

Engineering Weekly Report 6/6/2024 - 6/13/2024

<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
 - Monitoring buoy
 - 902106 - Niobicon-Based AUV Docking Development
 - Deployment of AUV dock
 - Out of Office
 - 1 day off
- Danelle Cline
 - Out of Office
 - Vacation June 5-20
- Duane Edgington
 - Out of Office
 - June 10 - 21, 2024. Vacation UTC-8
 - Sept 17 - 20, 2024. PyTorch Conference, San Francisco
 - Oct 21 - Nov 8, 2024. Vacation UTC+1
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Working with Peter, fixed issue with Redis patching that is breaking the server on Ubuntu
 - Implemented more loggers on the simulator
 - Configured simulator to be very close to the newly deployed dpnavproc1.shore.mbari.org that Mike is bringing up
 - Starting on proposal scoping
 - 300057 - Mooring Maintenance
 - Starting on SSDS configuration for M1 Mooring turn coming at the end of the month.
 - 300059 - DMO Support - RV David Packard
 - Working through ArcGIS Pro SDK to figure out how to upgrade ArcMapNav to ArcGIS Pro since old ArcGIS will no longer be supported after July.
 - 300070 - DMO Support - Ventana
 - Help troubleshooting CTD issue. Added new logger to log raw CSP messages to see what is being sent during the 'outages'.
 - 902403 - Expedition DB Modern
 - Meeting
 - Overhead

- Working through configuration of Marine Traffic corporate accounts. Trying to get AIS station linked to my account so I can get a free Pro account to assign to Andrew for the Packard.
 - Changed getAISpositions python script running on pismo so that it only uses one connection and one channel when pushing messages to the AMQP server. It was create a new connection/channel for each new AIS message which eventually was causing the server to run out of file handles.
 - Fixed bug in Telepresence app that was causing datamanager consumption to break (I had turned on publishing from the simulator which did not have any data yet and it broke things. Good that I caught this now).
- Out of Office
 - June 7: Out of office
- Andy Hamilton
- Kent Headley
 - Out of Office
 - Jun 4-7
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Troubleshoot acoustic modem comms
 - Finishing touches made to image processing and detection scripts
 - Tested instrument in test tank with trigger sediment trap target
 - 902306 - SINKER
 - Meeting discussion about July deployments
 - 902401 - Geo-Sense
 - Meeting
 - 902405 - Precision Control Technologies
 - Simulation data acquisition for Rock
 - Overhead
 - Rec-Comm stuff
 - Out of Office
 - June 20: SES deployment on Carson
 - July 3 - 11: Vacation and WFH
 - Aug 26 - Sep 11: Vacation
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Discussions and planning re: Nanofet v2
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Picked colors for target
 - Circuit and code to test jbox board
 - Overhead
 - Working on proposal
- Scott Jensen
 - Out of Office
 - June 17-21 vacation
 - July 18-23 vacation
 - July 24-29 vacation
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Tuned EPOS4 in situ on SIPPER. Ready for final fill and test in water
 - 902004 - Planktivore

- Adding LCM publishers for pressure case engineering data
 - Helped debug crashing app on spurious serial input
- 901700 - Acoustical Ocean Ecology
 - Drove Paragon in support of monthly survey
 - Drove Paragon for WG recovery
- Out of Office
 - Vacation
- Chad Key
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 05/27-06/21 (GMT+1)
 - 07/08-07/12 (HST)
 - 07/16-07/22 (EDT)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Vacation Friday June 7th
- Thom Maughan
 - 901805 - Coastal Biogeochemical Sensing Program
 - 901217 - Chem Sensors / GoBGC / SOCCOM
 - ISUS for M1 Mooring
 - Corrosion on Spray Glider was minimal during last deployment - 'ground' strap between p-cases appears to be working. Hoping to get a plastic tank down at ESB to make some measurements and do root cause on the ground fault.
 - 902004 - Planktivore
 - MIW2024 abstract submitted
 - Overhead
 - Forrest Milner intern arrived on Monday. Getting him setup with all the agreements in place. Bidirectional satellite comms with Argos and Kineis.
 - Out of Office
 - June 13 NASA Ames, eDNA
 - June 20 - 26. Texas
 - July 4 - taking the week off.
 - Aug two to three weeks vacation Colorado.
- Mike McCann
 - 901101 - Seafloor Mapping
 - Rolled out spreadsheet management of exclude paths to production
 - Pulled to production Karen's .css improvements
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Reviewing proposal text for renewal of this project
 - 902101 - LRAUV Technology Development
 - Setup [stogs_denmark2024](#) for consolidating all the makai and brizo realtime log files
 - 902403 - Expedition DB Modern
 - Waiting on https certificates for expd.shore.mbari.org before configuring MBARI Duo signin
 - Replicating the Advanced search functionality in the expd-django project
 - Wrote proposal text for project renewal
 - Out of Office
 - 20 June - 19 July: Vacation

- 22 - 25 July: ESIP Federation Summer meeting, Asheville, NC
 - 28 July - 1 August: SIGGRAPH, Denver, CO
- Rob McEwen
- Paul McGill
- Enoch Nicholson
 - 706008 - READI-Net
 - Continued FIDO build & checkout
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Flight ops TP & DPL
 - 902306 - SINKER
 - Slider Design
 - Started manufacturing
 - 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 19-24 Vacation (Available via Slack & Email)
- Tom O'Reilly
- Mike Risi
 - 200105 - Core Navigation - MDUC
 - Deployed code up and running in building D
 - Serial ports installed and functional
 - Working with Drew B. to start plumbing in ROV serial instruments
 - Logging and nightly downloads to be enabled as soon as data is available
 - 901101 - Seafloor Mapping
 - Miscellaneous BME280 sensor work WRT the LASS trigger board
 - 902405 - Precision Control Technologies
 - Sorted out sonar mounting issue with Steve Rock
 - Working on process to simulate DeltaT data at Portuguese Ledge
 - 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
- Paul Roberts
 - Out of Office
 - June 21, 28
- Brent Roman
 - 708165 - NOAA-MERHAB-UW
 - Participated on call discussing how to add Iridium Next Satcomms capability to UW ESP moorings
 - 901205 - ESP SURF Center
 - One of the ESP 2Gs locked up with I2C bus failure, requiring a restart
 - Haven't seen this failure mode since last major firmware update
 - Waiting for final hardware to test skimmer on ESPhonu bound for Great Lakes
 - Pressure sensors on Denmark ESPs drifted
 - Pushed out a one-liner sed script to allow taring despite the large bias drift.

- 901913 - Wet Wifi
 - Working on 2025 proposal
- DQ2320 - McCloud River Salmon
 - Comms and ESP working perfectly. Boring.
 - High temps (>42C) in can are a cause for concern.
- Out of Office
 - June 20 - June 31 (gunkholing in the Sacramento Delta)
 - July 1 - Aug 31 (Vacation in Japan)
- Carlos Rueda
 - Out of Office
 - June 10–13: vacation
 - July 2–3, 22–25: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Working with Jared and Kent to determine what is causing the data download failures with the M1 Test system.
 - 901101 - Seafloor Mapping
 - Added new css updates and fixes for the SMDB UI.
 - 902101 - LRAUV Technology Development
 - Working with Jim Jeffers to complete the map updates for the Dash5
 - Out of Office
 - Out sick much of this week - fighting a virus.
 - On-campus 3 days/week (**T, W, TH**).
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Continuing work on <https://github.com/mbari-org/oni>
 - Discussions with Paul Rogers on a UI for Oni
 - 902404 - 5th Marine Imaging Workshop
 - Abstract submissions are closed. We received 122 abstracts. They are being distributed to the science committee for review
 - Overhead
 - [Setting up a video lab at OSU](#)
 - Discussion with GeoMar about [updating their VARS systems.](#)
 - Out of Office
 - Jun 10-14 - Setting up video lab at OSU
 - Jul 8-11 - Updating video lab at DARC
 - Jul 15-24 - Vacation
 - Aug 19-22 Vacation
 - Sep 5-9 - Vacation
 - Oct 7-10 - 5th Marine Imaging Workshop in Monterey
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Met with GT and team to discuss how to pack on the elements of the navigation sled to the benthic sled for the arctic cruise
 - 902401 - Geo-Sense
 - We got bad news on our planned fiber optic penetrators—they are no longer available in Ti or rated for PBOF. Luckily, Brett is in Denmark and had already planned on visiting the manufacturer, so we are trying to see what we can work out. My initial search did not yield other options or better options.

- Read and edited Aaron's first draft of the Geo-Sense proposal and the CSEM proposal. We still need to hammer out the labor hours and milestones.
 - Project meeting was focused on the issue of the fiber penetrator and the bitter end of the cable with relation to deploying through the sheave.
- 901205 - ESP/Readinet
 - Finally added the 3.3V switcher after looking through many options
- Overhead
 - Small details about open house and building G
- George Stern
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Working on integrating the VN-300T AHRS into the blueboat
 - 902208 - Mini ROV Operations
 - Met with Giancarlo to discuss Arctic trip mapping integration and logistics
 - 902402 - CSEM
 - Refurbished one of the transmitter electrodes
 - Wrote a labview program to connect to the triggerbox and dataloggers via TCP. Trying to decode the binary data
 - Out of Office
 - April 16th - May 7th Germany CSEM
 - May 8th - May 12th Vacation