

Engineering Weekly Report 10/21/2021 - 10/28/2021

Executive Council Notes

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Individual Activities

- Francois Cazenave
 - Out of Office
 - Took 1 day of vacation
- Mark Chaffey
- Danelle Cline
- Duane Edgington
 - 901603 - Video TAG: Visualizing Ocean Change
 - Registered for [NeurIPS2021](#) (virtual, Dec 6 - 14)
 - 901618 - Pelagic-Benthic Coupling
 - Great progress by Dan Davis on calibration. Accurate measurement of “artificial critters” targets in situ. Processed images through Zhang matlab camera calibration to measure focal length during image capture June 11 2021. Met with Paul McGill Oct 25.
 - 902005 - VARS Annotation Assistance
 - Continue work on documentation
 - Overhead
 - Group meeting Oct 27.
 - Out of Office
 - Friday Oct 22. Vacation (get pneumonia vaccine)
 - Nov. 3 - Dec 6. Vacation (foreign travel)
- Jon Erickson
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
- Ben Erwin
- Kevin Gomes
- Andy Hamilton
- Kent Headley
- Rich Henthorn
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Merged TRN for LRAUV into TRN repo
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - WEC software refactoring
 - 901618 - Pelagic-Benthic Coupling
 - SES issues
 - Rover issues
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TRN for LRAUV testing
 - Overhead
 - Michael Anderson interview
 - Out of Office
 - Dec 17 - 30, Holidays and vacation

- Brett Hobson
- Scott Jensen
 - 901205 - ESP SURF Center
 - Fixing broken sensor board
 - 901805 - Coastal Biogeochemical Sensing
 - L:opcaiton parts and finishing revision of nanoFET
 - 902106 - Niobicon-Based AUV Docking Development
 - Input into Dock side fabrication
 - Overhead
 - EE hiring committee
 - Solidworks use to solidify training
- Brent Jones
 - 901009 - CANON
 - Designed new SIPPER pump pcb board for use with ELMO twitter
 - Prepping CPF for sampler deployment next week. A few software changes (+ testing) were needed to perform a full 48 hour dive
 - 901800.98 - Bioacoustic Payload
 - Attempting to process raw SIMRAD proprietary data in python. Prep for LRAUV/AUV SIMRAD data ingestion in situ
 - 901805 - Coastal Biogeochemical Sensing
 - Prepping Spray 34 for a battery exchange
 - 902004 - Planktivore
 - Consulted with Thom M for external cable and battery orders
 - Out of Office
 - 1 day vacation
- Chad Keczy
- Brian Kieft
 - Out of Office
 - 9/20-9/22 (phoenix)
 - 9/29-10/1 (phoenix tbd)
 - 10/4-10/5 (phoenix)
 - March/April TBD LRAUV ops
- Denis Klimov
- Diana LaScala-Gruenewald
 - 200103 - Core CTD Data - MDUC
 - Talked to Ed. He's a bit behind putting QC requests through. So there'll be a whole bunch at some point in the future...
 - 901915 - Improving MBARI Data Impact
 - Tested serving all ROV CTD data from all vehicles/years through ERDDAP. After I figured out some details with the connection, it went pretty smoothly. Kept notes on what needed to be done manually.
 - Started getting familiar with TimescaleDB and STOQS
 - Meeting w/ Mike to get an intro to STOQS today
 - Overhead
 - Weekly meeting(s)
- Eric Martin
 - 708167 - WEC Dynamics and Control
 - Developed basic data ingestion pipeline for the data set the buoy has been collecting.
 - 901101 - Seafloor Mapping
 - INS shipping meetings and planning with Mandy.

- 901206 - Coastal Profiling Float
 - Shoreside server development.
 - Bugfixes for encoding exceptions and SBD formatting.
- 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Modem got into an irrecoverable state, went out on the Paragon to reset via the backdoor wifi.
- 901700 - Acoustical Ocean Ecology
 - Handed over some work to Brent Jones who's interested in parsing the EK80 data as well.
- 902100 - Telepresence on MBARI Research Vessels
 - Supporting operations on the Carson with the Mini.
- Overhead
 - RE-Term position committee
- Out of Office
 - Appointments Wednesday and Thursday afternoon this week.
- Thom Maughan
 - 901009 - CANON
 - Looking at options for 'safe' rechargeable batteries in portable DNA sequencer box
 - 901805 - Coastal Biogeochemical Sensing
 - Discussed possible options for nanoFET in 2022 rather than 2023 with Scott and Yui. Processor and ADS1248 order. Ordered parts for IrDA dongle for 2022 work.
 - Support QA of MFETs and setup of a dedicated laptop so we can return loaner.
 - OCR cable checkout for MFET.
 - 902004 - Planktivore
 - Draft of standalone battery pack requirements to Jon E.
 - Highest priority has been electronic parts ordering, design substitutions for camera control, strobe control and strobe designs.
 - 24MP global shutter cameras ordered.
 - Spray Batteries ordered (x2)
 - Measurements and connector spec for Spray to Planktivore cable.
 - Working lab space request for Fluum particle motion testing, thanks Doug for the help.
 - Charge coding and budget update
 - Looking at possible Fluorometer options (triggering) for Planktivore connector spec
 - 3D printed housings are done.
 - Out of Office
 - Working from home once a month on Wednesday (child/school) (Nov 17, Dec 15)
 - Nov. 10,11,12 Vacation in Dallas, TX
- Mike McCann
 - 901101 - Seafloor Mapping
 - Had Zoom session with Jenny and Karen to go over the smdb contributing process
 - Reloaded <https://smdb.shore.mbari.org/> with additional excluded directories
 - 901221 - Midwater Time Series
 - Restructured the auv-python project in BitBucket to use a data science layout
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Working on auv-python as a replacement for the Matlab science data processing toolbox
 - Overhead
 - Dusting off BEDs processing software following the recent beach recovery of a lost BED
- Rob McEwen
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Reviewing simulator code in preparation for mbtrnpp inclusion.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Umesh's code is tested and archived on Project Library (see last week)

- Out of Office
 - Nov22-24
 - Dec 22-31
- Paul McGill
 - Out of Office
 - Took vacation day on Friday
- Ed Mellinger
- Tom O'Reilly
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Update manifold design
 - Test pumps
 - Out of Office
 - Vacation days
 - Out sick
 - Overhead
 - Lab clean up
- Doug Pargett
 - 881135 - 3G ESP Cartridge Redesign
 - Redesigning the G3 ESP toroid valve array and cartridge mounting system to use the new Function cartridges.
 - Meetings and discussions about cartridge springs and testing.
 - Out of Office
 - Annual Leave
 - Sick Leave
- 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
 - 901205 - ESP SURF Center
 - Supporting troublesome ESPdennis 2G deployment at WHOI (Gripper failures)
 - Hacked together a set of scripts that enable us to release DHCP leases of ESPs removed from the wired network.
 - 901913 - Demonstrating high-speed communication with a submerged AUV
 - OceanComm has confirmed that they will be shipping us a pair of H150 modems by Friday.
- Carlos Rueda
 - Out of Office
 - Oct 1, 4, 15: vacation
 - Oct 27-29: <https://scale.bythebay.io>
 - Nov 11, 12, 22-24; Dec 9,10, 21-23: vacation
- Karen Salamy

- 300057 - Mooring Maintenance
 - Checked basic operations of M1 Mooring and data downloads to SSDS
- 704109 - NavDORISS
 - Ordered new SSD cards for NavDORISS system and handed them to Eric M.
- 901101 - Seafloor Mapping
 - Continue to have Wednesday AM meetings with Mike M. and Jenny P. I have now also created a drive.google.docs directory for our ZOOM video files name SMDB_Project_ZOOM_Meetings.
- Out of Office
 - Vacation: November 12-19, 2021.
- Brian Schlining
- Rich Schramm
- Alana Sherman
 - 300080 - DMO Support Mini ROV
 - Mob'd Mini on the Carson Friday
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Endless testing in cold room and on the bench to try to figure out what caused the failure we experienced in the last deployment. It is very frustrating as I can't get it to fail again.
 - Reviewed software for Coral Macro compared with large Coral Cam and Smith Macro cam and did not find any significant differences which could explain the issue.
 - Overhead
 - Strategic roadmap meeting
 - Hiring, lots of work on the EE hires