

Engineering Weekly Report 5/7 - 5/13

Executive Council Notes

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Individual Activities

- Francois Cazenave
 - Out of Office
 - Special leave
- Mark Chaffey
- Danelle Cline
 - 901502 - Passive Acoustic Sensing
 - CentOS8 migration of HTCondor pool master machine condormastervm to htcondormaster
 - Teleconference with AWS team about open data sharing program
 - Weekly team meeting and monitoring of decimation jobs
 - 902005 - VARS Annotation Assistance
 - Working on python notebooks for data localized data clean-up using the tools designed for assisting annotation. Two data sets ready for ingest so far. This set may serve well for summer intern work
 - Continued evaluation of amplify/vue/graphql web app
 - Student project discussion
 - Team meeting scrubbed this week
 - Overhead
 - AWS Online US/Canada Summit tutorials and keynotes
- Duane Edgington
 - 901603 - Video TAG: Vis Ocean Chng
 - Continuing One-shot learning exploration
 - 902004 - Planktivore
 - Abstract planning teleconference with project lead next week.
 - 902005 - VARS Annotation Assistance
 - Work continues on registering video files into M3. Waiting for news that files have been moved to The Right Place on Titan...
 - Weekly team meeting via teleconference.
 - Teleconference scheduled with 2020 intern Peyton Lee.
 - Overhead
 - Weekly Engineering teleconference
 - Weekly group meeting
 - Out of Office
 - Vacation Friday.
 - June 14-19. CVPR. Virtual registration at nominal charge for IEEE Life Members.
 - Working through AWS Security training course.
- Jon Erickson
 - 800139 - EyeRIS
 - Started on the light array mechanism. Six two bar linkages to separate the SeaLites from the camera.

- 901809 - Deep Sea Bioinspiration
 - Finished the print package for the Version 8 remote laser head, and an assembly jig to protect the fibers during assembly.
- Overhead
 - Finished the drawing check for MARS-DACR.
- Kevin Gomes
 - 901205 - ESP SURF Center
 - Working on migrating the ESP web portal to the esp-portal.mbari.org machine to facilitate the upgrade of services.mbari.org to CentOS 8
 - 901915 - Improving MBARI Data Impa
 - Looking at deployment scenarios for on premises and AWS testing
 - Overhead
 - Some small level of AWS support for Francisco's interns
 - Created a detailed list of all SE IE related IS supported servers for planning and migration purposes.
 - Working on migration to CentOS 8 for several machines
 - Out of Office
 - May 6-7: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Control Tech - Rock
 - Fixed a number of warnings from static analyzer/compiler
 - Drafted architecture concept notes/diagrams
 - 901803 - Carbon Wave Glider Development
 - Wrote matlab binary data loader (beta)
 - Overhead
 - Misc admin
- Rich Henthorn
 - 600034 - Control Tech - Rock
 - Reviewing pull-requests
 - Reviewing architecture documents
 - 901618 - Pelagic-Benthic Coupling
 - Proposal meetings
 - Camera controller code
 - Further refinement
 - Refactored
 - Created git repo
 - 901904.99 - Coral Camera System
 - See 901618 above
 - Overhead
 - Training
 - Reviewing back-to-work docs
- Brett Hobson
- Scott Jensen
- Brent Jones
 - 901502 - Passive Acoustic Sensing
 - Reprocessing data using inter-click interval. Found more instances of possible sperm clicks
 - Documenting software in prep for summer intern
 - 901805 - Coastal Biogeochemical Sensing
 - Reviewing paper manuscript written by Yui. Going to need a few figures

- Overhead
 - Looking at putting plantivore on NPS gliders
 - Meetings
 - Cont ed
- Chad Kecz
- Brian Kieft
- Denis Klimov
 - 118000 - Safety Office - LSO activity
 - Safety office meeting about restructuring handbook on DeepPIV use on ships
 - 901809 - Deep Sea Bioinspiration
 - Restructuring handbook on DeepPIV use on ships
 - Overhead
 - Creating individual work plan for a period of re-opening
 - Quoting BEDS Bridge Board
- Eric Martin
 - 901206 - Coastal Profiling Float
 - Server testing
 - Calibration software
 - 901405 - PowerBuoy Development
 - Reviewed funding proposal.
 - 901911 - ROVVR
 - Meeting with UCSC last week, good progress is being made
 - Ben Erwin was able to download some VR video off of the cameras, we can start doing some photogrammetry now.
 - Overhead
 - ORCAD PCB Training
 - Return to work plan
 - Telepresence scoping and abstract
 - Lots of calls with industry leaders and engineers
 - URI Innerspace Center
 - SOI satellite team
 - Isotropic Networks
 - NASA Ames Telerobotic
 - MBARI IS
 - A few other private contractors.
 - Finalizing a concept proposal with cost estimates.
 - Out of Office
 - I'm back fulltime this week.
- Thom Maughan
 - 901009 - CANON
 - Nate has been working with Raksha while I've been out of commission.
 - Doug/Will prep'd an older PC with GPU card
 - 901805 - Coastal Biogeochemical Sensing
 - Reviewing Yui's paper.
 - Small amount of progress on pre-nanoFET (DAg) firmware dev.
 - 902004 - Planktivore
 - Meeting with Henry, Francisco, Paul to discuss CENCOOS funding opportunity
 - Working on abstract presentation
 - Overhead

- Meeting with Bridget, Chad, Gabe Santos to discuss Cal Poly pier project, working a transition plan after Gabe is done with school next winter quarter. Bridget will have CPE senior project students Winter/Spring.
 - Out of Office
 - Sick days (=2) for shingles vaccine recovery. This followed by allergies (sick = 1.5)
 - Tentative vacation plan is after abstract presentation to take a week, possibly more depending on pandemic rules.
- Mike McCann
 - 901009 - CANON
 - Added functional tests for Points feature added by Capstone students
 - Attending via Zoom their live [presentation](#) during the Capstone Festival on Friday
 - Deployed the points, lines, polygons 3D data visualization feature on the stoqs servers
 - 901221 - Midwater Time Series
 - Spinning back up on auv-python project – using it to explore dataframe viz technologies
 - Overhead
 - Configuring applications on new laptop
- Rob McEwen
 - 600034 - Control Tech - Rock
 - Resurrected old Trn code so that estimates the three vehicle orientation angles.
 - Modified this code to work with Reson beams.
 - Verification is underway. Working with Rock and his lab on this. It is statistical in nature, and there are several knobs to turn.
 - The first objective is to estimate magnetic compass offset error in the LR data.
- Paul McGill
 - 300070 - DMO Support- Ventana
 - Writing code to test ROV ground fault system.
 - 901618 - Pelagic-Benthic Coupling
 - Prioritizing work for MBARI reopening next month. Developing backup plan in case pressure-tolerant motor control isn't.
 - 901700 - 2017 Acoustical Ocean Eco
 - Wrote Python code to augment sonar data set.
 - 901803 - Carbon Wave Glider Development
 - Planning for starting up lab work again to test analyzer.
 - Overhead
 - Reviewed some of Yanwu's on data decimation filters for the hydrophone data.
- Ed Mellinger
- Tom O'Reilly
 - 901101 - Ocean Imaging
 - Working with Caress to evaluate and compare approaches to display bathymetric data. Goals are to update MB-System and simplify its development, distribution and maintenance
 - 901800 - LRAUV Payload & Support
 - Working with team to refine onboard network middleware architecture
 - 901902 - Aerial Drones for Sci&MO
 - Planning data processing software review in mid-July - date TBD
 - Overhead
 - Presented invited lecture to Hartnell College Oceanography class:
"Robotic technology for persistent presence: under, on and above the ocean"
- Craig Okuda
 - 901007 - Benthic Biology & Ecology
 - BRS Durafet interface

- 901803 - Carbon Wave Glider Development
 - Review previous work, spin back up
- Out of Office
 - Special leave
 - Vacation 5/11
- Doug Pargett
 - 901205 - ESP SURF Center
 - Completing the “FlowerPot” housing design.
 - DQ1904 - NOPP Saildrone
 - I’m getting preliminary quotes for 3d printing “FlowerPot” domes.
- Ben Raanan
- Mike Risi
 - 200105 - Core Nav - MDUC
 - Working on class for ROS PT-10 and PT-25 pan and tilts
 - 300080 - DMO Support-Mini ROV
 - Working on input sources for ro-v-control
 - Meeting with Dale to discuss 2021 work and test plan for tentative June work in test tank
 - 600034 - Control Tech - Rock
 - Working on ro-v-control application for ROVs
 - Meeting with Steve to discuss 2021 work and stereo camera setup
 - Out of Office
 - February 19-22: Ocean Imaging Cruise
 - March 9-12: Vacation
 - September 18-29: Ocean Imaging Cruise
 - September 30 - October 2: Vacation
- Brent Roman
- Carlos Rueda
 - 901009 - CANON
 - Resuming work on MXM.
 - 901502 - Passive Acoustic Sensing
 - More parameter tuning in [HMM training](#). Interesting new insights in that some parameters can actually be given smaller values to improve performance while avoiding overfitting.
 - 901800 - LRAUV Payload & Support
 - Various enhancements in TethysDash configuration and better handling in Dash3 for edge cases where the backend is not properly configured. New docker image 3.9.82.
 - 902009 - AUV UI
 - Assistance to UCSC regarding adjustments needed for TethysDash to be able to access vehicle config and mission repositories.
 - Overhead
 - IE & Eng meetings
 - Some input to the [server inventory document](#).
 - The NOAA OTT Proposal, led by TAMUCC, submitted to extend and expand the SensorML editor and the registry, will not be funded this year but will be considered for next fiscal year.
 - Out of Office
 - A few hours spent on kids school related activities.
 - May 15: vacation
- Karen Salamy
 - 704109 - NavDORISS
 - Reviewed and commented on Bill Kirkwood’s NavDORISS return to work plan.
 - Overhead

- RT Dashboard work
 - Working with Rich S. to determine an issue with the EXPDB data format. Hope to figure this out this week.
- Out of Office
 - Will tentatively need to continue working from home through the first month or so back to work depending on when after school resumes or if we are able to get daily child care/teacher.....
- Brian Schlining
- Rich Schramm
 - 200103 - Core CTD Data -MDUC
 - Wrote a query for Lonny to extract rov data for collaborator.
 - 200105 - Core Nav - MDUC
 - Ongoing troubleshooting of problem (with Karen S.) identified by Jenny with Expd web page nav data from Clauge dives
 - Overhead
 - Working my way thru porting nightly programs and scripts with IS for migration from CentOS-6 (end-of-life) to CentOS-8
 - Out of Office
 - Jul 30 - 3-Aug Vacation
 - Aug-10 -21 Vacation
- Alana Sherman
 - 800139 - EyeRIS
 - Watched Paul's lens controller demo
 - 901618 - Pelagic-Benthic Coupling
 - Meeting with Yui regarding putting a CO2 sensor on the Rover
 - Weekly meeting
 - 901809 - Deep Sea Bioinspiration
 - Weekly meeting
 - Looked into motor control options
 - DeepPIV 4 GUI:
 - Added focus slider control for better step resolution
 - Improved reading of camera parameters
 - Working on setting initial conditions and control values after transitions between modes (ie. auto to manual transitions)