

Engineering Weekly Report 2/16/2023 - 2/23/2023

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
- Francois Cazenave
- Danelle Cline
 - Out of Office
 - Few sick days
 - Tentative out of office vacation Jan 25, 26, 27
- Duane Edgington
 - 500055 - VARS, M3/RS, DSG
 - IS says “no problem upgrading from MacOS Monterey 12.6.3 to MacOS Ventura 13.2.1” Wish me luck...
 - Continued work drilling into AWS SageMaker Studio EFS volume maintenance. Some progress, but more to do.
 - 901103 - Biodiversity and Biooptics of Zooplankton
 - Project meeting with Danelle to discuss workflow
 - Continuing exploration of Active Learning for Object Detection
 - FathomNet workshop Feb 22-23
 - 901502 - Passive Acoustic Sensing
 - Attended AWS Alexa Skill Quality Coach webinar
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - Project meeting planned for next week
 - 902004 - Planktivore
 - Team meeting Feb 22.
- Jon Erickson
 - 902004 - Planktivore
 - Still doing assembly on the optics. Waiting on the strobe circuit boards and connectors.
- Kevin Gomes
 - 200105 - Core Navigation Data - MDUC
 - Configured all existing NUCs and moved to new server rack so I have single KVM spot where I can work on different versions of the code in different versions of Ubuntu.
 - Dev machines set up for Qt as well.
 - Working through and documenting RC logging to get a handle on how the status items are used in logging and further downstream.
 - Overhead
 - RE candidate seminar and dinner
 - SRSC meeting
 - Out of Office
 - Review finalization
- Andy Hamilton

- Kent Headley
 - 300057 - Mooring Maintenance
 - Working w/ Jared and Dave F on metsys, gps debugging
 - 902204 - Scalable Robotics
 - Implementation, testing of LCM image publisher for Gemini sonar
 - Met with team re message design
 - Overhead
 - Hiring: interview w/ Rowan Border
 - Supervisor's meeting
 - Out of Office
 - medical (3/10 a.m.)
- Rich Henthorn
 - 901405 - PowerBuoy Development
 - Successfully build the ROS/Gazebo buoy_sim project
 - Integrating a Logger node
 - 901618 - Pelagic-Benthic Coupling
 - Finished Rover optode issues and she is now stowed in the tin shed
 - Benthos MF modem burn wire code issue resolved
 - 902305 - Event Detection using the Sedimentation Event Sensor
 - Broke out the spare SES stack for development
 - Overhead
 - New computer setup
 - Out of Office
 - Mar 13 - 16: Vacation (MWF), WFH (TuTh), PDT
 - June 29 - July 10: Vacation
- Brett Hobson
- Scott Jensen
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Meetings
 - Design of sed trap compensator
 - 901805 - Coastal Biogeochemical Sensing Program
 - Flying spray29 in support of Yui experiments
 - Teaching James how to do batt swaps
 - Designed test tank bridge plate adapter for new ballasting facility
 - 902004 - Planktivore
 - meeting
 - 902311 - Wire-Walker Power Generation
 - Doing preliminary efficiency and mechanical design calcs for piston
 - meeting
- Chad Keczy
- Brian Kieft
 - 300082 - DMO Divisional Support - Wave Glider
 - Used Tiny to support coordinated sampling mission testing
 - 300083 - DMO Divisional Support - LRAUV
 - On call for monthly MBTS Daphne deployment. Samples came back full!
 - 708143 - CA Current HABS
 - Met with team to discuss plans for April program. Currently thinking 5 LRAUVs across multiple payloads for informed ESP sampling.
 - 901009 - CANON

- Met with team to discuss plans for May program
- 901513 - Targeted Sampling by AUVs
 - Lots of work this past week on the tag team sampling mission with WG hold. Initial lab tests were successful so we launched Triton to join Pontus and test the coordinated sampling offshore which was also successful. Some minor issues were found on the LRAUV and WG hotspot side which are being resolved and will be field tested again in early March.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Closed Triton with Quinn and deployed for bioacc testing and CANON coordinated mission testing.
 - Happy to report no critical failures for the entire last week of deployment with across 3 vehicles.
 - Lots of work documenting issues with the new UI.
 - Met with team to discuss upcoming docking work
 - Started looking into battery component issues on Makai
 - Met with Karen to get rolling on UI work
- 902102 - Multi-LRAUV Simulation Environment
 - Simulated the automation of docker push. Will add to daily build scripts
- Overhead
 - Screening calls
- Out of Office
 - 3/3-3/6?
- Denis Klimov
- Eric Martin
- Thom Maughan
 - Out of Office
 - Take son to school day (2/8, 3/8, 4/5), work at home am, on campus 1-4
 - week vacation possibly in March.
- Mike McCann
 - Out of Office
 - Feb 17 Vacation
 - Feb 21-24 Vacation days
- Rob McEwen
- Paul McGill
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Out of office on Fridays
- Paul Roberts
 - 701164 - SnoCam+ Research
 - Advising on illumination and optics
 - 901809 - Deep Sea Bioinspiration
 - Planning for MiniROV integration
 - Test tank work with MiniROV
 - 901904.99 - Corral Camera System
 - Review of current multispectral camera status and planning for ROV instrument dev.
 - 902001 - Ventata 4k camera
 - Assembly of second camera and relocating to new workspace
 - 902004 - Planktivore
 - Planning LRAUV integration and software migration from Chiton to Planktivore
 - 902204 - Scalable Robotics
 - RE interviews

- Mola stereo camera housing fabrication
- 902306 - SINKER
 - Wiper design
 - Electrical hardware selection
 - Testing cameras and lenses
- Brent Roman
 - 708165 - MERHAB19:ESP
 - Updated NOAA NWFSC's two ESPs in anticipation of spring deployments
 - Researched, coded and tested improved heater temperature calibration procedure for 2G ESPs
 - 901205 - ESP SURF Center
 - Updated >5 ESPs
 - Created simplified framework for Kevan Yamahara's delta smelt 2G ESP deployments
 - DQ2210 - READI-net
 - Helped evaluate prospective ARM processor board from Taradex
 - Out of Office
 - March 8-15 visiting my dad in Sarasota, FL
- Carlos Rueda
 - 901009 - CANON
 - Worked with IS / Peter to bring the MXM dockerized services back up. Thanks Peter.
 - 901502 - Passive Acoustic Sensing
 - Working on pypam-based data processing code.
 - 901513 - Targeted Sampling by AUVs
 - Looked into the docker issue on TSAUV upon the recent patches. In this case, only the images were all lost, but, fortunately, it was just a matter of relaunching the services and now <http://tsauv.shore.mbari.org/gpdviz> is also back up.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TethysDash: Implemented a new /data/<variableName> endpoint. This is not simply like the usual /data endpoint restricted to the particular given variable, but it will inspect as many dataProcessed events as needed to gather the data points for the specified time frame. Steve has started using it for the depth sparkline he recently added to the widget. ("That will eliminate like 100 lines of really convoluted code :^"). I presume the new UI implementation will also be using this new endpoint.
 - Exchanges with Tom and Brian re acoustic comm and how to reflect it on the Dash. Also asking Mike G. for assistance.
 - Some exchanges with Yanwu and Mike G. regarding certain mission constructs as used (or misused?) in circle_sample.xml.
 - TethysL is now [2.7.4](#) (with fixes in the vscode extension regarding the automatic installation of its own requirements, including java).
- Karen Salamy
 - 200103 - Core CTD Data - MDUC
 - Plan to discuss server mounting issues following a reboot of coredata with Neil. Quite often there are issues with server mounts after a software update on coredata or a restart. I would like to understand more on why this occasionally happens and how to circumvent the issue.
 - 901101 - Seafloor Mapping
 - Plan to meet with Jenny and Mike this week via ZOOM if possible. Jenny will be leaving for an upcoming cruise on the Falcor so it would be good to coordinate before she leaves on needed tasks for the SMDDB UI.
 - 902101 - LRAUV Technology Development and Fleet Operations

- Met with Brian K. yesterday. Began spinning up on the LRAUV project by viewing a video on controlling LRAUVs via the existing UI. We discussed the project and I have a list of issues I will be addressing over the next few weeks including a new GIRA bug list, installing the SUMO UI on a local server and setting up missions for an upcoming field operation.
- Overhead
 - Worked through a lot of emails from the previous week while I was out of the office.
- Out of Office
 - Now in the office 3 days/week M, T, Th..
 - Spent last week out of the office helping family with my father's memorial and estate management.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - VARS Bug hunt to address outstanding issues. There were [two new VARS releases](#) last week.
 - [Sharktopoda 2.0.3](#) was released. This addresses feature requests from the video lab.
 - 902002 - FathomNet
 - FathomNet workshop
 - Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)
 - Jul 28 - Aug 6 - Vacation
- Alana Sherman
 - 902208 - MiniROV Support
 - Worked through several issues to get the vehicle into the tank for the first time. Issue arose with the USB connection to the belly pack.
 - Edited Main GUI source code to replace Mod bus elements with a new library that will not require a second LabView add on license.
 - Still need to resolve: ground fault, overlay, autodepth, nav ZMQ strings
 - Spoke with Jean from R/V Fulmar and worked out some details for April cruise dates.
 - Overhead
 - Interviewed candidates for REE position
 - Interviewed candidates for Mini position
 - SRSC meeting
- George Stern