

Carlos Rueda

Week 52

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Worked from home for a few days due to covid case at home.
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 51

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
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- Overhead
- Out of Office
 - Worked from home for a few days due to covid case at home.
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Week 50

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Some dependency upgrades for the MXM server (now using latest Quarkus 2.15.0.Final).
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Continued pyPAM code revision and some development; [PR](#) merged, including new [CI](#) workflow; some additional feedback regarding unit tests that are failing.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Tom is using neptus@tsauv for rsync-based transfer of log files from the SMC-2 to shore.

- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - More ReID training exercises on the DiGiTS-Dev-Box-Fish.
- 902009 - AUV User Experience Design
 - Reviewing some pending API/payload aspects per exchange with Jim.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Some exchanges with Mike G and Brian re unserialization of individual .Izma files.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - ACM Webinar: Programming Language Processing (not as interesting as I expected).
 - Some quick experimentation cross-compiling a tethysl-2-xml translator written in Rust for the LRAUV architecture, unsuccessful due to lack of support for the ARMv5 on that target.
- Out of Office
 - Worked from home for a few days due to covid case at home.
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 49

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Continued trying to set up and test pyPAM with online notebooks: On Colab, still having weird issues (for now, not insisting any more on that target). On AWS, looks more promising, but now having a different issue, this time related with plotting.
 - Reviewing pyPAM internals from development perspective
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - A window opened for further testing on the SMC2 with actual config for when deploying at sea later on (thanks Chris W., also Tom O.). All tests completed satisfactory, in particular regarding data access, which was pending from the previous set of tests a couple of weeks ago. Further adjustments in the code per Tom's changes on the board so commands can be issued directly on the SMC2 (not necessarily via "sudo" to the "smc" account).
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Running various ReID training exercises on the DiGiTS-Dev-Box-Fish with (subsets) of the big "315k" dataset. Interesting results but still being gathered and to be discussed with the team.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 48

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education

- Manta/PyPAM discussion with John and Daneel. PyPAM testing of recent changes/fixes. Expecting an official new release to retry a few things, including use in Colab notebooks.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Code adjustments per testing exercises done a couple weeks ago and in preparation for further testing happening today and tomorrow. CI back to using ubuntu-20.04 (due to issues with 18.04)
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - More good progress with ReID training on our data, now obtaining 86.1% mean average accuracy with the resnet18 model (using 30 epochs for training). Various other models also [evaluated](#).
 - Wrote [blaise](#), a Rust implementation of [voc-cropper](#), mainly as a learning exercise but it might actually become a potential alternative especially for when processing larger image datasets for training/testing.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash system is now [4.23.0](#), mainly with configurability adjustments in preparation to incorporate Steve's status widgets for WHOI. Previous recent versions, 4.22.8 and 4.22.7/6, with more detailed cell connection information, now including last time the vehicle itself has connected via the DataLink endpoint; improved handling of reported git reference from the vehicle.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 47

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- 901009 - CANON
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- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 46

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Possibly one more chance for testing on the SMC2 by the end of the month. Thanks Chris W.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance

- More progress with ReID training using our image data. On our “crops256” dataset of 10553 images, obtaining mAP 81.2% (30 epochs) with the ‘osnet_x1_0’ model. Now trying some other models for comparison.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now [4.22.5](#).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE meeting
 - Tech exploration ([surrealdb](#), [Rust/C](#),)
 - Danna Staaf Seminar
- Out of Office
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 45

- 300083 - DMO Support - LRAUV
 - Exchanges with Erik about planning for 2023.
- 901009 - CANON
 - MXM adjustments, mainly in the prototype implementation (both backend and ui).
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Continued exploring xarray and pypam. Though no news yet about [this issue](#), I’ve tried the mentioned “test” branch but the issue still arises with it.
 - Getting in touch with Samara Haver (NOAA) re pypam assistance.
 - Quick touch bases with Josh M. (UBC) and Duane E. in our biweekly mtg today.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Good progress setting up “ReID” to train it with our data, including initial runs with s3://902005-reid-training-test/benthic2017/crops256/. (Using [private clone](#) of the original codebase.)
- 902009 - AUV User Experience Design
 - SumoCreations (Jim J.) looking into some comments I’ve provided.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash system is now [4.22.4](#).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Zoom telecon with Mike Godin re various tasks (TethysDash modernization, MXM and TethysDash “generalization”, TethysL, etc.) for the remainder of the year and 2023.
 - Assistance to IOOS regarding one of their ioos-metadata vocabularies.
- Out of Office
 - Nov 11–14, 23–30, Dec 8–9, 21–29: vacation; Early January (tentative): vacation.

Week 44

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - (not reported past week) Met with Kevin and Tom for a general [MXM status update](#). In short, good progress on the prototype implementation; additional components being incorporated in the data model; and, per prior discussion with Erik T., potential inclusion of Dorado as one other *prototype provider* to

help test and refine the MXM concept next year while also demonstrating benefit for Dorado and other possible systems.

- Refined the [MXM Service REST API for Providers](#).
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Upon exchanges with the team, I added <https://shoutcast.mbari.org/pacific-soundscape> to my list of monitored sites by StatusCake (with John, Duane, Danelle and myself as contact group for notification purposes).
 - Participated in SoundCOOP - Python Sniffers telecon, focused on PyPAM and Manta.
 - Thanks John for stopping by and the productive discussion.
 - Looking into [xarray](#) as part of ongoing collaboration with the PyPAM team. Thanks Mike M. for sharing his insights with us.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - A very productive set of tests -mainly involving commanding- on the SMC-2 on an actual wave glider was performed. Did several code adjustments to accommodate idiosyncrasies when issuing such commands onboard (as opposed to being issued from shore or directly on WGMS). Many thanks to Tom for his insights. Data access was the only key operation that we could not test due to lack of appropriate configuration. Hoping to test this next time (around thanksgiving?), if possible also along with overall exercising of the tracking algorithms.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
 - (not reported past week) Did adjustments to my assigned web pages for the new MBARI site.
- 902005 - VARS Annotation Assistance
 - AWS working session with Danelle and Duane.
 - Setting up the ReID code on AWS has proved difficult but I was able to have it in place on my computer, where I'm able to run the training exercises. Thanks Danelle for your assistance. Now looking into understanding the input specs to then train it on our image/video data.
- 902009 - AUV User Experience Design
 - Delineating some tentative approach for pending API adjustments while the team is able to meet again and/or provide insights in the issues at GitHub.
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Nov 11–14, 23–28, Dec 8–9: vacation

Week 43

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- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Oct 18 - sick

- Nov 11–14, 23–28, Dec 8–9: vacation

Week 42

- 300083 - DMO Support - LRAUV
- 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.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - PyPAM exploration (with John). We reported [this issue](#).
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Preparing for onshore testing.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 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.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Oct 18 - sick
 - Nov 11–14, 23–28, Dec 8–9: vacation

Week 41

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- 901101 - Seafloor Mapping
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- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
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- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Oct 10–12 (tentative as some travel plans may change), Nov 11–14, 23–30, Dec 8–9: vacation

Week 40

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Week 39

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- 901009 - CANON
 - MXM: went ahead with migration of the UI implementation to Vue3/Quasar2 (from Vue2/Quasar1), Pinia (from Vuex), Typescript (from JS) and newer Apollo mechanisms. Worth this extra effort sooner than later. (So, with the also new backend reimplementations I ended up with a funny overall setup: The “subatomic” [Quarkus](#) on the backend, [Quasar](#) on the frontend!)
 - MXM: putting together the MXM Provider API with an OpenAPI specification (greatly facilitated by Quarkus tooling as well): <http://mxm.shore.mbari.org/mxm-provider-api/q/swagger-ui/>
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Fixed a potential issue (for less technical visitors) of incorrect data access URL construction in the [Humpback Whale Pacific Sound notebook](#). Also reviewed the other notebooks, which look fine. Thanks John for the heads-up.
 - Thanks Danelle for making the workflow for capturing notebooks for the [Pacific Sound site](#) more streamlined.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Thanks Tom for the update regarding the need to run ServerExec via sudo on the SMC-2.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
 - Migrated all my assigned web pages. (BTW, editing in Wordpress felt rather straightforward initially, but there are some little shortcomings; not critical, but a bit time consuming.)
- 902005 - VARS Annotation Assistance
 - Going through some of the pointers provided by Lonny and Danelle. Quite a learning curve.
- 902009 - AUV User Experience Design
 - Tried to organize a group meeting but folks have been busy these days and well, better wait until LRAUV experts are able to join given the likely additions that would be needed at the vehicle level.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Applied a workaround in Pontus prior to its (just finished) deployment given that it was to use an old version of the LRAUV software (git tag 2002-06-07), that is, not reflecting the new passwords recently put in place across the whole fleet. This also exposed a long-standing (~10year) bug in TethysDash, which I have already fixed.
 - Dash system [4.21.0](#).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - DEI AC – meeting; exchanges.
 - MBARI docs engine: fixed a bug that prevented the doc generation from working when the user indicated the optional document directory setting with value equal to the default location.
- Out of Office
 - Oct 10–12 (tentative as some travel plans may change), Nov 11–14, 23–30, Dec 8–9: vacation

Week 38

- 300083 - DMO Support - LRAUV
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- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Out sick 3 days over past two weeks
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation

Week 37

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - MXM: Decided to go ahead with the migration of the UI component to Vue3/Quasar2 and newer Apollo mechanisms for interaction with the GraphQL endpoint. Taking good shape, and also with the development cycle (hot reload) faster than with the previous setup.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Reviewing some click detection literature. Group mtg. Paper draft review/discussion.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting a functional ServerExec to proceed with testing/tuning up wave glider commanding.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Group mtg. Will look into some pointers provided by Lonny and Danelle related to object detection/tracking.
- 902009 - AUV User Experience Design
 - I believe good progress has been made on the new UI and supporting API. We should start planning a group meeting to see where we are and determine concrete next steps.
- 902101 - LRAUV Technology Development and Fleet Operations
 - New passwords for all LRAUVs now in place.
 - Dash system maintenance release (4.12.7).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Took a Daphne watch shift for this evening (9/14).
- Out of Office
 - Out sick 3 days over past two weeks
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation

Week 36

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping

- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation

Week 35

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - [MXM reimplementation](#) is now getting in pretty good shape to then continue with further model and API revisions and adjustments. Backend simplified and now based on Quarkus (using JDBI and with both GraphQL and OpenAPI endpoints); frontend still on vue2/quasar1 but also simplified. Using the nice [Quarkus Quinoa](#) extension, which helps integrate the frontend for both development and packaging purposes. New dockerized system deployed at <http://mxm.shore.mbari.org/>.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Group meeting. Still need to catch up with various possible tasks here.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting a functional ServerExec to proceed with testing/tuning up wave glider commanding for the front tracking software onboard. Some adjustments in MXM provider API here.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Group meeting.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now 4.12.6, with internal changes/cleanup and MXM related adjustments.
- 902102 - Multi-LRAUV Simulation Environment
 - Submitted PR with all vehicle passwords reset. Some exchanges aimed at promoting a focused discussion about possible reorganization of repositories and handling of security aspects.
- Overhead
 - AWS workshop: Sagemaker and ROS presentations (thanks Kevin for organizing)
 - DEI AC meeting (past week)
 - RoboFlow presentation (thanks Danelle for organizing).
- Out of Office
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation

Week 34

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG

- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office

Week 33

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - General MXM spec & implementation revision continues.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Group meeting.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Now, with access to ServerExec on the smc-2 (thanks Tom), I'll continue with commanding related additions and testing for the frontracking software.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Meetings. Awaiting definition of next tasks for me in this project.
- 902009 - AUV User Experience Design
 - Added 'GET /git/missionListing' in the TethysDash API to enable related functionality in new UI.
- 902101 - LRAUV Technology Development and Fleet Operations
 - TethysDash backend and frontend: merging branches upon good testing of some significant adjustments over the last several days during real LRAUV operations.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE meetings
 - DEI AC: materials review/feedback.
- Out of Office

Week 32

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Focused on general revision of MXM, both spec and implementation.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting access to the ServerExec executable on the SMC-2 to be able to run commands.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Adjustments/additions to the [API docs](#).
 - More logic moved from the DashUI to the TethysDash backend
- 902101 - LRAUV Technology Development and Fleet Operations
 - TethysDash: Refactored/expanded logic to recognize waypoints in mission scripts, with immediate need for the "Smear" mission being exercised in the Great Lakes, but with flexibility to add more cases.

- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Attended some Summer Internship presentations.
 - Continue to be gladly impressed with [Quarkus](#), very well documented and with lots of powerful features (GraphQL, OpenAPI, gRPC, Security, Async/sync, metrics, ...)
- Out of Office

Week 31

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Updates/adjustments in various MXM related components.
 - Started an internal MXM doc site: <https://docs.mbari.org/internal/mxm/>
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Reviewing some pointers re ML models for orcas and software for click detection.
 - Group meeting.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - More preparations to run tracking software on the SMC-2. Added unit tests for data fetching (actual data retrieval) and basic tracking, which are passing OK on the SMC-2. Awaiting access to the ServerExec executable to be able to run commands.
- 901602 - Data TAG
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- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - As part of future modernization of the TethysDash backend, capturing some considerations for an improved API, including possible exposure of a GraphQL endpoint.
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
 - The [mbari/lrauv-ignition-sim](#) DockerHub repo is now public again. Thanks again Tim P.
- Overhead
 - Engineering meeting
 - Summer Internship presentation (Tim Player)
 - More technology exploration in the context of OpenAPI and GraphQL.
 - Minor maintenance task related to ESIP COR.
- Out of Office

Week 30

- 300083 - DMO Support - LRAUV
 - Took a Daphne watchstand shift.
- 901009 - CANON
- 901101 - Seafloor Mapping
 - [Succeeded](#) in running the MB-System Docker on a Windows 11 laptop, including use of the graphical utilities. Dave notified the German users about this.
- 901502 - Soundscape Research and Education
 - More data preprocessing toward applying BLED for sperm whale click detection.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Advancing preparations for data access and commanding on the SMC-2, including tests for the former, still pending for the latter. Working on alerts and a main program.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data

- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - API documentation additions; exchanges with Jim J. Seems like a next discussion with the team regarding requirement clarification and next steps will be soon needed.
- 902101 - LRAUV Technology Development and Fleet Operations
 - [New repo to create mbari/lrauv-unserialize](#), a docker image only containing the LRAUV 'unserialize' executable, which is the only piece from the LRAUV needed by TethysDash.
 - Dash system is now [4.12.0](#), with docker image now using such mbari/lrauv-unserialize base.
 - Many thanks to Tim Player for bringing up to our attention the need to improve the creation of docker images given the close nature of the source code behind lrauv-application. I already merged adjustments he has made as part of this purpose in [mbari/lrauv-docker](#). (Note that [the corresponding repo](#) at DockerHub has always been private.) I also removed *all* previous versions of such image at DockerHub. There's still a pending discussion to make a decision about how to handle the runtime access to some required information, including lrauv-config and lrauv-mission. One option is via volume mappings to such spaces, which would have to be provided by the user.
- 902102 - Multi-LRAUV Simulation Environment
 - I haven't been involved in this project for a long time. In any case, I was surprised to learn that the [mbari/lrauv-ignition-sim](#) repo at DockerHub was public. Per various exchanges on [slack](#), I made it private and someone else removed all images. Thanks again Tim P. for the heads-up.
- Overhead
 - DEI AC meeting
 - As preparation for 2023 work, I created a new [repo](#) where I'll be working on modernizing the TethysDash backend. I've selected [Quarkus](#) as the new "backbone."
- Out of Office

Week 29

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- Overhead
- Out of Office
 - July 5–8: vacation

Week 28

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
 - Getting a loaner with a more recent Windows version to continue trying to run GUI programs in the dockerized MBsystem.
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG

- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - More TethysDash API additions and other adjustments (access to chart data in JSON format; POST method for reprocessing data/plots). Various exchanges with Jeff J. (Sumo Creations).
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Proposal discussions.
 - DEI AC meeting; IE meeting.
- Out of Office
 - July 5–8: vacation

Week 27

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - July 5–8: vacation

Week 26

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - July 5–8: vacation

Week 25

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Various MXM related tasks in the core code itself as well as in the associated provider implementations for TethysDash and the (shore-side) wave glider front tracking software.

- 901101 - Seafloor Mapping
 - Per exchange with Dave, will be testing the dockerized MB-System on a Windows loaner and report back (a German user has reported issues on that target).
- 901502 - Soundscape Research and Education
 - Group meeting
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Group meeting
 - Brian has merged [PR](#) that addresses [this issue](#) in Cthulhu. Thanks Brian.
- 902009 - AUV User Experience Design
 - Further (slack) exchanges with Jim J. (Sumo Creations) and also met with Karen to address some questions from Jim. Hopefully these are also being addressed in my revisions and additions to the TethysDash API documentation. I also started including an [AsyncAPI definition](#) (still preliminary) to cover the asynchronous messaging aspects supported by TethysDash.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash system is now 4.11.1, with fixes related to the display of waypoints for TethysL missions.
 - LRAUV: investigation of issue with failed submission of TethysL missions (noted by WHOI a few days ago and again by us during Tethys deployment. This looked like a tricky regression but then we diagnosed the problem (a “little” aspect I overlooked) and I just submitted a PR with a fix. (Thanks Brian!)
 - Toward future modernization of the TethysDash backend, continued with code cleanup (still lots more that can be done). See also the Quarkus bullet below.
 - Some hassle trying to use a newer GraalVM version for new TethysL binary releases. Linux and macOS are now in [good shape](#) again, but the Windows one is again turning problematic.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Technology exploration continues, and I’m now focusing on [Quarkus](#) as a very promising option, in particular in the context of my modernization goals for TethysDash (which is java based).
 - Project update attendance; Engineering mtg.
 - DEI: review of various materials.
- Out of Office
 - July 5–8: vacation

Week 24

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - June 9–10: vacation
 - Just 15 afternoon (medical)

Week 23

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Revising MXM implementation
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Revamping the TethysDash API definition and documentation, while also doing associated adjustments in implementation – <https://docs.mbari.org/tethysdash/apidocs/>
- 902101 - LRAUV Technology Development and Fleet Operations
 - Created API key and explored <https://www.marinetraffic.com/> API to possibly include a layer of vessel positions on the map.
 - Some exploration trying to include a “Chlorophyll-a, NOAA VIIRS” layer on the map.
 - Fixed a bug in TethysDash backend, now [4.8.88](#).
 - Preparing docker release
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Attended some DOEST presentations.
- Out of Office
 - June 9–10: vacation
 - Just 15 afternoon (medical)

Week 22

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Running transformation of additional months of 2016 data toward application of BLED based sperm whale click detection.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Resuming some work here to facilitate use of the core software on the wave glider.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Brief chat with Jeff re TethysDash API, whose [swagger-based documentation](#) I'm now trying to update after a long time. He says he'll “use the actual responses from the server in most cases”
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now [4.10.7](#) (several releases during the last couple weeks as the system is exercised during active deployments in MB and SB). In summary, main enhancements include a few that are exposed on

the Map tab, as well as in the underlying asynchronous message handling.



- TethysL: Put together one other C++ based prototype toward direct translation of TethysL to XML as a possible mechanism in the future: <https://bitbucket.org/mbari/tl2xml/> .
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE mtg; DEI mtg
 - More technology explorations ([kalix](#), [caliban](#), [pg_graphql](#).)
- Out of Office
 - June 10: vacation

Week 21

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - May 16-20: vacation

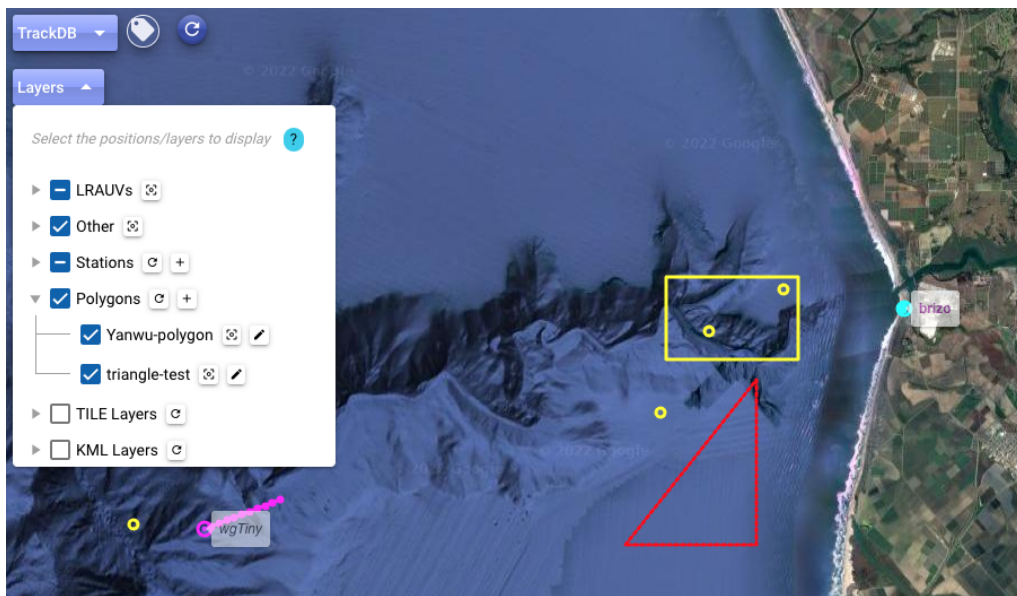
Week 20

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data

- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - May 16-20: vacation

Week 19

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Very promising experimentation applying the BLED technique for sperm whale click detections, resulting in the determination of a good set of parameter values that we now plan on applying on complete days of data. Presented the results in our group meeting and updated the [notes](#).
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Group meeting.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash system is now [4.10.1](#) with enhancements related with the definition of *stations*, and a new similar handling for *polygons*, all of these (persisted in the backend) editable by operators using the DashUI and with GeoJSON format.



- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - More technology exploration.
 - Contacted again by [Claytip person](#) toward discussing REST/GraphQL technologies.
- Out of Office
 - May 16-20: vacation

Week 18

- 300083 - DMO Support - LRAUV

- 901009 - CANON
- 901101 - Seafloor Mapping
 - Brief chat with Doug C. re MB-system docker container issues on (m1) macOS Monterey.
- 901502 - Soundscape Research and Education
 - Some literature review regarding sperm whale click detection
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Did adjustments in Cthulhu that seem to help with the issue of “disappearing boxes” during playback. A screencast (captured with Camtasia) doesn't really reflect the improvement, so, hoping others can give it a try from this [branch](#). Also fixed a subtle issue exposed during rewind.
- 902009 - AUV User Experience Design
 - (part charged here, part as overhead) Continued exploring various possible technologies for modernization of TethysDash backend.
- 902101 - LRAUV Technology Development and Fleet Operations
 - LRAUV ESPComponent:
 - Adjustment to use COURIER for the log summary report (merged in EcoHAB branch).
 - New request (low priority): <https://mbari1.atlassian.net/browse/TETHYS-637>
 - DashUI: Yanwu reported a bug in the “Build a command” feature: a missing “value” field, which seems like a long-standing regression as no changes have recently been made in relevant code. He also inquired about a possible way to display a boundary box (defined at the lrauv-config level) on the map for upcoming experiments in SB. This is not supported per se but I'm looking into it, probably just resorting to defining such a polygon in one of the formats supported under the Layers dropdown.
 - TethysL:
 - Brian and Ben have suggested we start migrating a few of the commonly used missions from XML to TethysL. I already prepared a PR for this purpose, initially with a dozen of such missions, and sent an email to the team about this plan.
 - Regarding execution of TethysL directly on the LRAUV (a desirable goal we have discussed for a future version –maybe in 2023?), I put together a pretty successful proof of concept involving the generation of a TethysL C library that can be called from the LRAUV for the tethysl-to-xml translation at runtime. All working great but, unfortunately, at least for the time being, this is not viable for real LRAUVs due to the lack of support for ARM32 as a target architecture in the technology I've been using to generate native binaries and such a linkable library.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - DEI AC meeting/review of job position text.
 - Proposal workshop.
 - Technology exploration involving Postgres, GraphQL, microservices.
- Out of Office
 - May 16-20: vacation

Week 17

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Explored detection of sperm whale clicks using the BLED technique (via Raven) and shared the exercise with the team. Promising results. Plan is to continue tuning the process.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG

- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Set up BoxJelly+Cthulhu as a means to reproduce Cthulhu issues. Many thanks Kevin B. for the great assistance.
- 902009 - AUV User Experience Design
 - More TethysDash backend adjustments toward removal of obsolete code and data entities (from legacy version), as part of general modernization efforts, and toward facilitating improved API documentation.
- 902101 - LRAUV Technology Development and Fleet Operations
 - TethysL is now [2.3.5](#), already set up globally on tethyshub. Main change is a language enhancement related to macros (used in the updated/simplified [examples/mbts_sci2.tl](#)).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - DEI AC meeting / review of materials.
 - As suggested by the ESP team, I will be added as “observer” to the Saildrone Mission Portal. At this point, I’m mainly interested in this because of the work I’ve been doing on TethysL, so, there’s probably some potential synergy to explore.
- Out of Office
 - May 16-20: vacation

Week 16

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Some input to the “mysticete symphony” paper under preparation.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Adding wave glider front detection implementation for the SMC2, initially only with data access.
 - Tom has set up the SMC2 with a proper name and stable IP address.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Group meeting.
 - Looking into reproducing the Cthulhu box display issue to hopefully start diagnosing it.
- 902009 - AUV User Experience Design
 - Looking into updating the TethysDash API documentation, which unfortunately, is not generated automatically yet (this is part of future modernization).
- 902101 - LRAUV Technology Development and Fleet Operations
 - (not reported past week) Very productive internal TethysL status update ([April 11](#)).
 - All end-to-end tests (from the DashUi to real vehicles) have gone well. Thanks Brian for using and promoting use of TethysL.
 - Re-enabled the TethysL CLI binary releases at GitHub.

- Successfully tried the [Remote SSH connection using VS Code](#). Thanks Ben for the great finding and suggestion, super handy not only for our TethysL efforts but in general.

```

1  #!!! TethysL file automatically generated from Maintenance/calibrate_sparton_compass.xml.
2
3  mission SpartonCompassCal {
4      ***
5      This mission yoyos in a spiral while calibrating the Sparton AHRS-H2
6      Micro AHRS/IMU with AdaptCal.
7      ***
8
9      # Mission-wide settings
10
11  arguments {--
12  }
13
14  # Missions should almost always start with a timeout
15
16  timeout duration=MissionTimeout
17
18  insert Insert/Science.xml {
19      ***
20      Most missions will run the science sensors. If you don't place this
21      aggregate above NeedComms, science instruments get turned off on the
22      last upcast and while floating on the surface.
23      ***
24  }
25
26  # Most missions should use the NeedComms aggregate.
27
28  insert id="NeedComms" Insert/NeedComms.xml
29
30  assign in sequence NeedComms:DiveInterval = NeedCommsTime
31  # Missions should almost always start with standard safety envelopes; most missions should not expose the para

```

- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - DEI Committee and IE meetings.
- Out of Office
 - May 16-20: vacation

Week 15

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Apr 4-5: sick
 - Apr 13-15; May 16-18: vacation

Week 14

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Exploring Supabase/pg_graphql as a possible alternative to facilitate MXM implementation.
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Met with Tom and Yanwu. Making some progress.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance

- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Scheduling an internal TethysL status update and demo.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Eng. and IE meetings
- Out of Office
 - Apr 4-5: sick
 - Apr 13-15; May 16-18: vacation

Week 13

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Various meetings, good paper prospects, etc.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Based on commands provided by Tom, incorporating functions for commanding wave glider and sending out alerts.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Meeting
- 902101 - LRAUV Technology Development and Fleet Operations
 - TethysL: First end-to-end mission execution exercise, all the way from the DashUI to Galene!
Lrauv-application makefile updated with enhanced and more efficient dispatch of TethysL missions. The TethysL system is now enabled globally on tethyshub for all users.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE meeting
- Out of Office
 - May 16-18: vacation

Week 12

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - May 16-18: vacation

Week 11

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Some notebook revisions
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Now looking into Cthulhu issues.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Several TethysL items, including LRAUV PR reviewed and merged (thanks Mike and Ben); adjustments toward using .tl as file extension; productive meeting with Mike G. (he seems to be able to spend ~2-3hr/month from now on); more adjustments in TethysDash system to support TethysL. Now, supporting insertion of XML scripts in TethysL scripts to further facilitate overall integration (still being worked out).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE meeting
- Out of Office
 - May 16-18: vacation

Week 10

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Helping John put together a new "Listening to Pacific Ocean Sound recordings" notebook targeted to "sound artists, naturalists, and educators whose primary goal is to listen rather than analyze."
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Set up dev environment for the DeepSeaAI Dashboard (thanks, Danelle).
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - TethysL and mission/behavior documentation work. Productive session with Yanwu in preparation for a general status update (which WHOI is also interested in attending).
 - Advancing additions in TethysDash (both backend and frontend) to expose TethysL missions for scheduling (as with the usual XML files).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - IE meeting.
 - Demoed Dash UI (actual app, and code) to members of the IE team interested in using a similar underlying Vue/Quasar framework for a new project. Great discussion. (Thanks, Karen, Mike, Kevin B.)
 - Climate Change webinar.
- Out of Office
 - Mar 10: vacation

- May 16-18: vacation

Week 9

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Mainly some maintenance tasks, but looking, again, into resuming focused work here.
- 901101 - Seafloor Mapping
 - Per IS' inquiry, checking with Dave about any need to still keep the VM that was used to test the initial dockerization of the MBSystem.
- 901502 - Soundscape Research and Education
 - Group meeting. Watched some videos from a person in Australia that approached us recently.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Good progress toward running tracking code on the vehicle. Still some TBDs are being discussed with the team. Putting together extension code with pieces provided by Tom.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Met Danelle to discuss possible tasks in the context of the dashboard she has put together.
- 902009 - AUV User Experience Design
 - Discussions about implementation
- 902101 - LRAUV Technology Development and Fleet Operations
 - New version of the TethysL tooling with significant changes both internally and externally.
 - Submitted lrauv-application pull-request to speed up tethysl translation.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - ESIP COR meeting plus various slack exchanges with a number of ESIP folks regarding the SWEET ontologies and underlying server support.
- Out of Office
 -
 - May 16-17: vacation

Week 8

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
- Out of Office
 - Feb 18: vacation
 - May 16-17: vacation

Week 7

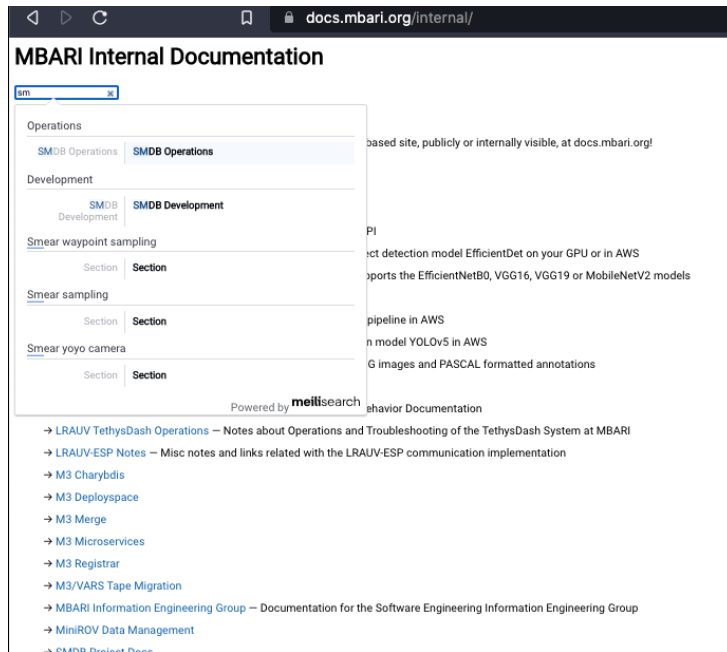
- 300083 - DMO Support - LRAUV

- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Group meeting, again also with U. Denver participants.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Via Github Actions, the front tracking software tests [pass on python 3.6.8](#), the version available on the SMC-2.
 - More exchanges with Tom & LR re pip issues on the SMC-2, and various installs as needed by the front tracking software.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Met with Jim Jeffers (SumoCreations) re planning for the UX design implementation.
- 902101 - LRAUV Technology Development and Fleet Operations
 - About to complete migration of TethysL to Scala3, while also improving autocompletions via LSP server and doing other code cleanup. Planning for a demo within the next few weeks.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Attended Eric Oreinstein's project update and provided feedback (via email).
 - IE meeting. Looking into logging.
 - ESIP: One more (unexpected) migration of the COR came up, this time a little more manageable as it was based on an almost complete amazon instance copy. Still, it took me a couple of hours adjusting things and some back and forth with the ESIP person.
- Out of Office
 - Feb 18: vacation
 - May 16-17: vacation

Week 6

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Group meeting.
 - Met with Karl Watkins (U. Denver) to discuss collaboration opportunities.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Some exchanges with Tom O. regarding issues to set up python pip on the SMC.
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
 - Met with Brian K. and Jim@SumoCreations toward next steps re implementation of new designs.
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now [4.9.51](#). (Also already installed by WHOI.)
 - Resuming work on TethysL, with an immediate focus on migrating to cats-parse and Scala3.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Doc-generation:
 - Enabled [support for private Github repos](#) (seems like I didn't report on this previously).

- Added [Meilisearch](https://docs.mbari.org/internal/docs-generation/search/) powered search to our public and internal docs sites: <https://docs.mbari.org/internal/docs-generation/search/>



- Eng meeting; IE meeting; Board bullets; Staff survey; Conflict of Interest disclosure; etc.
- Out of Office
 - May 16-17: vacation

Week 5

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - MBARI doc-gen: fixed the extraction of (meta)description for the site listings.
- Out of Office
 - Jan 20-25: Attended a few of the [JChampions](https://champions.mbari.org/) conference presentations.

Week 4

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design

- 902101 - LRAUV Technology Development and Fleet Operations
 - Lots of TethysDash related development/activities.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - MBARI doc-gen: fixed the extraction of (meta)description for the site listings.
- Out of Office
 - Jan 20-25: Attended a few of the [JChampions](#) conference presentations.

Week 3

- 300083 - DMO Support - LRAUV
- 901009 - CANON
 - Updated the [odss2dash](#) service implementation.
- 901101 - Seafloor Mapping
 - Quick [revisit](#) to the MBSYSTEM dockerization upon a question from Mike.
- 901502 - Soundscape Research and Education
 - Group meeting. Planning to explore some sperm whale click datasets.
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
 - Kick-off meeting.
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now [4.8.93](#) with various fixes, in particular some related with the logic that gathers the waypoint information that gets exposed upon the "Started mission" event.
 - Various exchanges with the team and WHOI as they exercised the recent Dash additions.
 - Started removal of the legacy TethysDash UI as planned.
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Continued with code modernization efforts in a couple of projects.
 - Reviewing [PR](#) for the tscfg tool.
- Out of Office
 - Jan 20-25: JChampions conference, combined with 1-2 vacation days.

Week 2

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Ran the NOAA/Google Humpback Whale Song Detector on our Sept–Dec, 2021 data.
 - [mbari-org/humpback-whale-song-detection](#) repo now public (thanks, John).
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Tom's still looking into LR's hints to possibly solve issues with pip on the SMC.
 - Completing modernization of the Gpdviz tool: backend in scala, frontend now on Vue3/Quasar2/Typescript. (This is in part an overhead task).
- 901602 - Data TAG
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations

- Dash v4.8.9 with generation of grid waypoints. Writing associated [doc section](#) including a [screencast](#). Docker image released and already installed by WHOI.
- Preparing for the planned removal of the legacy UI (lots of cleanup and testing coming up).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - [Doc-gen](#): Removed the previous bash-based dispatch upon good testing with the new python based implementation for the last few weeks. Advanced the support for private Github repos. [Moved the repo](#) to Github as the primary location.
 - Perf eval materials.
- Out of Office
 - Jan 21 (JChampions conference and/or vacation)

Week 1

- 300083 - DMO Support - LRAUV
- 901009 - CANON
- 901101 - Seafloor Mapping
- 901502 - Soundscape Research and Education
 - Group meeting to kickoff the year
- 901513 - Targeted Sampling by Autonomous Underwater Vehicles
- 901602 - Data TAG
 - IE meeting
- 901915 - Improving the Impact of MBARI's Data
- 902005 - VARS Annotation Assistance
- 902009 - AUV User Experience Design
- 902101 - LRAUV Technology Development and Fleet Operations
 - Inspection on TethysDash service upon being called by users because of issues, which turned out to be network related (likely associated with what Todd emailed to all-hands).
- 902102 - Multi-LRAUV Simulation Environment
- Overhead
 - Engineering meeting.
 - Opportunistically starting to modernize Gpdviz application to gain experience with various underlying frameworks (Vue3/Typescript/Quasar2) so as to more effectively do likewise to other applications (Dash, TethysL, etc).
- Out of Office