

Engineering Weekly Report 7/16/2020 - 7/23/2020

Executive Council Notes

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Individual Activities

- Francois Cazenave
 - 901405 - PowerBuoy Development
 - Preparing PTO for upcoming deployment
 - 902000 - Multi-Spectral StealthCam
 - Designing camera housing
- Mark Chaffey
- Danelle Cline
 - Out of Office
 - Off Fridays for summer duration
 - Vacation July 15-24th
- Duane Edgington
 - 901602 - Data TAG: Addrss Eng Chng
 - Reading proposals
 - 901603 - Video TAG: Vis Ocean Chng
 - Reading proposals
 - July 12-18. ICML. Virtual conference.
 - 902005 - VARS Annotation Assistance
 - Project tasks
 - Out of Office
 - Friday July 24, July 31.
 - July 12-18. ICML. Virtual conference.
 - Aug 23 -28. ECCV. Virtual conference. Workshops, tutorials and presentations.
- Jon Erickson
 - 300070 - DMO Support- Ventana
 - Reviewing the FEA Simulation of the new light bar with Marko
 - 800139 - EyeRIS
 - Ordering parts and hardware for the light array when those parts come out of the shop.
 - 901217 - Chemical Sensor Program
 - Burning thru lots of hours for the new ISUS-APEX design. Trying to reduce the in water weight.
- Kevin Gomes
 - 901009 - CANON
 - Experiment support
 - 901602 - Data TAG: Addrss Eng Chng
 - Lots and lots and lots of proposal reading
 - Out of Office
 - Jul 29-31: Vacation
- Andy Hamilton
- Kent Headley

- Rich Henthorn
 - 600034 - Control Tech - Rock
 - Proposal
 - Wrapped the replay-trn_server issue
 - 901618 - Pelagic-Benthic Coupling
 - SES MARS configuration prep and testing
 - Lots of progress but some minor networking issues remain
 - 901800 - LRAUV Payload & Support
 - Met with Brett and Rob to discuss obstacle avoidance project
 - Created source code structure and repo
 - Working on Delta T parser module
 - Out of Office
 - July 27 - July 31, vacation in PDT with email and networking
- Brett Hobson
- Scott Jensen
 - Out of Office
 - Current schedule is Sunday-Tuesday
- Brent Jones
 - Out of Office
 - Took a ½ day off friday
- Chad Keczy
- Brian Kieft
 - 300082 - DMO Support - Wave Glider
 - Geolocation of CPF via Waveglider
 - 300083 - DMO Support - LRAUV
 - CANON
 - 901009 - CANON
 - Participating in summer field program
 - DQ1935 - Goodwin eDNA II
 - CANON prep, deployment, and ongoing support.
- Denis Klimov
 - 901800 - LRAUV Payload & Support
 - Inventorying parts for PAR sensors assembly. There are 5 amplifier boards need to be tested. Also revising board specs for old PAR sensor that came from Chavez group and it has quite a bit lower sensitivity.
 - 901809 - Deep Sea Bioinspiration
 - Figuring out laser remote head mounting to optical table.
 - Overhead
 - Four BEDS Bridge Boards had being debugged and transferred to external contractor for software development.
- Eric Martin
 - 901405 - PowerBuoy Development
 - Getting radar data into analysis
 - Pushing through cable wiring
 - 901200 - Telepresence
 - Successfully provided telepresence on the new prototype system with remote direction and remote user control of the feed. Moving the system over to Ventana today for Chavez cruise.
 - Out of Office
 - I am at MBARI Mon, Tues, and Friday
 - Vacation days on thursday when available.

- Thom Maughan
 - Out of Office
 - Vacation Plan is June 30 to July 21, driving to Colorado to help out family. Plan is to work for 1 to 3 days per week remote from Colorado as it is unrealistic to get Proposal materials complete before departure. Several projects are easily transportable.
- Mike McCann
 - 901009 - CANON
 - Created stoqs_canon_july2020 database and monitoring its loads
 - Had to back out a Matplotlib update as it broke the colormaps for plotting balanced variables, ones like northward_sea_water_velocity_HR and pitch.
 - Fixed some issues with Waveglider data processing
 - Learning about shaders in order to improve visualization of point data
 - Overhead
 - Fix problem with ROT Axis not appearing for BEDs visualization in stoqs_cce2015 database
 - Attending (remotely) ESIP Federation summer meeting
- Rob McEwen
- Paul McGill
- Ed Mellinger
- Tom O'Reilly
 - 901101 - Ocean Imaging
 - Evaluating integration of Visualization Toolkit (VTK) to visualize bathymetric surfaces, with Qt/QML toolkit to quickly design and generate user interfaces (menus, buttons, etc), portable to a wide variety of platforms including mobile.
 - 901902 - Aerial Drones for Sci&MO
 - Completed first prototype of post-flight data processing software, working with Steve Haddock to refine
 - Data processing software will be held on Thursday August 20 at 14:00
- Craig Okuda
 - 901007 - Benthic Biology & Ecology
 - BRS chamber valve upgrade design
 - Durafet integration
 - 901803 - Carbon Wave Glider Development
 - Begin to bring lab system back up after 4 month shutdown
- Doug Pargett
- Ben Raanan
- Mike Risi
 - 901809 - Deep Sea Bioinspiration
 - Finished ML-tracking tests in test tank
 - Tested ML-tracking and control code on two day cruise series using MiniROV on Rachel Carson
 - Out of Office
 - February 19-22: Ocean Imaging Cruise
 - March 9-12: Vacation
 - May 26-29: Vacation
 - June 29 - July 1: Vacation
 - September 30 - October 2: Vacation
 - October 12-17: Ocean Imaging Cruise
- Brent Roman
 - 901205 - ESP SURF Center
 - Helping Chris Preston support CANON
 - Supporting TU Denmark in debugging PCR issues

- Determined that air currents have a very significant impact on heating accuracy
 - Replaced temperature calibration oven with much quieter fan
 - Refined temperature calibration procedure
 - Out of Office
 - At MBARI Tuesdays after 2PM
- Carlos Rueda
 - 901009 - CANON
 - MXM development
 - Monitoring and responding to inquiries during ongoing CANON experiment
 - 901800 - LRAUV Payload & Support
 - TethysDash: Various other adjustments in API for event data and vehicle configuration requests. ([3.6.6](#)) Diagnosing strange issue regarding password reset email that is sent out but never delivered (thanks Katie for reporting and help). Other addresses work just fine. Added copy of such emails in the "Sent" folder, which also confirms the emails are being dispatched.
 - Dash3: Completed reimplementation of Config tab with improved UX features. Besides the display of the recently added 2020 CANON vector features via tile layers, there's now also an experimental option to select them via the source KML files directly (ODSS Atlas share enabled on the VM for this purpose). Various other adjustments ([3.9.941](#)).
 - Put together a specific documentation page about [how Dash3 visualizes waypoints](#).
 - LRAUV: Have spent some time reviewing (routinely used) mission files that are not conformant to the schemas in an attempt to diagnose some of the concrete issues and possible measures for fixing. Most immediate motivation is the successful parsing of waypoint information for visualization in the dash, but also for the processing that Steve uses in his status widget (as well as preparation for future TethysL work). Submitted [PR](#) for this purpose, including some text to the CONTRIBUTING.md file to encourage mission authors to strive for compliance with consideration for some aspects.
 - Overhead
 - Satisfactory use of tethystest for all things TethysDash previously done on tethysim (which as planned will be shutdown on July 30 -- reminder email sent to all people with accounts there).
 - Out of Office
 - Jul 14-15, 22: ESIP Summer Mtg (virtual). With Lewis McGibbney (JPL) I'm presenting the ESIP Community Ontology Repository, besides attending other sessions.
- Karen Salamy
 - 704109 - NavDORISS
 - Spent a little time building/testing new image for pc104 stack.
 - Overhead
 - Registered for Apache Superset online course on NoblePro.org
 - Took tutorials on various dashboard builds.
 - Out of Office
 - Took several vacation days last week to spend with family and Fall school issues for my daughter..
 - Will be working on MBARI campus ONLY on Tuesdays until further notice.
- Brian Schlining
 - 902002 - Fathomnet Detect and Classify
 - Working on read-view implementation of database. <https://bitbucket.org/mbari/fathomnet>
- Rich Schramm
 - 300057 - Mooring Maint
 - Continue M! 2020 turn prep
 - 300062 - DMO Support-DR
 - Troubleshoot FTP data transfer to shore issue

- 901915 - Improving MBARI Data Impa
 - Setting up test AWS messaging broker for test
- Out of Office
 - Aug-10 -21 Vacation
- Alana Sherman
 - 901809 - Deep Sea Bioinspiration
 - Pulled all the pieces together to set up ROV-emulating interface can to test DPIV4 and DPIV3
 - Began documenting interface can
 - Got software for DPIV4 working on two laptops
 - Overhead
 - Reading proposals