

WeeklyReport

Engineering Weekly Report 11/13/2025 - 11/20/2025

<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
 - Oct 27, 2025 - Oct 31, 2025 : UCSB NCEAS Innovation in Digital Assets workshop
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Installing PTO in building G and troubleshooting
- Danelle Cline
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Looking into update of [Pacific Sound notebooks](#) to be compatible with current version of Colab and tensorflow. Focusing first on [blue whale A call](#) . So far so good, have basic update completed to tensorflow 2.19.0 and python 3.12.12
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Trained [rf-detr](#) detector model on UAVS dataset. mAP50 is 35% better than our best yolo11x detector model. Ready to integrate into pipeline with clustering and classification.
 - Out of Office
 - Dental appt Nov 19.
 - Dec 1 - Dec 5 Acoustic Society of America meeting.
- Jon Erickson
- Kevin Gomes
 - 701147 - MARS O&M IV
 - Assisted with Grafana configuration
 - 706008 - READI-Net
 - Deployed changes to cloud and new device SD cards for 'dock deployment'
- Andy Hamilton
- Kent Headley
 - 300078 - DMO Support - AUV
 - Tad and Jordan tried out the transit macro, and reported that it went off course. Haven't had a chance to look at the logs yet.
 - 3000xx - DMO Support - MARS O&M
 - Testing some GUI updates: adding support for MVC serial output status data. This is working as well as I can test it off-target; will test when I'm back in the office.
 - Overhead
 - hiring complete :o)
 - misc admin

- Out of Office
 - 11/17-19 sick leave
 - 11/20 leave 15:30
 - 11/24 leave 14:30
 - 11/25 WFH
- Rich Henthorn
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Set up Ubuntu laptop with MBC applications for component testing
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Recovered SES and Trigger Trap last week
 - Offloaded Trigger Trap logs that showed motor control failures
 - Begun updates for next deployment scheduled for Apr 2026
 - Out of Office
 - Dec 19 - Jan 1: Vacation
- Akshay Hinduja
 - 901809 - Deep Sea Bioinspiration
 - Meetings with the team to discuss next plans for OceanShot project milestones and approach.
 - 902101 - LRAUV Technology Development
 - Finished matplotlib based visualizer
 - Tried out HoloOcean and Unreal Engine based simulator for log playback, ran into physics issues as velocity estimates from LRAUV were incomplete and cause the simulator to show no pitch or yaw motions.
 - Started working on RVIZ and ROS2 playback. Finished stage 1, works well with faster than realtime playback achieved. Working on making improvements to visuals, and playback control. Facing random issue of RVIZ flickering, seems to be internal QT related bug.
 - Plan to wrap up by end of month
 - 902204 - Scalable Robotics
 - Support ASV deployment for dock surveys
 - Found hardware issues with Norbit dropping out frequently. Cause currently unknown
 - Driver remains to work as expected
 - Out of Office
 - Thursday 11/20 WFH apart from 3:30-5:30 daughters appointments @Stanford
 - Monday 11/24 WFH apart from 8:30-10:30 am for daughters appointments @Stanford
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Review nanofet 2 board design
 - Ordered some things for alkalinity experiment
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - GUI worked surprisingly well with controller over UDP comms; various troubleshooting, especially related to motor
 - Overhead
 - Rec com budget- finally got Paid Detail to compare transactions
 - Out of Office
 - Nov 24-28: vacation
- Scott Jensen
 - Out of Office
 - McCloud Recovery Oct 27-28

- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Deploy Spray for calcofi line
 - 901502 - Ocean Soundscape
 - meetings
 - 901805 - Coastal Biogeochemical Sensing Program
 - Design review for 3 board isolated nanofet
 - Mechanical integration of LioneX
 - Overhead
 - Deploy Pontus
- Chad Key
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - 300083 - DMO Support - LRAUV
 - De-fouled waveglider Tiny and relaunched Pontus following an entanglement issue.
 - 901513 - Targeted Sampling by AUVs
 - Supported test deployment of intravehicle ESP simulated sampling
 - 902010 - Mesopelagic LRAUV
 - Successful full depth dive and control testing.
 - Issues with O2 sensor at depth being investigated.
 - 902101 - LRAUV Technology Development
 - Met with Saab to reboot development.
 - Supporting Brizo, Pontus, Triton, Tiny deployments this week.
 - Met to decide on ESP sampling strategy for December deployment.
 - Troubleshoot failed docking arm on Pontus and fixed
 - Fixed issue with Tiny's hotspot to support Ivan's testing offshore.
 - Overhead
 - Met with WHOI to discuss under ice mission
 - Out of Office
 - 11/24-12/2 (PST)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Lidar checkin, still not very available, need to do some validation too.
 - LASAUV meeting
 - 901217 - Chemical Sensor Program
 - CPF Shoreside server restructuring
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Troubleshooting the platform, LRF seems fine, so same presentation as in the past.
 - Cable design submitted to the shop for a bench cable to talk to the top hat directly.
 - 902504 - Scalable Semantic Mapping
 - EOY Buying
 - BB support
 - Offshore Nov 12, 2025 , all systems go
 - Falkor spec review
 - Case sizing.
 - Out of Office
 - Underwater Intervention 12-2-12/8

- Vacation 11/25-11/26
 - Vacation 12/22-12/24
- Thom Maughan
 - Out of Office
 - Vacation 21 Nov to .28 Nov
- Mike McCann
 - 901009 - CANON
 - Processed last week's dorado mission 2025.316.02 which had an improperly set clock
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Continuing to work on [adding the processing of MBARI Long Range AUV](#) data to auv-python
 - More discussions with Monique & Michael regarding Planktivore data
 - 902101 - LRAUV Technology Development
 - Fred helped identify improperly interpolated LRAUV data processed by STOQS – expecting that the newer auv-python processing wont do the improper interpolation
 - Overhead
 - Giving MBARI tour for CSUMB Capstone students this Friday morning
- Paul McGill
 - Out of Office
 - I've been busy sleeping in because I'm retired!
- Enoch Nicholson
 - Out of Office
 - Thursdays at MLML
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - General updates of navproc-dpkd
 - Working on resolving depth issue with navproc-dpkd
 - 300062 - DMO Support - Doc Ricketts
 - Working on updates to provide CTD data to SMD diagnostics screen
 - 901101 - Seafloor Mapping
 - LASSAUV scoping meetings
 - Review of proposed TCU changes
 - 902405 - Precision Control Technologies
 - Tested midwater tracking algorithms, but the cruise was cut short due to weather conditions
 - 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
 - November 10 - November 14 - vacation
 - January 19, 2026 - January 30, 2026 - vacation
- Paul Roberts
 - 901513 - Targeted Sampling by AUVs
 - Triton 48 Krill detection deployment
 - 901809 - Deep Sea Bioinspiration
 - Scuba-EyeRIS assembly
 - Ocean Shot UAW
 - Ocean Shot Bigelow Falkor (too) documentation

- 902004 - Planktivore
 - Optics pod production coordination
- 902306 - SINKER
 - Scoping software tasks for 2026
- Out of Office
 - Nov 22 through Nov 30, Scotland
 - Dec 26 through Jan 4, San Diego
- Brent Roman
 - 708184 - ESP Monitoring PNW
 - Steph discovered that the ESP Friday's gripper was failing to stop at its closed position
 - Which explains the trouble we were having late in the last deployment
 - 901205 - ESP SURF Center
 - Continuing testing of Cellular modem and GPS for FIDO sampler
 - 902304 - Piscivore Cam
 - Finally ran a YOLO object ID model on the CV25 camera.
 - Draws only 3W IDing full HD video at 16hz.
 - Lots of work left to do
 - Set up purloined camera focusing rig in old pilot's area being remodeled
- Carlos Rueda
 - Out of Office
 - Dec 1–11, 22–30: vacation
 - Jan 2–5: vacation
- Karen Salamy
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Rolled out the new VARS Query to MBARI
 - Overhead
 - Participating in the PAIDIVER workshop in Southampton, UK
 - Out of Office
 - Oct 23, 2025 - Out sick
 - Nov 26, 2025 - Dec 3, 2025 - Vacation
 - Dec 15, 2025 - Dec 19, 2025 - PAIDIVER workshop. University of Southampton, UK.
 - Apr 6, 2026 - Apr 24, 2026 - Vacation
 - May 18, 2026 - May 22, 2026 - Marine Imaging Workshop, Gibraltar
- Alana Sherman
- George Stern
 - 902204 - Scalable Robotics
 - Began updating the HSI strobe schematic to fix problems banded during the last deployment; discovered likely root cause for one of the issues: Vishay SOA curves are garbage and they are slowly fixing their datasheets
 - Updated Mola500D strobe trigger board with new oscillator to facilitate 0.03 to 3fps mode; Sebastian tested the current board in mola and is getting 3 or more fps successfully.
 - 902304 - Piscivore Cam
 - Focus testing
 - ordered lens/holders
 - Last deployment video review of various exposure times and gain settings
- Justin Tucker

- Johann Voigtlander
 - Out of Office
 - Dec 16th - Jan 10th - Vacation
 - May 30th - June 5th
 - Oct 9-13th