

Engineering Weekly Report 9/26/2024 - 10/3/2024

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2024/>

Executive Council Notes

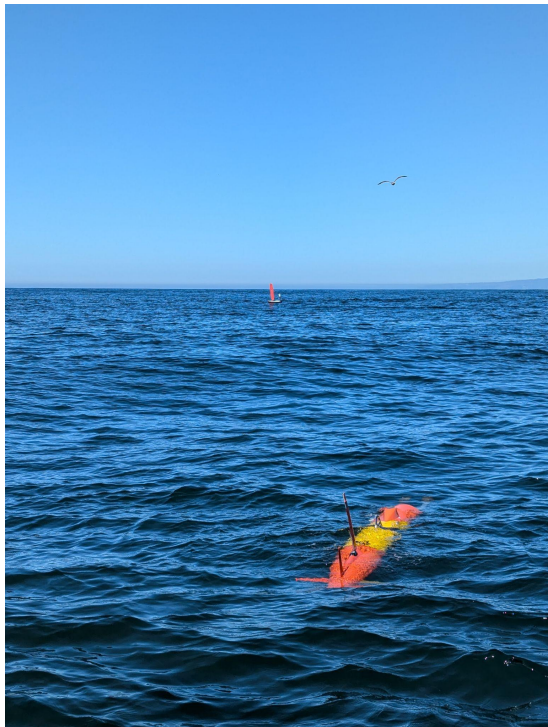
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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Buoy cleanuo
 - 902106 - Niobicon-Based AUV Docking Development
 - Photosensor
 - Buoy repair preparations
- Danelle Cline
 - Out of Office
 - September 24/25 NOAA SoundCoop workshop Boulder, CO
 - Oct 7-10 - 5th Marine Imaging Workshop in Monterey
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Continued exploration of [Whisper](#) for orca detection / classification, and experiments with Google's [multi-species whale detector / classifier](#)
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting
 - Working on MiW 2024 poster with Melissa
 - 902111 - Carbon Flux Ecology
 - Demo'd sagemaker studio for ML classification and for object detection to Fernanda. Resnet, SSD, SWIN, EfficientDet and more...
 - Out of Office
 - Oct 21 - Nov 8, 2024. Vacation UTC+1
 - Dec 8 - Dec 17, 2024. [Neurips](#) Conference. Vancouver, BC.
- Jon Erickson
- Kevin Gomes
 - Out of Office
 - Aug 16: Vacation
 - Sep 16: Vacation
 - Oct 7-11: Vacation
- Andy Hamilton
- Kent Headley
 - 902204 - Scalable Robotics
 - testing oculus tools and GUI, fixing related issues; working with Bastian, who is using the various tools to analyze oculus data (and subsequently finding software issues)
 - Out of Office

- developing hiring process
 - misc admin
 - 10/10-17 Vacation
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Analysis of recent deployment
 - Some issues but we are able to explain and correct them
 - 902401 - Geo-Sense
 - Sintela system Docker image
 - Out of Office
 - Oct 21 - 25: WFH
- Akshay Hinduja
 - 702108 - Deployable AI
 - Setup Nvidia Deepstream for CTI Rogue carrier board
 - 902204 - Scalable Robotics
 - Norbit WBMS driver LCM broadcast
 - Out of Office
 - WFH Wed Oct 2, Dentist 8am-10am
 - Marine Imaging Workshop Oct7-11
- Brett Hobson
- Irene Hu
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Planning for MIW poster
 - Overhead
 - Hosted speaker 10/2/24
 - Out of Office
 - Sept 23-Oct 2: IEEE OCEANS / trip to Boston
 - Oct 7: Carson day
- Scott Jensen
 - 706008 - READI-Net
 - PCB is in and assembled
 - Check out processes is underway
 - Assistance with the puck processing system
 - 901205 - ESP SURF Center
 - Support of lab operations
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Trying to figure out what went wrong
 - Preparing for Battery Conference
 - 902106 - Niobicon-Based AUV Docking Development
 - Still trying to gain access to the Qualcomm datasheet
 - Out of Office
 - October 7-9
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Diagnosed dead battery in Wire Walker Cervello
 - Cleaned up Wire Walker from last deployment
 - 901502 - Ocean Soundscape
 - Comparing old Julia to new Julia on click detections
 - Out of Office
 - 1 vacation day

- 3 sick days
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - 300083 - DMO Support - LRAUV
 - Supported CANON/EcoHAB deployments. Issues that required on call response mostly involved fouling, failed control, and failed comms.
 - 708143 - EcoHAB
 - Recovered Ahi/Planktivore following a successful run in the N bay for the final EcoHAB.
 - 901009 - CANON
 - Wrapped up CANON for the year following mostly successful sampling on Makai and a full load of samples on Brizo.
 - Yanwu and I elected to skip sample coordination by acoustics and rely on clock time to alternate.
 - First time demonstrating sustained OTH eavesdropping from Waveglider using DATMMP interface. This feature was important in passing along sample numbers from underwater allowing vehicles to remain submerged.
 - 901513 - Targeted Sampling by AUVs
 - Working through some data issues with Yanwu
 - 902101 - LRAUV Technology Development
 - Loading up some new bugs in Jira
 - 902106 - Niobicon-Based AUV Docking Development
 - Merging DAT interface file for backward compatibility. Firing up Elecia White to add the discrete set/clear functionality to DATMMP to round out the component for docking.
 - Overhead
 - Got trained up on the Oshen microvessel ASV. Ran a brief test offshore to look at basic performance (low wind in this case) and collect some hydrophone data. Will examine station keeping abilities next week or after and have it join the Synchro windfarm line the following week. Here's the sailboat and LRAUV during CANON:



- Out of Office

- 10/23-29 ? (MST)
 - 11/06-12 (CST)
 - 11/15-12/2 (PST)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Strobe debugging, lots of tests and working with vendor
 - 901217 - Chemical Sensor Program
 - Analyzing historical data for energy consumption
 - 901911 - ROVVR
 - HMC visit prep for 10/4
 - Installed camera on boat
 - 902204 - Scalable Robotics
 - MiniROV tests last week, minor checks on cameras and ice video
 - Blueboat eval with Johann, getting ready for dock test
 - Need a timing solution for Blueboat
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 - Out of Office
 - Vacation last week.
- Thom Maughan
 - 902004 - Planktivore
 - Last week: Planktivore V1 prep for Barry Lab cruise, test tank for 24 hours. Planktivore V2 on Ahi for EcoHAB. ASO group was booked so Planktivore engineering managed the deployment. Ahi did great and ASO recovered Ahi.
 - Planktivore V1 housing will be opened for desiccant pack and RTC replacement. Counterfeit DS3231M is suspected due to 3day in a year clock drift.
 - Out of Office
 - Oct/Nov two to three weeks vacation Colorado.
- Mike McCann
 - Out of Office
 - 18 September: Vacation day
 - 25-27 September 2024: Web3D Conference
 - 30 September - 3 October 2024: Vacation
- Rob McEwen
- Paul McGill
 - Out of Office
 - Medical appts Mon, Wed; sick days Thu, Fri
- Enoch Nicholson
 - 706008 - READI-Net
 - Met with design firm who will be providing feedback for the project
 - 901007 - Benthic Biology & Ecology
 - Tap water testing
 - 901205 - ESP SURF Center
 - Mocked up Phase separator pinch valve
 - 902306 - SINKER
 - Completed frame assembly
 - Completed initial tank testing
 - Out of Office
 - April 5-10 Vacation (Available via Slack & Email)

- April 14-18 IEEE Oceans (Available via Slack & Email)
 - April 19-23 Vacation (Unavailable)
 - September 4-5 Vacation
 - September 19-24 Vacation (Unavailable)
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Offsite on Tuesday and Friday
 - January 16 - January 19, 2024
 - February 22, 2024
 - March 4 - March 8, 2024 - vacation
 - April 24, 2024 - vacation
 - May 20 - May 24, 2024 - vacation
 - June 17 - June 18, 2024 - vacation
 - September 3 - September 9, 2024 - vacation
- Paul Roberts
 - 702108 - Deployable AI
 - Preparing for Oct 14-16 tank testing
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Preparing for Oct 7 / Oct 11 deployments
 - MIW poster materials
 - 902004 - Planktivore
 - Preparing for Oct. 7 deployment of benthic-planktivore
 - Data ingest and processing CANON and ECOHAB deployments
 - 902306 - SINKER
 - Preparing for Oct. 9 deployment
- Brent Roman
 - 708165 - NOAA-MERHAB-UW
 - Steph accepted rewrite of the procedure for calibration of the 2G ESP Elevator
 - UW also tested improved 2G carousel calibration code
 - 901205 - ESP SURF Center
 - Continuing to work with Chris Preston to improve 3G cartridge testing and error recovery
 - 901913 - Wet Wifi
 - Johann Voiglander is constructing cables to deploy wetWiFi on miniROV (10/24)
 - Fred Flores tasked with making bracketry
 - OceanComm says they will ship the update modems back to us this week
- Carlos Rueda
 - Out of Office
 - Sept 19: out sick
- Karen Salamy
 - 300057 - Mooring Maintenance
 - This week I spent more time than usual working to properly set up the upcoming OA1 mooring deployment for the Chavez group. The system will be deployed sometime in October is currently sitting on the dock for data test downloads and instrument checks. Currently, all downloads look good for the system.
 - 902101 - LRAUV Technology Development
 - Spent some time this week learning about Modals in React and how to properly utilize them for the dash5 UI.
 - Overhead

- I spent a lot of time yesterday trying to determine why Lisa Emanuelson could no longer revise precrises. It seemed quite a mystery from my end as nothing had changed in my code recently. It was finally resolved and determined to be something related to Active Directory specifically with her account.
- Out of Office
 - US React Summit Conference: November 19-24, 2024, NYC.
 - Monday, Oct 7, 2024 - Vacation
 - Friday, Oct 11, 2024 - School Chaperone Activity for my daughter's class to UCSC
 - On-campus 3 days/week (**T, W, TH**).
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Updates to [Oni's API](#) and [CORS handling](#) to support the KB web interface development.
 - [Loaded V4423 and V4430 ML generated annotations into VARS](#). Shoutout to Lonny and Kevin B on their on-going work on the ML pipeline.
 - 902002 - FathomNet
 - Meeting with NOAA and DARC to discuss standard operating procedures for generating localized annotations to support ML/AI.
 - 902404 - 5th Marine Imaging Workshop
 - Lots of ongoing work to organize the workshop. We're at 153 in-person and 42 online registrants.
 - Both the [science program](#) and the [poster sessions](#) are finalized
 - Working on my [workshop session for the MIW](#). Set up a <http://varsdemo.mbari.org/> to support the workshop.
 - Out of Office
 - Oct 7-11 - 5th Marine Imaging Workshop in Monterey
- Alana Sherman
 - 902401 - Geo-Sense
 - Had a meeting with Winchester about issues with our armored cable, they are working on a fix
 - Ordered our backup plan cable with Linden
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 - 901205 - ESP/Readinet
 - We are bringing up the board, finding little issues and addressing as we go.
 - Overhead
 - I think this was last week but we finished phase 2 review
 - Tracked down last issues with expense, labor a
 - Out of Office
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- George Stern
 - 902204 - Scalable Robotics
 - Mola Docking kickoff
 - 300078 - Dorado AUV Thruster
 - Began reviewing requirements and current status
 - 706008 - (READI-net)
 - Tested and began troubleshooting new puck boards; antenna resonance is ~1.2MHz off from desired frequency and issue appears to be the chip - additional testing is needed.
 - Overhead
 - Oceans last week - great experience but the conference has fractured and now competes with its offshoots for content and eyeballs
- Justin Tucker
 - 300078 - DMO Support - AUV

- INS Housing 6000m pressure test scheduling at DeepSea Power & Light
- 902010 - Mesopelagic LRAUV
 - DVL housing design
 - Nose assembly updates
- Overhead
 - SolidWorks Vault Upgrade
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Put the BlueBoat in the test tank to collect WBMS data
 - Reprinted mount for WBMS with correct hole size
 - 902208 - Mini ROV Operations
 - Writing code to solve joystick disconnection issue
 - Fixed some video issues in the back of the control van
 - Ballasted midwater sled
 - Designed and printed camera mounts at different angles
 - Out of Office
 - April 16th - May 7th Germany CSEM
 - May 8th - May 12th Vacation