Engineering Weekly Report 11/5/2026 - 11/12/2026

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
- Laura Chrobak
- Danelle Cline
  - 901221 - Midwater Time Series
    - Measured i2MAP benchmark against Kris W full i2MAP YOLOv26 coverage; better accuracy .89 than 452k YOLOv26 yet lower recall .52. Best performance remains a 2-stage pipeline combining 452k YOLOv26 + DINOv3. Rob S. cleaning i2MAP dataset in Voxel to expand labels(depth 0-1000 m/8 years/175 distinct labels/~180K boxes)
    - Corrected Voxel plugin label drop-down bug
  - 901502 - Ocean Soundscape
    - Hoplite discussion with collaborator Franny who is evaluating its use for humpback songs.
    - Google Gemini exploration
  - 902111 - Carbon Flux Ecology
    - Deployed latest releases of sinker-dash v1.0.35 and sinker-backend v0.14.0. Thanks to Karen and IS for their help with this. Minor fixes to Ansible. Check-out the dashboard here: https://sinker.shore.mbari.org/
    - Loaded full microscopy dataset to mantis and Voxel pro for Lee Miller 117K images with their transformer assigned labels. Lee is now able to train models and run inference in Voxel Pro.
  - Overhead
    - Few zoom calls with Google Product Manager at DeepMind to discuss Gemini
    - Expense reports and year end purchases
  - Out of Office
    - Nov. 12 Keynote speaker, Julian Morgan School For Girls, Berkeley CA
- Duane Edgington
  - Out of Office
    - Nov 6. Medical.
- Kevin Gomes
- Andy Hamilton
- Kent Headley

    - 300057 - Mooring Maintenance
        - Chatted w/ Kim Reisenbichler about MRS and possible use by collaborator. I'm looking into how IR interface works, to see what's possible.
    - 701147 - MARS O&M
        - MARS node is being tested in the tank this week
        - DMO working to resolve Carson crane problem that surfaced during SoCal cruise
    - 901101 - Seafloor Mapping
        - Submitted PR for libtrnav build update (Rich reviewing)
        - Have another PR queued up (run-time configurable RNG seed)
          Fixed a minor bug in oculus build.
          Working on getting ROS2 build to work; colcon is painful.
    - Overhead
        - Lots of 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
    - 901101 - Seafloor Mapping
        - Revisited model circuit and theory, made a decision on which circuit to use, planning chemistry tests
    - 901217 - Chemical Sensors
        - Minor debugging on another malfunctioning MMS digital board
    - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
        - …submitted application for Part 107.
    - 901904 - Deep-Sea Coral-Sponge Community Observatory
        - Implemented camera integration / image display portion of GUI including associated logic decisions to keep LEDs synched/matched to images, and logging output
        - Fixed a firmware issue with strobe interrupt interfering with serial comms, which became apparent after checksums and error handling are implemented
        - Demo'ed at meeting and we collectively made some decisions for image acquisition
    - Overhead
        - Nov 10: Bike to Work
    - Out of Office
        - Nov 23-27
- Scott Jensen
    - 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 Environmental board, parts ordering, prep for fab at PCB Unlimited
        - LT8390A eval for next rev of power supply board
    - 300083 - DMO Support - LRAUV
        - BPC2 battery ‘at sea’ testing on Galene is going well, no issues found with Batman firmware or the hardware.
        - Varsha is working to get quotes from PCB Unlimited for producing enough boards to upgrade the LRAUV fleet. Need to update LRAUV wiring diagrams, etc. Brett working with Saab on handoff at some point.
    - 901217 - Chemical Sensors
        - Meeting with Josh and Jess then a follow up meeting with Mike McCann to pin down requirements for Dorado mini-ISUS integration. The meeting with Mike was very helpful.
        - Working on new streaming command with first pass at optimizing UV lamp on time, driven more by extending the life of the lamp rather than reducing power, but that comes as a bonus.
    - 901805 - Coastal Biogeochemical Sensing Program
        - MoSoS v5.2 testing, bug fixing. Jim Davis addressed a number of issues in TinyFS and is now on vacation until Dec.
    - 902004 - Planktivore
        - Planktivore build inventory shows we are short lenses and lack the budget for them. Paul getting a quote and request for eng dept funds.
        - Hyperion effort surfaced the payload requirement of ‘soft start’ for boost converters to aid the LRAUV load controller at turnon. Boostr works as is on the camera controller, but should have a SS cap mod in future revs.
    - Out of Office
        - Wed 28 Oct 2026
        - Thur 12 Nov 2026
        - Wed 2 - 4 Dec 2026
- Mike McCann
    - 901101 - Seafloor Mapping
        - Almost ready with the mbmesh & mbglb2tiles performance improvement PR
    - 901910 - Plankton Taxonomic Groups from AUVs
        - Met with Thom, Jessica, & Josh about Mini-ISUS data on Dorado
    - Out of Office
        - Half time schedule: Generally away Mondays, Fridays, and alternate Thursdays
        - 19 Jan - 4 Feb: Remote/Comp time
- Enoch Nicholson
    - Out of Office
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- Tom O’Reilly
- Mike Risi

    - 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
    - Out of Office
        - Nov 19-Nov 27, Dublin, Ireland, 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 download checks for existing deployed moorings
        - Set up a new coredata8 directory for upcoming OA2 202611 deployment. Testing downloads have been running successfully since Tuesday 11/10/2026.
    - 902101 - LRAUV Technology Development
        - Bug Fixes
            - #889 — Schedule row matching: investigated failing test (CellVirtualizer overscan root cause), fixed filename ≠ mission name via in-place promotion, added ACK-only guard, added gitRef to getScript, multiple Copilot rounds
            - #893 — TrackDB positions timeout increased to 15 s to match Dash4; fixes ShanaRae, D_PACKARD, and other slow AIS platforms disappearing after toggle
            - #894 *(draft)* — TrackDB position refresh reduced to 1 min to match Dash4
            - #895 — Cellsat commands no longer show "Timed Out" after cell delivery
            - #896 *(draft)* — "Use for new mission" now advances past Mission selection automatically
        - In Review
            - #889 — Prevent prior-run commands from appearing as running in the Schedule
            - #893 — Increase TrackDB positions timeout to match Dash4
            - #895 — Cellsat commands no longer show Timed Out after cell delivery
    - 901805 - Coastal Biogeochemical Sensing Program
        - Attended a team meeting to better understand the data and SQL database access on PELICAN.

    - 902111 - Carbon Flux Ecology
        - Bug Fixes
            - #147 — Remove dead mock ADCP historical endpoint
        - Features
            - #149 — Add Planktivore particle size spectrum (hourly + daily) and daily mosaic cards to Data Viz page
    - Overhead
        - Completed annual PO for MathCad floating seats.
    - 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
    - Out of Office
        -
- Justin Tucker
- Johann Voigtlander
    - 902208 - Mini ROV Operations
        - Greece minirov trip. Tons of work.
- Emme Wiederhold
    - Out of Office
        - November 25th - December 8th