

Carlos Rueda Sorted By Project

300083 - DMO Support - LRAUV

- Took a Daphne watchstand shift. (Week 30)
- Exchanges with Erik about planning for 2023. (Week 45)

901009 - CANON

- Updated the odss2dash service implementation. (Week 3)
- Mainly some maintenance tasks, but looking, again, into resuming focused work here. (Week 9)
- Exploring Supabase/pg_graphql as a possible alternative to facilitate MXM implementation. (Week 14)
- Revising MXM implementation (Week 23)
- 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. (Week 25)
- Updates/adjustments in various MXM related components. (Week 31)
- Started an internal MXM doc site: <https://docs.mbari.org/internal/mxm/> (Week 31)
- Focused on general revision of MXM, both spec and implementation. (Week 32)
- General MXM spec & implementation revision continues. (Week 33)
- 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/> . (Week 35)
- 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. (Week 37)
- 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 reimplementation I ended up with a funny overall setup: The “subatomic” Quarkus on the backend, Quasar on the frontend!) (Week 39)
- 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/> (Week 39)
- 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 automagically. Preparing a status update for the team. (Week 42)
- (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. (Week 44)
- Refined the MXM Service REST API for Providers. (Week 44)
- MXM adjustments, mainly in the prototype implementation (both backend and ui). (Week 45)
- Some dependency upgrades for the MXM server (now using latest Quarkus 2.15.0.Final). (Week 50)

901101 - Seafloor Mapping

- Quick revisit to the MBSsystem dockerization upon a question from Mike. (Week 3)
- Per IS' inquiry, checking with Dave about any need to still keep the VM that was used to test the initial dockerization of the MBSsystem. (Week 9)

- Brief chat with Doug C. re MB-system docker container issues on (m1) macOS Monterey. (Week 18)
- 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). (Week 25)
- Getting a loaner with a more recent Windows version to continue trying to run GUI programs in the dockerized MBsystem. (Week 28)
- 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. (Week 30)

901502 - Soundscape Research and Education

- Group meeting to kickoff the year (Week 1)
- Ran the NOAA/Google Humpback Whale Song Detector on our Sept–Dec, 2021 data. (Week 2)
- mbari-org/humpback-whale-song-detection repo now public (thanks, John). (Week 2)
- Group meeting. Planning to explore some sperm whale click datasets. (Week 3)
- Group meeting. (Week 6)
- Met with Karl Watkins (U. Denver) to discuss collaboration opportunities. (Week 6)
- Group meeting, again also with U. Denver participants. (Week 7)
- Group meeting. Watched some videos from a person in Australia that approached us recently. (Week 9)
- 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.” (Week 10)
- Some notebook revisions (Week 11)
- Various meetings, good paper prospects, etc. (Week 13)
- Some input to the “mysticete symphony” paper under preparation. (Week 16)
- 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. (Week 17)
- Some literature review regarding sperm whale click detection (Week 18)
- 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. (Week 19)
- Running transformation of additional months of 2016 data toward application of BLED based sperm whale click detection. (Week 22)
- Group meeting (Week 25)
- More data preprocessing toward applying BLED for sperm whale click detection. (Week 30)
- Reviewing some pointers re ML models for orcas and software for click detection. (Week 31)
- Group meeting. (Week 31)
- Group meeting. (Week 33)
- Group meeting. Still need to catch up with various possible tasks here. (Week 35)
- Reviewing some click detection literature. Group mtg. Paper draft review/discussion. (Week 37)
- 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. (Week 39)
- Thanks Danelle for making the workflow for capturing notebooks for the Pacific Sound site more streamlined. (Week 39)
- PyPAM exploration (with John). We reported this issue. (Week 42)
- 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). (Week 44)
- Participated in SoundCOOP - Python Sniffers telecon, focused on PyPAM and Manta. (Week 44)
- Thanks John for stopping by and the productive discussion. (Week 44)
- Looking into xarray as part of ongoing collaboration with the PyPAM team. Thanks Mike M. for sharing his insights with us. (Week 44)

- 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. (Week 45)
- Getting in touch with Samara Haver (NOAA) re pypam assistance. (Week 45)
- Quick touch bases with Josh M. (UBC) and Duane E. in our biweekly mtg today. (Week 45)
- 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. (Week 48)
- 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. (Week 49)
- Reviewing pyPAM internals from development perspective (Week 49)
- Continued pyPAM code revision and some development; PR merged, including new CI workflow; some additional feedback regarding unit tests that are failing. (Week 50)

901513 - Targeted Sampling by Autonomous Underwater Vehicles

- Tom's still looking into LR's hints to possibly solve issues with pip on the SMC. (Week 2)
- Completing modernization of the Gpdviz tool: backend in scala, frontend now on Vue3/Quasar2/Typescript. (This is in part an overhead task). (Week 2)
- Some exchanges with Tom O. regarding issues to set up python pip on the SMC. (Week 6)
- Via Github Actions, the front tracking software tests pass on python 3.6.8, the version available on the SMC-2. (Week 7)
- More exchanges with Tom & LR re pip issues on the SMC-2, and various installs as needed by the front tracking software. (Week 7)
- 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. (Week 9)
- Based on commands provided by Tom, incorporating functions for commanding wave glider and sending out alerts. (Week 13)
- Met with Tom and Yanwu. Making some progress. (Week 14)
- Adding wave glider front detection implementation for the SMC2, initially only with data access. (Week 16)
- Tom has set up the SMC2 with a proper name and stable IP address. (Week 16)
- Resuming some work here to facilitate use of the core software on the wave glider. (Week 22)
- 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. (Week 30)
- 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. (Week 31)
- Awaiting access to the ServerExec executable on the SMC-2 to be able to run commands. (Week 32)
- Now, with access to ServerExec on the smc-2 (thanks Tom), I'll continue with commanding related additions and testing for the frontracking software. (Week 33)
- 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. (Week 35)
- Awaiting a functional ServerExec to proceed with testing/tuning up wave glider commanding. (Week 37)
- Thanks Tom for the update regarding the need to run ServerExec via sudo on the SMC-2. (Week 39)
- Preparing for onshore testing. (Week 42)
- 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. (Week 44)
- Possibly one more chance for testing on the SMC2 by the end of the month. Thanks Chris W. (Week 46)

- 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) (Week 48)
- 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). (Week 49)
- Tom is using neptus@tsauv for rsync-based transfer of log files from the SMC-2 to shore. (Week 50)

901602 - Data TAG

- IE meeting (Week 1)

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.) (Week 39)
- (not reported past week) Did adjustments to my assigned web pages for the new MBARI site. (Week 44)

902005 - VARS Annotation Assistance

- Kick-off meeting. (Week 3)
- Met Danelle to discuss possible tasks in the context of the dashboard she has put together. (Week 9)
- Set up dev environment for the DeepSeaAI Dashboard (thanks, Danelle). (Week 10)
- Now looking into Cthulhu issues. (Week 11)
- Group meeting. (Week 16)
- Looking into reproducing the Cthulhu box display issue to hopefully start diagnosing it. (Week 16)
- Set up BoxJelly+Cthulhu as a means to reproduce Cthulhu issues. Many thanks Kevin B. for the great assistance. (Week 17)
- 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. (Week 18)
- Group meeting. (Week 19)
- Group meeting (Week 25)
- Brian has merged PR that addresses this issue in Cthulhu. Thanks Brian. (Week 25)
- Meetings. Awaiting definition of next tasks for me in this project. (Week 33)
- Group meeting. (Week 35)
- Group mtg. Will look into some pointers provided by Lonny and Danelle related to object detection/tracking. (Week 37)
- Going through some of the pointers provided by Lonny and Danelle. Quite a learning curve. (Week 39)
- 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. (Week 42)
- AWS working session with Danelle and Duane. (Week 44)
- 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. (Week 44)
- 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.) (Week 45)
- 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. (Week 46)
- 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. (Week 48)

- 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. (Week 48)
- 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. (Week 49)
- More ReID training exercises on the DiGiTS-Dev-Box-Fish. (Week 50)

902009 - AUV User Experience Design

- Met with Brian K. and Jim@SumoCreations toward next steps re implementation of new designs. (Week 6)
- Met with Jim Jeffers (SumoCreations) re planning for the UX design implementation. (Week 7)
- Discussions about implementation (Week 9)
- Meeting (Week 13)
- Looking into updating the TethysDash API documentation, which unfortunately, is not generated automatically yet (this is part of future modernization). (Week 16)
- 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. (Week 17)
- (part charged here, part as overhead) Continued exploring various possible technologies for modernization of TethysDash backend. (Week 18)
- 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” (Week 22)
- Revamping the TethysDash API definition and documentation, while also doing associated adjustments in implementation – <https://docs.mbari.org/tethysdash/apidocs/> (Week 23)
- 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. (Week 25)
- 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). (Week 28)
- 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. (Week 30)
- As part of future modernization of the TethysDash backend, capturing some considerations for an improved API, including possible exposure of a GraphQL endpoint. (Week 31)
- Adjustments/additions to the API docs. (Week 32)
- More logic moved from the DashUI to the TethysDash backend (Week 32)
- Added ‘GET /git/missionListing’ in the TethysDash API to enable related functionality in new UI. (Week 33)
- 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. (Week 37)
- 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. (Week 39)
- Addressing issue entries. Various questions floating around. (Week 42)
- 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. (Week 44)
- SumoCreations (Jim J.) looking into some comments I’ve provided. (Week 45)
- Reviewing some pending API/payload aspects per exchange with Jim. (Week 50)

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). (Week 1)
- Dash v4.8.9 with generation of grid waypoints. Writing associated doc section including a screencast. Docker image released and already installed by WHOI. (Week 2)

- Preparing for the planned removal of the legacy UI (lots of cleanup and testing coming up). (Week 2)
- 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. (Week 3)
- Various exchanges with the team and WHOI as they exercised the recent Dash additions. (Week 3)
- Started removal of the legacy TethysDash UI as planned. (Week 3)
- Lots of TethysDash related development/activities. (Week 4)
- Dash is now 4.9.51. (Also already installed by WHOI.) (Week 6)
- Resuming work on TethysL, with an immediate focus on migrating to cats-parse and Scala3. (Week 6)
- 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. (Week 7)
- New version of the TethysL tooling with significant changes both internally and externally. (Week 9)
- Submitted Irauv-application pull-request to speed up tethysl translation. (Week 9)
- TethysL and mission/behavior documentation work. Productive session with Yanwu in preparation for a general status update (which WHOI is also interested in attending). (Week 10)
- Advancing additions in TethysDash (both backend and frontend) to expose TethysL missions for scheduling (as with the usual XML files). (Week 10)
- 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). (Week 11)
- TethysL: First end-to-end mission execution exercise, all the way from the DashUI to Galene! Irauv-application makefile updated with enhanced and more efficient dispatch of TethysL missions. The TethysL system is now enabled globally on tethyshub for all users. (Week 13)
- Scheduling an internal TethysL status update and demo. (Week 14)
- (not reported past week) Very productive internal TethysL status update (April 11). (Week 16)
- All end-to-end tests (from the DashUI to real vehicles) have gone well. Thanks Brian for using and promoting use of TethysL. (Week 16)
- Re-enabled the TethysL CLI binary releases at GitHub. (Week 16)
- 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. (Week 16)
- 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). (Week 17)
- LRAUV ESPComponent: (Week 18)
 - Adjustment to use COURIER for the log summary report (merged in EcoHAB branch). (Week 18)
 - New request (low priority): <https://mbari1.atlassian.net/browse/TETHYS-637> (Week 18)
- 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 Irauv-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. (Week 18)
- TethysL: (Week 18)
 - 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. (Week 18)
 - 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. (Week 18)

- 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. (Week 19)
- 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. (Week 22)
- 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/> . (Week 22)
- Created API key and explored <https://www.marinetraffic.com/> API to possibly include a layer of vessel positions on the map. (Week 23)
- Some exploration trying to include a “Chlorophyll-a, NOAA VIIRS” layer on the map. (Week 23)
- Fixed a bug in TethysDash backend, now 4.8.88. (Week 23)
- Preparing docker release (Week 23)
- Dash system is now 4.11.1, with fixes related to the display of waypoints for TethysL missions. (Week 25)
- 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!) (Week 25)
- Toward future modernization of the TethysDash backend, continued with code cleanup (still lots more that can be done). See also the Quarkus bullet below. (Week 25)
- 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. (Week 25)
- 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. (Week 30)
- Dash system is now 4.12.0, with docker image now using such mbari/lrauv-unserialize base. (Week 30)
- 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. (Week 30)
- 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. (Week 32)
- TethysDash backend and frontend: merging branches upon good testing of some significant adjustments over the last several days during real LRAUV operations. (Week 33)
- Dash is now 4.12.6, with internal changes/cleanup and MXM related adjustments. (Week 35)
- New passwords for all LRAUVs now in place. (Week 37)
- Dash system maintenance release (4.12.7). (Week 37)
- 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. (Week 39)
- Dash system 4.21.0. (Week 39)
- Dash: Enabled “ayeris_particle_*” variables for the science plots as requested by Paul R. (Week 42)
- Dash system is now 4.22.4. (Week 45)
- Dash is now 4.22.5. (Week 46)
- 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. (Week 48)
- Some exchanges with Mike G and Brian re unserialization of individual .lzma files. (Week 50)

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. (Week 30)
- The mbari/lrauv-ignition-sim DockerHub repo is now public again. Thanks again Tim P. (Week 31)
- 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. (Week 35)

Out of Office

- Jan 21 (JChampions conference and/or vacation)
- Jan 20-25: JChampions conference, combined with 1-2 vacation days.
- Jan 20-25: Attended a few of the [JChampions](#) conference presentations.
- May 16-17: vacation
- Feb 18: vacation
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- Mar 10: vacation
- May 16-18: vacation
- Apr 4-5: sick
- Apr 13-15; May 16-18: vacation
- May 16-20: vacation
- June 10: vacation
- June 9-10: vacation
- Just 15 afternoon (medical)
- July 5-8: vacation
- Oct 10-12, Nov 11-14, 23-30, Dec 8-9: vacation
- Out sick 3 days over past two weeks
- Oct 10-12 (tentative as some travel plans may change), Nov 11-14, 23-30, Dec 8-9: vacation
- Oct 18 - sick
- Nov 11-14, 23-28, Dec 8-9: vacation
- Nov 11-14, 23-30, Dec 8-9, 21-29: vacation; Early January (tentative): vacation.
- Worked from home for a few days due to covid case at home.

Overhead

- Engineering meeting. (Week 1)
- 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). (Week 1)
- 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. (Week 2)
- Perf eval materials. (Week 2)
- Continued with code modernization efforts in a couple of projects. (Week 3)
- Reviewing PR for the tscfg tool. (Week 3)
- MBARI doc-gen: fixed the extraction of (meta)description for the site listings. (Week 4)
- MBARI doc-gen: fixed the extraction of (meta)description for the site listings. (Week 5)
- Doc-generation: (Week 6)
 - Enabled support for private Github repos (seems like I didn't report on this previously). (Week 6)
 - Added Meiliseach powered search to our public and internal docs sites:
<https://docs.mbari.org/internal/docs-generation/search/>
(Week 6)

- Eng meeting; IE meeting; Board bullets; Staff survey; Conflict of Interest disclosure; etc. (Week 6)
- Attended Eric Oreinstein's project update and provided feedback (via email). (Week 7)
- IE meeting. Looking into logging. (Week 7)
- 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. (Week 7)
- ESIP COR meeting plus various slack exchanges with a number of ESIP folks regarding the SWEET ontologies and underlying server support. (Week 9)
- IE meeting. (Week 10)
- 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.) (Week 10)
- Climate Change webinar. (Week 10)
- IE meeting (Week 11)
- IE meeting (Week 13)
- Eng. and IE meetings (Week 14)
- DEI Committee and IE meetings. (Week 16)
- DEI AC meeting / review of materials. (Week 17)
- 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. (Week 17)
- DEI AC meeting/review of job position text. (Week 18)
- Proposal workshop. (Week 18)
- Technology exploration involving Postgres, GraphQL, microservices. (Week 18)
- More technology exploration. (Week 19)
- Contacted again by Claytip person toward discussing REST/GraphQL technologies. (Week 19)
- IE mtg; DEI mtg (Week 22)
- More technology explorations (kalix, caliban, pg_graphql,) (Week 22)
- Attended some DOEST presentations. (Week 23)
- 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). (Week 25)
- Project update attendance; Engineering mtg. (Week 25)
- DEI: review of various materials. (Week 25)
- Proposal discussions. (Week 28)
- DEI AC meeting; IE meeting. (Week 28)
- DEI AC meeting (Week 30)
- 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." (Week 30)
- Engineering meeting (Week 31)
- Summer Internship presentation (Tim Player) (Week 31)
- More technology exploration in the context of OpenAPI and GraphQL. (Week 31)
- Minor maintenance task related to ESIP COR. (Week 31)
- Attended some Summer Internship presentations. (Week 32)
- Continue to be gladly impressed with Quarkus, very well documented and with lots of powerful features (GraphQL, OpenAPI, gRPC, Security, Async/sync, metrics, ...) (Week 32)
- IE meetings (Week 33)
- DEI AC: materials review/feedback. (Week 33)
- AWS workshop: Sagemaker and ROS presentations (thanks Kevin for organizing) (Week 35)
- DEI AC meeting (past week) (Week 35)
- RoboFlow presentation (thanks Danelle for organizing). (Week 35)
- Took a Daphne watch shift for this evening (9/14). (Week 37)
- DEI AC – meeting; exchanges. (Week 39)

- 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. (Week 39)
- Zoom telecon with Mike Godin re various tasks (TethysDash modernization, MXM and TethysDash “generalization”, TethysL, etc.) for the remainder of the year and 2023. (Week 45)
- Assistance to IOOS regarding one of their ioos-metadata vocabularies. (Week 45)
- IE meeting (Week 46)
- Tech exploration (surrealdb, Rust/C,) (Week 46)
- Danna Staaf Seminar (Week 46)
- ACM Webinar: Programming Language Processing (not as interesting as I expected). (Week 50)
- 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. (Week 50)