

WeeklyReport

Engineering Weekly Report 2/13/2025 - 2/20/2025

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

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
- Danelle Cline
 - 901221 - Midwater Time Series
 - i2MAP ViTS8 model + Megadetector + Biotrack look pretty good. Some track jitter in siphonophores and cydippidas. Going to test with FathomNet Megladon next.
 - 901502 - Ocean Soundscape
 - Fixed [PBP issue for Soundtrap recorders](#)
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - YV11 looks good for general detection but mixed results on large versus small kelp
 - VO for flights
 - Team meeting
 - SOCAR upcoming meeting at NASA Ames with team members on Friday. Will be interesting to hear more about what other groups are doing for image post processing. I cannot attend, but T. O'reilly will give an update.
 - 902111 - Carbon Flux Ecology
 - Added support to export ROIs to speed-up ISIIS processing pipeline
 - Out of Office
 - Vacation 2/21, 2/28-3/7
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Continued work on MARS 256kHz data downsampling to 24kHz.
 - Attending International Symposium on Orcas, and workshops on Acoustics, Photo-ID, and North Atlantic Orcas. Lots of fascinating, relevant presentations!
 - Out of Office
 - Feb 17 - 21, 2025. [International Symposium on Orcas](#). Online/Tarifa Spain UTC/GMT +1 hour
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV
 - working on new Dorado behaviors to enable I2Map missions: long transit, low power loiter, start time based on absolute clock (date/time)
 - 902204 - Scalable Robotics
 - working on refactor of Oculus driver to abstract out the messaging implementation and Qt dependencies. The messaging work enables support of ROS and LCM; the Qt refactor is intended to decouple the core sonar driver from Qt to the extent possible.

- Overhead
 - review process wrap up
- Rich Henthorn
 - 902306 - SINKER
 - Maxon motor control interface for microcontroller
 - Eavesdropping on EPOS interface to decipher protocol
 - Out of Office
 - Feb 17 - 19: WFH and PTO
 - Mar 16 - 19: WFH and PTO
 - Mar 31 - Apr 3: WFH and PTO
- Akshay Hinduja
 - 902101 - LRAUV Technology Development
 - Continue working on finding log replay bug
 - 902204 - Scalable Robotics
 - LCM→7K translation. Wrote subscriber to take in relevant lcm topics
 - Decode raw binary data to get required data fields
 - Current work on repacking to 7k datagrams
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - Tiva1290 rB sent out to Indtec
 - 901805 - Coastal Biogeochemical Sensing Program
 - Discussed alk sensor with Ellen during her visit, handed her boards
 - Started on alk circuit
 - Out of Office
 - Feb 26 - Mar 9: vacation
- Scott Jensen
 - Out of Office
 - Feb 10 - 24 Tasmania Deployment
 - Feb 25 - March 7 vacation
- Brent Jones
- Chad Keycy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - 902010 - Mesopelagic LRAUV
 - Quick rough bringup check. Fixed power sync pins that were causing reset.
 - 902101 - LRAUV Technology Development
 - Deployed Aku yesterday from skiff to begin long list of sea trials for Feb release features.
 - Dash 5 full team meeting scheduled for Thursday.
 - Overhead
 - Met with Porto lts to discuss potential collaborations
 - Out of Office
 - 02/10-14 Open Ocean (PST)
 - 02/25-28 (MST)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Vacation 12/23-1/3
- Thom Maughan

- Out of Office
 - Vacation 10 Feb to 18 Feb, Colorado and Texas
- Mike McCann
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Testing some changes to Dorado's HS2 processing code in attempt to fix some "drift" issues
 - 902403 - Expedition DB Modern
 - Got linter job to run in GitHub Actions for expd-django – this will help maintain code quality
 - Figuring out how to use pre-commit to apply to all files, including html template files
 - Working on replicating the legacy postcruise.asp functionality
 - Overhead
 - Responding to letters of recommendation requests from previous mentees
 - Out of Office
 - 14 - 24 February 2025: Some vacation, some WFH
- 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
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - SWIR controller layout
 - 902306 - SINKER
 - Autonomy firmware
 - Wiper motor assembly and testing
 - Nortek ADCP integration
- Brent Roman
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Met with Danelle to discuss PBP status.
 - Brent J. and I met Laela Sayigh (WHOI) over zoom to talk about her work on dolphin communication and share some of the work we have been doing in the soundscape project.
 - 901513 - Targeted Sampling by AUVs
 - Advancing patch tracking implementation
 - 901809 - Deep Sea Bioinspiration
 - Group meeting to discuss next additions/adjustments in the CMS UI.
 - 902101 - LRAUV Technology Development
 - TethysL C++ translator: Fixed bug about not expanding macro variable in number expression. Thanks, Yanwu, for the report and testing.
 - 902504 - Scalable Semantic Mapping
 - Dial maintenance—a significant [quasar/vite upgrade](#) (always good to keep dependencies up-to-date, this upgrade in particular mainly triggered by dependabot notifications.)
 - Overhead
 - Postdoc selection committee.
- Karen Salamy
 - Out of Office
 - Vacation March 3-11, 2025 - Holiday Vacation
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.

- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Frame-capture is not working on new Macs in the video lab. There's been a number of factors involved: change to SSH, much larger 4k images sizes, and changes to Mac App security sandbox in recent updates. Still working on a fix. Tracked at mbari-org/vars-feedback#167.
 - Updates to the knowledge base web service, Oni, to support Paul Rogers work on the knowledge base management app. See mbari-org/oni#9, mbari-org/kb#10
 - [Updated code](#) that ingests machine learning proposals to VARS to filter out tracks that contain less than a user specified number of events.
 - Fixed issue with some image mime-types in the VARS database.
 - Some testing services are hanging the nightly refresh of the testing databases from production. Working with IS to schedule around that.
 - Fixes to [M3 support](#) to handle recent changes to infrastructure.
 - Overhead
 - Several meetings to discuss the upcoming data migration from atlas & titan to thalassa.
 - Sent IS details of all atlas & titan mounts used by my servers.
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Spent a couple days working on ground faults and tuning issues with the clump thruster
 - Added a lot of documentation on the thruster motors and resolvers, to our vehicle documentation
- George Stern
 - 300078 - DMO Support - AUV
 - Pressure test board bring up
 - 902204 - Scalable Robotics
 - Fixturing design for revised mola light controller can
 - Order material for can build
 - 902304 - Piscivore Cam
 - Driver and interface research for GMSL3/FPD-Link4; trying to scrape breadcrumbs because Analog and TI won't give me datasheets; probably just have to test it and hope for the best...
 - More image sensor and driver research
 - 902306 - SINKER
 - Battery harnessing
- Justin Tucker
- Johann Voigtlander
 - Out of Office
 - Dec 16th - Jan 10th - Vacation