

WeeklyReport

Engineering Weekly Report 7/24/2025 - 7/31/2025

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

Executive Council Notes

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Individual Activities

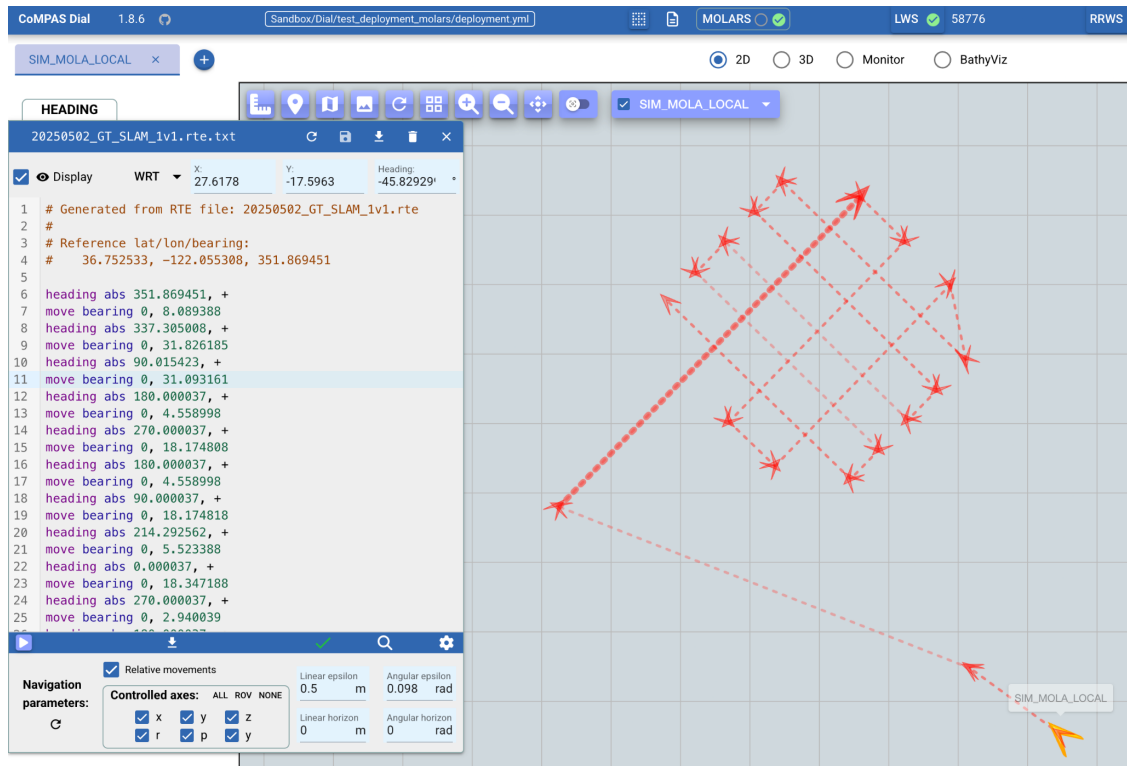
- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Aug 11, 2025 - Aug 12, 2025 – vacation
- Francois Cazenave
- Danelle Cline
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Encouraging results detecting Orca calls with high precision using sigmoid probability for binary classification using google kaggle multi-species whale model as detector. Sigmoid probability calculation (vs softmax) eliminates the False Positive excess that softmax was producing. Scaling my code to allow running lots of 10 min Pacific Sound 256kHz MARS files through this updated workflow.
 - Team meetings.
 - Intern meeting.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting.
 - Overhead
 - Prep for Monday Aug 4 ML workshop
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Restarted navproc, logging and the API remotely over Starlink once the vessel was underway back from Newport
 - 300057 - Mooring Maintenance
 - Did the M1 mooring turn last week
 - Overhead
 - Planning ML Workshop
 - Creating Authentication/Authorization NodeJS/Quasar/VueJS app to serve as template for all my upcoming application developmetn
- Andy Hamilton
- Kent Headley
 - Out of Office
 - Jul 14 - Aug 1 (vacation)
- Rich Henthorn
 - Out of Office
 - Aug 7 and Aug 11: Vacation, email contact

- Akshay Hinduja
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - Trying to troubleshoot MSC3 noise in PTC chamber
 - 901805 - Coastal Biogeochemical Sensing Program
 - mALK board sent out, working with Jose to update mphox revC
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Working on small RS485 interface board for motor driver
 - Overhead
 - Bike to Work emails etc
 - Out of Office
 - July 21 - 25: intermittently out of office due to flood at home, need to move
 - Aug 1: WFH
- Scott Jensen
 - 706008 - READI-Net
 - Implementing error recovery scheme
 - Support of 9x instrument build
 - 808015 - Monitoring McCloud
 - Monitoring power station
 - 901205 - ESP SURF Center
 - Support of field deployments
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Preparations for a 6x PTO electronics fabrication
 - Out of Office
 - 8/(7-8) Vacation
 - 9/(8-12) Vacation
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Diagnosing SIPPER failure from last MBTS run. Isolated to a fault in the new MAXON EPOS4 motor controller. Trying to figure out why, and how to prevent.
 - Upgrading SIPPER controller from PIC24 to PIC32. Requires new spin of PCB. Adding capability
 - 901805 - Coastal Biogeochemical Sensing Program
 - Assisting in rebuild of Spray29 hydraulic system
 - Overhead
 - Drove 3 interns on Paragon to recover WG and deploy Triton LRAUV
- 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
 - Out of Office
 - Vacation 6/11/2025-6/16/2025

- Eric Martin
 - 300079 - DMO Support - RV Rachel Carson
 - Telepresence discussions with DJ
 - Shoreside testing, getting setup for a offshore test next week.
 - 901101 - Seafloor Mapping
 - 3D at Depth meeting Jul 29, 2025
 - PhinsTasmic buildup
 - 901217 - Chemical Sensor Program
 - RUDICS rooftop setup
 - 902204 - Scalable Robotics
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 - 902505 - 2025 Arctic Expedition
 - Packed & Shipped compas lab spares
 - Ordered shipping cases for PCs
 - Analysis of the heave data found errors in the conversion tool
 - Out of Office
 - Aug 4, 2025 - Aug 5, 2025 : Vacation
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - Finish build and test of two battery LRAUV battery packs with BPC2 backplane.
 - Merged Coles 'charge management app' code into BatMan. Delivered a version of BatMan firmware to the LRAUV lab for Quinn to write LRAUV battery component.
 - Troubleshooting noise char on long test cable with LRAUV setup. Experimenting with different resistance on RS232 multidrop.
 - 902004 - Planktivore
 - Assemble and test of cables, camera controller and strobe boards for spares and development setups.
 - Working with Paul and Denis on 2nd planktivore V2 build.
 - Lab cleanup
 - Slide prep for ML workshop on Aug 4.
 - Out of Office
 - TBD
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Copied into oasis_coredata new *TMTS.nc files that Fred fixed with better flags for bad data
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Finished reloading stoqs_all_dorado using new docker-based Hyrax server
 - Testing reading NetCDF4 files with groups (LRAUV data) using xarray's datatree and Hyrax
 - With IS's help figured out permissions for Hyrax's bes server on elvis2
 - Out of Office
 - 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
- 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
- Paul Roberts
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - Carried cannibalized ESP 2G elevator to Steph Moore's lab and helped them repair ESPfriday with it.
 - ESPfriday deployed with Iridium Certus 100 satellite communications.
 - 808015 - Monitoring McCloud
 - Nothing to report. Ticking over nicely.
 - 901205 - ESP SURF Center
 - Helped Nadia bring up and debug portable 3G ESPs
 - Helped Preston configure and debug ESPkoa
 - Reconfigured ESPkoa during deployment to work around cartridge bus I2C failure
 - 902304 - Piscivore Cam
 - Brought up 2nd article
 - Fixed issue causing failure after every few minutes of recording
 - Testing waterproof housing and cabling.
 - Out of Office
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- Carlos Rueda
 - 901502 - Ocean Soundscape
 - mbari-pbp is now [1.7.3](#).
 - pbp-jupyter now with a more recent quay.io/jupyter/minimal-notebook image, as well as with the latest mbari-pbp package in installation on [gizo](#).
 - 901809 - Deep Sea Bioinspiration
 - Met with FathomNet Database group (Kakani, Kevin, Laura) for planning and scoping of UI development later in the year.
 - 902101 - LRAUV Technology Development
 - TethysDash backend is now [4.97.3](#) and Dash4 [4.96.62](#). Thanks, Jason A, for the feedback.
 - 902504 - Scalable Semantic Mapping

- Dial: Implementing ingestion of (MB-System) RTE files by conversion to the SG format for mission planning purposes.



- Overhead
 - Proposal review
- Out of Office
 - Next Tuesday 8/5: vacation
 - 7/22: out sick part of the day
- 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
 - 902403 - Expedition DB Modern
 - Meeting with DMO to discuss future directions.
 - Overhead
 - Meeting with University of Gibraltar to discuss the 2026 Marine Imaging Workshop.
 - Out of Office
 - Jul 21, 2025 - Jul 28, 2025 - Vacation
 - Jul 29, 2025 - Aug 1, 2025 - Out due to illness
 - Aug 7, 2025 - Aug 12, 2025 - Vacation
 - Aug 18, 2025 - Aug 21, 2025 - Vacation
 - Sep 3, 2025 - Sep 17, 2025 - Out of Office
- Alana Sherman
 - 902401 - Geo-Sense
 - Keeping up with operations in Norway
 - 902505 - 2025 Arctic Expedition
 - Holding meeting to discuss operations
 - Overhead
 - HR meeting regarding promotions
 - Out of Office

- Worked remotely Monday
- George Stern
 - 902204 - Scalable Robotics
 - Continued working on solid models and system design for a stereo vision distance sensor for docking
 - 902304 - Piscivore Cam
 - Continued integrating the new camera
 - Began integrating new camera on LRAUV in prep for deployment in 1.5wks
 - Tested the new lens and discovered it needed a new holder to get close enough to focus
 - RTC is not working, debugging in progress
- Justin Tucker
 - 901101 - Seafloor Mapping
 - INS build support
 - 902101 - LRAUV Technology Development
 - Continued model reorganization for mass and buoyancy calculations.
 - 902208 - Mini ROV Operations
 - Thruster motor replacement analysis
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Designed and printed mounts for USBL on MOLA and docking station
 - Mola in test tank to collect data
 - 902208 - Mini ROV Operations
 - Looked through old NUC PC's and organized them
 - 902402 - CSEM
 - Ordered parts for new triggerbox construction
 - Started initial programming
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th