

WeeklyReport

Engineering Weekly Report 4/10/2025 - 4/17/2025

<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
 - Apr 16, 2025 - Apr 17, 2025 – vacation
 - May 8, 2025 - May 9, 2025 – vacation
 - May 22, 2025 - May 23, 2025 – vacation
 - Jun 3, 2025 - Jun 10, 2025 – vacation
 - Jun 11, 2025 - Jun 15, 2025 – CVPR
 - Aug 7, 2025 – vacation
 - Aug 11, 2025 - Aug 12, 2025 – vacation
- Francois Cazenave
- Danelle Cline
- Duane Edgington
- Jon Erickson
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - 300057 - Mooring Maintenance
 - helped locate source of OASIS email
 - 300078 - DMO Support - AUV
 - worked on behaviors: transit and low-power station keeping
 - sketching out related concept for Layered Control substacks, a looping mechanism
 - 901101 - Seafloor Mapping
 - synced MB-System wit libtrnav (changes to ROV TRN, add TRN utilities to build)
 - 902405 - Precision Control Technologies
 - committed branch change set,
 - trying out mkdocs
 - reviewing Rich H LRAUV TRN doc (nice!)
 - Overhead
 - hiring process
 - misc admin
 - Out of Office
 - Apr 25 (vacation)
 - Jul 14-31 (vacation)
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Building spare MVC

- 902306 - SINKER
 - Refactoring code for next test deployment
- 902401 - Geo-Sense
 - Lab Housekeeping
- 902405 - Precision Control Technologies
 - LRAUV TRN doc
- Out of Office
 - Apr 21 - May 1: WFH and sick time, email and phone OK
- Akshay Hinduja
 - 902204 - Scalable Robotics
 - Finished bug fixes and updates to norbit lcm driver, now records in binary without lcm as option
 - Finished bathy translation in s7k translator, will finish water column and snippet by EOW
 - Test surface vehicle operations with blueboat on Thursday April 17
- Brett Hobson
- Irene Hu
 - 901217 - Chemical Sensors
 - Chasing down MSC3 behavior at low voltage with a current limit / low voltage with source output resistance
- Scott Jensen
 - 808015 - Monitoring McCloud
 - Acquisition of power station components
 - 901205 - ESP SURF Center
 - Support development of puck reader
 - Development and design of creekside power station
- Brent Jones
 - 901502 - Ocean Soundscape
 - Final Wire Walker prep
 - 901805 - Coastal Biogeochemical Sensing Program
 - Mechanical design for nanofet
 - Overhead
 - Paragon training on new motors
 - Email migration
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - 300083 - DMO Support - LRAUV
 - Supporting Ahi Synchro and Makai deployments this week.
 - 902101 - LRAUV Technology Development
 - Working on Opah bringup and instrument configuration
 - Put in a fix for missing binned Wetlabs data.
 - April release is here
 - Overhead
 - Hiring committee work
 - collabs
 - Out of Office
 - Mostly vacation this week. Working Mon/Wed at least. On call other days.
 - 4/9-19 (MDT)
 - 6/16-24 TBD (UTC+2)

- 9/15-30 (UTC+2)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - LASS AUV Scoping Meeting
 - Arctic Planning
 - Lidar integration planning, will be in tank next week.
 - 901103 - Biodiversity and Biooptics of Zooplankton (ROVVR Support)
 - At sea with HMC students Thursday
 - 902204 - Scalable Robotics
 - Domed camera setup
 - HSI kickoff
 - 902504 - Scalable Semantic Mapping
 - Arctic packing, prep
 - 902505 - 2025 Arctic Expedition
 - Shipping/Packing
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - Cole is working board bringup on the new backplane. Varsha is on the ready line to send parts and PO to Indtec. Everyone is busy, so soonest will be next week.
 - 901217 - Chemical Sensors
 - Rough meeting on schedule last week. Latest has no pad and the who group is in an all out push. I'd write more, but I need to get back to coding / testing.
 - Was able to get 40 additional hours of contractor time, we're working the regression suite and he will be modifying what works for MSC1 to accommodate the changes MSC3 brings to the table.
 - 902004 - Planktivore
 - Ahi+Planktivore V2 is deployed running the Synchro mission which takes Ahi well past M2. Paul and Brent supporting Jason and team.
 - Out of Office
 - TBD, Trip to UW after MSC3 passes our test plan, new forecast is mid-May.
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Fixed current mooring (M1) data plotting with IS help by increasing the size of the Xvfb
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Working with Michael on adding the per-profile proxy corrections to auv-python
 - Planning for an entire Dorado data archive reprocess and reload of stoqs_all_dorado
 - 902403 - Expedition DB Modern
 - About done configuring local and CI containers & settings for EXPD_NEXT development
 - Out of Office
 - 8-9 May
 - 10-14 August - SIGGRAPH
 - 8-13 September - Web3D & Digital Heritage Conference
- Paul McGill
 - Out of Office
 - Medical appt on Mon morning
- 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
 - 901221 - Midwater Time Series
 - 4k recorder housing design
 - 902004 - Planktivore
 - Ahi 27 Deployment, Synchro OWF
 - 902111 - Carbon Flux Ecology
 - Mini-Sidekick housing design
 - 902405 - Precision Control Technologies
 - April 15 deployment
 - Completed testing of existing tracking software, demo on radiolarians and sinkers
- Brent Roman
 - 771131 - Great Lakes PCM/HAB
 - Updated Linux OS on both of the ESPs to be deployed
 - Tested ESP Linux integration with Starlink
 - 901205 - ESP SURF Center
 - Calibrated first set of new 3G Heaters boards with Chloe's help
 - Enoch is iterating on holder to make it less finicky
 - Added capability the ESP to remotely plot time series with gnuplot
 - To help improve performance of puck/cartridge heating PID controllers
 - 902304 - Piscivore Cam
 - Worked with George Stern to write EOI requesting early access to their EVK/SDK for board development
 - Received and reviewed material.
 - Recommending we purchase ASAP
 - Overhead
 - Moved my main workstation to Debian Trixie with BTRFS replacing EXT4
 - BTRFS allows rollback to checkpoints – which has already proven useful
- Carlos Rueda
- Karen Salamy
 - Out of Office
 - Personal Bereavement April 9-14, 2025 - Family funeral
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Generate [updated knowledgebase for use with m3-quickstart](#), stripping out account info and embargoed info. Needed for Paul's testing and development of the new kb UI.
 - [Fixed bug in Oni](#) that allowed the creation of cyclic relations in the phylogeny tree.
 - Ongoing migration of videos from Titan to Thalassa
 - 901221 - Midwater Time Series
 - Investigations into issues with Midwater transect volumes.
 - Registration of i2MAP videos in our video asset manager
 - 902002 - FathomNet
 - Review pull request of Vue 2 to 3 migration and [generate punch list](#).
 - FathomNet workshop
 - Responded to an information request from NOAA about their data in FathomNet
 - 902403 - Expedition DB Modern
 - Working on [REST API](#) for new database schema

- Out of Office
 - Jun 2 - Vacation
 - Jul 21 - 24 - Vacation
 - Aug 18 - 21 - Vacation
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Packing and taking apart the vehicle
 - 902401 - Geo-Sense
 - Trying to start figuring out fibers for potential deployments in Europe this summer
 - Out of Office
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- George Stern
 - 300078 - DMO Support - AUV
 - Worked with Aaron to rediscover how to program the small pressure chamber to run many cycles to begin testing if chips stay on the board; unfortunately, during the effort we learned the chamber's calibration appears to be off and should probably be corrected before testing.
 - 902208 - Mini ROV Operations
 - Continued to review the system and identify some additional considerations and scoping questions for Alana when she returns from vacation
 - Began looking at high voltage DC DC converters
 - 902304 - Piscivore Cam
 - Oclea granted access to additional documentation; after a much deeper review it looks even better and I am trying to buy a kit.
 - 902306 - SINKER
 - Tested closed can SAMD charging firmware and programmed one board; hopefully the RPi software is as easy...
 - 902106 - Niobicon-Based AUV Docking Development
 - After positive tank testing outside the system, the new modem was added to the system and performed terribly. It appeared like at least one card stopped communicating completely, additional testing is needed.
- Justin Tucker
 - Out of Office
 - On leave April 8th - May 5th
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Connected Blueboat with 4g/5g modem
 - Prepared blueboat for harbour test
 - 902208 - Mini ROV Operations
 - Debugged Focal issue on MiniROV
 - 902402 - CSEM
 - Replaced corroded cabling in black winch
 - Rewired winch 3-phase to clockwise rotation for minirov control van
 - Inventorying and packing for Arctic trip
 - Getting new lines made for 3rd and 4th datalogger deployment
 - Out of Office
 - Dec 16th - Jan 10th - Vacation