

Engineering Weekly Report 10/1/2026 - 10/8/2026

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

Executive Council Notes

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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
- Laura Chrobak
- Danelle Cline
 - Out of Office
 - September 21-24 Oceans Conference, Monterey
 - 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
 - Work continues processing the 11 year archive through my Pytorch Perch-Hoplite workflow. Completing July 2015 through 2021 this week, with much of 2022 ready for review next week. Will review status and next steps with John Ryan next week.
 - Planning to attend virtually Evolving AI Applications in Modern Marine Mammal Science workshop SMM conference, San Juan, Puerto Rico. Sunday Oct 18. Leaders Guy Oliver and Ted Cheeseman to send me registration info once it is up.
 - Poster for PyTorch conference completed, and ready for upload to conference and presentation live Oct 20.
 - Out of Office
 - October 19-24 Pytorch Conference, San Jose. Present poster on Perch2.0 port to pytorch. Registered. Have reservations.
- Kevin Gomes
 - Out of Office
 - Sep 21-24: Oceans conference
 - Oct 5-9: Vacation
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV

- Hyperion yocto build set up in VM on macOS. Original idea was to use minimal VM disk and do build on mounted host file system. Bitbake doesn't handle that well, due to the way it creates and uses files/links. Wound up expanding VM filesystem (~80 GB) to build there.
 - 701147 - MARS O&M
 - last week, duplicated SSD from main stack for use in the wet node simulator
 - 902204 - Scalable Robotics
 - Installed Cerulean driver on blueboat (BB)
 - Installed procman on BB
 - Overhead
 - promotion process review
 - ASO interview feedback
 - ASV review meeting
 - LAS AUV concept review meeting
 - ENSO response meeting
 - Distinguished lecturer presentation
 - misc admin, staff support
- Rich Henthorn
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Merging deployed code with repo branch
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Fixing simulator
 - 902401 - Geo-Sense
 - Updated DAS network gateway on lab computer OLDSTARDUST for away team
 - Out of Office
 - Dec 21 to Dec 31 - Vacation
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Deployable AI deployment readiness
 - Direction for improving deepPIV workflow narrowed upon, to start setup on Inyo soon.
 - Exploration of monocular depth models for single camera mass estimation and tracking, with improvements using polar cameras and factor graphs for metric depth estimation.
 - 902204 - Scalable Robotics
 - Blueboat backseat setup for Norbit driver
 - Quick dev of new tool lcm-spy-term for terminal based lcm message monitoring and multibeam plotting. Setup on blueboat, available for general use.
 - Meet Johann to go over CLI tools for norbit driver and other setup
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - MMS digital boards extensive troubleshooting. Issue traced to a different rampup behavior of the 3.3V regulator which changes the timing of RS232 signals coming online, allowing noise pulses on the handshake line to get intermittently interpreted as real signals and causing the MSC to start sending commands before the digital board is ready. Possibly due to TI updating the part in 2024.
 - 901805 - Coastal Biogeochemical Sensing Program
 - Isfet substrate leakage: after discussion at lab meeting, ordered two more stems from Luke with specific chips for some follow-up tests and then will be ready for convo with Lionix

- 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Planned flight on Thursday, walking through the preflight steps with Enoch and helped with the flight plan document
- 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Started on GUI for the multispec system; in lab meeting, discussed pivoting to the hugger and what would be wanted from an updated hugger GUI
- 902305 - Event Detection Using the Sedimentation Event Sensor
 - Weekly meeting discussing ideas for fluorescence imaging
- Overhead
 - Reccom BBQ 10/7/26
- Scott Jensen
 - Out of Office
 - September 23-28 (Vacation)
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Prepped, Deployed and flew Daphne/SIPPER. Successful test of new PIC32 version
 - 901805 - Coastal Biogeochemical Sensing Program
 - Deployed, flew, recovered Spray29. Dealing with flight and pH data issues
- Chad Key
 - 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
 - 200109 - Core Mooring Data - MDUC
 - Better organizing the landing page for <https://mooring-ssds.shore.mbari.org>
 - 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
 - Out of Office
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- Tom O'Reilly
- Mike Risi
 - 300062 - DMO Support - Doc Ricketts
 - Helped bring up ROV support systems after power was restored to Packard

- 902606 - Low Altitude Survey AUV
 - Meetings to prepare for LASAUV CDR
 - Working on materials and pres for LAS AUV CDR
- 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
 - Out of Office
 - Sept 22-24: IEEE Oceans Conference
 - End of Oct–Beg of Nov: vacation (dates TBD)
 - Nov 12: vacation
 - Dec 9-10: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Weekly maintenance and monitoring of data downloads.
 - Spoke with Jason Adelaars this AM about an upcoming OA2 mooring turn planned for before Thanksgiving 2026.
 - 902101 - LRAUV Technology Development
 - Features
 - Add LRAUVs section to map layers modal ([#879](#)) — in review, parity with Dash4
 - Bug Fixes (in progress)
 - Detect TethysDash cancel-refused response and offer Discard anyway — local, not yet a PR
 - Issues Filed
 - [#880](#) — feat: "schedule repeat" scheduler feature
 - In Review (11)
 - [#879](#) — Add LRAUVs section to map layers modal (*Sep 29*)
 - [#873](#) — Restore depth sparkline >8h (new approach) (*Sep 23*)
 - [#872](#) — Restore Dash4 vehicle diagram overlay parity (*Sep 22*)
 - [#870](#) — Add Center Map button to TrackDB platform list (*Sep 21*)
 - [#853](#) — Send command or mission on launch and recover events (*Sep 10*)
 - [#848](#) — Science charts reload on scroll fix (*Sep 8*)
 - [#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
 - [#790](#) — Gate map marker edits behind login — awaiting re-review
- 902111 - Carbon Flux Ecology
 - Met to discuss upcoming MBARI SINKER Project Talk later this month
 - Issues Discovered
 - ZMQ subscriber containers go silent without self-healing
- 902403 - Expedition DB Modern
 - Met with K. Gomes, Brian S. regarding potential Fall work on the project and stronger UI focus (using Vue) in 2027.
- Overhead
 - Many Meetings
- 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
 - Updated VARS on the ships to the latest and greatest.
 - Investigating database replication issues (post-migration to cassiopeia) between the ship and shore databases.
 - Reviewed [UPD spec for Sharktopoda](#) and reconciled it with the various software implementations. Verified that the software implementations ([vcr4j](#), [Sharktopoda](#)) adhere to the revised spec.
 - Created a version of [jsharktopoda](#) (cross-platform video player for annotation applications), that supports localizations on video.
 - Released VARS Annotation [2.5.1](#) and [2.5.2](#).
 - Published new versions of [vcr4j](#), [imgfx](#), and [raziel-java-sdk](#) to maven central
 - 901221 - Midwater Time Series
 - IS moved the midwater transect database to Cassiopeia. The web app for the database hasn't been touched in years (last build was on Java 8). Major overhaul of the apps ([analysis](#), [web-app](#)) to bring them up to date.
 - 902403 - Expedition DB Modern
 - Working on adding participant pick lists to the EXPD database. Completed the database and [REST API](#) changes for this task.
 - Improvements to [data migration](#) from the production db to the development db. Allow for recovery when a partial load fails. Fixes to broken load status links. [expd migrate-data](#) now supports the option to load only a specific data type (ShipNav, RovCtd, etc) rather than loading all data (the default).
 - Overhead
 - Discussions with Kathrin (Kat) Bolstad (Auckland Univ. Tech.) about long term hosting of Ceph-Ref, a site that resurrects the info about squids from the now-defunct tree-of-life web site.
 - Out of Office
 - Sep 9 - Vacation
 - Oct 21 - 24 - Oceans Conference, Monterey
 - Nov 12 - Vacation
- Quinn Shemet
 - Out of Office
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- Alana Sherman
 - 901904 - Deep-Sea Coral-Sponge Community Observatory

- Trying to get parts together for deep sea connect addition to Mega.
- 902401 - Geo-Sense
 - Prep for Milos and Gaia Blu cruise. Working through packing list and still dealing with issues with Gaia Blu on MiniROV winch
- Overhead
 - Last week was M-Team offsite, El Nino workshop, ASV purchase review
 - Gave tour to packard distinguished lecturer, working with group leads on writing up promotion criteria
- Out of Office
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- George Stern
 - 300078 - DMO Support - AUV
 - Finished updating and checking prop board and ready for Etech layout; parts availability is worse now than the pandemic.
 - 902106 - Niobicon-Based AUV Docking Development
 - Troubleshoot nonworking docking payload, actuator wasn't opening far enough, sensor power was miswired causing ADC to saturate before the pot reached the end of the stroke.
 - 902204 - Scalable Robotics
 - 2wks ago - lots of mola troubleshooting - last minute open heart surgery to fix a corrupted jetson flash drive that failed an hour before it was supposed to be packed for milos led to putting a connector full of pins through a cable shorting everything out.
 - Updated ESC control board FW in Mola and created a back up SSD for the trip
 - Preparing for Mola 2 bring up
 - 902304 - Piscivore Cam
 - Tested polished vs unpolished light reflector to see if it was noticeably better, it was and finished polishing remaining 2 reflectors
 - Completed schematics for all harnesses and cables needed for the upcoming Nov deployment
 - Began working on STM32 FW
 - Working with Oclea helpdesk to hopefully understand why all our new cards won't initialize olcamera making them unable to process camera data.
 - Out of Office
 - Volunteer Oceans Sep 24 PM
- Justin Tucker
 - Out of Office
 - Oceans: September 21-24
 - Vacation: September 25th
 - Stanford Project team: September 29th
 - Vacation: October 13th-23rd
- Johann Voigtlander
- Emme Wiederhold
 - Out of Office
 - November 25th - December 8th