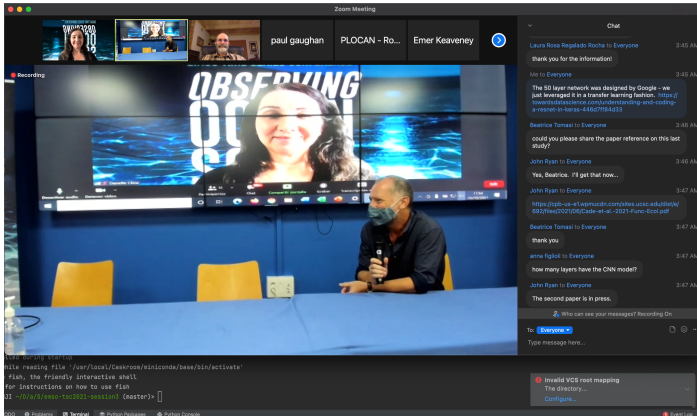


Engineering Weekly Report 10/28/2021 - 11/4/2021

Executive Council Notes

- Danelle Cline & John Ryan hosted the 3-hour tutorial on methods for detecting and identifying marine mammal sounds for the [EMSO Time Series TSC 2021](#) "Observing Sound" workshop. Around 60 researchers from various places in the world participated in the tutorial. Special thanks to John for staying up in the wee hours of the night to join and presenting the compelling science story on why we chose to focus on blue whale sounds.



Individual Activities

- Francois Cazenave
 - Out of Office
 - Took 1 day of vacation
- Mark Chaffey
- Danelle Cline
 - 901502 - Passive Acoustic Sensing
 - Moved the live stream over to Icecast per changes in the live streaming service we use for improved performance
 - Responding to licensing and general data inquiries on AWS open data access; we are getting a number of external groups interested in discussing how to facilitate sharing models, training data, etc.
 - Testing streamable PCEN detection on blue D calls
 - 902005 - VARS Annotation Assistance
 - Working with Duane Edgington and Kevin Barnard on documentation <http://docs.mbari.org/internal/vaa-docs/>
 - Team meeting planned for Friday to work through remaining tasks & assignments for the year
 - Overhead
 - EMSO tutorial materials completed <http://github.com/mbari-org/emso-tsc2021-session3>
 - Out of Office
 - Vacation 11/23-11/26
- Duane Edgington
 - Out of Office
 - Nov. 3 - Dec 6. Vacation (foreign travel)

- Jon Erickson
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
- Ben Erwin
- Kevin Gomes
 - 300057 - Mooring Maintenance
 - Some small troubleshooting with the GPS
 - 901009 - CANON
 - Had IS finally remove the old Normandy (CentOS 6)
 - Troubleshooting for CPF positions on the ODSS.
 - 902100 - Telepresence on MBARI Research Vessels
 - Starting to work on script to extract data from Datamanager on ships and push back to shore so we can integrate data feeds into application.
 - Overhead
 - Normal group lead overhead
 - Finalizing Dataprobe changes and deployment on both ships. Documenting changes too.
 - Some small help with Greensea system on Carson.
 - Out of Office
 - 11/22-26 Vacation
 - 12/9 Vacation - Volunteer at Tech Fest day at Bay View Academy
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working on integration of TRN into Dorado simulation
 - Overhead
 - Misc admin, office/lab space, hiring, SRSC
- Rich Henthorn
 - Out of Office
 - Dec 17 - 30, Holidays and vacation
- Brett Hobson
- Scott Jensen
- Brent Jones
 - Out of Office
 - 1 day vacation
- Chad Keczy
- Brian Kieft
 - 300082 - DMO Support - Wave Glider
 - Assisted with DAT calibration CPF search
 - 300083 - DMO Support LRAUV
 - Assisted with LRAUV deployments
 - 708168 - DHS Y8
 - Lots of DDM component debugging
 - 800139 - EyeRIS
 - Assisted with prep for Galene
 - 901023 - Continental Margins
 - Found a BED from 2016! Disassembled and grabbed data.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Updated firmware, bootloader, and diag software on 4/7 DAT units
 - Working on finishing Thruster HE component code
 - 902106 - Niobicon AUV dock dev
 - Prepped mooring and deployed. Docking tests coming soon.

- Out of Office
 - 9/20-9/22 (phoenix)
 - 9/29-10/1 (phoenix tbd)
 - 10/4-10/5 (phoenix)
 - March/April TBD LRAUV ops
- Denis Klimov
- Diana LaScala-Gruenewald
- Eric Martin
 - 901206 - Coastal Profiling Float
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 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Short trip out to the buoy fixed a communication issue on the modem. Seems like the modem got into a strange edge case with AT&T and was wedged, needing a reboot.
 - 901700 - Acoustical Ocean Ecology
 - Handed over some materials to Brent Jones
 - 902100 - Telepresence on MBARI Research Vessels
 - Supported 2 days of ops on the Rachel Carson
- Thom Maughan
 - 901009 - CANON
 - Ordered Xavier NXs to replace those borrowed from Plantivore, delivery expected Jan 2022.
 - Ordered const current dc/dc conv for eDNA box battery pack
 - 901805 - Coastal Biogeochemical Sensing
 - Review of nanoFET updated design with Scott and Yui
 - Received ADS1248 from China, testing the quality.
 - 902004 - Planktivore
 - Met with Larry as he's back from vacation, wrapping up another project and should start Planktivore soon. Reviewed connector and pressure sensor plan for compute node. Titanium is required.
 - Located titanium pressure sensor from Keller. Quote requested, ordered.
 - Met with Paul to review progress. Quote and ordering cables and connectors
 - Budget update to Grants office / Henry
 - Laptop setup for Denis to use for optics testing
 - Lab space for particle flow tests in Fluum
 - Out of Office
 - Working from home once a month on Wednesday (child/school) (Nov 3, Dec 1)
 - Nov 5 Vacation
 - Nov. 10,11,12 Vacation in Dallas, TX
- Mike McCann
 - 901101 - Seafloor Mapping
 - Refined <https://smdb.shore.mbari.org/> loader to look for .png thumbnails if .jpgs not found
 - Meeting with Jenny and Karen to go over any development system glitches
 - 901111 - AUV Infrastructure Support
 - Processed mission 2021.301.00
 - 901221 - Midwater Time Series
 - Writing process_i2map.py script to get data into STOQS-loadable netCDF format
 - Overhead
 - Touching base with capstone students and their GMT .grd to .gtif converter
 - Attending MLonMB workshop at UCSC next Wednesday
- Rob McEwen
 - 902101 - LRAUV Technology Development and Fleet Operations

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- Out of Office
 - Nov22-24
 - Dec 22-31
- Paul McGill
 - 300070 - DMO Support Ventana
 - Went to Monterey Bay Academy on Tue to participate in UAV testing. Things were broken, lessons were learned.
 - 701145 - Penguin Hotspots
 - Working on schematics for REMUS sonar payload.
 - Getting copper parts machined to assemble second sonar Faraday shield.
 - 901618 - Pelagic-Benthic Coupling
 - Troubleshooting failures in Rover and SES.
 - 901803 - Carbon Wave Glider Development
 - Team members met to discuss transfer of hardware and software to NOAA PMEL.
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Working with Alana to integrate targeting laser system into main camera housing.
- Ed Mellinger
- Tom O'Reilly
 - 901112 - Monterey Bay Time Series
 - Worked with McLane labs and collaborator UCSC collaborator Patrick Daniel to remotely troubleshoot and restore functionality of IFCB microscope deployed on power buoy in Monterey Bay.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - Prepared and carried out tests of science camera mounted in Believer fixed-wing UAV; prepared calibration targets, calculated and set shutter speed to eliminate motion-blur, and analyzed resulting images of targets from overflights at 100 meters elevation - actual scale in good agreement with calculations, we can expect ~1 cm/pixel resolution at sea surface with this camera.
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Assemble new pumps
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Design VHF antenna
 - Out of Office
 - Vacation days
 - Out sick
 - Overhead
 - Lab and office clean out
- Doug Pargett
 - 881135 - 3G ESP Cartridge Redesign
 - Meetings for the
 - Redesigning the Toroid Valve array and several other parts.
 - 901205 - ESP SURF Center
 - Disassembled Honu to inspect the cartridge bus cabling assembly, reassembled Honu.
 - Overhead
 - Engineering mtg
 - Out of Office
 - Annual Leave
 - Sick Leave

- Ben Raanan
 - Out of Office
 - June 8-22
- Mike Risi
 - Out of Office
 - April 26-30: Ocean Imaging Cruise
 - May 3-7: Vacation
 - June 4-11: Vacation
 - June 28-July 2: Vacation
 - August 30-September 14: Ocean Imaging Cruise
 - September 14-17: Vacation
 - Vacation on alternate Fridays
- Brent Roman
- Carlos Rueda
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Dash system is now [4.7.6](#), mainly incorporating adjustments toward our goal of decommissioning the legacy UI. Thanks again all for their feedback.
 - As requested, [okeanids home page](#) customized to include a link to TethysDataViz.
 - Out of Office
 - Oct 27–29: <https://scale.bythebay.io>
 - Nov 1–4: <http://www.scalacon.org/>
 - Nov 11, 12, 22–24; Dec 9,10, 21–23: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Weekly Maintenance and mooring operation checks.
 - 901101 - Seafloor Mapping
 - Working with Jenny and Mike on the builds and operation of the SMDB. We are now meeting once a week and going over any bugs or questions. Going over meeting videos to make sure I understand the build process.
 - Overhead
 - Working on the Matlab purchase order for this year.
 - Attended Todd's meeting this AM on new VPN connection changes. Signed up early to transition since I will be going on vacation next week. Decided to wait to set up my Duo account until after today's SE group meeting. :)
 - Considered to join Todd's new hiring group to replace Pat but noticed that both Kevin and Brian are already on it so felt our group was well represented.
 - Out of Office
 - Vacation: November 12-19, 2021.
- Brian Schlining
 - 500055 - Video Annotation DM
 - Met with video lab to discuss direction and development of the new Deep-sea Guide. Live prototype at <http://m3.shore.mbari.org/deepseaguide/#/dsg>
 - Working on upgrading VARS on the WF. Part of the upgrade is porting VARS to the new LTS release of Java (v17). This work includes replacing the LESS stylesheets in VARS with CSS as [Java 17 no longer includes the Nashorn javascript parser](#) used to transform LESS to CSS.
 - 902002 - Fathomnet Detect and Classify
 - Wrote an [application to trim black letterboxes](#) off of images in FathomNet and reposition the localizations on the corrected image. All images in FathomNet have now had any black/border edges trimmed off.
 - 902005 - VARS Annotation Assistance

- Working through some Image ML courses before our next sprint.
- Overhead
 - Completed LTO file management web app for IS that allows staff to recall/migrate files on titan to LTO. <https://bitbucket.org/mbari/lto-recall-app>
 - Posted a brief note about “[Using Type Classes to Convert Scala 3 Case Classes to CSV](#)”
 - Published a new docker image for running the latest version of [polynote](#) notebook. You can run it with ``docker run -p 8192:8192 -v $(pwd):/opt/polynote/notebooks --name polynote mbari/polynote:latest``. Source at <https://github.com/mbari-org/docker-polynote>
- Out of Office
 - Nov 10 - Attending Machine Learning on Monterey Bay (UCSC)
- Rich Schramm
- Alana Sherman
 - 901618 - Pelagic-Benthic Coupling
 - Working with Raul on press material for Rover paper
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Looking for an data logger to monitor in camera housing in case of another failure
 - Overhead
 - Most of my time has been spent on hiring this week. We finished the first EE position zoom interviews (8 in total), moving on to alerting candidates for in person interviews and scheduling.
 - Working on second EE position as well, and reading applicants for Seafloor processes PI search
 - Out of Office
 - Out sick last Thurs and Friday