

Engineering Weekly Report 10/7/2021 - 10/14/2021

Executive Council Notes

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Individual Activities

- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Monitoring buoy
 - 901700 - Acoustical Ocean Ecology
 - Supervised assembly
 - 902106 - Niobicon-Based AUV Docking Development
 - Designing and building dock, and mooring
 - Project management
 - Overhead
 - Participated in 3 interviews for ME tech position
- Mark Chaffey
- Danelle Cline
- Duane Edgington
 - 901603 - Video TAG: Visualizing Ocean Change
 - Sent Mandy project slides for board meeting as requested.
 - Registered with George M. interest in summer interns 2022.
 - 901618 - Pelagic-Benthic Coupling
 - Dan Davis made excellent progress applying in-water calibration images from June 11 2021 dive to Laser Measure calibration procedure, yielding a LM calibration file. Next step is to apply this calibration to measuring fly-over of checkerboard and animal targets, as well as benthic transect, from that same dive
 - 902005 - VARS Annotation Assistance
 - Sprint work October 4-8 and October 11. Great progress. Documentation sprint planned for Oct 14.
 - Overhead
 - Group meeting Oct 13.
 - Out of Office
 - Monday Oct 11. Rest day after covid vaccine booster shot and flu shot.
 - Friday Oct 15. Personal day (have AT&T install Fiber 1000 internet!)
- Jon Erickson
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
- Ben Erwin
- Kevin Gomes
 - 300057 - Mooring Maintenance
 - M1 Downloads seem to be struggling, I offered small amount of help
 - 901009 - CANON
 - Migrated all Danelle's ERDDAP subsetting and mapfile update scripts to a Docker container and deployed both on normandy8 and on odss-testu. That should be the last piece so I shutdown the original normandy (CentOS 6) machine and will leave it dark for a bit to see if anything

breaks. Next steps are to re-migrate normandy8 to an Ubuntu box and then upgrade zuma and malibu on Carson and Flyer respectively.

- 902100 - Telepresence on MBARI Research Vessels
 - Went over items with Eric M to discuss ideas for a prototype.
- Overhead
 - Working on changes to logging and Dataprobe to support 4K camera deployment coming up on the WF/Ricketts.
- Out of Office
 - 10/4-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - Out of Office
 - Oct 14-15 (personal)
- Rich Henthorn
 - 708167 - WEC Dynamics and Control
 - mainbuoycontroller ROS-ification kickoff
 - 901618 - Pelagic-Benthic Coupling
 - At Sta.M
 1. Cruise cut short due to WF engine issues
 - Benthic Rover issues
 1. Propulsion motor controller comms
 2. LF and MF modem
 3. Oil comp hoses
 - SES appears to have functioned well during the deployment
 1. Awaiting redeployment cruise
 - Camera Tripod recoveries and deployments
 1. Solo camera deployment OK
 2. Duo camera returned full load of images
 - Transit back to Monterey Bay
 1. WF returned to Monterey Bay Sunday evening to wait out the storm
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TRN updates on LRAUV Pontus for deployment
 - Pontus returned useful data logs
 - Out of Office
 - Oct 6 - Oct 11, Sta.M cruise
- Brett Hobson
- Scott Jensen
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Design work for BMS
 - 901805 - Coastal Biogeochemical Sensing
 - Readied latest release of ISFET adapter for testing
 - Overhead
 - Finished up Solidworks training
 - METech interviews
 - EE hiring committee
- Brent Jones
- Chad Keczy
- Brian Kieft
 - 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
 - 901023 - Continental Margins
 - Restoring linear stage setup for BEDS motion testing
 - 902004 - Planktivore
 - Sorting parts and setting up breadboard
 - Overhead
 - Sorting and organising FCB parts for storage
- Diana LaScala-Gruenewald
 - 901915 - Improving MBARI Data Impact
 - Completed initial documentation
 - Reviewed ERDDAP docs/other materials to evaluate “ideal” data format, ways to serve large amounts of data, high request volumes
 - Began trying to serve ROV CTD data using ERDDAP - currently troubleshooting connection issues
 - Overhead
 - Weekly meeting(s)
- Eric Martin
 - Out of Office
 - October 11-15th
- Thom Maughan
 - 902004 - Planktivore
 - Project schedule discussions, one on one, with Larry, Denis, Jon, Duane.
 1. Critical path (housing) commit is in place.
 2. Shoreside ingest software deferred until 2022
 3. Benchtop image quality breadboard
 4. Jon to work battery housing with remaining hours in 2021
 - Working BOM and supply chain challenges.
 1. Ordered 5MP global shutter cameras from FLIR ahead of image quality test, 25% restocking fee, due to low inventory alert from a distributor
 2. Ordered LEDs
 - 3.
 - Installed
 - Out of Office
 - Working from home on every other Wednesday
 - Nov. 10,11,12 Vacation in Dallas, TX
- Mike McCann
 - 901101 - Seafloor Mapping
 - [Added range slider](https://smdb.shore.mbari.org/) above the map at <https://smdb.shore.mbari.org/> to constrain the nav track display by time. (I tried to make the slider step in regular time intervals, but it was becoming too complicated for my weak JavaScript skills.)
 - Added ability to update the map with a database query using constraints in the current view
 - Looking for an off ramp so that I can switch over to the Plankton Proxies project
- Rob McEwen
 - Out of Office
 - Nov22-24
- Paul McGill
 - 901618 - Pelagic-Benthic Coupling

- Was on Western Flyer for Smith cruise, but came in early on Monday due to ship engine problems.
 - Unloaded ship
 - Looked over Laser Measure results sent by Dan Davis and sent him measurements of our test targets.
- 901700 - Acoustical Ocean Ecology
 - Met with Craig Dawe to set up tests for MARS Echosounder.
- 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Made a movie of images from recent Coral Macro Camera deployment and am working on write-up for board bullets.
- Ed Mellinger
- Tom O'Reilly
 - 901101 - Seafloor Mapping
 - Refining bathymetry display prototype app, utilizes up-to-date software tools and libraries. This application and others will eventually replace MB-System applications that are based on no-longer-supported libraries.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Refining Wave Glider "hot spot" acoustic relay software; automatically relays messages between AUVs and shore via acoustic and cell modem. Running image transfer tests between LRAUV, hot spot, and shore to support Katija's Bio-inspiration lab tracking project.
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Assemble BRS hyd valve actuators
 - Misc BRS documentation
 - 901220 - Midwater Ecology
 - Clean up and transfer misc project parts
 - Out of Office
 - Vacation days
 - Overhead
 - Lab and office clean up
- Doug Pargett
 - 881135 - 3G ESP Cartridge Redesign
 - Built up an actuator and single cartridge seawater valve for the Tower instrument. Installed and upgraded Tower.
 - Develop a few concept designs of valve push/pull and release mechanisms to possibly replace the spring return system that is getting stuck. One concept is quite promising.
 - 901205 - ESP SURF Center
 - Inspected and refilled the oil dome on Honu.
 - Out of Office
 - 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
 - 901205 - ESP SURF Center
 - Refactored ESP Ruby application to support 3G machines lacking Carousel with Toroid valve
 - 901913 - Demonstrating high-speed communication with a submerged AUV
 - OceanComm has committed to delivering MBARI deployable modems by 9/1
 - Overhead
 - Replaced home router with 8x faster processor to support MBARI's L2TP/IPSEC VPN
- Carlos Rueda
 - 901502 - Passive Acoustic Sensing
 - Group meeting
 - 902101 - LRAUV Technology Development and Fleet Operations
 - To better support and enhance some Dash features (including potential use by other clients), moving some logic from the frontend to the backend. TethysDash system is now [4.7.0](#).
 - Overhead
 - IE meeting.
 - Preliminary planning to migrate mmisw.org, possibly to ESIP.
 - Out of Office
 - Oct 1, 4, 15: vacation
 - Oct 28-29: Scale by the Bay - [scale.bythebay.io](#)
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Chasing a Lock file error with M1 data downloads this morning. Data is not downloading to SSDS. Lock files are being created but not deleted by the system.
 - 704109 - NavDORISS
 - Work on NavDORISS is mostly completed. Bill K. had me order two more SSD disks that he would like the NadDORISS Target Image installed on at some point.
 - 901101 - Seafloor Mapping
 - Playing around and testing updates and changes with the SMDB builds. In addition, I still do not have access to Adobe Photoshop since the MBARI group on Creative Cloud was created. I need this software to continue developing an icon for the website and project.
 - Overhead
 - Was on campus this week to attend various meetings.
 - Out of Office
 - Vacation: November 12-19, 2021.
- Brian Schlining
 - 500055 - Video Annotation DM
 - 4k video is coming. Brian ran checks and tests with output from the 4k camera.
 - Overhead
 - IS continues to expand the usage of MBARI's LTO system (titan). Brian is working on an app for IS to allow users to manually recall data from LTO tapes onto spinning disk.
<https://bitbucket.org/mbari/lto-recall-app>
 - Out of Office
 - Oct 15th - Vacation
 - Oct 25-27 - Vacation, backpacking the Lost Coast so no WiFi :-)
- Rich Schramm
- Alana Sherman

