

Engineering Weekly Report 6/24/2021 - 7/1/2021

Executive Council Notes

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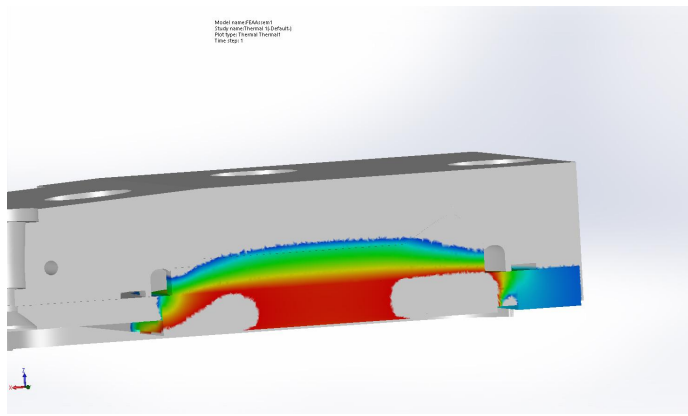
Individual Activities

- Francois Cazenave
- Mark Chaffey
 - Out of Office
 - Will be OoF May 1 - 22 and unavailable.
- Danelle Cline
 - Out of Office
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- Duane Edgington
 - 901603 - Video TAG: Visualizing Ocean Change
 - Working on 2022 project proposal
 - 901618 - Pelagic-Benthic Coupling
 - Plan to work on in-water calibration images and footage taken by Paul McGill during recent cruise.
 - 902005 - VARS Annotation Assistance
 - Working on 2022 project proposal
 - Overhead
 - Group meeting June 28
 - Work on AWS grant proposal
- Jon Erickson
- Kevin Gomes
 - 300057 - Mooring Maintenance
 - Some light troubleshooting
 - 901915 - Improving MBARI Data Impact
 - Starting proposal
 - Overhead
 - AWS Imagine Grant Proposal
 - Group Meetings
 - Wrapping up my time with Rich (MARS docs)
 - Group budget work
 - Some Slack support
 - Out of Office
 - June 21-25: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Meeting with team to discuss status and proposal plan
 - 901803 - Carbon Wave Glider Development
 - Adding GUI features to support lab testing
 - Initial lab testing with Craig Okuda, to exercise IO mapping and electrical functions

- Proposal input
- Overhead
 - Proposals and budget
 - SRSC meeting (discussed next steps to think about outline and writing team development)
 - Engineering meetings
 - Loop and Cross : Provided some data analysis to Paul, and submitted pull request to add code into hotspot repo
- Out of Office
 - July 2
- Rich Henthorn
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Proposal input
 - TRN
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Addressing logging issues
 - Building towards August deployment
 - 901618 - Pelagic-Benthic Coupling
 - Proposal input
 - 902101 - LRAUV Technology Development and Fleet Operations
 - TRN
 - Overhead
 - New proposals
 - Out of Office
 - July 1 - 9, vacation - starts this Thursday (tomorrow!), back on July 12, network, email, phone access, no problem responding
 - July 26 - Aug 9, mostly vacation, WFH a few days, network and phone access, definitely available to assist and GTD
 - Sept 22 - Oct 1, vacation
- Brett Hobson
- Scott Jensen
- Brent Jones
- Chad Keycy
 - Out of Office
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- Brian Kieft
 - 300082 - DMO Support - Wave Glider
 - Worked a bit to check out the hotspot 3 payload. Updated some documentation. Cell is working great!
 - 708168 - DHS Y7
 - Have been supporting the WHOI salt intrusion cruise with Polaris running from the Armstrong. Vehicle was recovered this morning after a successful deployment.
 - 901009 - CANON
 - Supporting MBTS as needed on call
 - 901513 - Targeted Sampling by AUVs
 - Assisting Yanwu with various updates he's been making for the WHOI cruise. Looking good and we'll merge changes to master.
 - 901800.98 - Bioacoustic Payload
 - Fixed a connection issue with Triton elevator and closed. Prepped for launch.
 - Out of Office
 - Jun 28-30 (phoenix MST)

- Jul 1-9 (vacation HST)
 - ~~Aug 5-6 (vacation)~~
 - Aug 1-11 (Great Lakes, Great LRAUVs EDT)
 - Aug 16-21 (Great Lakes, Great LRAUVs EDT)
 - Sep WHOI?
 - October 25-31 (PLOCAN glider school tentative GMT+1)
- Denis Klimov
 - Out of Office
 - June 14-18
- Diana LaScala-Gruenewald
 - 200103 - Core CTD Data - MDUC
 - Wrote new stored procedure for expd db to set qc flags by depth
 - Continued to set qc flags as needed
 - Reviewed questions with/got some last words of wisdom from Rich
 - Exploring adding a feature to rovctd development servlet to get a better understanding for how they work/how to troubleshoot
 - Overhead
 - Weekly meeting(s)
 - Working through tutorial on developing first Java servlet
- Eric Martin
 - 708167 - WEC Dynamics and Control
 - Radar data assessment
 - 901101 - Seafloor Mapping
 - Calls for Falkor cruise.
 - Looking at heatflow probe again.
 - 901206 - Coastal Profiling Float
 - Solved pressure sensor bugs, improved UI.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Spot Tracker enclosure wiring diagrammed, in to techs.
 - 901911 - ROVVR
 - Met to review finding from the HCI study, very encouraging results were presented.
 - 902100 - Telepresence on MBARI Research Vessels
 - Supporting testing and live show production
 - Telepresence on the Barry expedition this week as well.
 - 368000 - DMO AUV
 - Expedition planning meeting
 - Overhead
 - Colleen Durkin Interview
 - ROV telemetry system consult
 - Various project labor quotes
 - Out of Office
 - July 19-Aug16 Pacific Northwest for Dorado support.
- Thom Maughan
 - 300070 - DMO Support Ventana
 - Full press to come up to speed and fix issues affecting Xojo for DeepSea Wago Ground Fault app. Very much appreciate the support from Rich. Lots of progres on coming up to speed and diagnosing.
 1. Windows 10 Home causes modbus_connect fail.
 2. Windows hosted Xojo build, debug and deploy

- 3. Libmodbus dll build for 64bit. Progress made, but not complete as the blocking issue was solved with Win 10 Pro. 64bit is on the todo list, tho Dale indicates he is building 32bit labview with the 32bit dll.
 - 4. Debugging variables set thru JSON. Very cool JSON wago representation, but hardly used by this app.
 - 5. In progress writing a simple test app that toggles the same muxes and reads the analog. This will be a fallback until I get the mux sequencing straightened out.,
 - Summary: Handoff from Rich complete. Thom to work with DJ moving forward. Thanks again to Rich for all you have done in these decades.
- 902004 - Planktivore
 - Behind...
- Out of Office
 - Second Moderna vaccine received on 4/30.
 - Vacation 14-18 Jun (5 days) Camping a night on USS Iowa, then Catalina Emerald Bay with Scouts. Vacation extended 6/21, 6/22 to assist family in Pleasanton.
 - Vacation July 7,8,9
 - Dental appointment on July 14
- Mike McCann
 - 901101 - Seafloor Mapping
 - Finally got <https://smdb.shore.mbari.org> working with Traefik
 - Configuring development environment so that VS Code can be used on the backend
 - Considering how to efficiently walk the 21.7 million files in SeafloorMapping – with many of the large ones migrated to offline storage
 - Overhead
 - Watched DOEST videos, the director's dialog, and Wednesday's Live from the Deep program
- Rob McEwen
- Paul McGill
- Ed Mellinger
- Tom O'Reilly
- Craig Okuda
 - 901007 - Benthic Biology and Ecology
 - Cyclic testing new valve system
 - 901803 - Carbon Wave Glider Development
 - Bring up instrument electrical systems
 - Redesign gas inlets
 - Deal with manifold fab problems
- Doug Pargett
 - 901205 - ESP SURF Center
 - Lots of thermal FEA to investigate what is driving temperature gradients across the sample filter.



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- Pressure and cold testing of MV2.
- 901800.98 - Bioacoustic Payload
 - Inspected the gimbal assembly, and fixed a protruding screw head.
 - Adjusted cable ties/clamps to improve motion clearance.
- Ben Raanan
 - Out of Office
 - June 8-22
- Mike Risi
 - Out of Office
 - April 26-30: Ocean Imaging Cruise
 - May 3-7: Vacation
 - June 4-11: Vacation
 - June 28-July 2: Vacation
 - September 3-14: Ocean Imaging Cruise
 - Vacation on alternate Fridays
- Brent Roman
 - 708146 - NOPP Saildrone
 - Wierd network change on Surveyor required rejiggering ssh tunnel configurations on the fly
 - 708165 - NOAA-MERHAB
 - Telecon with NOAA
 1. Updating their ESPs, testing telebuoy, integrating new pump controller
 - 901205 - ESP SURF Center
 - Helping Nadia pressure test mv2
 - Testing puck heating issues with Function cartridges
 - 901913 - Demonstrating high-speed communication with a submerged AUV
 - Managed to transmit hires video at 5 frame/second via H150 acoustic modems in LRAUV lab
- Carlos Rueda
 - 708168 - DHS Y7
 - Some monitoring of the recently completed Polaris deployment. All seems to have worked well without any issues re the Dash UI and TethysDash backend.
 - 901513 - Targeted Sampling by AUVs
 - Reviewing code toward refactoring such that core detection/tracking logic can be used for both shore dispatch (involving data access and commanding mechanisms as done so far), and on the platform itself (with data access and commanding mechanisms still to be determined).
 - 902005 - VARS Annotation Assistance
 - Meeting and minor addition to the SageMaker UI prototype.
 - 902101 - LRAUV Technology Development and Fleet Operations

- TethysDash is now 4.5.6, now supporting the ability to reply, via phone [text message](#), to event notifications. Thanks again, Monique, not only for the suggestion, but also for all the testing.
 - Some various exchanges involving possible enhancements to the dash (PIC handoff procedure, dark mode, commanding via Slack bot, ..)
 - Documentation updates.
 - Advancing TethysL-LRAUV integration strategy. Thanks Mike Godin for your [PR](#).
- Overhead
 - Proposals.
 - IE meeting.
- Out of Office
 - July 7-8: vacation
- Karen Salamy
 - Overhead
 - Helped Teresa C. edit and update the Participants list in the MBARI Precruise for Jim Barry's upcoming WFLY 522 cruise. The list of telepresence observers was quite long. As a result, I edited the participant field to be at its maximum: 8000(var chars). Any more is not possible. We performed numerous edits to get the entire list of on-shore and at-sea participants into the group field. Changes can be seen here:
<https://mwww.mbari.org/expd/log/postcruise.asp?step=display&ExpeditionID=7249>
 - Dealt with the AutoFS issues on various servers including coredat8 (Mooring data downloads) following an IS linux update problem that occurred on June 21. The update was rolled back on the affected servers and all is now working as it should.
 - I was able to successfully transfer a Simulink Toolbox from another MBARI user to Andy H. in time for his intern's arrival and need for it.
 - Continue to monitor daily the M1 Mooring data and progress.
- Brian Schlining
 - 500055 - Video Annotation DM
 - Released a [new version of annosaurus](#) to address an issue with annotations that are missing an observation timestamp.
 - 901221 - Midwater Time Series
 - Released a [new build of VARS Annotation](#) to address rare timeout issue.
 - Overhead
 - Working on proposals
 - Sharpening the saw by learning [ZIO](#)
 - Moved back into the office at MBARI
 - Attended intern meeting as a former intern.
 - Out of Office
 - Jul 19 - 30 - Vacation
- Rich Schramm
 - 300070 - DMO Support Ventana
 - Working with Thom on the Ventan GFTest app.
 - Overhead
 - Working on 'the last few things'
 - Out of Office
 - 7/1 - 8/30 Vacation
 - 8/31 last day
- Alana Sherman

