

Engineering Weekly Report 5/21/2026 - 5/28/2026

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

Executive Council Notes

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Individual Activities

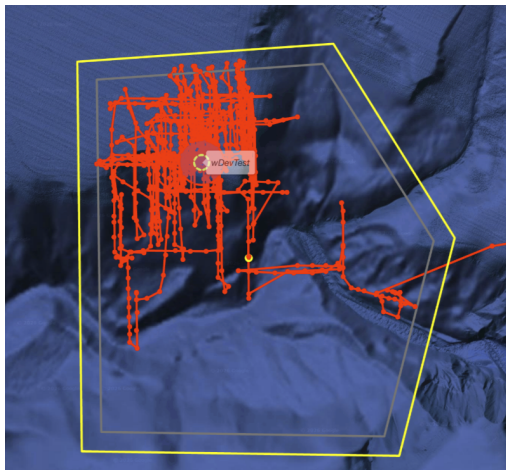
- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Working remotely May 11, 2026 – May 14, 2026
 - MIW May 18, 2026 – May 22, 2026
 - CVPR Jun 1, 2026 – Jun 5, 2026
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - PTO assembly and test
 - 902106 - Niobicon-Based AUV Docking Development
 - Power take off device assembly
- Laura Chrobak
 - 800153 - Synchro and CeNCOOS
 - Voxel51 ML sack lunch
 - Clean up datasets for training
 - Train + eval for new model
 - 800163 - FathomNet
 - CLEF overview paper drafting
 - CLEF workshop paper reviews
 - Out of Office
 - CVPR Jun 1, 2026 – Jun 5, 2026
- Danelle Cline
 - Out of Office
 - September 21-24 Oceans Conference, Monterey
 - May 27-28, AI DevSummit, San Francisco
 - Out of office May 25-29th.
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Working on porting perch2.0 hoplite to dgx spark system
 - Team meeting
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting
 - Overhead
 - Project conference call with summer intern Sarah Williams
 - May 26. [AI/ML Sack Lunch](#), Voxel51 presentation, Laura Chrobak
 - Out of Office
 - May 21 Dental appt. AM

- June 1 Medical appt.
 - September 21-24 IEEE Oceans Conference Monterey
- Kevin Gomes
 - Out of Office
 - May 26-28: Vacation
 - Aug 25-27: Monterey Data Conference
 - Sep 21-24: Oceans conference
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV
 - Chatted w/ Erik re Reson and other hyperion drivers; looking for 2026 time to begin driver work
 - 902204 - Scalable Robotics
 - Looking at Cerulean sonar protocols and logging
 - Thread re oculus sonar and network traffic
 - Overhead
 - Developed dual-monitor prototype for ocean soundscape demo with new visualizer and pin-drop feature. Splits content into a touchscreen (control,input) and larger monitor (view, output). A bit sluggish on the raspberry pi, but it proves the concept, and exposes some challenges for a turnkey system (automating two kiosk mode browser instances with IPC).
 - Input for proposals
 - Misc admin
 - Out of Office
 - n/a
- Rich Henthorn
 - Out of Office
 - May 18 to 28 - Vacation
 - June 29 to July 6 - Vacation
 - July 16 to 24 - Caress LASS cruise
 - August 10 - 13 - Vacation
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Triton setup for deployable AI, improvements to comms between detection and backseat helper modules
 - Improvements to logging for lcm
 - Modifications to start scripts, and testing
 - 902204 - Scalable Robotics
 - Improvements to registration workflow in SBN
 - Finished degeneracy aware ICP workflow
 - Tested against self with offset, works
 - Testing with LASS maps ongoing
 - Out of Office
 - Jun 1, 2026 - Jun 6, 2026 Vacation
- Brett Hobson
- Irene Hu
 - 901101 - Seafloor Mapping
 - Finished ORP board rA, ready for layout
 - Look over commands for RBR turbidity sensor
 - 901904 - Deep-Sea Coral-Sponge Community Observatory

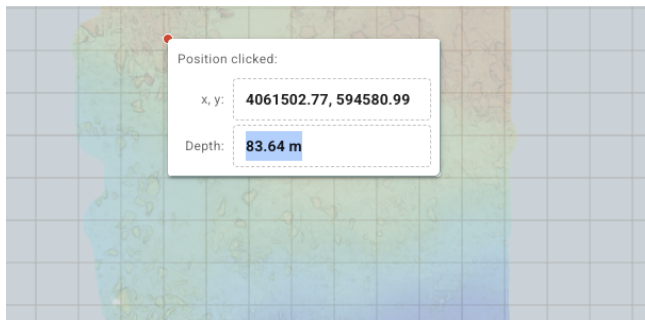
- Data inventory for corals imaged in last deployment
 - Looked through images and processed some for compilation and correction. Need to redo blanks for proper corrections. System is dropping frames which makes compilation difficult
 - Updated code for new default values based on last deployment
- 902305 - Event Detection Using the Sedimentation Event Sensor
 - Looked into Rover's fluorometer with Alana and got box of spare parts
- Overhead
 - Rec com budget review meeting
- Out of Office
 - June 1: WFH
 - June 2: out of office
- Scott Jensen
 - 901205 - ESP SURF Center
 - Back from vacation and deep in the issues
 - Pump controller version 4 seems to work ok but due to a user setting it was faulting.
 - A patch has been implemented to increase some of the pump controller limits to allow more room to operate.
 - Fido-010 in Wisconsin is having an issue with its Force Sensing Resistor (fsr). The preload value seems to have dropped.
 - The fsr issue uncovered a weakness in the calibrate routine that needs to be fixed.
 - 901405 - Wave-Energy Conversion for Oceanographic Application
 - HDS battery has received
 - Catching up on the development process of the AUV dock
 - Out of Office
 - June 26-July 7 (vacation)
 - July 15 - 21 (vacation)
- Brent Jones
- Chad Kacey
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
- Denis Klimov
- Eric Martin
- Thom Maughan
 - 300078 - DMO Support - AUV
 - Hyperion power supply board is in fab and assembly at jlcpcb. Connectors and a cap will be assembled at MBARI. This version defines a footprint in the form established by Polulu with the addition of EXTVCC.
 - 300083 - DMO Support - LRAUV
 - Galene's battery firmware is updated, tested, awaiting housing closure. I did not test the SMBbus over temperature with an actual battery that was over temperature - it was tested by forcing the condition with test code.
 - 901217 - Chemical Sensors
 - Trouble shooting 4 ISUS resulted in 3 problems due to bubbles/droplets affecting optical path. 1 was due to a failed lamp.
 - Presented ISUS timing to the Carbon Lab. Lobbying for restructuring the routine and cutting down on the sample time with lamp on - hopefully going to save about 30% in power for ISUS sample while maintaining accuracy.

- 901805 - Coastal Biogeochemical Sensing Program
 - Working on MoSoS v5.2 release for nanoFET, integration on Spray Glider. Expecting to release without NAND support (not needed for Spray2) but will follow in the next month or so with logging to NAND flash. Spot checking, not full testing / support for the release on MFET and MPHOX
- 901904 - Deep-Sea Coral-Sponge Community Observatory
 - ROVVOR, planktivore attached to the ROV Ricketts. Barry Lab is encouraging the enhancement of our phase 1 proposal to include a deep, 4000m, capable housing dedicated to the ROV.
- 902004 - Planktivore
 - Planktivore V2 'B' for deep LRAUV Opah has completed leak testing. It will be scheduled for deployment in the next month or so.
 - Trip prep for MidSEC conference in Sweden followed by salmon lice detection experiments in Bergen Norway. June 11 to June 27.
- 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
 - Working on [Phase 2 of replacing Perl scripts](#) in mooring-ssds
 - Looking at writing PROV-O compatible provenance metadata for the new .nc files
 - 901101 - Seafloor Mapping
 - Meeting with new capstone team on next steps for mbmesh
 - 901221 - Midwater Time Series
 - Recent i2MAP deployment had config for only one CTD, working with Rob to fix that
 - Overhead
 - Set up routine processing of lrauv sbd data quick look plots, and a special one for pyxis
 - 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
 - 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
- Paul Roberts
 - Out of Office
 - June 13 - June 20, 2026 MidSEC, Sweden
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - ESPeddie deployed off La Push, WA via Certus satcoms running well

- ESPfriday deployed in remote lab
- 901205 - ESP SURF Center
 - Helped Chris Preston diagnose weirdness with 3G cartridge heat calibration
- 902204 - Scalable Robotics
 - Worked with Javiera to determine that Mola is attempting to write video to its RP4's built-in SDcard at >50MBytes/s – suggested architectural changes to make this work.
- 902304 - Piscivore Cam
 - Trying to figure out how to get an IMX415 camera sensor to output HD video at 60fps.
 - There are some versions of the Linux driver that purport to do this, but no joy so far in getting them working on my RV1126B dev board. Not giving up yet.
- Carlos Rueda
 - 901513 - Targeted Sampling by AUVs
 - A successful chlorophyll patch tracking experiment has been completed. The program ran autonomously on the wave glider for three full days without any intervention. We still need to inspect the logs, data, and contextual information for a more detailed assessment. (See also Yanwu's board bullet.)



- 902101 - LRAUV Technology Development
 - The recently implemented more secure websocket endpoint in the TethysDash backend has been satisfactorily tested/verified in operations during the last several days.
 - Dash4 [4.99.21](#).
- 902504 - Scalable Semantic Mapping
 - Dial now [2.3.0](#), with ability to report the depth at given positions. This is supported by a bathymetry/topography grid (an [mbgrid](#)/GMT HDF5 [.grd](#) file), whose location is to be indicated in the deployment file. Initially, depth is only reported as part of the map context menu, but it will also be incorporated in other features (measure tool, planning tool, etc.)



- Out of Office
 - ~~May 22: vacation~~
 - June 29-30 vacation
- Karen Salamy
 - Out of Office

- May 26-28, 2026 - Vacation
 - March 22-24, 2027 - Vacation
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 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
 - 902106 - Niobicon-Based AUV Docking Development
 - Tested 3phase diode bridge demo board, does not work as well as hoped but better than the diode bridge we have. Attempts to modify it to improve performance have resulted in shoot through; reverse engineering the main component behaviour via Itspice because the datasheet doesn't even explain pin functions.
 - 902204 - Scalable Robotics
 - Opened and closed mola far too many times to determine boxfish's network topology
 - Helped acclimate Brent to mola
 - 902304 - Piscivore Cam
 - Pushed out a mostly complete Gen4 mechanical design and electrical feature list based on the still in work schematic for internal team review
 - Fixed (hopefully) and re-prepared the gen2 camera hours before deployment; looking forward to replacing it...
- Justin Tucker
 - Out of Office
 - out 5/22
 - Tentative 6/1-6/12
- Johann Voigtlander
 - 902208 - Mini ROV Operations
 - Completed 20' control van swap. Completely re-organized and optimized the racks so that our next swap(s) should go MUCH smoother.
 - Completed a 25 page document on MiniROV deployments, sent it to Mandy for export compliance.
 - Started installing Compas lab equipment on MiniROV
 - Got quotes on Kongsberg USBL purchase/rental