

Engineering Weekly Report 8/11/2022 - 8/18/2022

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
- Francois Cazenave
 - Out of Office
 - Out sick on Monday
- Danelle Cline
 - Out of Office
 - Marine Imaging workshop 3 - 7 Oct 2022 CEST Brest, France (GMT+2)
- Duane Edgington
 - 901502 - Soundscape Research and Education
 - Daily monitoring of live streams via Alexa Skill Ocean Soundscape. Some really cool live sounds from MARS hydrophone Aug 17!
 - 901603 - Video TAG
 - Work on Dev Box with Peter and Danelle
 - 902005 - VARS Annotation Assistance
 - Work on tracking pipeline
 - Preparation for overview presentation and project meeting with video lab staff Aug 17.
 - Overhead
 - Group meeting Aug 17.
 - AWS (Allyson, Emmitt, Ted) visit Tuesday Aug 23 2022
 - Out of Office
 - Monterey Data Conference, Aug 29 - Sep 1 2022 PDT.
 - Vacation (international) Sept 12 - Oct 1 2022
 - Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
 - Vacation (international) Oct 9 - 19 2022
 - Vacation October 21-23 2022 (Southern California)
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation Data - MDUC
 - Diagram and writeup of existing data pathways on WF that need to be replicated on David Packard.
 - 300079 - DMO Support - Rachel Carson
 - Meetings, etc. for microwave decommissioning and move to new VSat system.
 - 901009 - CANON
 - Working on new geoserver to replace current one
 - 902012 - Telepresence on MBARI Research Vessels
 - Preparation for upcoming telepresence cruise

- Feature implementation before the next cruise
- 902202 - MBARI Cloud Integration Exploration
 - Working on SSO configuration and account setup for implementation of multi account systems within AWS Control Tower
 - Preparation for AWS visit next week
- Overhead
 - More proposal stuff
 - Meeting about ESP contractor evaluation
 - Investigation of Qt for projects
- Out of Office
 - 10/3-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - 902204 - Scalable Marine Robotics Foundations
 - Working on prototype application/driver for gemini
 - Overhead
 - Hiring (job description draft release, hiring committee)
 - 2024 staffing
 - Misc admin
- Rich Henthorn
 - Out of Office
 - Aug 22 - Aug 30, WFH mostly, pre-travel
 - Aug 31 - Sep 16, vacation in Germany, email only
 - Sep 19 - 21, WFH post-travel quarantine
 - Sep 28 - Oct 6, Sta.M Cruise (final scheduled cruise of the Western Flyer)
- Brett Hobson
- Scott Jensen
 - 901205 - SURF Center
 - Good progress being made on bring-up of brass board.
 - G3 Cartridge heater received, assembled and first article tested, awesome!
 - Support of Alaska deployment
 - Support of wyoming deployment
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Next prototype of battery measurement circuit of new BMS ready for layout
 - 901805 - Coastal Biogeochemical Sensing Program
 - nanoFET tested with DuraFET and results are very promising
 - 902106 - Niobicon-Based AUV Docking Development
 - New buoy electronics housing design
 - Monitor deployed buoy for energy harvest
 - DQ2113 - Tidal Turbine
 - Submitted first draft of trip report to APL
 - Overhead
 - Lots of hiring meetings
- Brent Jones
 - 901112 - The Monterey Bay Time Series
 - Completed build of new SIPPER and installed on Daphne
 - Prepped and flying Daphne in support of MBTS run
 - Overhead
 - New antenna for M1 telemetry package is pulling more current than expected. Doing more current measurements and will plan accordingly

- Implementing low level EmbeddedARM drivers to monitor battery status and send ashore
- Out of Office
 - Sick Leave due to Covid exposure
- Chad Keczy
- Brian Kieft
 - 706007 - USGS Great Lakes Prey Fish Assessment
 - Lots of work this month running Triton and Brizo in Lake Superior and Lake Michigan. Triton will be recovered tomorrow and troubleshooting on an issue inside Brizo will commence then as well. So far great results from Lake Superior and hoping to get Brizo back in the game shortly as both vehicles return to Lake Michigan.
 - First beach launch/recovery of an LRAUV was successful. After a tour of the Apostle Islands and West arm of Lake Superior, Triton will be recovered and sent down to Lake Michigan.



- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Assisting with host sim issue for Yanwu
- 902101 - LRAUV Technology Development and Fleet Operations
 - Trying to fix CPLD issue on spare mobo
 - Passed along repo info and gave permissions to Elicia for DAT development.
 - Grabbing raw AHRS data for Giancarlo
- 902106 - Niobicon-Based AUV Docking Development
 - Integrating new docking actuator and stepper controller. Awaiting cable.
- Out of Office
 - 07/31 - 08/11 (EDT) USGS
 - 08/19 - appointments
 - 08/28 - 08/31 (EDT) USGS
 - 09/12 - 09/28 (GMT+2 - vacation)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Aug 21-Sept 18 Arctic Expedition
- Thom Maughan
 - 901009 - CANON
 - Microfluidics research for quote
 - Software setup on xavier for minion
 - 901805 - Coastal Biogeochemical Sensing Program
 - Debugging a ymodem issue.
 - Wirewalker power cycle race condition that caused MFET to stop sampling after 2000+ profiles. Setting up a test harness to reproduce.

- 902004 - Planktivore
 - Noot battery housing pressure test prep and test by Aaron S - passed
 - Spray + Planktivore prep for flight test deployment. Lack of lab space is hampering progress.
 - Working on updated camera controller design to reduce power. In progress on board bringup for wakestr v1.1.
- Overhead
 - Staff Council
- Out of Office
 - 2week Vacation postponed until sometime in Sept
- Mike McCann
 - 901101 - Seafloor Mapping
 - Upgraded to Django 4
 - Added maps of the Missions to the Compilation, Expedition, and Mission data views
 - Provided more controls for pagination in these views
 - Out of Office
 - Aug 18-19: Vacation days for CSUMB teaching prep
- Rob McEwen
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Integrating Kent's SimMB1Svr into Simulator.cc. Copied the guts of SimulatedMbTrnRecv.cc into Simulator::multibeam(). I'm working through the bugs now, expect to be done tomorrow. I may re-architect this later because this approach should work, but is messy.
 - 902201 - John Ryan's Hydrophone Deployments
 - John's moorings were deployed yesterday. Apparently all went well.
- Paul McGill
 - 300070 - DMO Support - Ventana
 - Helped pilots troubleshoot an issue with Ventana's servo valves—problem was a missing ground.
 - 300079 - DMO Support - Rachel Carson
 - Continue to work with Paul C to decommission microwave equipment on the Carson and remove what's no longer used.
 - 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Still working on Laser Measure calibration. Had a breakthrough with data processing and am slowly progressing.
 - 901700 - Acoustical Ocean Ecology
 - Worked with Chad W to troubleshoot yet more noise issues with Simrad sonar on REMUS AUV. Shielding additional cables and isolating RS-232 seems to have helped a lot.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - Met with Tom O about processing of aerial images from Trinity UAV. Tracked down info about local survey markers to compare with Google Earth.
 - Overhead
 - Helped Chris W come up to speed with the Anritsu antenna analyzer so he can tune his AUV antennas.
 - Out of Office
 - Out Monday with medical appointment.
- Tom O'Reilly
- Doug Pargett
 - Out of Office
 - August vacation
- Mike Risi
 - Out of Office

- May 5 - vacation
 - May 9-10 - vacation
 - June 2-8 - OI cruise
 - June 10-14 - vacation
 - June 20-22 - vacation
 - July 19-20 - vacation
 - August 8-9 - out of office
 - Out of office most Fridays
- Paul Roberts
- Brent Roman
 - Out of Office
 - July 26 through roughly August 26
- Carlos Rueda
 - 901009 - CANON
 - General MXM spec & implementation revision continues.
 - 901502 - Soundscape Research and Education
 - Group meeting.
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Now, with access to ServerExec on the smc-2 (thanks Tom), I'll continue with commanding related additions and testing for the frontracking software.
 - 902005 - VARS Annotation Assistance
 - Meetings. Awaiting definition of next tasks for me in this project.
 - 902009 - AUV User Experience Design
 - Added 'GET /git/missionListing' in the TethysDash API to enable related functionality in new UI.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TethysDash backend and frontend: merging branches upon good testing of some significant adjustments over the last several days during real LRAUV operations.
 - Overhead
 - IE meetings
 - DEI AC: materials review/feedback.
- Karen Salamy
 - Out of Office
 - Vacation: August 4-5; family visiting from out of town.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Updated [docs for raziel](#). Added github actions for tests and documentation generation.
 - [Prep for VAA/VARS Meeting](#)
 - Investigating [slow frame capture with 4k video](#) on the ships.
 - 902002 - FathomNet
 - Organized the next [three milestones](#).
 - Reviewing community feedback to add to milestones.
 - Group meeting
 - 902005 - VARS Annotation Assistance
 - Updated [docs](#) and [client/server implementations](#) based on the feedback from the team on the spec for the new video player.
 - Brian decided that the older Cthulhu spec was not sufficient enough for the new player and has started a new [UI spec](#).
 - Addressed frame capture failures on a recent Rachel Carson cruise.
 - Group meeting
 - 902012 - Telepresence on MBARI Research Vessels

- Group meeting
- Overhead
 - Discussion with DARC developers on how to manage security handshakes with VARS REST Services.
 - Working on travel arrangements for Marine Imaging workshop
 - Updated a [Scala project template](#) to include default github actions. To use the template, run ``sbt new mbari-org/scala3-mbari-cli``.
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France
- Alana Sherman
 - 901809 - Deep Sea Bioinspiration
 - Helped troubleshoot issues communicating to the camera through Doc Ricketts. The serial expansion for the Focal stack is not acting as we would expect, to get around this we modified the camera to run serial comms through another science port.
 - 902208 - MiniROV Operations
 - Collecting items to be hand carried to the arctic, updated the schemations and copied the project library onto a hard drive.
 - Overhead
 - Working on scheduling interviews
 - Out of Office
 - Out for dentist appt