

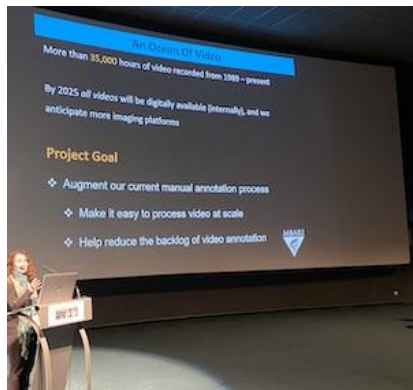
Engineering Weekly Report 10/13/2022 - 10/20/2022

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
 - 902106 - Niobicon-Based AUV Docking Development
 - Designing housing, buoy, battery tower.
 - Out of Office
 - Took ½ off.
- Danelle Cline
 - 901502 - Soundscape Research and Education
 - Updates to the [open data documentation](#)
 - Team meeting and meeting with Stanford student Kanoe on continued ML work with blue whale calls.
 - 902005 - VARS Annotation Assistance
 - Working on tutorial on FathomNet object detection training in the [deepsea-ai](#) module
 - Presentation on cloud-enabled benthic annotation at the Marine Imaging Workshop; PDF of that is [here](#). This was well received with questions on cost, time, data augmentation efforts, etc.



- Overhead
 - [Code.org video released](#) this was part of a series of career highlights targeting K-5, promoting diversity in computer science.
- 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
- Kevin Gomes
 - 200105 - Core Navigation Data - MDUC
 - Starting to dig into Qt to see if it's a viable replacement for Dataprobe, Divelog, etc.
 - Online course for Qt
 - Documented all the current WF logger files to make sure we can replicate for the Packard and to help inform a meeting with SMD.
 - 901009 - CANON
 - Starting to prepare for moving Zuma (ODSS server on Carson) to ubuntu.
 - Documenting existing zuma for purposes of migration (new satellite system working well!)
 - Creating migration instructions for zuma move, maybe next week during a mob day I can attempt the move.
 - 901602 - Data TAG
 - Getting re-started on the SR stuff
 - Going through past SR stuff to take fresh run at implementation writeup
 - 901915 - Improving the Impact of MBARI's Data
 - Some web page editing
 - 902202 - MBARI Cloud Integration Exploration
 - More work on the SSO/AD integration. Hitting issue with AD connector and the account the SSO and AD were created in. Ticket in to AWS for help.
 - Ticket confirmed that we needed it in the same account so Adriana got that set up and now I am checking with users if we can move SSO over to AD connection as it will break things.
 - Overhead
 - Fun get together to say goodbye to the WF! Sad and exciting.
 - Out of Office
 - 11/21-11/23: Vacation
 - 12/19-12/23: Vacation
- Andy Hamilton
- Kent Headley
 - 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - The earlier Rover acoustic survey produced an accurate location estimate
- Rich Henthorn
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TRN prep for pontus deployment
 - Out of Office
 - Oct 24 - 28, WFH
- Brett Hobson
- Scott Jensen
 - 901205 - SURF Center
 - Continued progress on firmware for prototype sampler mechanism
 - 902106 - Niobicon-Based AUV Docking Development
 - Preparations for build
 - DQ2113 - Tidal Turbine
 - Work toward solutions for physical mounting of hardware into housing
 - Overhead
 - EE-hire meetings
 - Out of Office
 - On leave 10/20-25

- Brent Jones
 - 701149 - Improving pCO₂ estimates
 - Flying spray 29 in support of Yui's experiments
 - Had a CF card failure on spray 29. Recovered and am diagnosing
 - 901009 - CANON
 - Recovered Wire Walker that had failures in the data logger. Diagnosed and sent back to RBR Canada for repairs
 - 901112 - The Monterey Bay Time Series
 - Deployed and flew daphne in support of monthly time series. Sampler failed
 - Fixed sampler and deployed Daphne on a test sampler mission...success
 - 901502 - Soundscape Research and Education
 - Recovered hydrophone deployed on Wire Walker for about a month. Returned to J Ryan and am hoping for the data soon so I can analyze.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Making high level diagram of BioAcoustics data flow. Diagnosing errors from Great Lakes deployment
 - Overhead
 - Finishing up mechanical design of M1 telemetry system.
 - WF party!
- Chad Keczy
- Brian Kieft
 - 300083 - DMO Support - LRAUV
 - Daphne demonstration beach launch on Monday
 - Working with Tanner for some new component design
 - Supporting Pontus deployment off Pt. Sur and in N Monterey Bay
 - 708168 - DHS/LRAUV Under-Ice
 - Met with SW team to discuss plans for DVL development and new behaviors
 - 901009 - CANON
 - Recovered Makai Monday following successful CANON deployment
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Wrapped up some CANON mission changes with Yanwu
 - 902009 - AUV User Experience Design
 - Met with team to discuss progress and am preparing to send out link for alpha testing hopefully next week
 - 2 action items for end points surrounding the scheduler
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Fixing bug with ESPComponent and writing data after critical failure
 - TRN ingest work
 - 902102 - Multi-LRAUV Simulation Environment
 - Lots of work on getting a build running. Currently working through issues on the container build from source. Hoping to have instructions posted to users by the end of the week.
 - 902106 - Niobicon-Based AUV Docking Development
 - Working on integrating new stepper controller with new actuator
 - Overhead
 - Met with USGS/WHOI team to go over plans for potential funding of under ice ops in Lake MI.
 - Wrapping up various expense reporting from May-Sep
 - Out of Office
 - 10/24 - 10/28 (PDT)
 - 11/21 - 11/25 (MST)

- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Checkin with 3D at Depth last week, they have been approved to start work on a new design.
 - Meeting with DJ regarding power input for the sled. Will require a connector conversion.
 - Designing Cables for the Reson system wiring.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Collecting radar data in one place for archival and transmission to collaborators at JHU.
 - 901700 - Acoustical Ocean Ecology
 - Consult with Brett for noise mitigation on the EK80 on LRAUV
 - 901911 - ROVVR
 - Discussions with Steve and Drew as project management transition begins to Drew.
 - 902012 - Telepresence on MBARI Research Vessels
 - Submitted board bullets to Cindy
 - Working on 2 papers, a short one for a DEI submission and the full paper for CSCW
 - Tore down the telepresence gear on the flyer and moved to B123
 - 902204 - Scalable Marine Robotics Foundations
 - The boxfish vehicle is here and working, we are working through understanding some issues with it, and trying to close out all tickets with Boxfish.
 - Supported photo shoots with the aquarium
 - Many project management items this week.
 - Reviewing applicants for the REE position.
 - Overhead
 - SE hiring committee meeting
 - Dorado Artic Debrief Notes and meeting last friday.
- Thom Maughan
 - 901009 - CANON
 - Debugging button start on battery power
 - Working thru ont-guppy v6.3.8 arm install
 - 901805 - Coastal Biogeochemical Sensing Program
 - Cable diagrams, cabling for mfet to nanofet for driver dev.
 - Testing industrial microSD
 - New feature dev: experiment duty cycle, m2m, self cal
 - Merging Irene's pico-pH driver
 - 902004 - Planktivore
 - Board bullets and Project slides for board meeting. Created mosaics
 - Attended Lucendi holographic microscope demo.
 - Overhead
 - Staff council
 - Cal Poly tour prep
 - Out of Office
 - A week or so in November, exact date tbd
- Mike McCann
 - 901009 - CANON
 - Loaded [stogs_canon_october2022](#) and confirmed that all 55 field ESP Samples were parsed
 - 901111 - AUV Infrastructure Support
 - Processed Dorado Gulper missions 2022.284.00 and 2022.286.01
 - Used Scaniverse app to create a better 3D model (.glb) of the Dorado vehicle for STOQS
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Fixed more qc issues and now processing Dorado missions from 2017 using auv-python

- Will be meeting with Monique on Thursday
- 901915 - Improving the Impact of MBARI's Data
 - Met with Fred to understand better how CeNCOOS is presenting our mooring data
- Overhead
 - Registered for 2022 Web 3D Conference (virtual attendance - Paris time :-())
- 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
 - Out of Office
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- Brent Roman
 - 901205 - SURF Center
 - Looking into a couple odd, minor, transitory bugs that occurred during this season's deployments
 - 901913 - WetWiFi
 - Still on track for a test deployment of Video Streaming from LRAUV in early December.
 - Oceancomm claims they will deliver modems before end of November
 - Overhead
 - Contributed series of patches to get Armbian up and running on tiny \$30 IOT Linux boards (<https://www.armbian.com/rockpi-s/>)
- Carlos Rueda
 - 901009 - CANON
 - MXM: Re-enabled *continuous deployment* (using [Watchtower](#)) for the MXM system as well as for the new MXM provider example service. It is really great to just push a code update and then also see the deployed service getting updated after a few moments automatically. Preparing a status update for the team.
 - 901502 - Soundscape Research and Education
 - PyPAM exploration (with John). We reported [this issue](#).
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Preparing for onshore testing.
 - 902005 - VARS Annotation Assistance
 - Met with Danelle to discuss ReID and related components in video tracking workflow. She set me up on AWS and entered a description of the task [here](#).
 - 902009 - AUV User Experience Design

- Addressing issue entries. Various questions floating around.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash: Enabled “ayeris_particle_*” variables for the science plots as requested by Paul R.
- Out of Office
 - Oct 18 - sick
 - Nov 11–14, 23–28, Dec 8–9: vacation
- Karen Salamy
 - Out of Office
 - Vacation: October 19-20, 2022
 - Vacation: November 8-11, 2022
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Modified [tapemigration](#) code to handle ingest of Mini ROV tapes. 🤖 I had no idea we even had those.
 - Updated [m3-quickstart](#) project with initial SQL Server support and added a script to delete video sequences at the request of [Geomar](#)
 - Squeezed in a little time to work on the [new deep-sea guide](#). Sorting out how to best [integrate the VARS Query functions](#) into it.
 - Iron Mountain video imports.
 - 902002 - FathomNet
 - [Modifying the import from VARS and FathomNet](#) to deal with the mess created by a ML generated bounding box import done by the video lab. This task is temporarily on hold due to yesterday's [FathomNet press release](#). (We don't want to break anything while FathomNet is getting media attention)
 - The FathomNet team met with our new web designer, Katie Parker, to discuss [proposed enhancements](#).
 - 902005 - VARS Annotation Assistance
 - Investigated [discrepancies](#) between the number of localizations pulled using [m3-download](#) and the number actually in the database. On the off chance that you ever need it, [here's a script to convert Pascal VOC files to a CSV](#).
 - Continuing work with Paul Rogers on a [new Sharktopoda video player](#) that integrates Cthulhu localization functions.
 - Overhead
 - [Tried out](#) Java 19's new project [Loom](#) (i.e. a preview feature of virtual threads and structured concurrency).
- Alana Sherman
 - Out of Office
 - Out for dentist appt