

WeeklyReport

Engineering Weekly Report 10/23/2025 - 10/30/2025

<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
 - Oct 27, 2025 - Oct 31, 2025 : UCSB NCEAS Innovation in Digital Assets workshop
- Francois Cazenave
- Danelle Cline
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Applying new Nvidia DGX-spark system to Google Multi-species-whale-detection model inferencing MARS Pacific Ocean Sound Recordings. So far, so good.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Teleconference with former intern Tim on Kelp analysis and next steps.
 - Plan to train rf-detr model against UAVS dataset using new Nvidia DGX-spark system. Evaluate rf-detr on detection and classification tasks.
 - Overhead
 - Oct 20 - 24, 2025. Attended Pytorch Conference, San Francisco. Wow.
 - Out of Office
 - Oct 28 Doctor appt
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - Out of Office
 - 10/27 medical (online in afternoon)
- Rich Henthorn
 - Out of Office
 - Mon Oct 20 - Tue Oct 21: Sick leave
 - Fri Oct 24 - Wed Oct 29: Vacation (Fri and Wed) and remote work (Mon and Tue)
 - Mon Nov 10 - SES recovery from Carson
 - Dec 19 - Jan 1: Vacation
- Akshay Hinduja
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - ISUS data processing from ROV dive
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Python GUI for the coral hugger

- Out of Office
 - Nov 5-6: WFH / vacation
- Scott Jensen
 - Out of Office
 - McCloud Recovery Oct 27-28
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Prep WW for deployment
 - 901805 - Coastal Biogeochemical Sensing Program
 - Redesign glider nanoFET to include power isolation
 - Overhead
 - Trip to Mt Toro
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 07/23
 - 07/28-08/01 (MST)
 - 08/25-29 (PDT)
 - 9/15-30 (UTC+2)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Vacation Week of 10/27
 - Vacation this friday 10/24
- Thom Maughan
 - 300078 - DMO Support - AUV
 - Hyperion MVC2 mobo, aka som carrier is back from fab. EE-Tech stuffing the remaining parts. Assembly was not as complete as planned due to partial stock at assembly house.
 - Jose prefers to stuff the entire board rather than partial, so may order blank pcbs for the build of 3.
 - Board bringup hopefully starts this week.
 - Working on Hyperion power supply. Using GaNfets for 24v supply. Simulation shows over 98% efficiency at 125W - hoping that is real.
 - 300083 - DMO Support - LRAUV
 - Batman testing, tracking down adc issue
 - 901805 - Coastal Biogeochemical Sensing Program
 - Minor support for MoSoS menu issue on mini-ISUS. Looks like mini-ISUS was a success on the Santa Barbara cruise, well done Irene and team.
 - 902004 - Planktivore
 - Planktivore V2b build
 - Planning meeting, budget, project mgmt
 - Working on spend forward DeepRip replacement. Prices have gone up since the budget request.
 - Out of Office
 - Vacation 15 Oct to 24 Oct.
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Working with Fred on getting the 2023-2024 QCed Met data added to the archive

- 901009 - CANON
 - Discovered that the legacy Dorado data processing was failing because an old dods library used by UpdateBot was not compatible with the newly deployed opendap service
- 901910 - Plankton Taxonomic Groups from AUVs
 - Working on auv-python's LRAUV branch
 - Implemented a [more robust method to filter out non-monotonically increasing time](#) values
- Overhead
 - Talked with Peter about [using multiple VMs to securely deploy elvis-services](#)
- Out of Office
 - 27-30 October – Remote work
- Paul McGill
 - Out of Office
 - I've been busy sleeping in because I'm retired!
- Enoch Nicholson
 - Out of Office
 - Thursdays at MLML
- 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
 - June 16, 2025 - vacation
 - July 2, 2025 - vacation
 - July 29 - August 1st - vacation
 - November 10 - November 14 - vacation
 - January 19, 2026 - January 30, 2026 - vacation
- Paul Roberts
 - 901221 - Midwater Time Series
 - i2MAP deployment and 4k camera upgrades
 - 901809 - Deep Sea Bioinspiration
 - Scuba-eyeris NUC testing and chassis design
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - SWIR multispec
 - 902004 - Planktivore
 - Synchro deployment
 - 902204 - Scalable Robotics
 - HSI lighting support
 - Out of Office
 - Nov 22 through Nov 30, Scotland
- Brent Roman
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - PBP: Branch merged and official 1.8.5 released.
 - Jupyter@gizo updated.
 - Did adjustments so `pbp meta-gen --help` does not take several seconds to respond.
 - 901809 - Deep Sea Bioinspiration
 - Provided updated Bulk Review UI screenshot to Laura.
 - 902101 - LRAUV Technology Development

- Implemented and now successfully testing [new TethysL CLI program releases](#) that include a Java runtime, so, users won't need to worry about having to have java installed on their machines. (Note that the VSCode extension has always included the automated downloading and use of Java as part of the installation process.) Linux, macOS, and Windows releases are created (the latter one not yet tested). The official installation at `/opt/tethysl/` on tethyshub now uses this new scheme. In general, while the new self-contained releases are proved reliable, the usual java based CLI releases will remain in place.
 - TethysL language: Discussion with Quinn about accepting literal strings for expression in argument or output definition.
 - TethysDash [4.99.12](#) with various updates, in particular, with a much more user-friendly compile error report when obtaining the description of a faulty mission script.
 - Dash4 [4.97.6](#).
 - Added [this FAQ](#) motivated by a recent exchange about an operator not getting Brizo alerts.
 - WHOI: Brief slack exchanges regarding tethysl and Irauv-application makefile.
- Overhead
 - IE Group meeting.
- Out of Office
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- Karen Salamy
 - 200103 - Core CTD Data - MDUC
 - Updated the EXPD with the most recent ROV CTD O2 flag reviews from Rob.
 - 300057 - Mooring Maintenance
 - Reviewed downloads from mooring for the week
 - Spoke with Paul Coenen briefly regarding the Mt. Toro data link.
 - 901101 - Seafloor Mapping
 - Began refreshing my memory of building the SMDB local system. I plan to start working on the SMDB UI to complete various users requests for the system next month.
 - 902101 - LRAUV Technology Development
 - Added a few github issues for Dash5 from users via testing.
 - Overhead
 - Completed both Traliant online Training courses for HR.
 - Sent in the annual purchase order to Maintenance Reseller Corporation for MBARI's two seats for MathCAD.
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Completed [migration of all servers from CentOS to ubuntu](#). The following servers have been shut down: m3, portal, nexus, quasar, singularity. Note that the new server `m3-u` has the CNAME `m3`.
 - Held a short intro to markdown for the video lab so they can work on web docs for various projects. Scaffolded some [docs for the vars-query](#) to help them get started.
 - [Restructured how literature references are managed](#) in the VARS knowledebase.
 - Updated the [VARS query](#) to handle large return sets (tested up to about 650,000 results in a single query so far). Added support for querying by observation timestamps. Added misc improvements.
 - [Flyway](#) (automated database migrations) deployed for [annosaurus](#), [vampire-squid](#), and [oni](#).
 - Added additional functionality to [vars-cli](#) for managing media
 - Clean up of [deployment code base](#)
 - 902002 - FathomNet

- Review [pull request](#) for enhancements to support bulk review tools.
- Overhead
 - Some [piscivore support](#) for handling video after changes to cameras.
 - Setting up a new server to host the next marine imaging workshops website (in Gibraltar in 2026)
 - Assist [DARC](#) with registering large (99GB) videos in their VARS system
- Out of Office
 - Oct 23, 2025 - Out sick
 - Nov 26, 2025 - Dec 3, 2025 - Vacation
 - Apr 6, 2026 - Apr 24, 2026 - Vacation
 - May 18, 2026 - May 22, 2026 - Marine Imaging Workshop, Gibraltar
- Alana Sherman
 - Out of Office
 - Helped with school activity 10/17
- George Stern
 - 902204 - Scalable Robotics
 - Finished assembly of the first HSI light but the 2nd electronics stack is not working; the manufacturer comments on their forum that the problematic chip is capable of destroying itself and says they are in the process of replacing the older products with things that don't self destruct, unfortunately there are no drop in replacements - now trying to find the magical combination of white wires which will keep everything happy and puzzled over why the first was ok
 - Rebuilt the OakD500 can with the latest light and camera controller and helped integrate on mola; initial testing is positive
 - 902304 - Piscivore Cam
 - Reviewed more footage and looked at some focus testing methods
 - 902306 - SINKER
 - Tested the first immaculately wired (etech) closed can charging system, initial testing was positive with the software correctly reviving deeply discharged batteries.
- Justin Tucker
 - Out of Office
 - Out 10/27-11/7
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Redesigned the event camera to fit the new lens
 - Enhanced event camera software
 - 902208 - Mini ROV Operations
 - Investigated the new AD2S1200 resolver-to-digital board. Interfaced it with our current resolvers
 - 902402 - CSEM
 - Met with Eliana to discuss Antarctic deployment
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th
 - Oct 9-13th