Mike McCann Sorted By Project

200109 - Core Mooring Data - MDUC

- Examined M1's current QC plots page for why it's not properly updating (Week 2)
- Some M1 real time data processing debugging (Week 14)
- Fixed current mooring (M1) data plotting with IS help by increasing the size of the Xvfb (Week 16)
- Working on next year's proposal (Week 27)
- Debugged 30 day contour plotting problem (Week 28)
- Wrote 2026 proposal and did budget entry (Week 28)
- Copied into oasis_coredata new *TMTS.nc files that Fred fixed with better flags for bad data (Week 31)
- Fixed problem with last 30 days M1 plots: adjusted Tomcat to allow "[]" in query string (Week 43)
- Working with Fred on getting the 2023-2024 QCed Met data added to the archive (Week 44)
- Regenerated M1 QC'ed hourly and daily netCDF files to include the 202306 deployment (Week 45)
- Needed to add FollowSymLinks capability to the opendap/hyrax service (Week 45)
- Needing to alter production deployment of elvis-services for better reverse proxy setup (Week 45)

500055 - VARS, M3/RS, DSG

901009 - CANON

- Processed Dorado Gulper mission 2025.036.00 (Week 7)
- Processed Dorado Gulper mission 2025.098.01 (Week 15)
- Processed MBTS Dorado mission 2025.203.00 (Week 30)
- With IS help replicating elvis/dods/search services on new ubuntu VM elvis2 (Week 32)
    - New AD account needed for hyrax bes container access to data shares (Week 32)
    - New AD account needed for thredds container access to data shares (Week 32)
    - Rolling the apache2 service into the docker-compose.yml (Week 32)
- Putting documentation in docs.mbari.org, the elvis-services repo, and in WHD tickets (Week 32)
- All configuration changes will now be managed in version control (Week 32)
- Got search2.mbari.org and dods2.mbari.org temporary DNS entries for testing of the new elvis2 (Week 33)
- Had to reboot elvis due to a failed opendap (hyrax) service (Week 34)

- dods2.mbari.org/opendap and dods2.mbari.org/thredds ProxyPasses are working now (Week 34)
- Making sure that other core MBARI web data services are provided by elvis2-services (Week 34)
- Loaded stoqs_all_dorado_t using dods2 with no failures – legacy dods would have failed (Week 35)
- Fixed STOQS code to understand slightly different responses from the new services on elvis2 (Week 41)
- Attempting to mask out bad data values so that all data properly display in stoqs_lrauv_sep2025 (Week 41)
- Attempting to clean up some glitchy LRAUV data that affects the location of some ESP Samples (Week 43)
- Discovered that the legacy Dorado data processing was failing because an old dods library used by UpdateBot was not compatible with the newly deployed opendap service (Week 44)
- Processed last week's dorado mission 2025.316.02 which had an improperly set clock (Week 47)

901101 - Seafloor Mapping

- Met with folks from Ocean Exploration Trust to discuss getting our data into RUMI 3D viz (Week 6)
- Met with Dave & Jenny to discuss potential outside services contract for next year (Week 14)
- Further discussions about adding OGC 3DTiles support to X3DOM (Week 15)
- Submitted industrial use case paper for Web3D 2025 (Week 22)
- Working on poster for ESIP (Week 25)
- Working on my part of the proposal text (Week 25)
- Addressing reviewers comments on paper submitted to the Web 3D Conference (Week 27)
- Working on poster for ESIP Summer Meeting (Week 27)
- Working on next year's proposal (Week 27)
- Final revisions to Web3D Conference paper (Week 28)
- Contributed proposal text, including statement of work for outside services (Week 28)
- Preparing poster for ESIP Summer meeting (Week 29)
- Presented X3D and 3D Tiles for Oceanographic Data Visualization poster at ESIP (Week 30)
- Some preparation for SIGGRAPH Carto BoF talk next week (Week 32)
- Conversations and presentations about X3DOM + OGC 3D Tiles at SIGGRAPH (Week 33)
- Busy SIGGRAPH meeting – learned a lot more about about glTF, Cesium, and 3D Tiles (Week 34)
- Submitted capstone student project for refining the mbdrg2gltf code in MB-System (Week 34)

- Submitted PR in attempt to fix reported problem building MB-System on Ubuntu 22 (Week 35)
- Reading up on glTF file format and getting ready for presentation at Web3D 2025 (Week 35)
- Presented Interactive 3D Visualization of the Seafloor paper at the Web3D Conference (Week 37)
- Met with capstone students who are showing good progress on fixing up mbgrd2gltf (Week 43)
- Wrote m1_soundspeed.py script for using during Paull's Packard cruise next month (Week 43)
- Meeting to discuss impact of the project infrastructure update issue (Week 45)
- Fixed problem with Pandas interpreting Excel Spreadsheet blank lines as float(NaN)s (Week 45)
- Set up cron job to email latest M1 sound speed profile data to science team on the Packard (Week 46)
- Counseling the capstone students through a merge conflict issue (Week 49)
- With Plankton Proxies work at a checkpoint can now start on the SMDB infrastructure update (Week 49)
- Looked over Karen's feature branch code changes deployed on smdb-dev (Week 50)
- Advising capstone students, namely about merge conflicts with mbgrd2gltf (Week 50)

901221 - Midwater Time Series

- Pointed Rob to expd.shore.mbari.org's rovctddata endpoint for getting "raw" data (Week 13)
- Discovered that RovctdDataServlet has a "raw" option and showed him how to modify the Matlab script to get that plot (Week 13)
- Why do we have all these different ways to access rovctd data? (Week 13)
- Gave Rob some STOQS UI tips and communicated what it can't do (Week 17)
- Fixes to auv-python following move of i2MAP log files from titan to thalassa (Week 19)
- Identified confusing duplicate i2MAP mission log directories in M3/master (Week 20)
- Reprocessed i2map data with auv-python as I discovered that last April's processing had failed (Week 43)

901805 - Coastal Biogeochemical Sensing Program

901910 - Plankton Taxonomic Groups from AUVs

- Testing some changes to Dorado's HS2 processing code in attempt to fix some "drift" issues (Week 8)
- Got GitHub Actions CI job working for the auv-python project (Week 10)
- Modified 1500 lines of legacy Python code to pass modern linting standards with pre-commit (Week 10)
- Wrote tests of end-to-end Dorado and i2map data processing to STOQS loadable data (Week 10)

- Made the auv-python repo public as it's referenced in a paper in review for publication (Week 10)
- Tracked down a regression in LOPC processing – got to learn about using "git bisect"! (Week 11)
- Working on GitHub Issues in preparation an archive reprocessing & stoqs_all_dorado reloading (Week 11)
- Read through our DSR paper / reviewers comments and contributed some edits (Week 13)
- Reviewing particulate backscatter calculation from instruments on Dorado and the LRAUVs (Week 13)
- Doing last refinements of HS2 and Ecopuck backscatter calculations/comparisons (Week 14)
- Waiting for & willing to help on the profile oriented corrections to the proxy variables (Week 14)
- Working with Michael on adding the per-profile proxy corrections to auv-python (Week 16)
- Planning for an entire Dorado data archive reprocess and reload of stoqs_all_dorado (Week 16)
- Still preparing for a Dorado archive reprocess and stoqs_all_dorado reload (Week 17)
- Tested Michael's biolume proxy correction code and merged it into main (Week 22)
- Fixed broken CI tests in GitHub Actions (Week 22)
- Starting on remaining open Issues before doing the reprocessing (Week 22)
- Migrating auv-python from poetry to uv (Week 23)
- Upgrading modules and testing before reprocessing the Dorado archive (Week 23)
- Migrated auv-python from Poetry to uv and from python3.10 to python3.12 (Week 25)
- Reprocessed Dorado archive with revamped auv-python code (Week 25)
- Using stoqs_all_doarado_t to test the reprocessed Dorado biolume data (Week 25)
- Fixing minor issues as we identify them and will be reloading stoqs_all_doarado_t again (Week 25)
- Reprocessed and reloaded the entire Dorado data archive into stoqs_all_dorado (Week 27)
- Working on next year's proposal (Week 27)
- Contributed proposal text (Week 28)
- Debugging problem with 500 error from opendap/Hyrax server (Week 28)
- Started on STOQS development environment revamp-2025 modernization effort (Week 29)
- Starting reprocess of entire Dorado archive with improved value for fluo_bl_threshold (Week 30)
- Finished reloading stoqs_all_dorado using new docker-based Hyrax server (Week 31)
- Testing reading NetCDF4 files with groups (LRAUV data) using xarray's datatree and Hyrax (Week 31)
- With IS's help figured out permissions for Hyrax's bes server on elvis2 (Week 31)
- Figured out provenance tracking between data in stoqs_all_dorado and stoqs_all_dorado_t (Week 33)

- Ended up renaming stoqs_all_dorado_t to stoqs_all_dorado for follow-on ML work (Week 33)
- Continuing to work on modernizing the STOQS dev environment on the revamp2025 branch (Week 35)
- Working on the STOQS revamp for 2025 (Week 40)
- Discussions about incorporating planktivore data into the auv-python/STOQS pipeline (Week 41)
- Started LRAUV dev branch in auv-python for the code to be transferred there from STOQS (Week 41)
- Trying to find time to work on the 2025 revamp of the STOQS code (Week 41)
- Working adding on LRAUV data processing to auv-python (Week 43)
- Working on auv-python's LRAUV branch (Week 44)
- Implemented a more robust method to filter out non-monotinically increasing time values (Week 44)
- Meeting about planktivore data processing and pipeline products (Week 45)
- Continuing to work on adding the processing of MBARI Long Range AUV data to auv-python (Week 46)
- Continuing to work on adding the processing of MBARI Long Range AUV data to auv-python (Week 47)
- More discussions with Monique & Michael regarding Planktivore data (Week 47)
- Doing final tests/checks on auv-python's LRAUV branch – about ready to merge into main (Week 48)
- Closed auv-python Issue #6, now loading pontus biolume data into stoqs_lrauv_jun2025 (Week 49)
- Testing new LRAUV processing through to STOQS for jul2024, apr2025, jun2025, & sep2025 (Week 50)
- Applying fixes as the new auv-python software finds more edge cases with these log files (Week 50)

902101 - LRAUV Technology Development

- Identified some missing full resolution .nc4 files from pontus's december 2024 deployments (Week 2)
- Recreated pontus .nc files and reloaded stoqs_lrauv_dec2024 (Week 2)
- Removed bad latitude data from processed ahi data to make stoqs_lrauv_dec2024 look better (Week 3)
- Reprocessed Daphne's data for Sipper data after Quinn fixed a truncated .nc4 file (Week 9)
- Making sure all full resolution data is being unserialized and processed into STOQS (Week 18)
- Making sure all delayed mode data is getting processed into STOQS (Week 19)
- Wrote a MacGyver fix to get ESP Cartridge 15 data into stoqs_ecohab_april2023 (Week 25)
- Identified some log files that are not properly loading into stoqs_lrauv_jun2025 (Week 29)

- Got help from Quinn with cleaning up some memory corrupted delayed mode data from brizo (Week 46)
- Fred helped identify improperly interpolated LRAUV data processed by STOQS – expecting that the newer auv-python processing wont do the improper interpolation (Week 47)
- Talked with Akshay about 3D geospatial data (Week 48)
- Fred said that auv-python processed ahi data has thebad interpolation problem fixed (Week 49)

902403 - Expedition DB Modern

- Trying to get the Precruise Step 2 “Check these entries…” page to work in expd-django (Week 2)
- Built the Django documentation polls app to better understand the essentials of Django (Week 3)
- Got expd-django’s precruise to load data into the database using the legacy form (Week 3)
- Writing more tests for precruise creation and expedition update views (Week 3)
- Tried to organize EXPD Modernization project page to be helpful for project team members (Week 4)
- Working on cookiecutter-django and Django 5.0 updates: Issue 59 (Week 4)
- Testing the expd-django-5.0 branch in production on https://expd.shore.mbari.org (Week 5)
- Learning to use the Kolo app to generate integration test code - it’s pretty cool! (Week 5)
- Testing GitHub Actions for expd-django - wondering what databases are needed for the tests (Week 5)
- Merged expd-django-5.0 branch to main and pulled to production (Week 6)
- Kicked off team meetings that will continue bi-weekly through March (Week 6)
- Trying to get tests to run on a fresh Azure SQL Edge database in GitHub Actions (Week 6)
- Got tests to run in a fresh empty EXPD database in GitHub Actions (Week 7)
- Team meeting to discuss contributing, workflows, and design (Week 7)
- Continuing to iterate on Precruise & Postcruise functionality and tests (Week 7)
- Got linter job to run in GitHub Actions for expd-django – this will help maintain code quality (Week 8)
- Figuring out how to use pre-commit to apply to all files, including html template files (Week 8)
- Working on replicating the legacy postcruise.asp functionality (Week 8)
- Working on replicating the legacy postcruise.asp – adding the data links (Week 9)
- Planning to abandon the ExpeditionData table and dynamically generate links from REST calls (Week 9)
- Got GitHub Actions to trigger jobs on Pull Requests to upstream – thanks Carlos & Kevin! (Week 9)
- Seem to be on target with a near complete expd web app replacement in a few weeks (Week 9)

- Regular bi-weekly project meeting (Week 11)
- Trying to make the sharable postcruise results link more user friendly (Week 11)
- Ran a django inspectdb against EXPD_NEXT on foggy and saw lots of ForeignKeys, Yay! (Week 13)
- Started long-running expd-next branch in expd-django to track the new database changes (Week 13)
- Thinking about how best to do test driven development on expd-django's expd-next branch (Week 14)
- Building continuous integration Docker stack and Django config for EXPD_NEXT (Week 15)
- Had IS add the everyone read-only account to access EXPD_NEXT on foggy (Week 15)
- Wrote detailed comment about trying to sort out all of the different databases we have (Week 15)
- About done configuring local and CI containers & settings for EXPD_NEXT development (Week 16)
- Wrote days_at_sea management function for Matt to get total days at sea for all our ships (Week 17)
- Able now to incorporate schema changes from expd_next_foggy on the expd-next branch (Week 17)
- Able to merge web app improvements on the main branch into expd-next (Week 17)
- Working on display and usability issues for better Postcruise functionality (Week 17)
- Got infinite scroll working for Postcruise Expedition list view (Week 18)
- Merged all dependabot updates except for postgres 16 -> 17 (Week 18)
- Fixed problem with edited ROV nav ingest into rovctdbin data (Week 18)
- Continuing keeping main and expd-next branches in sync while following EXPD_NEXT (Week 18)
- Wondering if I should continue to work on getting tests to pass on the expd-next branch (Week 19)
- Wrote dive_hours.py script to give IS information for sizing onboard storage for ROV video data (Week 20)
- I am working on getting tests to pass in expd-django's expd-next branch (Week 20)
- Project meeting (Week 23)
- Project meeting (Week 25)
- Issuing PO for ActiveState renewal (Week 33)

Out of Office

- 22 December - 2 January: Vacation
- 5-19 January: Remote work
- 20-23 January: ESIP Winter Meeting - remote attendance
- 14 - 24 February 2025: Some vacation, some WFH
- 11 March: Vacation
- 8-9 May
- 8-13 September - Web3D & Digital Heritage Conference
- 10-14 August - SIGGRAPH

- 25 April - Vacation
- 8-9 May – Out of office
- 21-25 July – ESIP Summer Meeting
- 28 July - 8 August – Remote work
- 10-14 August – SIGGRAPH
- 18 August - 5 September – Vacation
- 8-13 September – Web3D & Digital Heritage Conference
- 6 May – Vacation
- 19 May – CSUMB School of Computing and Design annual retreat at Cabrillo College
- 29 May – Vacation
- 6 June – Sick day
- 23-26 June – Vacation
- 15-18 September – Vacation
- 18-21 July – Vacation
- 22-25 July – ESIP Summer Meeting
- 18-29 August – Remote work
- 1-5 September – Vacation
- 22-26 September – Staying home with my laryngitis germs
- 29-30 September – Staying home with my laryngitis germs
- 27-30 October – Remote work
- 24 October – Vacation day
- 5-23 January: Remote work from Seattle area

Overhead

- Caught up on email and completed training, surveys, software updates, etc. (Week 2)
- Conflict of interest statement, welcoming feedback training (Week 3)
- Examined rovctd data transfer & processing to try and accelerate framegrab processing (Week 5)
- Some software/workflow archeology regarding Pilot's Dive log synchronization (Week 7)
- Responding to letters of recommendation requests from previous mentees (Week 8)
- Gave a brown bag presentation on using pre-commit – here's the tutorial I followed. (Week 9)
- Trying to not get too involved with planning the Web3D 2025 Conference (Week 11)
- AWS Generative AI proof of concept brainstorming meeting (Week 18)
- Debugging of RovCTD data processing following ShipData move to thalassa (Week 20)
- Edited internal ships calendar with changes requested by Matt (Week 25)
- Proposals (Week 29)
- ESIP Summer Meeting (Week 30)
- At Matt's request deleted or changed several internal ship calendar entries (Week 34)
- Sent out announcement asking for help testing new dods2/search2 services on elvis2 (Week 35)
- Chaired a paper session and served on best paper committee at the Web3D Conference (Week 37)

- Rolled out replacement for elvis web services with docker stack running on elvis2 (Week 41)
- Gave “tech talk” on takeaways from ESIP, SIGGRAPH, and Web 3D conferences (Week 43)
- Talked with Peter about using multiple VMs to securely deploy elvis-services (Week 44)
- Workplace violence prevention training (Week 45)
- Wrote a sort_lines() function rather than manually hand edit web calendar duplicates (Week 45)
- Giving MBARI tour for CSUMB Capstone students this Friday morning (Week 47)
- Had to restart several services following VM cluster work Tuesday night (Week 49)