

WeeklyReport

Engineering Weekly Report 7/10/2025 - 7/17/2025

<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
 - Aug 11, 2025 - Aug 12, 2025 – vacation
- Francois Cazenave
- Danelle Cline
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Building MEL spectrograms, and chunking second clips of MARS Pacific Ocean Sound recordings
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Intern meeting. Great progress!
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Documenting and configuring more loggers
 - Validating 4DNav configuration
 - Building up LCM bridge data flows
 - 300070 - DMO Support - Ventana
 - Fixed bug in Pilots Dive Log that started with email migration. Deployed on Carson
 - 300079 - DMO Support - RV Rachel Carson
 - Starting up work again on web portal with new infrastructure
 - Overhead
 - Coordinating Qumulo demo for my team
 - Planning ML workshop
 - Starting to read proposals
- Andy Hamilton
- Kent Headley
 - Out of Office
 - Jul 14 - Aug 1 (vacation)
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - SES MARS deployment prep and test
 - SES MARS deployment
 - 902401 - Geo-Sense
 - Prepping for Norway experiment
 - Data log extraction and conversion

- NTP server
- Overhead
 - Rec-Com stuff
- Out of Office
 - July 16: Rachel Carson MARS day
 - Aug 7 and Aug 11: Vacation, email contact
- Akshay Hinduja
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Checked over phAt board layout and approved!
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Help with prep for deployment; final decision on trigger trap is not to send it down with the directional modem, due to lack of confidence
 - Deployment of SES at MARS on July 16
 - Out of Office
 - July 15: drs appt
 - July 16: Carson
- Scott Jensen
 - 706008 - READI-Net
 - Lots of work on the big build
 - Continued code clean up
 - New “calibration” files
 - Locating errors and code testing from the exceptions change over
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - More meetings but getting more focused
 - Out of Office
 - 7/(3-7)/2025 vacation
 - 7/(17-22)/2025 vacation
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Continued integration of I2C diff P ducer in SIPPER
 - Diagnosing fouled Wire Walker sensors
 - 901502 - Ocean Soundscape
 - Processing MARS hydroP for odontocete clicks using UCSD's Triton software
- Chad Kecy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - 300083 - DMO Support - LRAUV
 - All vehicles recovered last Thursday. Weekend is off!
 - 901513 - Targeted Sampling by AUVs
 - Supporting work on ESP/CANON missions
 - 902101 - LRAUV Technology Development
 - Prepping WG hotspot 3 and freshly upgraded tethyshub for acommms transfer to shore to support CANON 2025 with ESP. Deployment Thursday latest
 - Overhead
 - Proposals
 - WHOI/LOC-NESS mission planning and sensor integration
 - Out of Office

- 07/28-08/01 (MST)
- 9/15-30 (UTC+2)

- Denis Klimov
 - Out of Office
 - Vacation 6/11/2025-6/16/2025
- Eric Martin
 - 901101 - Seafloor Mapping
 - Proposal in last week
 - Lab setup, cleanout
 - Sled prep for remachining of the plate.
 - Getting Spun up on INS work.
 - 902204 - Scalable Robotics
 - Lab management
 - 902504 - Scalable Semantic Mapping
 - Blueboat heave testing
 - Data analysis
 - Overhead
 - Working on live link again.
 - Out of Office
 - Jul 7, 2025 - Jul 8, 2025 : Vacation
 - Aug 4, 2025 - Aug 5, 2025 : Vacation
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - BatMan serial protocol spec updated, reviewed, feedback addresses
 - Building two additional battery packs
 - Firmware updates to align with protocol spec
 - 901217 - Chemical Sensors
 - Minor support for MSC3 questions from UW and the lab.
 - 901805 - Coastal Biogeochemical Sensing Program
 - Working with contractor Jim Davis to update MoSoS v5.2.x for support of Tiva 123g based hardware platforms, MpHOx, MFET and nanoFET.
 - 902004 - Planktivore
 - Chris BB. finished the assembly of boards and cables
 - Camera controller and strobe board bringup
 - Overhead
 - Club Plankton at Open House
 - Out of Office
 - TBD
- Mike McCann
 - 901101 - Seafloor Mapping
 - Preparing poster for [ESIP Summer meeting](#)
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Started on STOQS development environment revamp-2025 modernization effort
 - 902101 - LRAUV Technology Development
 - Identified some log files that are not properly loading into stoqs_lrauv_jun2025
 - Overhead
 - Proposals
 - Out of Office
 - 18-21 July – Vacation

- 22-25 July – ESIP Summer Meeting
 - 28 July - 8 August – Remote work
 - 10-14 August – SIGGRAPH
 - 18-29 August – Remote work
 - 1-5 September – Vacation
 - 8-13 September – Web3D & Digital Heritage Conference
 - 15-18 September – Vacation
- Paul McGill
 - Out of Office
 - I've been busy sleeping in because I'm retired!
- Enoch Nicholson
 - 902306 - SINKER
 - Completed SINKER assembly
 - Mobed for deployment
 - Successfully deployed and plugged in SINKER
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - Working with Adriana on remote access to navproc-dpkd while Packard is at sea
 - Modifying Accupositioner pan and tilt drivers for light booms
 - 300062 - DMO Support - Doc Ricketts
 - Working on SMD specification debug util to help verify protocol spec
 - Working with Kevin to get ship attitude into navproc for LARS testing
 - 901101 - Seafloor Mapping
 - Continuing firmware for GOB board
 - Working on LASS control system UI updates
 - 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
 - Out of Office
 - May 30 – June 23
- Carlos Rueda
 - 901009 - CANON
 - Some MXM implementation review
 - 901502 - Ocean Soundscape
 - PBP software development / documentation; Python assistance.
 - 901809 - Deep Sea Bioinspiration
 - Brief chat with Joost about the status of CMS UI, and future work.
 - 902101 - LRAUV Technology Development

- Dash4 ([4.96.5](#)) now has an admin option to generate API keys for client applications/tools. Immediate use of this functionality was to generate a fresh key for Tom's hotspot script in preparation for CANON.
 - TethysDash backend: As part of modernization efforts, very significant internal changes (including some database related refactoring, and finally using Maven instead of Ant! 😊)
- 902504 - Scalable Semantic Mapping
 - Sprint review/kickoff meetings. Focus on tasks for Arctic expedition (Aug-Sep)
- Overhead
 - Proposals
 - Tech exploration
- 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
 - To simplify support for the numerous VARS apps and services. Brian is migrating to using auto-generated SDKs for the various microservices. Current SDKs are:
 - [Raziel-java-sdk](#) published [here](#).
 - [Annosaurus-java-sdk](#) published [here](#).
 - [Oni-java-sdk](#) published [here](#).
 - [Vampire-squid-java-sdk](#) published [here](#).
 - VARS and ML support apps are now consolidated into <https://github.com/mbari-org/vars-cli> which uses the new SDKs mentioned above. Brian is in the process of rolling it out internally to replace the older support apps. Tracked at <https://github.com/mbari-org/vars-cli/pull/14>. Documentation is temporarily at <https://github.com/mbari-org/vars-cli/blob/issue/13/src/docs/index.md>
 - Worked with IS to resolve issues with the SSL certificate on the VARS testing and integration server <https://gehenna.shore.mbari.org/>.
 - 902002 - FathomNet
 - Working with Kevin B to test major updates to FathomNet. I've set up a testing/integration server at <https://dev-fathomnet.shore.mbari.org/> against a testing database. Progress at:
 - <https://github.com/fathomnet/fathomnet-web-ui/issues/20>
 - <https://github.com/fathomnet/fathomnet-rest-api/pull/26>
 - Starting discussions of adding support for image segmentation masks in Fathomnet to support collaboration with Meta.
 - Reviewed final feedback for an upcoming paper in Frontiers.
 - Met with NOAA/NCEI to discuss importing EcoTaxa data
 - Out of Office
 - Jul 21 - 24 - Vacation
 - Aug 11 - 12 - Vacation
 - Aug 18 - 21 - Vacation
 - Sep 3 - Sep 17 - Out of Office
- Alana Sherman
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Some digging to figure out what type of lens we are using on the Mega
 - 902401 - Geo-Sense
 - Lots of troubleshooting of the DAS instrument in prep for Norway.
 - Continuing to update the documentation
 - Last week, we updated the software and firmware during a Zoom with Sintela

- This new software has some nice features (OTDR), but we are learning about some bugs.
 - We spent a lot of time trying to get the playback feature of the software working, with mixed results
- Overhead
 - Proposals submitted last Thursday
 - Did a preliminary review of the labor spreadsheet
- Out of Office
 - On vacation 7/17-25
- George Stern
 - 902204 - Scalable Robotics
 - Continued working on samd21 code for strobe timing
 - Tried to identify a proximity sensor solution for mola docking; unfortunately VCEL lasers are almost all 940nm and magnetometers alignments without mechanical coupling aren't going to work so visible light point clouds from an OAKD appear best.
 - 902304 - Piscivore Cam
 - Continued build and integration of the housing, completed checking out cards and fit checks
 - Built up a 2nd camera stack with spare kit parts
 - Began searching for a better lens for the current housing
 - Out of Office
 - Open house
- Justin Tucker
 - 901101 - Seafloor Mapping
 - Orientation plate and bracket updates
 - 902101 - LRAUV Technology Development
 - Hovering module support, brackets and system mass
 - 902208 - Mini ROV Operations
 - Thruster motor vendor discussions
 - Overhead
 - Open house
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Designed and built Mola AUV docking station
 - Created powerpoint presentation for ASVs
 - 902402 - CSEM
 - Reviewed manufacturing of datalogger housing
 - Overhead
 - Open house
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th