Engineering Weekly Report 10/22/2026 - 10/29/2026

https://docs.mbari.org/internal/projects/Engineering/Weeklies/2026/

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
  - Out of Office
    - Oct 22, 2026 – Oct 23, 2026 : Meta Open Source AI for Science Summit
    - Oct 26, 2026 – Oct 30, 2026 : Vacation
    - Dec 21, 2026 – Jan 1, 2027 : Vacation
- Francois Cazenave
  - 901405 - Wave-Energy Conversion for Oceanographic Applications
    - Ordering spare parts
  - 902106 - Niobicon-Based AUV Docking Development
    - Documentation for NG
    - Project management
    - Dock arm material selection and replacement
- Laura Chrobak
- Danelle Cline
  - Out of Office
    - October 18th, SMM 2026 pre-conference Workshop: Evolving AI Applications in Modern Marine Mammal Science: From Computer Vision to Generic and Agentic AI, Puerto Rico
- Duane Edgington
  - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
    - Team meeting.
  - 901502 - Ocean Soundscape
    - Back from conferences. Returning to orca detection campaign. Processing 2023 detections.
    - Walked Danelle through usearch single example vector search in perch-hoplite in my repository
  - Out of Office
    - October 18. Virtual. Evolving AI Applications in Marine Mammal Science Workshop. Puerto Rico Convention Center.
    - October 19-24 Pytorch Conference, San Jose. Present poster on Perch2.0 port to pytorch. Registered. Have reservations.
    - October 26. Medical tests.
- Kevin Gomes
- Andy Hamilton
- Kent Headley
  - 901101 - Seafloor Mapping

        - working on converting TRN_NORAND from a compile time option to a TerrainNav configuration option. Implementation is nearly complete.
        - working on port of libtranav to MSVC (decided to complete NO_RAND first, so it's in the code base).
    - 902204 - Scalable Robotics
        - developing/testing mbpipe, a bathymetry pipeline for converting LCM logs with Compas LCM messages for bathymetry, nav, attitude to MB1 records for use with MB-System. It is flexible in terms of having parameters to adjust for different conventions in the various data streams. Ideally, it could be used for a number of different data sources, provided they log in Compas LCM formats.
        - Used mbpipe to process cerulean data from 20261023.
    - Overhead
        - term hire
        - labor spreadsheet update
        - policy review
        - Ocean Soundscape: external server setup complete (thanks Peter W!)
            - https://ftp.mbari.org/pub/soundscape/audiocean
            - This will be used to collaborate with EARTH and others interested in developing interactive content related to ocean sound, and can also support demos.
        - misc admin
- Rich Henthorn
    - Out of Office
        - Dec 21 to Dec 31 - Vacation
- Akshay Hinduja
    - Out of Office
        - Jan 18, 2027 - Feb 5, 2027: Vacation

- Brett Hobson
- Irene Hu
    - 901805 - Coastal Biogeochemical Sensing Program
        - Nanofet
            - Ongoing current draw tests for rD board
        - Alkalinity
            - rC board working, did some electrical characterization with resistors
            - Set up rC board with floating anode (now using Lionix sensor). Ran several titrations, worked surprisingly well. Some code modifications for minor bugs and modifications of the titration program while analyzing what certain features and behaviors of the curves mean.
    - 901904 - Deep-Sea Coral-Sponge Community Observatory
        - Working on firmware to add checksum feature for better robustness
    - 902305 - Event Detection Using the Sedimentation Event Sensor
        - Discussed/brainstormed fluorescence imaging system with Crissy
    - Out of Office
        - Nov 23-27
- Scott Jensen
    - 901205 - ESP SURF Center
        - Packing and preparing for CalCOFI deployment
        - Investigating protocols to replicate pump failure
        - Finalizing firmware changes
        - Investigate failure mechanism of clamp force sensor

    - 902106 - Niobicon-Based AUV Docking Development
        - Contemplating bidirectional power flow
    - Out of Office
        - October 29-30
- Brent Jones
- Chad Kecy
    - Out of Office
        - Out of office on Fridays
- Brian Kieft
    - Out of Office
        - 07/17-07/22 (GMT -4)
        - 07/26-08/07 (GMT +9)
        - 08/26-08/28 (GMT -4)
        - 08/29-09/02 (GMT -5)

- Denis Klimov
- Eric Martin
    - Out of Office
        - Sick 8/24-8/26
- Thom Maughan
    - 300078 - DMO Support - AUV
        - Hyperion Power supply board modification for 3.4v and test
        - Hyperion Env board pcb layout, bom, fab readiness
        - Discussions with Erik
    - 300083 - DMO Support - LRAUV
        - Evan is building two packs with BPC2 and new batteries
    - 901217 - Chemical Sensors
        - Discussions and requirements for new command for mini-ISUS on Dorado. Requirements apply to other platforms as well. This as been internally referenced as ‘databarf’ mode, now calling it data streaming.
        - Working on proposed changes to present at Monday’s lab meeting. Had a brief discussion with Kevin Gomes on changes to shoreside processing. Will work it with Mike McCann.
    - 901805 - Coastal Biogeochemical Sensing Program
        - MoSoS v5.2 command changes, compatibility modes, tinyFS, bug list.
    - 902004 - Planktivore
        - UV biofouling design will be started and hopefully finished by Brent Jones with the hours he has remaining this year. The plan is to come up with a design that can be used on other platforms as well.
        - Build of spares
    - Out of Office
        - Wed 28 Oct 2026
        - Thur 12 Nov 2026
        - Wed 2 - 4 Dec 2026
- Mike McCann
    - 901101 - Seafloor Mapping
        - Posted x3dom Issue for GeoTileset problem, which fed upstream to an issue in deck.gl
    - 901221 - Midwater Time Series
        - Fixed O2 cal file lookup problem in auv-python reported by Rob
    - 901910 - Plankton Taxonomic Groups from AUVs

        - Diagnosed issues with automated auv-python processing of 35-day pontus deployment
    - Out of Office
        - Half time schedule: Generally away Mondays, Fridays, and alternate Thursdays
        - 12-16 October: Web3D Conference
        - 20-29 October: Remote/Comp time for conferences
- Enoch Nicholson
    - 901205 - ESP SURF Center
        - FIDO Testing support
        - Responding to AE's Questions
    - 902609 - TIDE OMICS
        - Biolink support
    - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
        - Sanctuary Permit
        - MBA flight coordination
    - 902111 - Carbon Flux Ecology
        - Project Update
    - Out of Office
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- Tom O'Reilly
- Mike Risi
    - 200105 - Core Navigation - MDUC
        - Update of navproc-dpkd systems on Packard
    - 300070 - DMO Support - Ventana
        - Working with Kevin G. and Doug C. to debug networking issues with new Furuno GPS
    - 902606 - Low Altitude Survey AUV
        - Met with Chad to go over preliminary trigger board design
        - Working with evaluation boards for trigger board microcontroller selection
    - Out of Office
        - Offsite on Tuesday and Friday
        - January 2, 2026 - vacation
        - January 19, 2026 - January 30, 2026 - vacation
        - March 4-5, 2026 - vacation
        - March 16, 2026 - vacation
        - March 30, 2026 - vacation
        - May 18, 2026 - vacation
        - June 22, 2026 - vacation
        - June 29, 2026 - July 1, 2026 - vacation
        - August 17, 2026 - vacation
        - September 8, 2026 - September 10, 2026 - vacation
        - October 12, 2026 as vacation
        - November 2, 2026 as vacation
        - November 30, 2026 - December 4, 2026 - vacation
- Paul Roberts
    - 901221 - Midwater Time Series
        - i2MAP 4k recorder integration
    - 901513 - Targeted Sampling by AUVs
        - Triton deployment planning
    - 901809 - Deep Sea Bioinspiration
        - Project update materials
        - Triton deployment planning

    - 902004 - Planktivore
        - Opah data ingest
    - 902111 - Carbon Flux Ecology
        - Project update
    - 902204 - Scalable Robotics
        - PoMS requirements, strobes, and cameras/lenses
    - 902603 - Miniature 4K Subsea Optics
        - Lens goals
    - 902606 - Low Altitude Survey AUV
        - Voyis coordination
    - Overhead
        - Board meeting materials for SAIL project
    - Out of Office
        - Nov 19-Nov 27, Dublin, vacation

- Brent Roman
    - Out of Office
        - Sept 8 - Oct 16 (vacation)
- Carlos Rueda
    - Out of Office
        - Oct 26 - Nov 12: vacation (out of the country)
        - Dec 9-10: vacation
        - Dec 22-Jan 7: vacation
        - Jan 15-21: vacation (tentative)
- Karen Salamy
    - 300057 - Mooring Maintenance
        - Weekly maintenance and review of data downloads
    - 902101 - LRAUV Technology Development
        - Bug Fixes
            - Prevent prior-run commands from appearing as running in the Schedule #889
    - 902111 - Carbon Flux Ecology
        - Participated in team Project update for MBARI (10/26)
        - Merged
            - SINKER Animation video on About page #117
            - Restructure Data Viz tabs by science question #103
            - Fix collapsing nav in Chrome #119
            - Mobile & tablet responsive layout for Views #128
            - ADCP flow charts (Redis, smoothed daily mean, Year drag) #132
            - Remove over-aggressive toolbar breakpoints #134
            - ADCP current rose, schematic auto-fit, system status legend #138
            - 7-phase responsive primary toolbar #141
            - Tighten ADCP deployment and weekly smoothing (#142)
        - Issues Filed
            - adcp-week endpoint: add Redis tail for in-progress week #143
            - drag-Day chart: suppress sparse flash while week cache warms #144
    - 902403 - Expedition DB Modern
        - Meeting planned for Th with Brian S. and Kevin G. to discuss precruise data entry
    - Out of Office
        - March 15-24, 2027 - Vacation

        - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
    - Out of Office
        - Nov 12 - Vacation
- Quinn Shemet
    - Out of Office
        -
- Alana Sherman
    - Out of Office
        - In the field 10/19-11/7
- George Stern
    - 300078 - DMO Support - AUV
        - After discovering even more unavailable parts on the Prop board (ex the world is out of 10uF 100V 1210!), respec'ed the schematic again and ordered the BOM
        - CAD layout review and ordering support
    - 902204 - Scalable Robotics
        - Connector I ordered for the boxfish console did not fit, after hours of searching and measuring switchcraft solid models, I realized everything used standard #20 or #22 contacts, tested #20 DB9 contacts - perfect fit; gave up searching and started making a 3D printed insert.
    - 902304 - Piscivore Cam
        - Completed light fixturing and made a water resistant test cable for ballast emulation and light testing in the tank
        - Final fixes, integration and build of the gen4 camera on makai in prep for monday deployment.
    - Out of Office
        -
- Justin Tucker
    - Out of Office
        - Oceans: September 21-24
        - Vacation: September 25th
        - Stanford Project team: September 29th
        - Vacation: October 13th-23rd
- Johann Voigtlander
- Emme Wiederhold
    - Out of Office
        - November 25th - December 8th