

WeeklyReport

Engineering Weekly Report 8/14/2025 - 8/21/2025

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

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Building new fence for buoy
 - 902106 - Niobicon-Based AUV Docking Development
 - Moved the buoy to a new location
 - Designing new high-current brushes
- Danelle Cline
- Duane Edgington
 - 901502 - Ocean Soundscape
 - With assistance/inspiration from Carlos humpback song repo (thanks!) ported code for preparing files, processing directories, and running the Google Kaggle multi-species whale model to the Ocean Soundscape VM/server "gizo". Set up a github repository. Verifying model runs against my colab GPU-enabled standard runs. Should be ready to process a month of recordings soon...
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Intern Tim Sananikone, with input from Steve Haddock and me, submitted an abstract on his summer work to [OSM conference](#), to be held February 2026.
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Wrote scripts to keep simulator system disk space manageable (delete older data)
 - Weekly meeting
 - 300057 - Mooring Maintenance
 - Coredata went off in the weeds. A python process (rovctd plots I think) caused the sentinel one agent to lose it's mind and it ate up CPU and swap and took the server offline essentially. With Peter and Karen's help, we got it cleaned up, rebooted with more RAM and back to processing mooring data.
 - 300059 - DMO Support - RV David Packard
 - Fixed bug in ODSS to TimeZero script on the packard and deployed to simulator and both ships
 - Overhead
 - Zoom call with AWS (Omar and Richard) to talk about cost optimization, ML workshop, etc
 - Weekly meeting with Joe
 - Participate in SE Embedded interview
 - Proposals
 - Attending [Monterey Data Conference](#)
- Andy Hamilton

- Kent Headley
 - 3000xx - DMO Support - MARS O&M
 - Working with Mike Risi to come up to speed on MARS software transfer from UW
 - built repo, trying out hardware
 - Overhead
 - proposal review/staffing plan
 - hiring (interviewing)
 - misc admin
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Preparing for Trigger Trap deployment to MARS
 - Acoustic modem repairs
 - SES MARS data
 - Overhead
 - Rec-Com
 - Out of Office
 - Sept 2 - 4: WFH with phone, email, network access
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Begin testing video stabilization models for DeepPIV pipeline
 - 902204 - Scalable Robotics
 - Finished technology transfer before Arctic cruise deployment
 - Working on LCM→FBT converter addition to 7k-writer.
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - Mini ISUS prep and planning, wiring diagram
 - Continue w/ PTC experiments
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Troubleshooting controller-controller comms; software and hardware issues
 - Wiring diagram
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Modem drama, but hopefully it arrives back from Teledyne in the nick of time.
 - Out of Office
 - Aug 21: Carson day
 - Sept 1 - 5: vacation
- Scott Jensen
 - Out of Office
 - 9/(8-12) Vacation
- Brent Jones
- 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
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - Batman firmware new features
 - Working on integration and test with LRAUV. Troubleshooting noise problem on rs232 multidrop.
 - Full power charging and discharging. Cables and supplies that can handle 20amps.
 - 901805 - Coastal Biogeochemical Sensing Program
 - Working with Jim Davis
 - 902004 - Planktivore
 - In progress on second build. Denis has made good progress on assembly and improvements to jigs for optical alignment.
 - Board checkout delayed by focus on LRAUV.
- Mike McCann
 - 901009 - CANON
 - Had to reboot elvis due to a failed opendap (hyrax) service
 - dods2.mbari.org/opendap and dods2.mbari.org/thredds ProxyPasses are working now
 - Making sure that other core MBARI web data services are provided by elvis2-services
 - 901101 - Seafloor Mapping
 - Busy SIGGRAPH meeting – learned a lot more about about glTF, Cesium, and 3D Tiles
 - Submitted capstone student project for [refining the mbdrg2gltf code](#) in MB-System
 - Overhead
 - At Matt's request deleted or changed several internal ship calendar entries
 - Out of Office
 - 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
 - 706008 - READI-Net
 - Completed puck counter calibration code testing and integration with main FIDO codebase
 - Configured WSL build environment and successfully built MicroPython firmware for STM32
 - Tested puck counter code functionality and identified calibration bounds issues
 - Purchased FIDO cylinders and remaining FDM printed parts
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Reviewed Part 108 NPRM regulations for BVLOS operations
 - Advanced Seahawk robotics winch collaboration discussions
 - Recovered IACRA account and requested Part 107 certificate renewal
 - Overhead
 - Completed LPS Program training
 - Presented to high school robotics students
 - Attended Intern Symposium sessions
 - Out of Office
 - Thursday/Friday diving at Big Sur monitoring sites with Reef Check
- 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
 - 901221 - Midwater Time Series
 - Recorder housing controller design
 - Recorder housing chassis design
 - 901809 - Deep Sea Bioinspiration
 - SOI interface can documentation
 - SOI interface can assembly
 - 902111 - Carbon Flux Ecology
 - Mini-Sidekick controller design
 - Mini-Sidekick chassis design
 - Overhead
 - SE Interviews
- Brent Roman
 - Out of Office
 - Visiting family in Anacortes, WA for funeral Sept 3 - 9th
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Running NOAA/Google humpback song detection model to get the scores for all days starting 2022 until 2025-07. Scores for 2015–2021 have been in place but it was about time to start catching up with the new scores.
 - 902101 - LRAUV Technology Development
 - TethysDash [4.97.43](#) with use of a new [separate service](#) to run LRAUV **unserialize** jobs. Successful testing in production (<https://oceanids...>) not only using a simulator but also with a real vehicle. Thanks Quinn S. for your help setting up and connecting Pontus for this purpose.
 - Met with Tanya Tebcherani (Johns Hopkins U.) to discuss plans for applying LLMs for LRAUV vehicle autonomy and assistance to operators.
 - Overhead
 - Assisted ESIP to correct an issue with the COR, and provide clarification about its general setup.
 - Out of Office
 - August 26: vacation (family business)
- Karen Salamy
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - Out of Office
 - 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
 - Looking into wireless payout counters for our sheave

- Finished abstract for Ocean Sciences
- Overhead
 - Some proposal review work
- Out of Office
 - Out of office Friday and Monday
- George Stern
 - 902204 - Scalable Robotics
 - Fit checked printed parts and COTs cables for OAK-D camera in a box
 - Completed HSI camera LED board design and routing
 - 902304 - Piscivore Cam
 - Final prep for deployment
 - 902106 - Niobicon-Based AUV Docking Development
 - Troubleshooting on the dock
- Justin Tucker
 - 901101 - Seafloor Mapping
 - Support for continued updates to LASS orientation plate
 - 902010 - Mesopelagic LRAUV
 - Continuing composite tube analysis and design of experiment for scaled test samples
 - Overhead
 - ANSYS updates and debugging link to Solidworks
 - Out of Office
 - Out 8/29
- Johann Voigtlander
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th