

Engineering Weekly Report 7/22/2021 - 7/29/2021

Executive Council Notes

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Individual Activities

- Francois Cazenave
- Mark Chaffey
 - Out of Office
 - Will be OoF May 1 - 22 and unavailable.
- Danelle Cline
- Duane Edgington
 - 901602 - Data TAG
 - Reading 2022 proposals
 - 901603 - Video TAG: Visualizing Ocean Change
 - Reading 2022 proposals
 - 901618 - Pelagic-Benthic Coupling
 - Working on analysis and prep of June 21 dive images
 - Overhead
 - Read application packages for SEIE position
 - Live! Group meeting July 28.
 - Out of Office
 - July 18 - 24: ICML virtual conference
 - Several AWS Tech talks
- Jon Erickson
 - 701145 - Penguin Hotspots
 - EK80 electronics chassis is finished
 - Shop is just starting the matching pressure case.
 - 800139 - EyeRIS
 - Design of 1500m camera case is finished
 - Design of 6,000m camera case is finished
 - 901217 - Chemical Sensor Program
 - Pressure testing the second carbon tube.
 - 902010 - Mesopelagic LRAUV
 - Working on trim and ballast for the preliminary pressure hull and assembly.
- Kevin Gomes
 - 901915 - Improving MBARI Data Impact
 - Working through data lake stacks and working on matrix of cloud <-> open source <-> MBARI architectures related to data analytics
 - Preparing for project kickoff
 - Overhead
 - More proposal reading
 - Meetings to talk about 3 proposals for web refresh
 - Hiring committee work
- Andy Hamilton

- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Developing code maintenance list
 - Meeting w/ Rock, McEwen re status, planning
 - 901101 - Seafloor Mapping
 - Monitoring Cascadia/Axial cruise
 - Hoping for service window to do TRN updates for Axial survey leg
 - 901803 - Carbon Wave Glider Development
 - 2022 planning meeting
 - Overhead
 - Proposal review
 - Reviewing job apps for open positions
- Rich Henthorn
 - Out of Office
 - July 26 - Aug 9, mostly vacation, WFH a few days, network and phone access, definitely available for communication.
 - Sept 22 - Oct 1, vacation
- Brett Hobson
- Scott Jensen
 - Out of Office
 - June 30-July 6.
 - July 12-16 - Wyoming for ESP deployment
- Brent Jones
- Chad Keczy
- Brian Kieft
 - 901800.98 - Bioacoustic Payload
 - Assisting with Triton deployment for bioacoustic testing
 - DQ2025 - L. Erie HAB
 - Preparing for deployment next week.
 - Met with team to discuss logistics
 - Working on shallow water buoyancy control to achieve sampling in 3m of water
 - DQ2029 - L Michigan
 - Plan is firmed up for Michigan deployment Aug 10.
 - Out of Office
 - Jun 28-30 (phoenix MST)
 - Jul 1-9 (vacation HST)
 - ~~Aug 5-6 (vacation)~~
 - Aug 1-11 (Great Lakes, Great LRAUVs EDT)
 - Aug 16-21 (Great Lakes, Great LRAUVs EDT)
 - Sep WHOI?
 - October 25-31 (PLOCAN glider school tentative GMT+1)
- Denis Klimov
 - Out of Office
 - June 14-18
- Diana LaScala-Gruenewald
 - 200103 - Core CTD Data - MDUC
 - Spent some time getting version control sorted on coredata
 - Updated rovctd API documentation on BitBucket
 - Continued addressing qc flag requests
 - 901915 - Improving MBARI Data Impact

- Intro to this project
 - Started thinking about integration with ERDDAP
- Out of Office
 - July 19-23 - ESIP summer meeting (virtual)
 1. Participated in a [pretty interesting workshop](#) on a new Python package for integrating a bunch of graph database related tools
 - Aug 3-6 - Oceanhackweek (virtual)
 - Aug. 30 & 31 - Backpacking, won't be reachable
- Eric Martin
 - Out of Office
 - July 19-Aug16 Pacific Northwest for Dorado support.
- Thom Maughan
 - 300070 - DMO Support Ventana
 - Xojo ground fault app working on Ventana in Bay 1 (drydock)
 - 901805 - Coastal Biogeochemical Sensing
 - Wrapping up pHFETs test and release for MpHOx and MFET.
 - Worked with Irene Hu on Code Composer Studio setup, build, load and run.
 - Reviewed ADV c++ driver.
 - Connect and played with HyperOCR hyperspectral radiometer.
 - 902004 - Planktivore
 - Met one on one with Paul R. then Jon E, then Duane E., to discuss planktivore tasks. Ramping up.
 - Out of Office
 - Dental appointment delayed. Seeking treatment for TMJ.
 - Vacation last week in Aug for memorial and family reunion. Exact dates tbd (likely 27 Aug to 3 Sep).
- Mike McCann
 - 200109 - Core Mooring Data
 - Removed spurious ocr3000 .nc files and stopped their generation
 - 901101 - Seafloor Mapping
 - Implemented the ability to debug server side code in VS Code, about to close [Issue 21](#)
 - Modifying load code to do a better job of loading just the missions we want – in VS Code
 - 901111 - AUV Infrastructure Support
 - Reprocessing several Diamond missions to use other CTD instrument per Monique's analysis
- Rob McEwen
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Starting to reformulate JHU Matlab code.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - Working on 107 license renewal.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Helping Brian K get ready for MI deployment.
 - Assisted Brian with many buoyancy control tests in the tank.
 - Buoyancy control has been improved, and has reduced overshoot.
 - Upgraded Simulink buoyancy simulator
 - Out of Office
 - 26 Aug - 8 Sept
- Paul McGill
 - 300070 - DMO Support Ventana
 - Working with Jose on ground-fault isolator PCB
 - 901618 - Pelagic-Benthic Coupling

- Had Zoom meeting with team at Teledyne Benthos about our needs for Rover modems
 - Met with Duane E to review progress on laser measure camera calibration and image analysis
- 901700 - Acoustical Ocean Ecology
 - Drawing schematics for MARS Echosounder
- 901803 - Carbon Wave Glider Development
 - Coming up with new labor estimates for next year's proposal in light of unforeseen delays in this year's progress
 - Team met with Francisco and Yui about state of project and how it might be useful to Francisco's lab
- Overhead
 - Catching up on a lot of email after vacation
- Ed Mellinger
- Tom O'Reilly
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Design new LiFePO4 battery
 - 901803 - Carbon Wave Glider Development
 - Misc project management
 - Overhead
 - FCC license updates
- Doug Pargett
 - Out of Office
 - Vacation
- Ben Raanan
 - Out of Office
 - June 8-22
- Mike Risi
 - 200105 - Core Nav - MDUC
 - Navproc spare deployed
 - 901809 - Deep Sea Bioinspiration
 - Bit of debugging on Doc Ricketts interface
 - 902001.99 - 4K ROV Camera Development
 - Developing navproc interface
 - Working on topside microcontroller
 - Out of Office
 - April 26-30: Ocean Imaging Cruise
 - May 3-7: Vacation
 - June 4-11: Vacation
 - June 28-July 2: Vacation
 - September 3-14: Ocean Imaging Cruise
 - Vacation on alternate Fridays
- Brent Roman
 - 708165 - NOAA-MERHAB
 - Supporting their upcoming deployment of two ESPs off Lapush, WA
 - 901205 - ESP SURF Center
 - Helped diagnose ESPwaldo after Sampler Syringe failure
 - Rewrote the "Daily" ESP mission structure
 1. Factored all logic out of mission files
 2. Detects processing that overruns next timed start
 3. Allows for computed time of day values

- 901913 - Demonstrating high-speed communication with a submerged AUV
 - Gave Chris Wahl parts for high-speed cellular “hotspot” link to WaveGlider
 - Bret Hobson and Chris Wahl are working with OceanComm on modem wiring
- Out of Office
 - August 18 - September 10
- Carlos Rueda
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now [4.6.2](#), with various adjustments related with dark mode.
 - ESPComponent: Good [PR303](#) testing for [TETHYS-625](#). Thanks, Brent R. and Brian, for your help with the testing, and many thanks Ben for the work session that ended up explaining the reason (a recent change in the LRAUV framework build) that was preventing me from proceeding with the usual simulator-based LRAUV-ESP testing; as well as for misc instructions re cross-compile, and testing on real vehicle.
 - Started consolidating various notes about LRAUV-ESP testing as well a relevant links, in particular to the Google docs that Brent R. and I have used to drive the development of the LRAUV-ESP communication protocol: <https://docs.mbari.org/internal/lrauv-esp/>
 - LRAUV Mission documentation: Now also generating pages from *all* XML missions (one example [here](#)). With this feature, the site should be pretty complete at least in terms of the standard information that can be collected from the LRAUV application and mission repositories. With the idea of helping with fixing at the XML level, the tool also generates pages for those XML files that cannot be parsed (one example [here](#)) with information about the compile error, including the source XML and the intermediate, generated TethysL source.
 - TethysL: successfully building native executables for Mac and Linux using GraalVM.
- Karen Salamy
 - 704109 - NavDORISS
 - I have spent time this week helping Bill K. bring up the NavDORISS in the lab. I am on campus today in order to help establish an ethernet connection to the bottom side computer via the Remote Desktop. There may be an issue with the system “seeing” the SSD on the pc-104 stack.
 - 901101 - Seafloor Mapping
 - Spent a little time with the logo for the SMDB based on requests from Jenny P. Using a local development system to test web-base changes to the current project.
- Brian Schlining
 - Out of Office
 - Jul 19 - 30 - Vacation
- Rich Schramm
 - Out of Office
 - 7/1 - 8/30 Vacation
 - 8/31 last day
- Alana Sherman
 - Out of Office
 - On vacation until Mon, Aug 2nd