

Engineering Weekly Report 10/6/2022 - 10/13/2022

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)
 - Vacation Oct 8 - 23
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Monitoring buoy.
 - Planning inspection dive
 - Cleaning container
 - 902106 - Niobicon-Based AUV Docking Development
 - Designing buoy
 - Out of Office
 - Took ½ off.
- Danelle Cline
 - Out of Office
 - Marine Imaging workshop 2022 (MIW22) 3 - 7 Oct 2022 CEST Brest, France (GMT+2)
 - Vacation 9/28 - 9/29, 10/10-11
- Duane Edgington
 - Out of Office
 - 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
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Working on adapting to UW's generator end cap. Will need a detail machine print to make a new substitute part.
 - 901805 - Coastal Biogeochemical Sensing Program
 - pico-pH sensor. Rev'd the parts in the shop queue.
 - 901809 - Deep Sea Bioinspiration
 - Multicam pressure case parts and chassis parts are in fab..
 - 902004 - Planktivore
 - Working on interior optics parts prints. There are still questions about machining the flashlights.
 - 902010 - Mesopelagic LRAUV
 - The rear end dome weldment is completed, Brett, is assembling all the connectors and plugs to be water tight.
 - 902101 - LRAUV Technology Development and Fleet Operations

- Rev'ing the battery chassis parts yet again. Rev. D and Rev. G.
- Kevin Gomes
 - 200105 - Core Navigation Data - MDUC
 - A little work on decommissioning
 - 300062 - DMO Support - Doc Ricketts
 - Review of UDP docs from SMD and logging comparison
 - 901009 - CANON
 - Small support tasks for CANON experiment
 - 901915 - Improving the Impact of MBARI's Data
 - Some web page work
 - Meeting with web team
 - 902202 - MBARI Cloud Integration Exploration
 - Conference call with AWS to work on VPN configuration which has to be set up before SSO can be integrated with our AD
 - Overhead
 - Getting caught up after vacation
 - Out of Office
 - 11/21-11/23: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working w/ Rob M to integrate mbtrnpp into Dorado simulation. This week, we're using a test utility I wrote to stand in for mbtrnpp so that the simulator TRN pub/sub components can be tested w/o mbtrnpp installed.
The earlier Rover acoustic survey produced an accurate location estimate
 - 902204 - Scalable Marine Robotics Foundations
 - Adding features and fixing issues for the Gemini sonar driver/utility app. This week, changing the renderer to map sonar image output to cartesian coordinates and optionally convert to grayscale.
Bastian M is reviewing images and providing feedback.
- Rich Henthorn
 - Out of Office
 - Sep 28 - Oct 6, Sta.M Cruise (final scheduled cruise of the Western Flyer)
- Brett Hobson
- Scott Jensen
 - Out of Office
 - On travel 9/18-21
- Brent Jones
 - Out of Office
 - 2 days sick leave (non covid)
- Chad Keczy
- Brian Kieft
 - 901009 - CANON
 - CANON is underway. Lots of support early on to get Makai settled
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Working with Yanwu on CANON related missions
 - 902009 - AUV User Experience Design
 - Met with team to go over progress and holes in the API. I have a couple action items.
 - 902101 - LRAUV Technology Development and Fleet Operations

- Working on bioacc tasks and system diagram
 - Arm actuator integration with new smaller controller.
- 902102 - Multi-LRAUV Simulation Environment
 - Lots of work to attempt to build the sim. So far we're having issues.
- Overhead
 - Various hiring committee tasks
- Out of Office
 - 10/24 - 10/28 (PDT)
 - 11/21 - 11/25 (MST)
- Denis Klimov
- Eric Martin
- Thom Maughan
 - 901009 - CANON
 - Hardware mod for Xavier NX for RTC support
 - Started coming up to speed on software stack rebuild - packages have changed.
 - 901805 - Coastal Biogeochemical Sensing Program
 - Finished implementing and test of high rate sampling mode for the Wirewalker use case for Tuesday deployment possibility.
 - Working on new feature list. NanoFET as a peripheral, merging pico-ph driver and eddy covariance.
 - CCS v11 git integration appears to have fixed a painful bug that was hampering move to git... Thanks to Irene for blazing that trail.
 - 902004 - Planktivore
 - Jon is in progress on the Rev2 housing design.
 - Ordered cable for battery housing, working to get Paragon deployment setup ready
 - Overhead
 - George / Shannon have a conflict for a student tour on Friday Oct 21. Signed up to host the tour along with Chad.
 - Out of Office
 - A week or so in October/November, exact date tbd
- Mike McCann
 - 901009 - CANON
 - Beginning to write loader for stoqs_canon_october2010
 - 901111 - AUV Infrastructure Support
 - Processed dorado mission 2022.284.00
 - 901910 - Plankton Taxonomic Groups from AUVs
 - In year 2010 with the reprocessing of Dorado data archive with the auv-python software
 - Finding more unique Dorado log data problems that require more QC steps in auv-python
 - Comparing auv-python generated data against Matlab processed data in stoqs_auv_compare
 - 901915 - Improving the Impact of MBARI's Data
 - Started on Mooring data page
- Rob McEwen
- Paul McGill
 - Out of Office
 - Out on sick leave until Mon, Oct 3.
- 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
 - 800139 - EyeRIS (Remote Imaging System)
 - Setting up EyeRIS for deployment to MARS next week on ROV Ventana
 - Testing lens upgrades for wider FOV on R26 camera
 - 901809 - Deep Sea Bioinspiration
 - Testing subsea gigabit PoE cables and connectors using Suburban Marine Baromax
 - 902001 - Ventana 4k camera
 - Scoping options to upgrade lasers on Ventana
 - 902004 - Planktivore
 - Ingest of ROIs into RIMS database
 - 902204 - Scalable Marine Robotics Foundations
 - Training on Mola vehicle operations
 - Designing PoE j-box, camera housings, and structured light housing to fit on Mola vehicle
 - Out of Office
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- Brent Roman
 - 708165 - NOAA-MERHAB
 - A couple odd software glitches marred an otherwise excellent 9-wk deployment
 - Plan to look into them when we have ESPfriday back in the NOAA Fisheries lab
 - 901205 - SURF Center
 - Mad scramble to deploy ESPmv1 for CANON resulted in replacing most of its electronics
 - Trouble with its Intake valve early on has mysteriously corrected itself. We'll see...
 - 901913 - WetWiFi
 - Lined up LRAUV and Waveglider for test after Thanksgiving
 - Got approval to pay Oceancomm in 2022 so we could get modems by then
 - Confirming with Oceancomm that they can, indeed, deliver in time.
 - Out of Office
 - Sept 6 through roughly Sept 16
- Carlos Rueda
 - Deployment updated at <http://mxm.shore.mbari.org/> .
 - Out of Office
 - Oct 10–12 (tentative as some travel plans may change), Nov 11–14, 23–30, Dec 8–9: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Addressing weekly code checks and data download issues.
 - 901101 - Seafloor Mapping
 - Continue to put a bit of time into the SMDB sidebar. I have had some issues with writing python data filters for the sidebar but plan to meet with Mike M. this week to discuss how to get my ideas for the sidebar working.
 - 901915 - Improving the Impact of MBARI's Data

- I have begun making edits to the Seafloor Mapping page on the new MBARI. I am waiting to hear back from Jenny P. on the page's main image (she is currently on vacation).
- 902009 - AUV UI
 - I was unable to attend a meeting held last week with the team regarding the project. I plan to refocus my time on various methods and code to help the team next week.
- Overhead
 - Trying to determine a tunneling issue into kahuna (SVN Repo) using the SmartSVN client with Peter Walker
 - Updated logistics coordinators to Sara A. and Ian L. while Matt S. will be out of this and at the beginning of next week. Also updated the precruise web form landing page to reflect that Sara and Ian should be contacted from October 13-17, 2022 until Matt has returned.
 - Helped Sara A. update various links on the precruise web form that will link to the new MBARI web pages.
 - I have begun getting quotes for the annual software license maintenance renewals that I am responsible for including Aldec, Matlab (not due until Dec. 2023), and MathCad.
- Out of Office
 - Vacation: October 19-20, 2022
 - Vacation: November 8-11, 2022
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - IMES imports
 - Addressed [issues with VARS on postgresql](#).
 - Working on the new DSG. Ran UI demos on it using [Quasar](#) and [Naive-UI](#). Opting to use Naive-UI and Bootstrap.
 - 902002 - FathomNet
 - Working on the [VARS-FathomNet sync](#) to accommodate weird, one-off, import path used to [load ML proposals into VARS](#)
 - Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France. Presentation is online [here](#).
- Alana Sherman
 - Out of Office
 - Out for dentist appt