

Engineering Weekly Report 7/15/2021 - 7/22/2021

Executive Council Notes

-

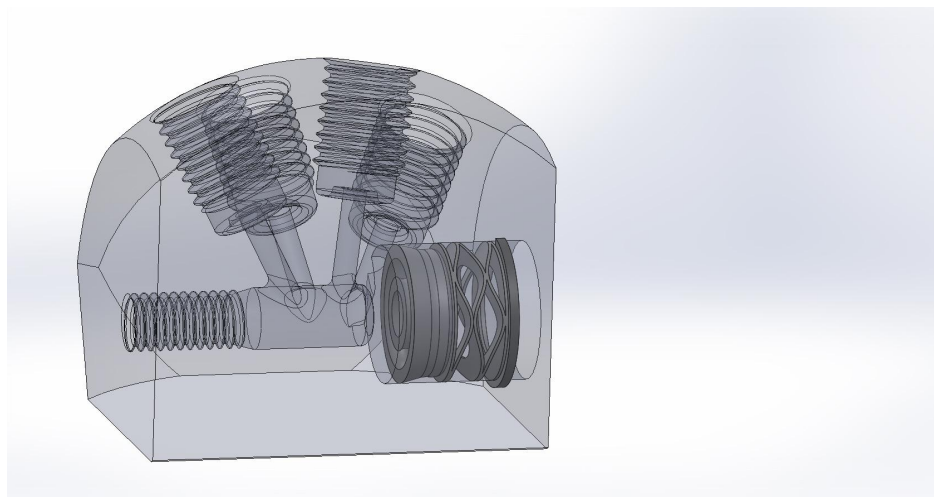
Individual Activities

- Francois Cazenave
- Mark Chaffey
 - Out of Office
 - Will be OoF May 1 - 22 and unavailable.
- Danelle Cline
- Duane Edgington
 - 901602 - Data TAG
 - Starting to read 2022 proposals
 - 901603 - Video TAG: Visualizing Ocean Change
 - Starting to read 2022 proposals
 - Very relevant tutorials and workshops at ICML 2021 (virtual) on Self-Attention (Transformer) applied to Video and Images, which can provide improved accuracy, performance, scaling and robustness compared to SOTA CNN networks, and on Self-supervised and Long-tail data distribution solutions.
 - 901618 - Pelagic-Benthic Coupling
 - Continuing work on 21 June 2021 data. Hope to complete by the end of July in preparation for the next cruise.
 - Overhead
 - Crissy seminar July 21.
 - Out of Office
 - July 18 - 24: ICML virtual conference
 - July 16. Medical appt.
- Jon Erickson
- Kevin Gomes
 - Overhead
 - Reading, reading, reading proposals
 - Resource balancing meetings
- Andy Hamilton
- Kent Headley
 - 901101 - Seafloor Mapping
 - Added some doc for TRN field test/validation
 - There are some pending steps to enable TRN for axial, which will be completed remotely prior to the associated leg if network access is adequate.
 - Overhead
 - Phase 1 Proposal review and engineering resource discussion
- 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
 - 901502 - Passive Acoustic Sensing
 - Meetings
 - Processing 6 months of odontocete clicks
 - 901800.98 - Bioacoustic Payload
 - Processing field results from last week. Gimbal still screwed up and noise still present. ARGHGHG
 - Testing in the tank and processing results. Doing an in situ calibration of AOS sensor using LRAUV pitch/roll as standard
 - 901805 - Coastal Biogeochemical Sensing
 - Flying spray 34 in support of Yui's experiments
- Chad Keczy
- Brian Kieft
 - 901023 - Continental Margins
 - Met with Elecia and BEDs team to make final plans to wrap up the project.
 - Final delivery slated for the end of October right now.
 - DQ2025 - L. Erie HAB
 - Packed up and shipped out vehicles and gear to Michigan GLERL.
 - Working on shallow water buoyancy control to allow for lower power sampling in more shallow water.
 - Met with team to discuss sampling plan
 - DQ2029 - L Michigan
 - See above. Deployment scheduled 8/10
 - 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 diving into logging in cron, forever, and node.js
 - Made some changes to forever logs which will hopefully help with troubleshooting when the rovcld API goes down again
 - Out of Office
 - July 19-23 - ESIP summer meeting (virtual)
 - Aug. 30 & 31 - Backpacking, won't be reachable
- Eric Martin
 - 901405 - Wave-Energy Conversion for Oceanographic Applications

- Spot tested
 - Went over final controller changes with Jose and Andy
- 901911 - ROVVR
 - VRST Paper Submitted
 - Oceans paper in final revision
- 902100 - Telepresence on MBARI Research Vessels
 - Support for Katija Expedition
- 368000 - DMO AUV
 - On the PNW expedition as an AUV ops engineer for 3 weeks.
- Out of Office
 - July 19-Aug16 Pacific Northwest for Dorado support.
- Thom Maughan
 - 300070 - DMO Support Ventana
 - Testing xojo app on various windows 10 laptops, all Pro 10. Delivered a copy to DJ on his Microsoft Surface.
 - Logged a few issues that could be improved and reviewed with DJ.
 - Wago lesson from Dale that was very helpful in understanding modbus register assignment.
 - 901805 - Coastal Biogeochemical Sensing
 - Working on bug list, testing, testing, testing. Getting ready to provide release candidate to the team.
 - ~100 minute periodic thermal cycle. Air conditioning is suspected, supporting Joseph in tests.
 - 901713 - Nearshore FOCE
 - Supporting Dale and team with MpHOx
 - Out of Office
 - Memorial service for Carmel High teen 21 Jul
 - Dental appointment July 29 in the morning
 - Vacation last week in Aug for memorial and family reunion. Exact dates tbd (likely 27 Aug to 3 Sep).
- Mike McCann
 - 901101 - Seafloor Mapping
 - Trying to get debugging to work in VS Code – tracking progress in [Issue 21](#)
 - 901111 - AUV Infrastructure Support
 - Reprocessed all 2021 Dorado missions that had missing or 10-second interval ISUS data
 - Updated packages on stoqs.shore.mbari.org, stoqs.mbari.org & tethysviz.shore.mbari.org
 - Overhead
 - Trying to help Jenny get ArcMapNav working on the Carson
 - Out of Office
 - Vacation this Friday and next Monday:: 23, 26 July 2021
- Rob McEwen
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - Taking 107 renewal course on the web.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Updated Simulink buoyancy simulator.
 - Assisting Brian K. in reducing buoyancy-control overshoot.
- Paul McGill
- Ed Mellinger
- Tom O'Reilly
- Craig Okuda
 - 300079 - DMO Support Rachel Carson
 - FCC license renewal

- 901007 - Benthic Biology and Ecology
 - Design new BRS battery pack
 - BRS system prep
- Doug Pargett
 - 881135 - 3G ESP Cartridge Redesign
 - Following the design mods and tests, commenting when needed.
 - 901205 - ESP SURF Center
 - Designing a possible mechanical pulse damper for the G3 ESP sampling pumps.



-
- Out of Office
 - Vacation
- 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
 - September 3-14: Ocean Imaging Cruise
 - Vacation on alternate Fridays
- Brent Roman
 - 708165 - NOAA-MERHAB
 - Worked with APL engineer to bring up new combined Pump / Valve control board
 - 901205 - ESP SURF Center
 - Supporting NOAA deployments in Great Lakes and Puget Sound
 - Deployed 2 ESPs in stream gauges
 1. First using WireGuard VPN and Solar time specifications
 - Writing ESP device driver for UW/APL's new Pump/Valve control board
 - 901913 - Demonstrating high-speed communication with a submerged AUV
 - Met with LRAUV and Waveglider folks to plan integration modem integration
 1. Shooting for deployment in early October
 - OceanComm to deliver modem pair mid August
 - Out of Office
 - August 16 - September 10
- Carlos Rueda

- 902101 - LRAUV Technology Development and Fleet Operations
 - Completed ESPComponent adjustments to reflect recent changes in protocol with the ESP. Under testing. <https://bitbucket.org/mbari/lrauv-application/pull-requests/303/resolve-tethys-625>
 - Captured (and started looking into) a recent LRAUV-ESP protocol adjustment proposal by Brent as [TETHYS-632](#): "ESP component changes for processing "standards."
 - General updates to the [LRAUV Mission and Behavior documentation](#), including a new short [section](#) to motivate contributions.
- Overhead
 - Proposals: Reviewed and proposed time allocation balancing due to the usual overallocation.
 - Adjustments to MBARI meta-documentation generator, including upgrade of some underlying modules (mkdocs-material, in particular). Added a section about allowing the visitor to indicate dark mode, which I enabled for <https://docs.mbari.org/internal/docs-generation/> itself and some of other sites (with the usual "light" theme as default).
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Performed Mooring server checks.
 - Added a few new scientists to the White Shark hourly email list on OA1 and OA2 for Barbara Block.
 - 704109 - NavDORISS
 - Working today to locate the remote Desktop login and password to the bottom side NavDORISS system for Bill K. I set up the PC104 computer stack for the project last year, however, he is having trouble accessing the Remote Desktop passcode to perform tests. This is a separate passcode and it may be in the Project Library notes.
 - 901101 - Seafloor Mapping
 - Installed a local SMDB development system using Docker last week and have been familiarized with the HTML and CSS code aspects of the server. Made a few aesthetics to the home page as some quick tests.
 - Spent some time developing a Project Icon for the SMDB and ran several by Jenny P. as well.
 - Overhead
 - Attended a ZOOM meeting with Brian S. and Mike M. to discuss the Video Lab's request to have a command setting that would allow them to quickly change the Dive Start Times on EXPD as they are transferring tapes. Various dive start times on several old dive tapes are not lining up with their records and making the corrections through the forms has proven tedious. Brian agreed to take this on himself as the fix seemed relatively easy for him as he works through the tapes with the Video Lab.
- 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