

Engineering Weekly Report 2/19/2026 - 2/26/2026

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

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Designing new mooring
 - 902106 - Niobicon-Based AUV Docking Development
 - Project management
 - New mooring
 - Video guidance plan
 - 902204 - Scalable Robotics
 - Helping with change to mapping sled
- Danelle Cline
 - 901221 - Midwater Time Series
 - Deployment of new VM cortex with proxy gateways for various services, including a new Voxel51 sync service
 - 901502 - Ocean Soundscape
 - AWS setup for CSUMB student project and project planning for 10 week program
 - Updated recording JSON metadata in bitbucket
 - Helped with collaborator, Franny with ROST docker build
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting
 - 902111 - Carbon Flux Ecology
 - Deployment of new VM cortex with proxy gateways for various services, including a new Voxel51 sync service
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Team meeting
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Implemented roboflow subversion sliced inferencing for UAV images in RF-DETR detection pipeline. Analyzing the results.
 - Next step, sweep detection threshold to find optimal true positives vs false detections.
 - Present kelp segmentation poster virtually at OSM conference. Teleconference set up for 8AM PDT 2/26/2026. (Tim is presenting 9PM PDT 2/25/2026)
 - Overhead
 - Group meeting
 - Out of Office
 - Medical Weds Feb 18 2026

- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - 901101 - Seafloor Mapping
 - Testing code, syncing across repos, and submitting pull request for large-ish TRN change set, first to libtrnav, then MB-System.
Changes primarily related to LCM front end for TRN on ROV, but also includes some updates to TerrainNav and client subclasses.
 - 902204 - Scalable Robotics
 - Reviewing mbs-tools (sonar log conversion by Mauro C); I may operate/support this on the upcoming Packard Cruise either onboard or remotely.
- Rich Henthorn
 - 300078 - DMO Support - AUV
 - Accommodating LRAUV LCM messaging change for TRN
 - 902111 - Carbon Flux Ecology
 - Test cabling and networking for MARS deployment
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Tested both sediment traps by soaking and then running the carousels
 - 902401 - Geo-Sense
 - Researching methods to account for clock drift on the DAS
 - Out of Office
 - Feb 25 - WFH (appointments)
 - March 4 - SINKER deployment on Carson
 - March 30 to April 2 - WFH and time off
 - Apr 9 to 13 - Durkin Packard Cruise
 - May 18 to 28 - Vacation
 - June 29 to July 6 - Vacation
- Akshay Hinduja
 - Out of Office
 - Feb 9 -March 9 parental leave
- Brett Hobson
- Irene Hu
 - Out of Office
 - 2/19/26 - 3/2/26: OSM
- Scott Jensen
 - Out of Office
 - March 23-31 (estimate)
 - May 11-24 (vacation)
 - June 29-July 7 (vacation)
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- Brent Jones
 - 901805 - Coastal Biogeochemical Sensing Program
 - Mechanical design of nanofet2
 - 902004 - Planktivore
 - Recover LRAUV Ahi
 - Overhead
 - Install Starlink on Mt Toro
- Chad Keycy
 - Out of Office
 - Out of office on Fridays

- Brian Kieft
 - Out of Office
 - 03/16-18 (MST - wfh Mon/Tue .5 day)
- Denis Klimov
 - 702106 - CeNCOOS
 - Setting up the IFCB instrument on the mobile station. Plan to make a station like this with bigger wheels, and move it for further maintenance running into the building G.
 - 902004 - Planktivore
 - Working on assembly notes and checking out the instrument before closing.
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - We are starting regular meetings in the face of the upcoming deployments.
 - Pre-deployment testing of SES instrument, to get familiar with its operation.
 - 902401 - Geo-Sense
 - We are processing deployment data from the Feb 3, 4 DAS deployment. In conditions of poor visibility, we somehow strained the fiber during spool deployment. People at Sintela produced a good report based on the data identifying two strain events and pinning exact time when it happened, to 1 sec. precision.
 - Subsequently, I made a report based on ROV video and dozens of framegrabs, identifying the first strain event due to the fiber coming to the tension and spool starting rotation.
 - And Rebecca E. did an analysis based on the ROV coordinates, which pointed out that when the strain even happened, we likely pulled the optical fiber against strain release, thus possibly stressing the fiber at the very end of the strain relief (aka “the noodle”).
 - Those findings are going to influence the next design.
 - Overhead
 - Studying the laser cutter from Boss Laser and working on creating laser safety TWA for this machine. Turned out, we did not have sufficient airflow for this machine, it is going to be moved to building B. Also, when working with oversized materials and during the alignment, we need to have SOPs in place in order to do it safely.
- Eric Martin
 - 901101 - Seafloor Mapping
 - Programming the micro for the TCU
 - Looking at G, not much room to get the sled going again
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 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Sent load cell board back to vendor.
 - 902504 - Scalable Semantic Mapping
 - Tank testing for cruise prep
 - 902606 - Low Altitude Survey AUV
 - Meeting this week.
 - Out of Office
 - Vacation last week 2/17-2/19
- Thom Maughan
 - Out of Office
 - Vacation Feb 16 to 20
 - OSM Feb 19 to 23
- Mike McCann
 - 901101 - Seafloor Mapping
 - Met with Capstone students who are making good progress on [#1559](#)
 - Reviewed SMDB PR

- 901910 - Plankton Taxonomic Groups from AUVs
 - Reprocessed and reloaded all 2025 LRAUV data with corrections for wetlabsbat data
- Out of Office
 - 23-24 February: Out sick
 - 2-5 March: OGC 134th Member Meeting - remote attendance
 - 19 June - 17 July: Vacation
- Enoch Nicholson
 - Out of Office
 - Sick
- 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
- Paul Roberts
 - Out of Office
 - Feb 21 - Feb 27: OSM 2026, Glasgow
 - Feb 28 - Mar 8: Vacation, Scotland
 - Mar 9 - Mar 13: OI 2026, London
 - June 13 - June 20, 2026 MidSEC, Sweden
- Brent Roman
- Carlos Rueda
 - Out of Office
 - Feb 24 morning: family business
- Karen Salamy
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**). New OFFICE - G106.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Update to [Oni](#) to allow additional taxonomic levels as requested by the video lab.
 - Improvements to bulk editing in [VARS Annotation](#)
 - Updates to the [VARS Query](#). The *save results to TSV* action was using the first JSON record in the results to build the column headers, but annotations are sparse data and sometimes the first record was missing fields that were present in other records. This could result in columns, like salinity, not being included in the results.
 - Started a draft revision of MBARI's [public VARS website](#) which is incredibly out of date.
 - 902111 - Carbon Flux Ecology
 - Quite a bit of work to finalize the migration of Station M image annotations from a very old VARS database into our current system.
 - Updates to [vars-legacy-migrator](#) to handle creative naming of Station M deployments.
 - Some Station M deployments contain over 12K annotations. Updated [annosaurus](#) to improve bulk insert performance into the database to accommodate this. Completed this in v1.4.12
 - 902403 - Expedition DB Modern
 - Met w/ Kevin Gomes to discuss next steps for development.
 - Overhead

- Created a new [VARS orchestration project](#) for [DARC](#) so they can use our new web-based query and kb editors. This is based off of [vars-quickstart-public](#), which in-turn is based off of the one we use on our ships: [vars-quickstart-mbari](#)
 - Also added [varsq backup](#) and [varsq restore](#) subcommands to both public projects to create and restore from database snapshots.
 - Integrated [pythia-python](#) into the both public projects and added an autofetch of [FathomNet's megalodon](#) model if no user provided model is present. Pythia is integrated with various VARS tools to allow ML assisted annotation.
 - Organized a meeting with DARC next week to upgrade their VARS system.
 - As a member of the Marine Imaging Workshop's science committee, Brian reviewed submitted abstracts.
 - Updated <https://miw2026.org/> with the science committee info.
- Out of Office
 - April 6 - April 24: Vacation
 - Jun 13 - Jun 19: Midwater Science and Engineering Community Conference, Sweden.
- Quinn Shemet
 - Out of Office
 - Feb 17th - Feb 19th - Vacation
 - Feb 23rd - Feb 28th - OSM, Glasgow
- Alana Sherman
- George Stern
 - 902106 - Niobicon-Based AUV Docking Development
 - Planning
 - 902204 - Scalable Robotics
 - Completed isolation board for OAKD1500M
 - Started trigger switching board for PoE can
 - 902304 - Piscivore Cam
 - Ordered new camera sensor
 - Gen4 camera design and replacement options as Oclea shutdown
- Justin Tucker
 - 902204 - Scalable Robotics
 - Mini ROV target holders for deployment and recovery
 - Overhead
 - Mooring analysis for Amazon deployment
 - DAKOTA setup and training for design of experiment management
 - Out of Office
 - Fridays through March 2026
- Johann Voigtlander
 - 902208 - Mini ROV Operations
 - Mini in TT, made up a new laser bracket, upgraded all NUCs to windows 11 which involved a lot of testing and software installation. The MiniROV system seems stable so far. Camera and laser calibrations are all done.