

Engineering Weekly Report 10/29/2020 - 11/5/2020

Executive Council Notes

- 200109 - Core Mooring Data:

Quality controlled CTD, Met, and ADCP data from the recovered M1 201907 deployment are now available, along with updated combined hourlyM1.nc and dailyAveragedM1.nc files comprising all of the data from M1.

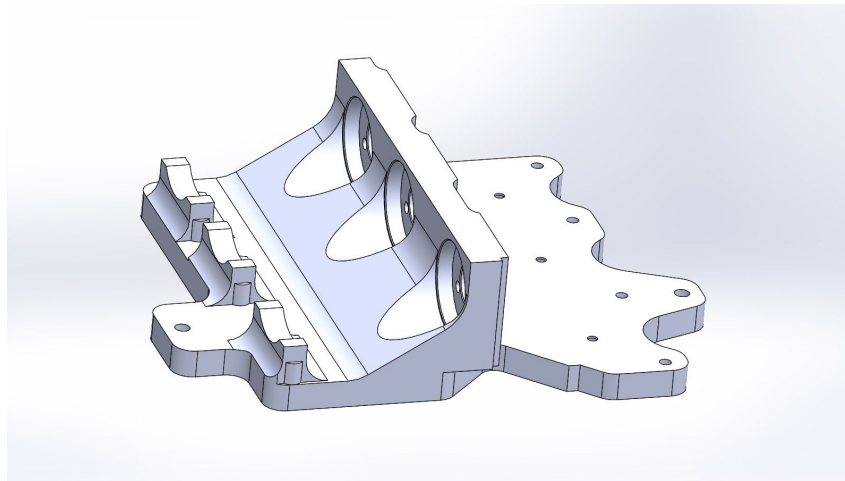
Individual Activities

- Francois Cazenave
- Mark Chaffey
- Danelle Cline
- Duane Edgington
 - 901603 - Video TAG: Vis Ocean Chng
 - Reviewed papers for conference and workshop
 - 901618 - Pelagic-Benthic Coupling
 - Matlab work with toolbox and calibration images
 - Overhead
 - Group meeting Nov 2
 - Out of Office
 - AWS 3 hour webinar Oct 29
 - Vacation Oct 30
- Jon Erickson
- Kevin Gomes
 - 901009 - CANON
 - CentOS6 to CentOS 8 Migration
 - Overhead
 - Group Budget
- Andy Hamilton
 - Out of Office
 - On vacation until October 26
- Kent Headley
 - 901803 - Carbon Wave Glider Development
 - Testing and fixing bugs.
 - Currently isolating an elusive bug that intermittently causes a sleep hiccup, delaying a scheduled event by ~10s. Long manifestation times make it slow to track.
- Rich Henthorn
 - 901618 - Pelagic-Benthic Coupling
 - At Station M enjoying surprisingly great weather all week. Heading home today.
 - Recovered Benthic Rover last Wednesday with a full year of operational data.
 - Recovered and redeployed BLISS larvae sampler Saturday morning.
 - Recovered Dual-Camera Tripod Saturday afternoon.
 - Many “stainless” hardware components on the mooring string showed signs of corrosion.
 - Deployed Dual-Camera Tripod Monday morning.
 - Deployed without sediment traps because of unreliable hardware.

- Recovered Solo Camera Tripod Monday afternoon.
 - The window in the camera housing shattered on Sept 28, ending the mission.
 - Bringing the instrument home for upgrades and repair.
 - Pieced together a sediment trap mooring with elements from both camera tripod moorings and deployed on Wednesday morning.
 - Recovered BLISS larvae sampler.
 - Motor housing failed at depth before sampling had begun.
- Out of Office
 - Oct 27 to Nov 5: WF cruise to Sta. M
- Brett Hobson
- Scott Jensen
 - 901205 - ESP SURF Center
 - Terrestrial housing lid has been machined and connectors potted. First pressure test showed a leak at the drum seam but a little grease seems to have sealed it. Next up is let it sit.
 - 901405 - PowerBuoy Development
 - Replacement batteries have been installed and now the entire bank is being charged and leveled.
 - 901805 - Coastal Biogeochemical Sensing
 - npHOx new FET bias configuration seems to work. Although, it does need op amps that can handle the higher common mode it imposes. The processor and ADC have been installed so that cod can begin to be developed for it.
 - Beginning work on a big order of MFETs.
 - Overhead
 - Getting reacquainted with embedded programming with the development of a lower quiescent power motor drive for the thruster.
 - Started roll out of Schematic version control system.
 - Out of Office
 - Current schedule is Monday-Wednesday
- Brent Jones
- Chad Keczy
 - 901704.99 - 8 Camera Obs Lander
 - Elena completed the documentation package and is ready for distribution to the science crew.
 - 901713 - Nearshore FOCE
 - Working with Jim M and James McC on the wiring of the chamber housings.
 - Making some pre-spending purchases
 - Power supplies returned from being repaired.
 - Overhead
 - Changing Ocean: Have ordered some parts and am putting together the Wago stack currently. Will begin some LabView coding
 - Hydrophone Stabilization: Working on a new board design
 - Training: Did a half day training on OrCad EDM.
- Brian Kieft
 - 708158 - DHS Y7
 - Helping to debug reverse thrust on polaris and support upcoming deployment
 - 901800 - LRAUV Payload & Support
 - Engineering deployment to test DAT line capture homing
 - Overhead
 - Supporting WET program crab pot recovery proof of concept
 - Out of Office
 - Wednesday 11/2-11/5

- Denis Klimov
 - 118000 - Safety Office - LSO activity
 - Working on a procedure for a lab-specific cleaning and disinfecting method (Laser Lab)
 - 800139 - EyeRIS
 - Debugging issue with thermal limiter on potted LED strobe
 - 901809 - Deep Sea Bioinspiration
 - Working on the procedure for DeepPIV ship use; implementing feedback from 2019 Falkor cruise
 - 901903 - Bio Raman
 - Working on a drawing for a sample chamber retainer bracket
- Eric Martin
 - Out of Office
 - Tuesdays
 - Nov 1-7 Vacation upcoming
- Thom Maughan
 - 901009 - CANON
 - MinKNOW gui is running on XavierNX. Sat with Nate to collect UI usage. We are setting up for a MinIT vs XavierNX bakeoff next wednesday.
 - Attended meetings with Johns Hopkins APL, shared procedures and notes for setup.
 - Working on inclusion during zoom calls.
 - Working to capture process spawning with arguments and to gen up a serial port controlled commandline app to start, pause, stop DNA sequencing.
 - Working on procedure for install and setup, sharing on open source effort
 - 901805 - Coastal Biogeochemical Sensing
 - Picked up an npHOx, new board, from Scott. Got setup for development at home. Evaluating move to CCS v10.
 - 902004 - Planktivore
 - Optics bench design, Fluum mount, parts ordering
 - SSD speed eval of Gen4 vs Gen3 PCI nvme on XavierNX.
 - Project mgmt overhead - budgets and projections, CENCOOS mk2 meeting.
 - Charge coding
 - 901713 - Nearshore FOCE
 - Planning to get started again on nsFOCE next week.
 - Out of Office
 - Working remote with regular access as needed at MBARI Tues,Wed,Thurs
- Mike McCann
 - 500055 - Video Annotation DM
 - Chipping away at the changes needed in vfcbydive for it to work using GraphicsMagick
 - 901009 - CANON
 - Reloading CANON Campaigns from 2017 onward that have LRAUV ESP Samples – the names now include the name of the ESP device, as parsed from the syslog file
 - Several Glider data sources have been moved requiring updates to the load scripts
- Rob McEwen
 - 901800 - LRAUV Payload & Support
 - Porting obstacle-avoidance code from Dorado to stand-alone app for LR backseat computer.
 - 901101 - Ocean Imaging
 - Did some analysis for the 28 Sept Paragon radar test. Specifically, computed the translational velocity of the radar mount from a non-colocated Ahrs.
 - Out of Office
 - WFH on Thursday and Friday.

- Paul McGill
- Ed Mellinger
 - Out of Office
 - Scheduled in-office days Tuesday, Friday
 - Minor family medical issues will affect my availability for the next 2-3 weeks.
- Tom O'Reilly
 - Out of Office
 - Was on vacation last week
- Craig Okuda
 - 901007 - Benthic Biology & Ecology
 - Update valve actuator docs
 - 901803 - Carbon Wave Glider Development
 - Redesign drite box and update docs
 - Overhead
 - New building meeting with FLAD
 - Out of Office
 - Vacation days
 - Out sick
- Doug Pargett
 - 901205 - ESP SURF Center
 - The G3 ESP on the WF seems to have performed well. Is there interest in having an ESP available on the WF more often?
 - Created solid models to 3d print some G3 ESP bulkhead valve components rather than assemble from several machined metal parts. (Lighter and can print-as-needed rather than stockpile lots of spare parts.)



- Overhead
 - Ordering computer upgrades (thanks)
- Out of Office
 - A day of SL (leg injury, not illness). I should be back to the lab on my usual Thursday.
- Ben Raanan
- Mike Risi
 - Out of Office
 - February 19-22: Ocean Imaging Cruise
 - March 9-12: Vacation
 - May 26-29: Vacation
 - June 29 - July 1: Vacation
 - September 7 - September 11: Vacation

- October 12-17: Ocean Imaging Cruise
 - October 19-23: Vacation
- Brent Roman
 - 901205 - ESP SURF Center
 - ESPmer in Denmark, ESPdennis near WHOI and ESPkoa on the Flyer all sampling well.
 - Jinxed it!
 - Working with Preston to revamp protocols for updated cartridges from Function.
 - 901913 - Wet Wifi
 - Met with Chris Wahl to view Waveglider "Hansen"
 - Discovered that we could mount our transducer aft with no can height restriction
 - DQ1865 - Bryde Whale
 - Iridium comms still working on the now defunct ESPmoe
 - The motherboard is getting worse. No serial command port now.
 - Supplied replacement motherboard for Scott to mate to the lid for satcomms tests.
 - Lost track of spare antenna. Sigh...
- Carlos Rueda
 - 901502 - Passive Acoustic Sensing
 - More literature review, classification and comparisons with a nice external [tool](#) I just recently found. Some ASA poster preparation.
 - 901800 - LRAUV Payload & Support
 - TethysDash backend: Implemented solution in the backend to handle improper URL encoding of commands caused by browsers.
 - Did config adjustments for proper handling of incoming SBD emails, something not previously tested in the lab as part of the ongoing migration to tethysdash2.
 - [Documentation](#) updates.
 - Overhead
 - ESIP COR monthly meeting.
 - VueConf workshop today Nov 4; conference talks Nov 5-6.
 - Out of Office
 - Nov 4: VueConf Toronto (virtual)
 - Nov 11: vacation
 - Nov 12-13: Scale by the Bay (virtual)
 - Dec 9: ASA Conference (virtual)
- Karen Salamy
 - Out of Office
 - Out of Office this whole week due to a Family Medical Emergency. I may have to extend this through next week as well.
 - Will be working on MBARI campus ONLY on Tuesdays until further notice.
- Brian Schlining
 - 902002 - Fathomnet Detect and Classify
 - Fathomnet public API is up and running for development. Latest docs at <http://fathomnet.org:8080/swagger-ui>
 - Working on Fathomnet web interface with <http://makemodel.co> <https://bitbucket.org/mbari/fathomnet>
 - Out of Office
 - Worked ½ day on Tuesday
- Rich Schramm
- Alana Sherman