

Engineering Weekly Report 9/9/2021 - 9/16/2021

Executive Council Notes

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Individual Activities

- Francois Cazenave
- Mark Chaffey
- Danelle Cline
- Duane Edgington
 - Out of Office
 - Friday Sept 10. Vacation
 - Thursday Sept 9. Medical.
- Jon Erickson
 - 701145 - Penguin Hotspots
 - Starting on the EK80 Gimbal pieces.
 - 901217 - Chemical Sensor Program
 - Waiting on some analysis from Amalga on the tubing failure values.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - 902010 - Mesopelagic LRAUV
 - Still working on the drop weight assembly.
 - Will start the strain gauging of the composite tube as time allows.
- Ben Erwin
- Kevin Gomes
 - 901009 - CANON
 - Small amount of ODSS/tracking DB support
 - Overhead
 - SE Hiring Process
 - Quarterly Check In Meetings with Group
 - Various Overhead Tasks
 - Coordinated AWS Immersion Day which was great
 - Follow up on tasks from Immersion Day. Also got \$2,000 in credits from AWS for SageMaker.
 - AWS Imagine Grant discussion
 - Looking at logs for normandy, pismo, and data to see if any pre-TLS 1.2 requests might be needed
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working w. Rich and Rob on issue in libtrnav (Terrain Relative Nav). libtrnav behaved differently during some testing that Rich was doing. After some clever sleuthing, Rich narrowed the problem down to a couple of possible branches in libtrnav code. I found that the apparent root cause was some compile-time parameters changed for a mapping cruise in 2020.
 - 901101 - Seafloor Mapping
 - Resolved a communications issue that prevented TRN from working with the T50 sonars. The communications protocol included some device-specific IDs that were device dependent.

- Overhead
 - Phase 2 proposal discussions
 - Strategic Roadmap activities
 - Hiring meetings/interviews
 - Met w/ Thom M to discuss some potential eDNA work I may be able help with in 2022
- Rich Henthorn
 - Out of Office
 - Sept 9, out tomorrow, on the road with email.
 - Sept 24 - Oct 1, vacation
 - Oct 6 - Oct 15, Sta.M cruise
- Brett Hobson
- Scott Jensen
 - Out of Office
 - September 13-17 vacation
- Brent Jones
- Chad Keczy
- Brian Kieft
 - 708168 - DHS Y7
 - Met with team to discuss existing deployment
 - On call for salinity intrusion work.
 - 901800.98 - Bioacoustic Payload
 - Load controller debugging for ducer payload
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Software CM for LCBs and PRs.
 - 902106 - Niobicon AUV dock dev
 - Prepping Tethys for docking runs
 - Adding in new behavior features learned from stiffer dock tests during doest.
 - Overhead
 - Candidate interview
 - Out of Office
 - Sep 7-8 (vacation)
 - October 25-31 (PLOCAN glider school tentative GMT+1)
 - April TBD LRAUV ops
- Denis Klimov
 - 901023 - Continental Margins
 - Getting a motion table back to working order for BEDS qualification tests.
 - 901809 - Deep Sea Bioinspiration
 - Helping Kevin with rotation table setup for scanning selected objects with EyeRIS system
 - 901903 - Bio Raman
 - Parts for mounting longer probe head had been ordered and printed on FDM printer, but due to Fortus malfunction, layers had been shifted mid-print, so they need to be re-printed when machine is fixed.
 - Overhead
 - Organizing parts for IFCB, and lab in general
- Diana LaScala-Gruenewald
 - 200103 - Core CTD Data - MDUC
 - Looked into @reboot issue for the roV ctd apis - likely this is happening because it's trying to run the cronjob before the /home folder is mounted
 1. Looked into some solutions, but not sure how to proceed at the moment
 - 500055 - Video Annotation DM

- IMES tape transfer
- 901915 - Improving MBARI Data Impact
 - Continuing to get familiar with adding data sets on ERDDAP, documenting what currently needs to be done manually during this process
- Overhead
 - Weekly meeting(s)
- Eric Martin
 - 901101 - Seafloor Mapping
 - We have just completed a very successful dive series collecting some of the highest detailed maps of venting areas through the Axial Volcano area. Dave wrote a nice set of comments in last week's EC notes.
 - The system performed without any complications aside from issue with the strobe lamps, that were field repairable.
 - Credit for this success extends to the entire team at sea, David Caress Jenny Paduan, Mike Risi and Chad Kecz. Special thanks to Mike, Chad, Larry Bird and Mike Conway for their aid in preparation at MBARI that led to an extremely smooth integration in Newport, Oregon.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Reviewing UW proposal.
 - 901911 - ROVVR
 - Presenting next week at Oceans virtually a system description paper.
 - Reviewing the next set of edits for the VRST paper based on the test tank human trials.
 - 902100 - Telepresence on MBARI Research Vessels
 - Supporting Ken Smith and Brekke ventana dives this week.
 - Out of Office
 - July 19-Aug16 Pacific Northwest for Dorado support.
- Thom Maughan
 - 901009 - CANON
 - Ubuntu 21.04 installed on DeepRip to enable Chavez lab (Katy) to run a bioinformatics dataset that is crashing on the mbon virtual machine. For this run, EXT4 used on updated Samsung 980 2TB drives. Collecting benchmarks to compare with forthcoming ZFS experiments.
 - 901805 - Coastal Biogeochemical Sensing
 - Git repo setup in bitbucket. Test both command line and Code Composer Studio git integration setup and documented for Irene. Thanks to Kevin and Kent for support and guidance.
 - 902004 - Planktivore
 - Setting up Deep6 laptop with latest development environment.
 - Working on project planning.
 - Out of Office
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- Mike McCann
 - 901101 - Seafloor Mapping
 - Tracking progress in population smdb from Notes information in [Issue 50](#)
 - Added bathymetry image to click event for overview web page
 - Had a good sit down with Jenny on where to collect more information
 - Overhead
 - Interviews
- Rob McEwen
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working with Rich to track down a problem with libtrnav where it won't converge over Portuguese Ledge with the Dvl or with a .grd format map.
 - Ran simulations of the various scenarios above.

- - Out of Office
 - Nov22-24
- Paul McGill
 - Out of Office
 - Took vacation day Fri
- Ed Mellinger
- Tom O'Reilly
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Prep and send revised BRS chamber designs to shop
 - Overhead
 - Clean up docs
- Doug Pargett
 - 881135 - 3G ESP Cartridge Redesign
 - Testing cartridges and forces to actuate valves
 - 901205 - ESP SURF Center
 - Rebuilt oil dome assembly on MV1, starting on Honu.
 - Overhead
 - Meetings, Seminars, etc
- 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
 - Out of Office
 - August 25 - September 17
- Carlos Rueda
 - 708168 - DHS Y7
 - WHOI reports the issue with email ingestion by their TethysDash is still happening. Proposed plan to gather more detailed logging next time this weird issue arises.
 - 901502 - Passive Acoustic Sensing
 - Productive meeting with Matt Harvey of Google, and John R. I'm now adjusting/simplifying the notebook intended as one of the tutorials related with applying the Google model on Pacific Sound data: <https://colab.research.google.com/drive/11gxYzDKPgyqncu1ooiTrH-iWtemkFIJJ>
 - 901513 - Targeted Sampling by AUVs
 - More refactoring and code cleanup. I'll probably split the core logic into a separate repo to facilitate its use onboard the wave glider.
 - Overhead
 - Software Eng interview
 - Out of Office

- Sep 10: vacation
 - Sep 13,14: sick
- Karen Salamy
- Brian Schlining
 - 500055 - Video Annotation DM
 - Imported 4 new LTO tapes (~4000 videos) into M3/VARS. Moved metadata to appropriate shares on Atlas.
 - Made changes to annotation/video view in new DSG to fix video in place during scrolling.
Example:
<http://m3.shore.mbari.org/deepseaguide/#!/deployment/annotations/Doc%20Ricketts%200973>
 - 902002 - Fathomnet Detect and Classify
 - Spinning up clean development environment. Had to wipe, rebuild, recreate database volumes and everything after changes from latest docker policy updates.
 - Setup download of WorMS database. Investigating loading the data into a VARS knowledgebase to integrate with FathomNet.
 - Overhead
 - Interview w/ SE candidate
 - Investigating updates to old VARS requested by the university of Hawaii.
 1. Porting VARS from Java 8 to Java 17 (new LTS release)
 - Out of Office
 - Aug 30 - Sep 10 - Vacation
- Rich Schramm
 - Out of Office
 - 7/1 - 8/30 Vacation
 - 8/31 last day
- Alana Sherman