

WeeklyReport

Engineering Weekly Report 7/3/2025 - 7/10/2025

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

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - 902002 - FathomNet
 - Met with Kate Brandt (Google) to scope collaboration
 - Set up Meta FAIR collaboration, CA in progress
 - Overhead
 - Attended HPE Discover conference
 - Out of Office
 - Aug 11, 2025 - Aug 12, 2025 – vacation
- Francois Cazenave
- Danelle Cline
 - 901103 - Biodiversity and Biooptics of Zooplankton
 - VSS service is enabled with multi-GPUs and ready to run in bulk on plankton archives.
 - 901221 - Midwater Time Series
 - Proposal work
 - 901502 - Ocean Soundscape
 - Proposal work
 - Reviewed PR to add support for REASA metadata to PBP. Successful contribution from the sound community!
 - Intern meeting
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Proposal work
 - Met with CSUMB collaborators to discuss progress on kelp coverage with SAM model, otter/shark detection. They contributed some difficult localizations of otters and validated sharks.
 - Intern meeting
 - 902111 - Carbon Flux Ecology
 - Hawaii ISIS expedition clusters being labeled now by the team. Should have data soon to train a model. This is the first pipeline for CFE using video in mantis.
 - Redeployed Tator on mantis with new SSL certificates
 - 902306 - SINKER
 - Development of sinker backend video stream and nginx image host.
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Proposal work
 - Continued debugging of google kaggle multi-species whale model
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach

- Team meeting
 - Proposal work
 - Collaborator meeting
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - 901007 - Benthic Biology & Ecology
 - Ran a series of simulations with macro-enabled script for an I2MAP tow-out mission. Wrote up and posted the results to Erik and Rob. The current and new script behaved similarly, and I believe that the features are ready to test in the tank and/or at sea.
 - The new features include macros, which allow users to group and reuse a sequence of behaviors, and stop using different end conditions. There is also a new scheduling feature that allows behaviors (or macros) to be started at a specified date/time. Together, enable precise mission scheduling, reduce cut-and-paste code and associated errors, and make mission scripts more modular, readable, and reusable.
 - Overhead
 - proposals
 - hiring process
 - misc admin
 - Out of Office
 - Jul 14 - Aug 1 (vacation)
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Preparing for MARS deployment scheduled for next Wednesday
 - Setting network IPs and testing SIIM can
 - 902401 - Geo-Sense
 - Helping preparations for Norway deployment
 - Out of Office
 - July 16: Rachel Carson MARS day
 - Aug 7 and Aug 11: Vacation, email contact
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Test lcm broadcasting
 - Implement bug fixes on thread safe shutdown
 - Intern support for setting up detection pipeline
 - 902204 - Scalable Robotics
 - Continue with setup of GIM tool for Arctic Sled data from 26 June, 2025
 - Intern support
 - Meet Dave and Jenny to investigate issues with seismo sands survey s7k data
- Brett Hobson
- Irene Hu
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Acoustic modem sent back to Benthos because receiver doesn't work
 - SIIM can finished refurbishment, tested with power supply and works
 - Converted battery sphere to MARS mode, tested with power supply and seems to work
 - Out of Office
 - 6/27-7/4: vacation
- Scott Jensen
 - 706008 - READI-Net

- Testing of the changes in code to exceptions
 - Reorganized the various parameters into better categorized files
- 808015 - Monitoring McCloud
 - Continued monitoring of the power station environment
- Out of Office
 - 7/(3-7)/2025 vacation
 - 7/(17-22)/2025 vacation
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Processing WW data
 - Beginning integration of differential P ducer in SIPPER
 - 902004 - Planktivore
 - Prepped and deployed Ahi for I2MAP mission
 - Overhead
 - Helping with proposals
 - Out of Office
 - sick
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 9/15-30 (UTC+2)
- Denis Klimov
 - Out of Office
 - Vacation 6/11/2025-6/16/2025
- Eric Martin
 - 901101 - Seafloor Mapping
 - Proposal writing
 - 902204 - Scalable Robotics
 - Proposal Writing
 - 902504 - Scalable Semantic Mapping
 - Proposal Writing
 - Out of Office
 - Jul 7, 2025 - Jul 8, 2025 : Vacation
 - Aug 4, 2025 - Aug 5, 2025 : Vacation
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - Setting up for Batman development
 - 901217 - Chemical Sensors
 - Emails and phone call, minor support for MSC3.
 - Float deployment is first week in August
 - 902004 - Planktivore
 - 2026 Planktivore Proposal
 - DMO is managing the Ahi deployment for I2MAP, recovery is on Thursday
 - Open house prep
 - Overhead
 - Proposals
 - Out of Office

- TBD
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Debugged 30 day contour plotting problem
 - Wrote 2026 proposal and did budget entry
 - 901101 - Seafloor Mapping
 - Final revisions to Web3D Conference paper
 - Contributed proposal text, including statement of work for outside services
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Contributed proposal text
 - Debugging problem with 500 error from opendap/Hyrax server
 - Out of Office
 - 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
 - 15-18 September – Vacation
- Paul McGill
 - Out of Office
 - Medical appts all day Tue
- Enoch Nicholson
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - Worked on input with Kevin for navproc portion of Core Navigation proposal
 - Worked with Kevin and Adriana to move navproc-dpkd to new subnet
 - 300062 - DMO Support - Doc Ricketts
 - Finished ROV and CTD winch interface during LARS test cruise on David Packard
 - Made some pan tan tilt changes during the cruise, waiting for light bar pan and tilts for final integration
 - 901101 - Seafloor Mapping
 - LASAUV proposal review and input
 - GOB HIH sensor working, moving on to LASS system board firmware
 - 902405 - Precision Control Technologies
 - Working with Steve Rock mid-water tracking control loop testing
 - Out of Office
 - Offsite on Tuesday and Friday
 - March 3 - March 6, 2025 - vacation
 - June 2 - June 6, 2025 - vacation
 - June 16, 2025 - vacation
 - July 2, 2025 - vacation
 - July 29 - August 1st - vacation
- Paul Roberts
 - Out of Office
 - June 20 - June 29, Whistler, BC
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - Testing and tuning Certus satellite comms with ESP on NOAA's roof.
 - Helped APL debug their current limiting power supply

- 901205 - ESP SURF Center
 - Augmented the ESP's existing "daily" mission framework to support missions with multiple assays
 - Which assay to run is determined by the number of remained pucks
 - Rather than by the phase's programmed start time.
- 901913 - Wet Wifi
 - Decided to fold WetWifi into LRAUV Tech devopment in 2026
- 902304 - Piscivore Cam
 - Bringing up 2nd test article.
 - Worked out how to update device-tree without reflashing entire image
- Out of Office
 - May 30 – June 23
- Carlos Rueda
 - Out of Office
 - June 30–July 2: vacation
- Karen Salamy
 - Out of Office
 - July 30-August 5, 2025 - Personal vacation time
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Restructuring [m3-support](#) and switching to auto-generated REST clients.
 - Adding [flyway](#) to the VARS services. This will allow database migrations to be automatically applied and make it easier to evolve services.
 - Created [raziel-java-sdk](#)
 - 901809 - Deep Sea Bioinspiration
 - Added code to drop large annotation sets to support ML output for Galene/Optim
 - 902002 - FathomNet
 - Setting up testing/integration server
 - As a request from NOAA and the FathomNet team, researching feasibility of importing [ExoTaxa](#) data into FathomNet.
 - Overhead
 - Work on project proposals
 - Discussions with University of Gibraltar re: the 2026 Marine Imaging Workshop
 - Tour for NOAA colleague
 - Out of Office
 - Jun 12 - Vacation
 - Jul 21 - 24 - Vacation
 - Aug 11 - 12 - Vacation
 - Aug 18 - 21 - Vacation
 - Sep 3 - Sep 17 - Out of Office
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Proposal!!!!
 - License agreement with Kopri for water samplers and push cores
 - 902401 - Geo-Sense
 - Proposal!!!
 - Prep for Norway-
 - Met with Sintela to go over software updates
 - Preparing system for software updates

- Looking into NTP servers and GPS antennas/receivers
 - Out of Office
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- George Stern
 - 902204 - Scalable Robotics
 - Completed testing luxonis new code with an Arb and completed initial rewrite of uC code to remove all software interaction except to setup peripherals; appears to have decreased jitter by 2 orders of magnitude so it might now play nicely with the luxonis hardware
 - Designed a PWB with a few logic gates to support functions removed from SW to lower jitter
 - 902208 - Mini ROV Operations
 - Got quote and preliminary integration discussion with BrightLoop regarding a potential power supply candidate
 - 902304 - Piscivore Cam
 - GigE is now integrated and working
 - Updated cable drawing
 - 902306 - SINKER
 - Identified potential option to make AGX Orin root read only for MARS deployment
- Justin Tucker
- Johann Voigtlander
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th