

WeeklyReport

Engineering Weekly Report 5/29/2025 - 6/5/2025

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2025/>

Executive Council Notes

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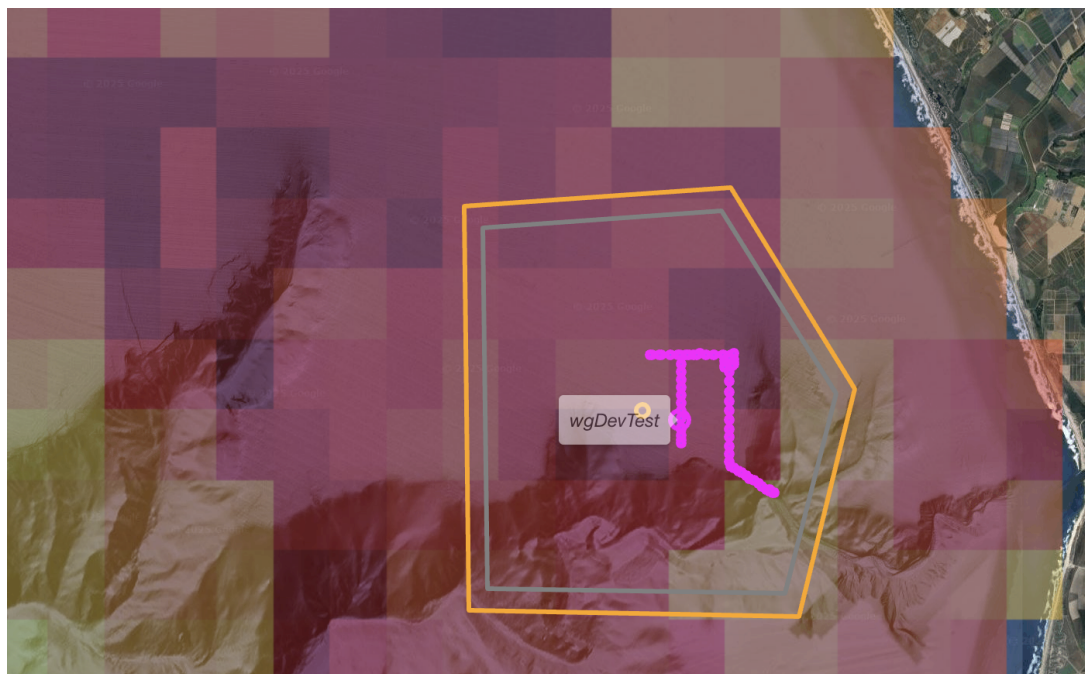
Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - May 8, 2025 - May 9, 2025 – vacation
 - May 22, 2025 - May 23, 2025 – vacation
 - Jun 3, 2025 - Jun 10, 2025 – vacation
 - Jun 11, 2025 - Jun 15, 2025 – CVPR
 - Jun 23, 2025 - Jun 26, 2025 – HPE Discover
 - Aug 7, 2025 – vacation
 - Aug 11, 2025 - Aug 12, 2025 – vacation
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Preparing Spotter mooring
 - 902106 - Niobicon-Based AUV Docking Development
 - Designing Brizo brackets
 - Deployed docking mooring
 - 902204 - Scalable Robotics
 - Design Ventana mapping sled
- Danelle Cline
 - Out of Office
 - Vacation 5/26-5/30
- Duane Edgington
 - Out of Office
 - Dental appt May 29
 - Doctor appt June 9
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV
 - refactored behavior macro code based on demo feedback from Erik. In new version, the macro semantics in the mission file separate the macro and mission definitions, and make them more intuitive. Internally, the code uses 'macro' rather 'substack' naming conventions.
 - 902204 - Scalable Robotics
 - Tested mbtrnpp decimation changes made for mb1stream, to ensure that there are no negative side effects in the TRN context.
 - Overhead

- hiring: internal tech interviews
 - attended R/V David Packard events
 - misc admin re interns, etc
- Out of Office
 - May 23 (vacation)
 - Jul 14-31 (vacation)
- Rich Henthorn
 - Out of Office
 - Occasional sick days Apr 21 to May 12
 - May 19 - May 29: Vacation, email contact
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Alpha version for AVT multicam driver complete, tested with external triggering
 - Working on beta version which modularizes the framework and will add config changing and video streaming features
 - 902204 - Scalable Robotics
 - Working on MBES localization framework. Finished modules on database management, submap matching and registration management.
 - Working on backend pose graph optimization framework
 - Out of Office
 - July 3 - July 8 Vacation
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - MSC3 bug fix: traced to print buffer overload with high spec readout (more digits)
 - 901805 - Coastal Biogeochemical Sensing Program
 - Finished first draft of alkalinity board
 - Breadboard test of negative current source, worked
 - First draft of code for ADC and DAC
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - After extensive troubleshooting, PWM-based linear servo works; issue with library not working well with 8-bit timers, switched ports to 16-bit
 - Looked into RS485 for external motor
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Meeting
- Scott Jensen
 - 706008 - READI-Net
 - Working through some software issues related to the latest revision of the instrument mechanics
 - Implementing some error handling in the software
 - Preparing beta unit as model for 9x build
 - 808015 - Monitoring McCloud
 - Watching installations
 - 901205 - ESP SURF Center
 - Supporting lab operations
 - Finding solutions to hunting valves
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Battery development specification meetings
 - Out of Office
 - 7/3-7/25 vacation
 - 7/17-22/25 vacation

- Brent Jones
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 05/27-06/02 (MST)
 - 6/16-24 (MST)
 - 9/15-30 (UTC+2)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Jun 10, 2025 - Jun 19, 2025 : Vacation
- Thom Maughan
 - 901217 - Chemical Sensors
 - Released MoSoS v5.1.6 to begin UW float sim
 - Working contract for reworking code to add back boards support for older Tiva 123g processors.
 - 902004 - Planktivore
 - Weekly meeting
 - Begin of second planktivore V2 assembly for deep LRAUV
 - Planktivore v1 is headed for another benthic deployment week after next
 - Cole wrote an LRAUV mission for following I2MAP. Makes the deployment push button.
 - Out of Office
 - Vacation: June 16 to July 8
- Mike McCann
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Migrating auv-python from poetry to uv
 - Upgrading modules and testing before reprocessing the Dorado archive
 - 902403 - Expedition DB Modern
 - Project meeting
 - Out of Office
 - 6 June – Sick day
 - 23-26 June – Vacation
 - 21-25 July – ESIP Summer Meeting
 - 28 July - 8 August – Remote work
 - 10-14 August – SIGGRAPH
 - 18 August - 5 September – Vacation
 - 8-13 September – Web3D & Digital Heritage Conference
- Paul McGill
- Enoch Nicholson
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Offsite on Tuesday and Friday
 - March 3 - March 6, 2025 - vacation
 - June 2 - June 6, 2025 - vacation
- Paul Roberts
 - 702108 - Deployable AI
 - Triton camera assembly and testing
 - 902004 - Planktivore

- V2 Unit 2 build
- 902204 - Scalable Robotics
 - 10G Interface assembly and testing
- 902306 - SINKER
 - Dev Meeting
 - Planning for July 15 deployment
- Out of Office
 - June 20 - June 29, Whistler, BC
- Brent Roman
 - Out of Office
 - May 30 – June 23
- Carlos Rueda
 - 901513 - Targeted Sampling by AUVs
 - Completed various pending code preparations for chlorophyll patch tracking using a wave glider. Now being exercised in the field for the first time! Looks like the attached as seen in Dash4: a boundary polygon for operations; wave glider trajectory, and the current Chlorophyll-a, MODIS 3-day Composite tile layer for context.



- 902101 - LRAUV Technology Development
 - Dash [backend](#) and [dash4](#) frontend: The backend now parses the *configuration overrides*, that is, the events coming after the most recent *Listing configuration overrides from Data/persisted.cfg* event. Most of the needed additional information is now in place (and reflected in the Config tab in Dash4), but now waiting for further input from LRAUV folks to determine the final strategy for aggregating it properly.
 - Other dash related adjustments/fixes include that returned/displayed events are now (by default) sorted by both descending date *and* descending eventId. Previously, the order of events with the same timestamp would have been less deterministic. (The eventId reflects the actual order in which the events are stored in the database, that is, the order in which the events get deserialized from the incoming data/log stream from the vehicle.)
- Out of Office
 - 5/27 - sick
 - ~~5/29—vacation~~ (didn't happen)
 - Beginning of June: 4-6 days vacation
- Karen Salamy

- Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Updates to [Oni](#) and [m3-quickstart](#) to support the [Knowledgebase UI](#) development.
 - Security updates to and new releases of [Annosaurus](#), [Beholder](#), [Oni](#), [Panoptes](#), [Raziel](#), and [Vampire-squid](#)
 - 902002 - FathomNet
 - Continuing to work on port of the REST API from [Micronaut](#) to [Quarkus](#)
 - Out of Office
 - Jun 16 - Vacation
 - Jul 21 - 24 - Vacation
 - Aug 11 - 12 - Vacation
 - Aug 18 - 21 - Vacation
- Alana Sherman
 - 902401 - Geo-Sense
 - Working on budget issues - trying to clean up issues from last year
 - Working through logistics for Norway deployment
 - Planning next years proposal
 - Overhead
 - DOEST!! Gave talk and decided to add live demo, so most of the last few days spent on prep.
 - Out of Office
 - Thurs May 29 for vacation
- George Stern
 - 902304 - Piscivore Cam
 - Revised mechanical design to increase clearances and add mounting bosses
 - Completed ordering everything
 - Started on harnessing schematics
- Justin Tucker
 - 901101 - Seafloor Mapping
 - Proposal support, battery packaging
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Battery housing preliminary design
 - 902010 - Mesopelagic LRAUV
 - CFD analysis of planktivore at yaw angles
 - Out of Office
 - Out Monday 6/9, traveling and partially available 6/6 and 6/10
- Johann Voigtlander
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th