

Engineering Weekly Report 5/28/2026 - 6/4/2026

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

Executive Council Notes

-

Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Working remotely May 11, 2026 – May 14, 2026
 - MIW May 18, 2026 – May 22, 2026
 - CVPR Jun 1, 2026 – Jun 5, 2026
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Assembling and testing PTO
 - Preparing mooring (measuring EM cable etc)
 - 902106 - Niobicon-Based AUV Docking Development
 - Ordering parts for Brizo docking arm and brushes upgrade
- Laura Chrobak
 - Out of Office
 - CVPR Jun 1, 2026 – Jun 5, 2026
- Danelle Cline
 - 901221 - Midwater Time Series
 - Proposal discussion and [updated docs](#)
 - 901502 - Ocean Soundscape
 - Continued work on topic model sweeps and summer intern meetings
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - VO on mission, continued work on mission viewer and [updated docs](#)
 - 902111 - Carbon Flux Ecology
 - Finished data mining 200K ROIs Planktivore low-mag 2024-2025 archive for model training. Stratified across depth/month/hour to represent diversity and clustered using [SDCAT](#) using high-mag model. Data loaded into mantis and Voxel51 for advanced annotation by lab members. Meeting with lab members next week to discuss data management.
 - Fixed some issues with cropping failures
 - SINKER storage discussion with IS
 - Overhead
 - May 27-28, AI DevSummit, San Francisco
 - Reviewing Ecosphere paper
 - Planktivore proposal discussion
 - Out of Office
 - September 21-24 Oceans Conference, Monterey
- Duane Edgington

- 901502 - Ocean Soundscape
 - Good progress on adapting google perch-hoplite to MARS PAM dataset. First trial running One selected day of data containing known Orca calls near completion.
 - Ported google perch-hoplite to dgx spark system.
 - Presented status at project team meeting.
 - Plan team meeting on 2027 proposal June 4.
- Overhead
 - Intern prep
- Out of Office
 - June 1 Medical appt
 - June 10 Medical appointment
 - September 21-24 IEEE Oceans Conference Monterey
- Kevin Gomes
 - 300070 - DMO Support - Ventana
 - A little remote troubleshooting
 - 902403 - Expedition DB Modern
 - Working on connecting new auth template to REST API
 - Overhead
 - Oceans 2026 stuff
 - Met with Joe to discuss Slack notification related to ship activity
 - Out of Office
 - Jun 29 - Jul 1 : Vacation
 - Aug 25-27: Monterey Data Conference
 - Sep 21-24: Oceans conference
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV
 - working with Tad re Dorado acommms telemetry from LayeredControl
 - 901007 - Benthic Biology & Ecology
 - ran some BRS script sims
 - took a look at OASIS date issue on BRS; suspect dead coin cell (confirmation pending)
 - 902204 - Scalable Robotics
 - wrote cerulean sonar reader; tested with log files so far.
 - working on driver application, logging, publishing, etc.
 - Some email exchange with Cerulean tech support, but not finding the responses to be super helpful.
 - Overhead
 - Soundscape demo: minor updates; have dual-screen kiosk working, but not demo ready. It's a bit sluggish on the RPi. Will use single touchscreen for DOEST. The dual screen kiosk mode renders the X11 based virtual keyboard (for debugging) unusable. figured out terminal based solution using wrctl and ydotool to send keystrokes (i.e. for reloading pages), but a keyboard/mouse are currently needed to manage the kiosk windows - would not be suitable for a production system.
 - Out of Office
 - n/a
- Rich Henthorn
 - 902401 - Geo-Sense
 - Prep for June 3 deployment
 - Time sync procedure
 - Out of Office

- June 3 - Carson
 - June 29 to July 6 - Vacation
 - July 16 to 24 - Caress LASS cruise
 - August 10 - 13 - Vacation
- Akshay Hinduja
 - Out of Office
 - Jun 1, 2026 - Jun 6, 2026 Vacation
- Brett Hobson
- Irene Hu
 - 901101 - Seafloor Mapping
 - First draft of code for ORP board including ADC code adapted from MOSOS and translated to C++
 - 901805 - Coastal Biogeochemical Sensing Program
 - Alkalinity
 - Tried polishing electrode and rerunning titration. No noticeable improvement.
 - Finally received a response from LionIX and they have recreated the problem with alkalinity chips
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Looked into cameras for fluorocam, found one or two I think is good
 - Out of Office
 - June 9: Carson
 - May be periodically out of office in next few days due to crippling back pain.
- Scott Jensen
 - 901205 - ESP SURF Center
 - Delivery of instruments has unearthed many little details and most of them have been addressed.
 - Fieldwork support is commencing but time pressure is limited
 - 901405 - Wave-Energy Conversion for Oceanographic Application
 - Supporting HDS battery bring-up
 - Lots of features and trying to understand and check out their function
 - Slow start seems to be the biggest issue as they assume a nearly pure capacitive load.
 - 902106 - Niobicon-Based AUV Docking Development
 - Support documentation and fabrication of the WEC version of the dock
 - Out of Office
 - June 26-July 7 (vacation)
 - July 15 - 21 (vacation)
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Diagnose SIPPER errors during Synchro mission
 - 901502 - Ocean Soundscape
 - Wire walker prep. Swapping in 250m cable
 - 901805 - Coastal Biogeochemical Sensing Program
 - Diagnosing COMMS error in new Nfet2 board stackup
 - 902004 - Planktivore
 - meetings
 - Overhead
 - Resurrected M1 Sierra wireless for backup system if Starlink ever goes down.
 - Beginning code interface with OASIS controllers
- Chad Kecz
 - Out of Office

- Out of office on Fridays
- Brian Kieft
- Denis Klimov
- Eric Martin
- Thom Maughan
 - Out of Office
 - Two week vacation in July around the 4th
 - Dental appointments. Two in June, One in July.
 - Fifteen days mid-June (dates tbd) for Norway Planktivore collaboration with Tidal and imaging workshop in Sweden.
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Making progress on [replacing perl scripts](#) with python django management commands
 - 901101 - Seafloor Mapping
 - Fixed bug in SMDB's load script that caused some mission tracks to not be computed
 - Writing Independent Contractor Agreement for x3dom 3D Tiles work by Earthstruct, LLC
 - 901221 - Midwater Time Series
 - Working with ASO to get required SerialNumber info into seabird25p.cfg for O2 calcs
 - Reprocessed i2MAP mission 2026.138.02 to confirm proper O2 calibrations applied
 - Overhead
 - Writing letter of recommendation for student on the last capstone team
 - Some 2027 proposal input
 - Out of Office
 - 19 June - 10 July: Vacation
 - 18-24 July: SIGGRAPH in LA
 - 21-24 September: Oceans Conference
- Enoch Nicholson
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - Starting work on CTD GUI
 - 300070 - DMO Support - Ventana
 - Completed calibration storage to 4K camera lap box firmware and review with Paul
 - 902312 - Seafloor Processes
 - Tested LASS control interface to Doc Ricketts
 - Network configuration meeting for July LASS expedition
 - 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
- Paul Roberts
 - 901513 - Targeted Sampling by AUVs
 - Triton 56 deployment
 - 901809 - Deep Sea Bioinspiration

- Triton 56 deployment
 - Scuba EyeRIS tank testing
- 902004 - Planktivore
 - Prep for Midsec and Tidal colab
- 902204 - Scalable Robotics
 - HSI scoping
 - Laser line scoping
- 902603 - Miniature 4K Subsea Optics
 - Hopefully final contract negotiation with Gemini
- Out of Office
 - June 13 - June 20, 2026 MidSEC, Sweeden
- Brent Roman
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Added PBP to <https://deepwiki.com/mbari-org/pbp> (but minimal exploration so far).
 - Group meeting
 - 902101 - LRAUV Technology Development
 - TethysDash/dash4: Implementing SMS as an option for alert notifications to users. AWS SNS setup as well as code are close to being in good shape for initial testing.
 - Tethys-AI: With Kevin G. and Quinn S., met with AWS GenAI Innovation Center to discuss LRAUV related use cases for a POC system with them. I demoed the [Tethys-AI MCP/RAG prototype](#).
 - TethysDash/unserialize: spending a lot of time trying to diagnose errors that have become more visible for WHOI in recent weeks. The logs show multiple unserialize invocations failing, which are due to incomplete or corrupted data from the vehicle, but it's still unclear where or how this happens. Upon inspecting the so-called email-logs, they also have been happening in our MBARI instance for months (Opah in particular), but apparently unnoticed externally, or not reported.
 - 902504 - Scalable Semantic Mapping
 - Dial [2.3.3](#).
 - Out of Office
 - June 29-30 vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Working with Jared F. on the next M1 mooring turn June 19th.
 - 901101 - Seafloor Mapping
 - 902504 - Scalable Semantic Mapping
 - Fixed mission links to use window.location.origin for correct absolute URLs, and addressed Issue #290 (3D Citations)
 - Removed duplicate missions-page class injection in mission_filter.html
 - Both bug fixes still need to be tagged and deployed to smdb-dev for testing.
 - 902101 - LRAUV Technology Development
 - Vehicle Track Visualization (Issue #652)
 1. Added dimming of the historical track and highlighting of the future path during timeline scrubbing
 2. Inverted the track emphasis logic and restricted dimming to timeline hover interactions only
 3. Added a hover tooltip and a stable highlight dot on the vehicle track
 - UI Improvements

- 1. Added colorbar legend hover behavior to TILE layer rows in the Layers panel (Issue #570)
 - 2. Added the app version to the primary toolbar nav bar
 - 3. Fixed URL template separator — now correctly uses & when the template already contains a query string
 - Code Quality & Tests
 - 1. Added regression tests for toWatchDuration overflow normalization
 - 2. Refactored versionLabel computation to a local const in Layout
 - 3. Multiple rounds of Copilot review fixes on PRs #657 and #578
- 902111 - Carbon Flux Ecology
 - Camera System (May 19–23)
 - 1. Fixed /api prefix bugs across all FastAPI proxy routes (was causing broken camera/ADCP calls)
 - 2. Camera images now pulled from local FastAPI SSE; added pre-build URL validation
 - 3. 12-hour stale thresholds applied consistently to camera status routes to prevent false STALE flags
 - 4. Camera brightness controls: merged API fetch + localStorage fallback into a single unified state
 - 5. Fixed timestamp overlay and charting scatter plot issues (issues #33, #35, #39, #47)
- Out of Office
 - March 22-24, 2027 - Vacation
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Working on a presentation for [MidSEC](#).
 - Updates to [vars-quickstart-public](#) in preparation for MidSEC.
 - Updates to [pythia-python](#) so it can be used behind a shared proxy.
 - Updated the VARS stack on the R/V David Packard
 - Updated the [external embargo SQL for annotations](#) in prep for releasing the [new Deep-sea Guide](#) (DSG) externally. Working through the details of migrating the external DSG from [ione.mbari.org](#) to [calypso.mbari.org](#).
 - 902403 - Expedition DB Modern
 - Working on the 2027 project proposal.
 - Overhead
 - [Registered/archived a Mega Coral Cam data set](#) for Jim Barry's lab to provide a data set for his intern to work on.
 - Out of Office
 - May 14, 18: Vacation
 - Jun 11 - Jun 19: Midwater Science and Engineering Community Conference, Sweden.
 - Jun 22 - Jun 26: Vacation
- Quinn Shemet
 - Out of Office
 - Jun 26 - Jul 5: Vacation
- Alana Sherman
- George Stern
 - 300078 - DMO Support - AUV
 - Began testing pressure test cards after 14kpsi over test; one cap damaged and repaired

- Finally got quote clarification from DSPL regarding their quote, almost ready to get it sent out
- 902106 - Niobicon-Based AUV Docking Development
 - Planning for some more coms tests and changes to the solar buoy
- 902204 - Scalable Robotics
 - Laid out a small breakout board for mola ESC testing
 - Ordered board/hardware and hardware for faster SD card writing test
- 902304 - Piscivore Cam
 - Reviewed machined parts with Aaron and Yamir
 - Identified thermal mitigation plans and estimated thermal resistance without goop
 - Ordered bluerobotics hardware; despite claiming stock, they shipped short and billed the credit card for everything
 - Continued working on electrical design
- Justin Tucker
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Finalized various small parts to shop and orders for assembly
 - 902101 - LRAUV Technology Development
 - Hovering Module CAD export and extrinsics support
 - CG CB measurement support
 - 902606 - Low Altitude Survey AUV
 - Energy sim cross check against various model setups HoloOcean, Stonefish, Gazebo
 - Sample bathymetry mesh generation
 - Overhead
 - eDNA sample collection prints
 - Stanford Capstone project outline
 - Out of Office
 - 6/5-6/12
- Johann Voigtlander