

Engineering Weekly Report 10/8/2026 - 10/15/2026

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2026/>

Executive Council Notes

-

Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Oct 22, 2026 – Oct 23, 2026 : Meta Open Source AI for Science Summit
 - Oct 26, 2026 – Oct 30, 2026 : Vacation
 - Dec 21, 2026 – Jan 1, 2027 : Vacation
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Organizing, ordering spare parts etc
 - 902106 - Niobicon-Based AUV Docking Development
 - Working on documentation for Northrop
 - DQ2445 - NOWRDC Uncrewed Systems
 - Monitoring deployments
- Laura Chrobak
- Danelle Cline
 - 901502 - Ocean Soundscape
 - Maintenance on AWS uploads
 - Preparations for upcoming SMM workshop travel and presentation
 - Ongoing work to jupyter notebooks in [stm](#) code
 - Team meeting
 - Closed PBP issues (thanks to Carlos for new release)
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Drone flight support VO. Unable to fly due to weather.
 - 902111 - Carbon Flux Ecology
 - In progress - uploading ~5 million ROIs to Voxel51 CFE lab planktivore low mag datasets
 - Created new microscopy project to support Lee's model
 - Out of Office
 - October 18th, SMM 2026 pre-conference Workshop: Evolving AI Applications in Modern Marine Mammal Science: From Computer Vision to Generic and Agentic AI, Puerto Rico
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Continued work on detecting orca vocalizations in complete MARS PAM time series. Wrapping up in a couple of weeks – working now on 2024... Then we evaluate and explore correlations and time distributions and so on.
 - Out of Office

- October 18. Virtual. Evolving AI Applications in Marine Mammal Science Workshop. Puerto Rico Convention Center.
 - October 19-24 Pytorch Conference, San Jose. Present poster on Perch2.0 port to pytorch. Registered. Have reservations.
 - October 26. Medical tests.
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Troubleshooting loss of GPS (ZDA message) on Carson. Leica went bad, they are replacing this week
 - We switched to Novatel feed last week to get through the last 2 dives, then we will figure out what to do next.
 - 300059 - DMO Support - RV David Packard
 - Helped Neil with DB migrations and verifications
 - 300079 - DMO Support - RV Rachel Carson
 - Helped Neil with DB migrations and verifications
 - 706008 - READi-net
 - Some small support on SD image/EC2 build
 - Overhead
 - Job description finalization
 - Getting dump from Alana on tasks to support while filling in for her.
- Andy Hamilton
- Kent Headley
 - 701147 - MARS O&M
 - Checked in; wet node sim was able to boot the copied disk OK. Sounds like much reassembly to do, with possible tank test in Nov, and deployment first week of Dec.
 - 901101 - Seafloor Mapping
 - developing plan to port libtrnav and mframe to MSVC using AI
 - 901221 - Midwater Time Series
 - chatted with ASO folks, still pending a sea trial of last updates to layered control stack and/or mini-I2MAP test. The latest change was an update to logic related to abort-on-timeout behavior.
 - 902204 - Scalable Robotics
 - checked in on blueboat; still being reconfigured with backseat and antenna mods. Cerulean update is installed on backseat, pending testing.
 - Overhead
 - Working an IS ticket related to AI (Claude) and protection of export controlled material. On my system, Claude Code's default configuration allowed (at least) read access to my entire machine. I'm working with IS to find ways of restricting access to export controlled material, including testing Docker Sandboxes and keeping EC material on (disk image) volumes that can be unmounted when using Claude Code. Apart from that, it would be great to identify what code requires special handling.
 - Working an IS ticket to set up a web server for Ocean Soundscape with limited external access for collaboration with EARTH educators on outreach content.
 - Engineering meeting
 - Hyperion meeting: Erik demoed backplane running new bespoke BSP, CPLD board, and load controller plug in and utilities. The hardware shown is about enough for a bare-bones vehicle (bench/tank?) test, which can still hopefully happen in 2027.
 - hiring related chats
 - ex-employee request for code
 - misc admin

- Rich Henthorn
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Code mods and management
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Planning for instrument recovery/redeploy in 2027
 - 902401 - Geo-Sense
 - Networking issues for OLDSTARDUST before European deployments
 - Overhead
 - Engineering meeting
 - Hyperion meeting
 - Out of Office
 - Dec 21 to Dec 31 - Vacation
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Deployable AI meeting
 - Setup triton backseat for deployment
 - Setup small dataset for DeepPIV to integrate with Slicer plugins and model retraining
 - 902101 - LRAUV Technology Development
 - Setup imagenex lcm driver on galene backseat
 - Test interfacing with lrauv-terrain-following module with imagenex driver
 - Setup simulation with real imagenex logs
 - 902204 - Scalable Robotics
 - Train new svgp maps for Kolumbo with higher inducing points.
 - Out of Office
 - Jan 18, 2027 - Feb 5, 2027 : Vacation
- Brett Hobson
- Irene Hu
 - 901101 - Seafloor Mapping
 - Starting to revisit old progress on ORP system. Compiling a document for myself on redox, electrodes, and other theory
 - 901805 - Coastal Biogeochemical Sensing Program
 - Isfet substrate leakage:
 - Ran tests on two new stems, results were somewhat surprising. Any dependence on geometry seems swamped by chip-to-chip variation.
 - Current from leakage doesn't seem to be coming from counter electrode, ongoing hypothesis is still the drain or the drain-to-source path (ie coming out of Ids). This amount of siphoning from Ids should not change Vrs noticeably.
 - After some data processing, previously observed dependence of Vrs on leakage seems to be due to the body effect (change in substrate voltage causes threshold to change).
 - Email drafted to Lionix and slides with images compiled, sent to Yui for review
 - Alkalinity
 - Updated code for rC board, now waiting on board
 - Starting to set up the floating anode flowcell which Brent designed and had made, Luke installed the necessary devices, now just assembling the anode.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Attempted a flight at Terrace Point, but after going through all the approvals, got cancelled due to fog / visibility. Had a nice chat with Greg from Happy Whale instead.
 - 901904 - Deep-Sea Coral-Sponge Community Observatory

- Read some papers as recommended by Steve. Some ideas on how to handle image processing and calibration
 - Functional requirements review on a hugger GUI with various debates over which features are required, feasible, too complicated for user, etc
- 902305 - Event Detection Using the Sedimentation Event Sensor
 - Looking into fluorescence imaging wavelengths and a potential way to make it work with our main camera
- Scott Jensen
 - 901205 - ESP SURF Center
 - Travel to KML to upgrade and fix the installed fido
 - Preparations for SoCal installation of fido
 - Finalize cross platform change in API
 - Testing of the change
 - Evaluate failure modes of vacuum pump
 - Find solution for vacuum pressure sensor
 - Out of Office
 - October 29-30
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - First PIC32 SIPPER deployment was a success. Reviewing operation
 - Prepped SIPPER for second deployment
 - Merging deployment tested SIPPER code with additional capabilities (SD card, RTCC)
 - 901502 - Ocean Soundscape
 - Recovered Wire walker.
 - Fixing wire walker because it was ran over by what looks to be a rather large ship
 - 901805 - Coastal Biogeochemical Sensing Program
 - Deployed, flew, and recovered Spray glider.
 - Diagnosing pump/ballasting issues
- Chad Kecz
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 07/17-07/22 (GMT -4)
 - 07/26-08/07 (GMT +9)
 - 08/26-08/28 (GMT -4)
 - 08/29-09/02 (GMT -5)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Sick 8/24-8/26
- Thom Maughan
 - Out of Office
 - Friday 9 Oct 2026
 - Monday 19 Oct 2026
- Mike McCann
 - Out of Office
 - Half time schedule: Generally away Mondays, Fridays, and alternate Thursdays
 - 12-16 October: Web3D Conference

- 20-29 October: Remote/Comp time for conferences
- Enoch Nicholson
 - 901007 - Benthic Biology & Ecology
 - Testing new pump manifold
 - 901205 - ESP SURF Center
 - AE meeting
 - Finalizing package for AE
 - 902609 - TIDE OMICS
 - Supporting Biolink
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Sanctuary Permit renewal
 - Out of Office
 -
- Tom O'Reilly
- Mike Risi
 - 300070 - DMO Support - Ventana
 - Fixing issue with dropped preset messages in Ventana pan tilt interface
 - 902606 - Low Altitude Survey AUV
 - Participated in LASAUV CDR
 - Meeting to review LASAUV CDR feedback
 - Out of Office
 - Offsite on Tuesday and Friday
 - January 2, 2026 - vacation
 - January 19, 2026 - January 30, 2026 - vacation
 - March 4-5, 2026 - vacation
 - March 16, 2026 - vacation
 - March 30, 2026 - vacation
 - May 18, 2026 - vacation
 - June 22, 2026 - vacation
 - June 29, 2026 - July 1, 2026 - vacation
 - August 17, 2026 - vacation
 - September 8, 2026 - September 10, 2026 - vacation
 - October 12, 2026 as vacation
- Paul Roberts
- Brent Roman
 - Out of Office
 - Sept 8 - Oct 16 (vacation)
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - PBP [1.9.0](#) released.
 - General review of issues, some updated/closed.
 - Some exchanges with PBP users at NOAA.
 - 901513 - Targeted Sampling by AUVs
 - Brief exchanges with Yanwu and Chris W. related to chl data from past and future tracking exercises on the wave glider.
 - 901809 - Deep Sea Bioinspiration
 - Will check with Joost (when he's back) about possibly helping address the many dependabot alerts in the cms-ui webapp.
 - 902101 - LRAUV Technology Development

- TethysDash: various [versions](#) with enhancements in the last few days.
 - Dash4: various [versions](#) in the last few days.
 - Meetings with Emme and Michael regarding their ongoing setup of a gazebo sim and its interfacing with the dash system.
- 902504 - Scalable Semantic Mapping
 - Exchanges with Bastián M. and Kevin B. re MOLARS and interface with Dial.
 - Looking into some issues for first-time users when Dial is installed from scratch on a new machine (noted a few days ago while assisting Diego G. as he will be interfacing his Rerun app with Dial).
 - Dial is now [2.5.3](#).
- Overhead
 - Eng. mtg
- Out of Office
 - Oct 26 - Nov 12: vacation
 - Dec 9-10: vacation
 - Dec 22-Jan 7: vacation
 - Jan 15-21: vacation (tentative)
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Weekly mooring data download checks
 - Helped Brett J. set up https IS cert on gizmo (new Mooring viewing web page). Could not view http in chrome anymore.
 - 902101 - LRAUV Technology Development
 - Met with Brian K to discuss handoff date for dash5
 - Features
 - Schedule repeat option in Schedule step ([#886](#))
 - Bug Fixes
 - Handle refused cancel and fix "Use for new command" advancement ([#883](#))
 - Logs and Comms lists no longer flash a spinner on background polls ([#887](#)) — draft
 - Issues Filed
 - [#882](#) — feat: warn when MaxDepth is shallower than other depth parameters
 - [#884](#) — bug: "Use for new command/mission" doesn't advance past the first step
 - [#885](#) — feat: Resend with same schedule — preserve time and repeat in Schedule menu
 - In Review by Emme
 - [#886](#) — Schedule repeat option
 - [#883](#) — Handle refused cancel / Use for new command
 - [#879](#) — Add LRAUVs section to map layers modal
 - [#873](#) — Restore depth sparkline >8h (new approach)
 - [#872](#) — Restore Dash4 vehicle diagram overlay parity
 - [#870](#) — Add Center Map button to TrackDB
 - [#853](#) — Send command/mission on launch and recover events
 - [#848](#) — Science charts reload on scroll fix
 - [#825](#) — Schedule shows Unknown operator fix
 - [#814](#) — Mission modal & Schedule log polish
 - [#810](#) — Restore depth sparkline >8h (prior PR)
 - [#805](#) — Display mission ID in pending Schedule rows
 - Merged into develop branch
 - Gate map marker edits behind login ([#790](#))
 - 902111 - Carbon Flux Ecology

- Features
 - Sediment science figures — camera detection images and flux analysis plots ([#116](#))
 - Play SINKER Animation video on About Menu page ([#117](#)) - draft
- Issues Filed
 - [#110](#) — ZMQ subscriber containers go silent without self-healing
 - [#111](#) — Whole page re-renders every 2–3s due to top-level camera state
 - [#112](#) — Controls & Environs cards flash loading state on every poll
 - [#115](#) — OFFLOAD rate occasionally goes negative
- Merged into develop
 - Stop camera flash — convert inline components to plain functions ([#113](#))
 - Stop Controls & Environs 30s loading flicker ([#114](#))
- Out of Office
 - March 15-24, 2027 - Vacation
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Updates to [Oni](#) to support KB Editor features.
 - New releases of Sharktopoda ([2.2.4](#), [2.2.5](#)) and VARS Annotation ([2.6.0](#)). These releases address all major feedback and issues from the video lab.
 - Updated proxy servers to propagate CORS headers on service errors.
 - 901809 - Deep Sea Bioinspiration
 - Provided stats, technical info, and diagrams for NSF proposal.
 - 902403 - Expedition DB Modern
 - Added endpoints to ingest raw ROV navigation. ([PR 20](#))
 - Overhead
 - Contributing to iFDO/FAIR data paper for annotation label sets.
 - Put together code to recover from errors introduced by database migration, database replication misconfiguration.
 - Out of Office
 - Sep 9 - Vacation
 - Oct 21 - 24 - Oceans Conference, Monterey
 - Nov 12 - Vacation
- Quinn Shemet
 - Out of Office
 -
- Alana Sherman
 - Overhead
 - Trying to do a million things before I leave and packing and training for the field work.
 - Out of Office
 - In the field 10/19-11/7
- George Stern
 - 300078 - DMO Support - AUV
 - Worked with Jose on placement
 - Built test cables, configured a project completely and finally got a motor spinning using their gui
 - Began looking through the code
 - Located the dynamometer, and began to read through manuals and plan testing
 - 902204 - Scalable Robotics
 - Spent far more time than expected but I think I identified the connector on the mola control station and have found a suitable mate.

- 902304 - Piscivore Cam
 - Working with the etechs to complete gen4 chassis wiring clean up and make some test cables in prep for tank and integration testing next week after Brent gets back.
 - Continuing to the research Gen5 camera sensor and ISP options, rockchip still seems like the best option with the rkisp IQ tool
- Out of Office
 -
- Justin Tucker
 - Out of Office
 - Oceans: September 21-24
 - Vacation: September 25th
 - Stanford Project team: September 29th
 - Vacation: October 13th-23rd
- Johann Voigtlander
 - 902312 - Seafloor Processes
 - Finalizing last tests on bubblecam and preparing it for shipping
 - Created code to process bubble camera data
 - Updated documentation
 - 902504 - Scalable Semantic Mapping
 - Troubleshooting new RTK board from arduosimple. It is not remembering any saved settings
 - Totally rewired the blueboat. Came up with an efficient design to minimize wiring and EMI
 - Designed and 3D printed mounts for some of the internal electronics and GPS masts.
- Emme Wiederhold
 - 902101 - LRAUV Technology Development
 - project for continuous gazebo simulator support in dash UIs
 - architecture development and brainstorming
 - commissioning nexus VM
 - updates to freshwater rinse tank mission
 - more discussions about streamlining LRAUV vehicle state & dash UI visualizations
 - my first code committed to the okeanids and lrauv-dash repositories :)
 - Out of Office
 - November 25th - December 8th