

WeeklyReport

Engineering Weekly Report 9/18/2025 - 9/25/2025

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

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Modifying design of PTO tether
 - 902106 - Niobicon-Based AUV Docking Development
 - Testing new power transfer device
 - Out of Office
 - 2 days Vacation
- Danelle Cline
- Duane Edgington
 - Out of Office
 - Doctor appts.
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Provided code snippets for LARS and Seapath data collection for work on LARS for latest Packard cruise
 - 706008 - READI-Net
 - Migrating Brent changes to the RockPi to the SD card image build to deploy on sampler
 - Troubleshooting the MQTT cloud log gaps
 - Troubleshooting the resource spikes during uplink drops
 - Changing web application to allow for better filtering of logs for end users to make them more useful
 - 901009 - CANON
 - Working on 'data page' for ASTEP/NOWRDC
 - 902403 - Expedition DB Modern
 - Working on Dagster implementation of the CTD config file monitor to get some experience with Dagster and Prometheus
- Andy Hamilton
- Kent Headley
 - 902204 - Scalable Robotics
 - looking into a couple of faults that occurred in Oculus during arctic cruise
 - 902405 - Precision Control Technologies
 - writing TRN example app for documentation
 - Overhead
 - Hiring: interviews (SEE, omics)
 - Proposal process (resource balancing)

- misc admin
 - Out of Office
 - 10/17-20 vacation
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Ongoing monitoring of SES on MARS
 - Observing plenty of events
 - System working well
 - 902401 - Geo-Sense
 - DAS unit clock drift characterization
 - Repair RAID drive
 - 902405 - Precision Control Technologies
 - "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
 - Working version of alkalinity code; electronics confirmed to work, now cleaning up code
 - Mini ISUS assembled and uploaded with new fast sampling code. Trial run of 20 min had too much heating inside, will try again in test tank
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Motor controller works, finished troubleshooting non-working channels, UDP comms, etc
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Meeting
 - Out of Office
 - Oct 7: dr appt
- Scott Jensen
 - 706008 - READI-Net
 - Recovering from dock dress and building the notes of things to fix
 - Implementing some of the fixes found
 - 808015 - Monitoring McCloud
 - Monitoring power
 - 901205 - ESP SURF Center
 - Support of other projects
 - Out of Office
 - 9/26 Vacation
 - 10/(2-3) Vacation
- Brent Jones
 - Out of Office
 - vacation
- Chad Keczy
 - 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
 - Phins Bringup & Broadcaster software
 - Interface can checkout
 - Received Lidar, testing
 - Building the sled back up for 10/6-10/8 deployment.
 - 902204 - Scalable Robotics
 - Met with Todd Gregory moving forward with the 1km design
 - Starting Event camera work
 - Reviewing work for HSI and Mola improvements.
 - 902504 - Scalable Semantic Mapping
 - Kicking off many Q3/Q4 projects.
 - 902505 - 2025 Arctic Expedition
 - Finally back! Returned 9/20
- Thom Maughan
 - 300078 - DMO Support - AUV
 - Wrapping up Hyperion MVC2 baseboard, aka, som carrier detailed review and layout.
 - 300083 - DMO Support - LRAUV
 - Building another dev pack, chasing adc issue in trickle to soft start transition during chargin
 - 901217 - Chemical Sensors
 - Float data looking solid
 - Minor support / participation with Alkalinity and mini ISUS
 - Working with Jim, contractor on MoSoS v5.2 platform support
 - 902004 - Planktivore
 - Working on 2nd build of Planktivore V2
 - Out of Office
 - Vacation 15 Oct to 24 Oct.
- Mike McCann
 - Out of Office
 - 22-26 September – Staying home with my laryngitis germs
- Paul McGill
 - Out of Office
 - I've been busy sleeping in because I'm retired!
- Enoch Nicholson
 - 706008 - READI-Net
 - Completed FIDO puck measurement variability study and analysis on multiple instruments
 - Developed automated cylinder ridge mapping and tube profiling systems
 - Tested painted white tops versus black tops
 - Mapped puck stack detection from 2-12 pucks and identified challenges with 0-1 puck detection
 - Developed sensor stability testing scripts for power-up drift analysis
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Created UAV survey mapping plan for co-located operations
 - 902306 - SINKER
 - Science communication filming
 - Out of Office
 - Thursdays at MLML

- Tom O'Reilly
- Mike Risi
 - 901101 - Seafloor Mapping
 - Finished up and tested process to send navigation data to the new Phins INS
 - Making changes to power can GUI
 - Switch LASS control over to ventana-ext-infc
 - General cruise prep for October 6th cruise series
 - 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
- Paul Roberts
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - Working with Tina's lab to determine cause of occasional camera overexposures
 - 901205 - ESP SURF Center
 - Determined that, when using WiFi chip's simultaneous AP/STA mode, the STA must be started before the AP.
 - Got cell modems working with FIDO sampler
 - Reconfigured FIDO to use a separate USB WiFi dongle for STA(client) mode
 - Ordered low power USB cell modem with GPS for testing
 - Added "reseek" option to ESP 3G stepper motor controllers
 - To restore position of bumped carousel.
 - 902304 - Piscivore Cam
 - Worked out an acceptable video file naming convention with Brian Schlining
 - Negotiated a punch list for next camera deployment.
 - Finally received converted ML model for testing on G3 camera
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Work on mbari-bbp package, new features, and internal code reorganization to facilitate maintainability and enhancement.
 - 901513 - Targeted Sampling by AUVs
 - (overhead) With Yanwu, reviewing the past June patch tracking exercise data and implementation.
 - 902504 - Scalable Semantic Mapping
 - Group meeting
 - Overhead
 - With Yanwu, reviewing the past June patch tracking exercise data and implementation.
 - Setting up **docs-u**, the Ubuntu VM intended to replace the current Centos7 based **docs** one.
- Karen Salamy
 - Out of Office
 - See Overhead comments above.
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG

- Finishing up the [vars cli tools](#). This combines all the various command line utilities used to support video archiving, annotations, ML support, etc into a single package to simplify support and distribution.
 - Added [code to restructure how references are stored in the knowledgebase](#). This work was done to support work by an external contractor on the new KB UI.
 - Working through [issues/requests](#) for the [new VARS Query](#).
- 902002 - FathomNet
 - Investigating work flow issues for submitting image packages to FathomNet.
- Out of Office
 - Oct 2, 2025 - Oct 7, 2025 - Vacation
- Alana Sherman
 - 902401 - Geo-Sense
 - Worked on the first manuscript
 - Trying to figure out elevator deployment
 - Overhead
 - Went on R/V Packard from Sept 19-22, worked with Captain Andrew to clean up VSOPs, and Familiarizations on the ship server as part of the work involved in developing the SMS
 - Interview for Embedded SE and one for PI coming up
 - Out of Office
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- George Stern
 - 902204 - Scalable Robotics
 - Continued trade into using ArduPilot IOMCU vs baremetal for Mola ESC control; planning to try baremetal.
 - Identified potential microcontroller and began poking through pertinent sections of docs for DMA and timer control.
 - Pitched development plan
 - 902304 - Piscivore Cam
 - Ordered parts for alternate bulkhead
 - 902106 - Niobicon-Based AUV Docking Development
 - Fixed the actuator sensor range on the next docking design and assembled it in the can for testing - it worked.
- Justin Tucker
 - 901101 - Seafloor Mapping
 - Deployment prep and assembly of LASS
 - Overhead
 - Physical system modeling of LARS. Integration of power electronics model.
 - Out of Office
 - Out 10/27-11/7
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Working on new event camera
 - 3D model of camera made
 - Electronics purchased
 - 902402 - CSEM
 - Working out logistics of Antarctic deployment. Possibly may not happen due to engine trouble on the ship.
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th

