

Brent Jones Sorted By Project

701149 - Improving pCO₂ estimates

- Flying spray 29 in support of Yui's experiments (Week 42)
- Had a CF card failure on spray 29. Recovered and am diagnosing (Week 42)

901009 - CANON

- Updating CPF code to service 2 attached Sediment Traps (Week 4)
- Prepping dual Sediment Trap CPF for deployment next week. Finally got it in the test tank yesterday. (Week 7)
- Investigating why CPF lost its bottom fairing on last deployment. Modifying new fairing for installation (Week 12)
- Beginning prep of Wire Walker for April deployment (Week 12)
- Fixing CPF bottom fairing in prep for going out next week (Week 14)
- Fixing SIPPER code to be more robust next trip (Week 14)
- Successfully deployed Wire Walker with pH sensor for the first time ever! Unfortunately, telemetry package has once again failed. It did return some data before dying. Entire week was spent prepping and deploying (Week 17)
- Diagnosed leak in Wire Walker telemetry package. Packaged up and sent back to RBR CA (Week 18)
- Recovered Wire Walker and processed data (Week 28)
- Continued processing WW data and diagnosing failures (Week 31)
- Rebuilding SIPPER with new ELMO electronics. Requires all new wiring harness and software (Week 32)
- Deployed Wire Walker with hydrophone + pH. Was not going up and down. Traced problem to too little buoyancy. Added foam and confirmed it is profiling (Week 37)
- Recovered Wire Walker that had failures in the data logger. Diagnosed and sent back to RBR Canada for repairs (Week 42)

901112 - The Monterey Bay Time Series

- Piloted Daphne in support of MBTS (Week 2)
- Meetings (Week 2)
- Deployed CPF with two sediment traps (first time). Completed 3 day mission and then recovered. Everything worked successfully (Week 9)
- Deployed CPF with dual sediment traps. Emergency recovered a few hours later. Float lost its bottom cap somehow (deployment?) and would not sink (Week 11)
- Flying Daphne in support of monthly MBTS run (Week 11)
- Prepped and deployed CPF (Week 20)
- Deployed and flying Daphne and Pontus (Week 20)
- Completed build of new SIPPER and installed on Daphne (Week 33)
- Prepped and flying Daphne in support of MBTS run (Week 33)
- Prepped, deployed, flying LRAUV daphne in support of MBTS run (Week 37)
- Deployed and flew daphne in support of monthly time series. Sampler failed (Week 42)
- Fixed sampler and deployed Daphne on a test sampler mission...success (Week 42)

901502 - Soundscape Research and Education

- Quarterly processing of click data (Week 2)
- Writing conversion utilities for working with click data in python (Week 2)

- Extracting click features during known Sperm Whale clicking bouts and attempting a few digital code breaking techniques (Week 4)
- Rewriting Teager click detector in Matlab (Week 7)
- Porting click detection code to MS Visual Code studio. Seems to be working better (Week 12)
- Ported click detection code to Julia in VScode (Week 14)
- Recovered hydrophone deployed on Wire Walker for about a month. Returned to J Ryan and am hoping for the data soon so I can analyze. (Week 42)

901805 - Coastal Biogeochemical Sensing Program

- Investigating noise source from last run of 2021 (Week 2)
- Ordering replacement pressure cases for gliders. Updating schematics (Week 4)
- Meetings (Week 7)
- Begin degassing hydraulic oil for rebuild of Spray 29 hydraulics (Week 7)
- Completed rebuild of Spray hydraulics. Completed integration of modem into Spray. Assembled for initial ballast (Week 9)
- Completed rebuild and operational check out of Spray34. Deployed and am flying her (Week 11)
- Flying Spray34 in support of tracking exercise with WG (Week 12)
- Drawing up mounting brackets for pH sensor integration on Wire Walker (Week 14)
- Flew and recovered Spray 34 in support of PIE experiment (Takeshita) (Week 14)
- Diagnosing poor COMMS performance of Spray 34 last deployment (Week 14)
- Designing OCR mount for Spray use (Week 18)
- Final OCR bracket for Spray sent to production (Week 20)
- Final bench checks on Spray OCR integration (Week 23)
- Prep Spray 29 for deployment (Week 23)
- Recovered Spray 34 and processed data. Flying Spray 29 (Week 28)
- Recovered Spray 34. Teaching Yui lab people how to offload and process data (Week 31)
- Investigating Spray OCR two blocking issue. Prepping spray 29 for deployment (Week 35)
- Deployed spray 29 and am piloting in support of Yui's experiments (Week 37)
- Flying Spray 29 in support of Yui's experiments (Week 39)

902004 - Planktivore

- Meetings (Week 7)
- Meetings (Week 9)
- Met with Larry and reviewed first article housing (Week 11)
- Meetings and discussions centering on mounting contraption to Spray (Week 14)
- Ballasting spray 34 with planktivore attached (Week 18)
- Installed planktivore on spray and successfully ballasted in test tank (Week 19)
- Deployed Spray+Planktivore offshore and successfully completed 1 dive to 40 m (Week 19)
- Digesting engineering data from first real dive (Week 19)
- Analyzing data from initial field test. Spray performed 1 dive to 40m (Week 20)
 - Power draw on main batteries presents an issue (Week 20)
 - Flight characteristics hard to analyze due to shallow dive. Need to do a deeper dive (Week 20)
 - Overall HUGE SUCCESS (Week 20)
- Deployed Spray+Planktivore 2x. Determined Spray is not actually flying. Analysis on flight data and scheming for the future (Week 39)

902101 - LRAUV Technology Development and Fleet Operations

- 2x deployment, flying, troubleshooting, and recovery of LRAUV Triton (Week 28)
- Processing AOS data from Triton (Week 28)
- Learning backseat computer in anticipation of B Raanan leaving (Week 28)

- Making high level diagram of BioAcoustics data flow. Diagnosing errors from Great Lakes deployment (Week 42)

Out of Office

- Last week sick leave
- Sick Leave due to Covid exposure
- 2 days sick leave (non covid)

Overhead

- Online course and test for CA Boater Card. Needed to be Paragon Captain (Week 2)
- Monthly meeting (Week 2)
- Met with Okuda and learned how to deal with MBARI FCC licensing (Week 11)
- Working on FCC microwave license renewal (Week 12)
- Meetings about 2023 proposals (Week 18)
- Moving offices (Week 20)
- Working on 2023 project abstract for Wire Walker power generation (Week 20)
- Taking current measurements over time for prototype M1 cell telemetry package (Week 28)
- Proposals (Week 28)
- Designing Inspired Energy battery pack for M1 cell telemetry package (Week 31)
- New antenna for M1 telemetry package is pulling more current than expected. Doing more current measurements and will plan accordingly (Week 33)
- Implementing low level EmbeddedARM drivers to monitor battery status and send ashore (Week 33)
- Finishing up mechanical design of M1 cell modem assembly. Waiting for design review hopefully next week (Week 35)
- Doing config software so we can gain remote access to M1 Cell controller over cell (Week 35)
- Wired up an I2C internal vac sensor for telemetry housing (Week 39)
- Finishing up mechanical design of M1 telemetry system. (Week 42)
- WF party! (Week 42)