

Engineering Weekly Report 6/11/2026 - 6/18/2026

<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
 - 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
 - Preparing equipment for deployment
 - 902106 - Niobicon-Based AUV Docking Development
 - Assembling Wave energy dock
 - Working on proposal
- Laura Chrobak
 - Out of Office
 - CVPR Jun 1, 2026 – Jun 5, 2026
- Danelle Cline
 - 901221 - Midwater Time Series
 - Deployment of [stratagrid](#) to visualize training data
 - 901502 - Ocean Soundscape
 - Organized team discussion for proposal input
 - Labeled segmented units with Voxel51/Perch2 model. Refining model sweeps to optimize ARI.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Proposal input
 - Deployment of [stratagrid](#) to visualize training data
 - A few mbari-aidata pip modules updates to support train/test
 - 902111 - Carbon Flux Ecology
 - Proposal input for lab and SINKER
 - Deployment of [stratagrid](#) to visualize training data
 - Working on active learning tutorials to teach lab how to build classifiers
 - Overhead
 - Finished reviewing Ecosphere paper
 - Out of Office
 - September 21-24 Oceans Conference, Monterey
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Proposal work

- 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting
 - Team discussion on yolo26 and RF-DETR trading and inference strategy. Discussed testset. Discussed ONNX
 - Discussed SAHI and image slicing
 - Posted sample inference notebook to github
 - Ran inference test on testset to confirm notebook working as desired
 - Discussed short paper/poster opportunity due July 19
- Out of Office
 - June 10 Medical appointment
 - June 15, 17. 19 Medical Appointment
 - September 21-24 IEEE Oceans Conference Monterey
- Kevin Gomes
 - Out of Office
 - Jun 29 - Jul 1 : Vacation
 - Aug 25-27: Monterey Data Conference
 - Sep 21-24: Oceans conference
- Andy Hamilton
- Kent Headley
 - 901101 - Seafloor Mapping
 - code review for MB-System PR. Interesting case where a PR was generated largely by Claude AI, which did some questionable things.
 - 902204 - Scalable Robotics
 - working on Cerulean BB data
 - Overhead
 - DOEST prep
 - 2027 budget
 - misc admin
 - Out of Office
 - Sep 21-24: Oceans conference
- Rich Henthorn
 - 300078 - DMO Support - AUV
 - TRN support
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - New battery commands
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Check-in with SES using Waveglider - all good
 - 902401 - Geo-Sense
 - DAS recovery
 - Out of Office
 - June 29 to July 6 - Vacation
 - July 16 to 24 - Caress LASS cruise
 - August 10 - 13 - Vacation
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Triton deployments and TritonCAM dev
 - Setup new backseat app from collaborators on Triton, failed to work
 - Debug on test bench while being on support for Triton 57 deployment,
 - 902101 - LRAUV Technology Development
 - PIC training

- 902204 - Scalable Robotics
 - Resume looking at sonar SLAM pipeline improvements
- Brett Hobson
- Irene Hu
 - 901101 - Seafloor Mapping
 - ORP board sent out for prototyping. Made a cable for turbidity sensor
 - 901805 - Coastal Biogeochemical Sensing Program
 - Made a small board to test turning off Nanofet's bias battery on command. Board is laid out, waiting for parts to finalize layout
 - Looked into alternative isfet manufacturers
 - Measured some signals and looked into code to help Thom's contractor with Nanofet rC new NAND flash issues
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Continuing to work on some camera code
- Scott Jensen
 - 901205 - ESP SURF Center
 - The linux computer for FIDO is having disk problems. The cause is not completely clear.
 - Reducing log writing is the first line of offense.
 - The mechanism seems to be running well
 - Latest update was installed and has been proving out well
 - 901405 - Wave-Energy Conversion for Oceanographic Application
 - Representative from HDS and UofW APL are onsite for battery testing
 - A few issues and concerns have been found
 - Future discussions will be around resolution
 - 902106 - Niobicon-Based AUV Docking Development
 - Supporting build of WEC dock bottle
 - Out of Office
 - June 26-July 7 (vacation)
 - July 15 - 21 (vacation)
- Brent Jones
- Chad Key
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 07/01 (GMT -7)
 - 07/17-07/22 (GMT -4)
 - 07/26-08/07 (GMT +9)
 - 08/26-08/28 (GMT -4)
- Denis Klimov
- Eric Martin
- Thom Maughan
 - Overhead
 - Attending MidSEC conference in Sweden. Excellent presentations and discussions. Swim net tow and demo of Planktivore. Also ran samples thru Manu Prakasht's Planktiscopes. Many discussions on eDNA and interest in the 'lunchbox'
 - Out of Office
 - Two week vacation July 6 to July 17, Colorado
 - 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
 - Finished work on replacing Perl/Ferret Mooring data processing with Python
 - The broken contour.tstring plots have now [been replaced by the new software](#)
 - Finding bugs while using new software to process past deployments managed in SSDS
 - Starting work on [replacing Perl/Ferret delayed-mode data processing](#)
 - Overhead
 - Updated several https servers to use the new IS labels method for deploying certificates
 - Finished my reviews of 3 posters and 2 papers for the Oceans 2026 conference
 - Out of Office
 - 19 June - 10 July: Vacation
 - 18-24 July: SIGGRAPH in LA
 - 21-24 September: Oceans Conference
- Enoch Nicholson
 - 706008 - READI-Net
 - READI-Net assembly modeling; added parts and fasteners and wrapped most insertion tasks, with BOM nearly ready to hand off
 - Set up FIDO on the dock
 - Reviewed phase separator drawings
 - 901007 - Benthic Biology & Ecology
 - Wrapped up BRS instrument recovery and diagnosed chamber injection failures
 - 902609 - TIDE OMICS
 - Started Biolink task tracking
 - Planned DOEST tour stops
 - Reviewed TIDE proposal and next-year tasking
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Started UAV project proposal form
 - 902101 - LRAUV Technology Development
 - Restarted variable buoyancy (VB) system project
 - 902111 - Carbon Flux Ecology
 - Tested acoustic release with bucket; confirmed functional and handed remaining mods to the team
 - Overhead
 - Vault setup for new users
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - Working with Kevin on corenav proposal input
 - Starting work on a DVL data collection process
 - 300070 - DMO Support - Ventana
 - Working with Chad on pan and tilt control design
 - Testing spare Ventana light pan and tilt for new controller
 - Overhead
 - Meetings and scoping 2027 tasks for proposals
 - 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
- Paul Roberts
 - Out of Office
 - June 13 - June 20, 2026 MidSEC, Sweeden
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - The ESP deployed off La Push, WA is running into mechanical problems
 - It is also burning through battery faster than anticipated
 - I've been able to keep it going for now over Iridium Certus
 - 901205 - ESP SURF Center
 - Working with Preston and Nadia to restructure configuration files to make it easier for 3G ESPs to move between different types of domes.
 - 902204 - Scalable Robotics
 - Finally found a thumbdrive that could write raw video fast enough
 1. But only for 30min at a time. Then, it must be reformatted to avoid "flash folding"
 - George and I ordered a Radxa 5C to replace the Pi4
 1. It supports NVME SSDs
 2. Found one 2230 SSD that appears to sustain >500MB/s during long writes
 3. We shall see 😊
 - 902304 - Piscivore Cam
 - Still struggling to enable lens dewarping hardware
 1. Most of the best docs are from Rockchip in Chinese
 2. AI is helpful, but often incorrect.
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Our intern, Ariel Raizman, is making great progress with his project.
 - 902101 - LRAUV Technology Development
 - SMS notifications support is now in place, but still considered beta status while we get a better sense of usage and cost, and possibly needing backend / AWS account adjustments.
 - Lots of internal code cleanup/refactoring, plus additional migrations of endpoints from servlets to JAX-RS. The changes have been exercised during actual vehicle operations. Only one regression (exposed in dash5) related with CORS headers in one endpoint was noted and quickly fixed. Other "impacts" on dash5 were due to more strict parameter validation (fixed in dash5 itself).
 - 902504 - Scalable Semantic Mapping
 - [Dial: various enhancements.](#)
 - 2027 proposal discussions, and planning for rest of 2026.
 - Out of Office
 - June 29-30 vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Preparing for M1 turn this Friday.
 - 902101 - LRAUV Technology Development

- Log Tab Repair & Dash4 Feature Port (Jun 10) — Fixed broken log file links in RealTimeLogs and restored Dash4-era log navigation features (PR #678):
 1. Replaced individual shore.log/KML/parent links with a unified Data toolbar button
 2. Added a Data button alongside the Shore and ESP buttons
 3. Fixed KML filename reference to use shore.kml
- Deployment-Scoped Science Data Time Windows (Jun 10) — Added a time window selector to the Science/Vehicle data chart sections (issues #651 and #677):
 1. Options include Latest Dive and Full Deployment views
 2. maxlen parameter omitted for long windows; data is decimated client-side instead
 3. Fixed empty state display when no chart data is available for a given window
 4. Fixed 404 responses being treated as errors instead of no-data
- Native SMS / Phone Number Support for Notifications (Jun 15) — Added full phone number (SMS) support to the notification destination dialogs (PR #682):
 1. Notification modal now detects phone numbers and adapts UI and wording accordingly
 2. Test-send messaging customized for SMS vs. email destinations
 3. Plain-text toggle hidden for phone number destinations
 4. Users can now set a default notification destination (email or phone), persisted in localStorage and auto-selected on modal open
 5. Inline "Make Default" checkbox added; modal close blocked when interacting with checkboxes
- Developer Onboarding Guide (Jun 15) — Added a comprehensive docs/developer-onboarding.md covering monorepo setup, build workflow, the exports→dist pattern, test commands, and key file locations (PR #684).
- createUser POST Payload Fix (Jun 16) — Removed an erroneous { data: } wrapper from the createUser POST body that was breaking user registration. Updated tests to assert the correct payload shape (PR #686).
- TethysDash API Compatibility Fixes (Jun 17) — Following a TethysDash backend update (v4.99.77), three breaking API changes were identified and patched with same-day PRs:
 1. Fixed double-slash in default base URLs causing 400 errors across all API calls (PR #687)
 2. Removed the noteMatches parameter from GET /events dropped by the backend (PR #688), and fixed the corresponding TypeScript test (PR #690)
 3. Removed the path parameter from POST /commands dropped by the API (PR #689), and fixed the TypeScript compile error in the test (PR #691)
- 902111 - Carbon Flux Ecology
 - Working with Andrew McMann on getting MBARI SSO working on the sinkerdev server.
 - Other sinkerdev work (not on production yet):
 1. Wired real data into the Network tab with connectivity scripts and a toolbar health dot
 2. App version badge baked into the build via GIT_VERSION and displayed in the nav bar
 3. Power status fallback logic using power_draw for lights, camera strobe, and SED status
- Out of Office
 - March 22-24, 2027 - Vacation
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining

Updated code [for watermarking external framegrabs](#) and adding EXIF metadata. (e.g. [Original](#), [Watermarked](#))

Updated external database embargoes ([M3_ANNOTATIONS](#), [VARS_KB](#))
Configuring [calypso.mbari.org](#) to replace [ione.mbari.org](#) as the external DSG server. Updated the orchestration project, [vars-quickstart-mbari](#), to support the new external configuration.

- Out of Office
 - Jun 11 - Jun 19: Midwater Science and Engineering Community Conference, Sweden.
 - Jun 22 - Jun 26: Vacation
 - Jul 27 - Aug 6: Vacation
- Quinn Shemet
 - 300083 - DMO Support - LRAUV
 - Triton on-call
 - 902101 - LRAUV Technology Development
 - Deployment followup/diagnosis/data review
 - New hire onboarding prep/onboarding
 - Overhead
 - OCEANS reviews
 - DOEST prep and practice
 - Proposal planning
 - Out of Office
 - Jun 26 - Jul 5: Vacation
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Proposal planning
 - 902401 - Geo-Sense
 - Recovered the instrument last week after successful mission
 - Proposal review
 - Working on plans for field work in october
 - Overhead
 - Proposals
 - DOEST presentation!
- George Stern
 - 902204 - Scalable Robotics
 - Looked through many storage options for mola
 - Identified alternate SBC which supports NVME and is low power
 - 902304 - Piscivore Cam
 - Gen4 schematic finished, the stm32u0 series support RTC/clock with 200nA!
 - Started checking everything
- Justin Tucker
 - Out of Office
 - 6/5-6/12
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Wired up and finished VN100 'mini' housing.
 - Installed and secured all compas lab equipment on MiniROV
 - Tested all compas lab equipment on Mini, completed a wet and dry test
- Emme Wiederhold
 - 902101 - LRAUV Technology Development
 - Onboarding