 300078 - DMO Support - AUV
 - finished Hyperion MVC2 baseboard, aka, som carrier review and layout. Sent out for pcb fab and assembly
 - Working on Power Supply board
 - 300083 - DMO Support - LRAUV
 - Built up a third BPC2 battery pack for debugging ADC issue in trickle to soft start transition.
 - Varsha and Chris are getting ready to install Batman BPC2 battery packs in Galene. Quinn has finished the driver interface so first integration test coming soon.
 - 901009 - CANON
 - Minor support on deep edna server
 - 901217 - Chemical Sensors
 - Two floats are returning good data. A third float deployed near Hawaii has had a UV lamp intermittent failure, something that has happened in the past about 1 out of every 100. Not a software problem but wishing it could be root caused.
 - 902004 - Planktivore
 - Working with Denis on assembly of Planktivore V2 B for deep LRAUV
 - Out of Office
 - Vacation 15 Oct to 24 Oct.
- Mike McCann
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Working on the STOQS revamp for 2025
 - Out of Office
 - 29-30 September – Staying home with my laryngitis germs
 - 27-30 October – Remote work
- Paul McGill
 - Out of Office
 - I've been busy sleeping in because I'm retired!
- Enoch Nicholson
 - 706008 - READI-Net
 - Performed puck counter drift testing
 - Painted FIDO cylinder
 - Prepared code for Bozeman deployment
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Completed Trinity Pro aircraft training
 - Created UAV survey mapping plan
 - Out of Office
 - Thursdays at MLML
- Tom O'Reilly
- Mike Risi
 - 901101 - Seafloor Mapping
 - Testing LASS changes in test tank
 - Preparing for LASS cruise series next week
 - 902405 - Precision Control Technologies
 - Working on mid-water tracking controller to dampen pitch oscillation
 - Out of Office
 - Offsite on Tuesday and Friday

- March 3 - March 6, 2025 - vacation
 - June 2 - June 6, 2025 - vacation
 - June 16, 2025 - vacation
 - July 2, 2025 - vacation
 - July 29 - August 1st - vacation
 - November 10 - November 14 - vacation
- Paul Roberts
- Brent Roman
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - mbari-pbp 1.8.2 with new features as well as significant internal refactoring and code cleanup.
 - 901513 - Targeted Sampling by AUVs
 - (overhead) With Yanwu, more reviewing of past chlorophyll patch tracking exercise and adjusting some parameters for future exercises. I've proposed improvements to the algorithm.
 - 901809 - Deep Sea Bioinspiration
 - New API endpoints being put in place by Kevin B., so I'm about to resume work on the Bulk review UI.
 - 902101 - LRAUV Technology Development
 - Ongoing testing of Quarkus-based TethysDash version; so far looking great! Multiple real vehicles connected and no regressions observed; just some minor tweaking mainly involving logging. (Many thanks, Quinn S., for your testing help and observations.) So, we will let this version continue running even when real deployments start this week
 - Overhead
 - Very good progress in setting up the docs-u VM in preparation for the migration to Ubuntu.
 - Open Discussion Meeting with Antje
- Karen Salamy
 - 902306 - SINKER
 - Burning the midnight oil on getting sinker-dash to work with Danelle's backend changes last week. I am currently testing against her full backend stack running on sinkerdev. I am having some real issues getting the backend ADCP and some Camera/lights realtime data points to supply data to the sinker-dash. I need to finish this up and get it all working in the production server ASAP as I have to move onto other projects.
 - Overhead
 - The Sci Comm interviewed me for their new webstory about SINKER on 9/25.
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Working on issues with the KB web service, Oni.
 - Working through the final stages of migrating media from Titan to Thalassa. We've identified some anomalies in the file migration and are sorting through it.
 - Added support for metadata refresh for media in [vars-cli](#),
 - 902002 - FathomNet
 - Updates to [FathomNet REST API](#)
 - Investigate issues external groups were having with uploading images to FathomNet. Worked with a few external researchers to help with their data uploads.
 - Repackaged various support utilities into [fathomnet-cli](#)
 - Out of Office
 - Oct 2, 2025 - Oct 7, 2025 - Vacation
- Alana Sherman

- Out of Office
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- George Stern
 - 902204 - Scalable Robotics
 - Began testing/integrating HSI light electronics; found two issues possibly related to build that I have been unable to reproduce despite torture testing and a few additional tweaks to further optimize performance, but all the components fit on the pads, preliminary fit check looked promising and electronics are working well enough that a respin seems unlikely
 - Got USB talking on a bare metal STM32 dev board for the mola ESC control project, lot more code to write.
 - 902304 - Piscivore Cam
 - Ordered more parts for Gen3
- Justin Tucker
 - 300078 - DMO Support - AUV
 - Recovery test tube design support
 - 901101 - Seafloor Mapping
 - LASS deployment prep
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - HDS meeting
 - Housing design for HDS battery
 - Overhead
 - Simscape modeling for LARS
 - Out of Office
 - Out 10/27-11/7
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Started working on the event camera. Installed and bench tested on raspberry pi
 - 3D modelled all components, working on 3D modelling a mounting plate
 - 902402 - CSEM
 - Working out logistics to ship the equipment from Korea -> MBARI -> Antarctica
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th