

Brent Jones Sorted By Project

701149 - Improving pCO₂ estimates

701164.99 - SnoCam+ Build

- Meeting to figure out how to clamp SnoCam to CPF (Week 12)
- Deployed CPF sed trap 4x (!!!) over the past week in support of Durkin experiment. Drove Paragon numerous days in support of experiment (Week 30)

901009 - CANON

- Overwatching SIPPER deployment on Daphne (Week 4)
- Pressure tested EPOS4 SIPPER controller (Week 9)
- Begin PCB layout for EPOS4 controller (Week 9)
- Brought CPF out of storage and beginning check out for next deployment (Week 25)
- Wire walker final prep and deployment. Monitoring performance (Week 27)
- Prepped and deployed Ahi + ptvr for CANON (Week 38)

901112 - Monterey Bay Time Series

- Received Maxon EPOS4. Learning how to use it (Week 1)
- Hacking CAN bus on new EPOS4 controller. Trying to fit stripped down C code into a PIC24 (Week 4)
- Continuing to hack CAN bus and explore new Maxon EPOS4 controller (Week 5)
- Updating SIPPER pic24 to work with Maxon EPOS4 (Week 5)
- Designing PIC24 interface card that uses new EPOS4 motor controller (Week 10)
- EPOS pcb completed and sent for manufacture (Week 11)
- Flying LRAUV Daphne (Week 11)
- Recieved new pcb for EPOS controller. Starting fab (Week 12)
- Submitted new EPOS4 pcb to fab (Week 13)
- Attempted swap of new 5G SIM card in WW modem failed. Diagnosing. (Week 13)
- Acquired encoder for sipper H₂O pump (Week 18)
- Writing code to have PIC24 process encoder info (Week 18)
- Updated PIC24 pcb to use encoder (Week 18)
- Upgraded RBR cervello and Maestro. Beginning assembly for testing in test tank (Week 20)
- Tuned EPOS4 in situ on SIPPER. Ready for final fill and test in water (Week 24)
- New sipper assembled and awaiting test tank testing once Daphne gets back (Week 25)
- Analyzing real time data for Wire Walker. Seeing if its sufficient for the science Yui and Francisco desire (Week 30)

- Diagnosing GPS failure in CPF on last mission. Problem recreated, root cause not yet identified (Week 33)
- Diagnosing CPF GPS and batt recharge failures. Determined Antenna MUX for GPS+Iridium not working. Still working on batt recharge (Week 34)
- Designing bracketry to better mount Xeos ApolloX11 tracker and nanobeacon (Week 35)
- Diagnosing battery charging error (Week 35)
- Assembling new NanoBeacon and XEOS beacon mounts on CPF (Week 37)
- Diagnosing a moving Wire Walker! (Week 38)
- Fixing water ingress in new Sampler. Required board rework (Week 38)
- Refining software to better work with existing LRAUV sampling scheme (Week 38)
- Diagnosed dead battery in Wire Walker Cervello (Week 40)
- Cleaned up Wire Walker from last deployment (Week 40)
- Final button up of new SIPPER after minor repairs (Week 41)
- Installed new nanobeacon mount on CPF (Week 46)
- Installed and tested Apollo-X11 beacon on CPF (Week 46)
- Successfully collected samples on new SIPPER/LRAUV (Week 46)
- Ordering and manufacturing parts to convert old SIPPER to new style (Week 46)
- Making mods to SIPPER drawings (Week 49)
- Modifying existing SIPPER parts (Week 49)

901502 - Ocean Soundscape

- Trip to SEC to improve MBARI exhibit (Week 10)
- Received NOAA SEC exhibit system. Swapped out old RP3 for a new RP4. Documented Dave's wiring. Removed/upgraded other features (Week 13)
- Went to SC NOAA SEC and installed/tested exhibit (Week 13)
- Finishing conversion of click detection code from Julia to python (Week 30)
- Converting julia click detection to python. Measuring performance (Week 32)
- Running click detection on a single month and comparing to Sam's click detection routines. Working on Python code optimization and tuning (Week 33)
- Python filter code producing different results than Julia filter. Investigating (Week 34)
- Looks like difference in processing for Python and Julia lies not in the filters or Teager EO, but in the combination of impulses. Continuing to diagnose (Week 35)
- Meeting (Week 38)
- Comparing old Julia to new Julia on click detections (Week 40)
- Comparing reprocessed clicks to previous processing in 2021 (Week 41)
- Meetings going over Julia environment (Week 49)

901700 - Acoustical Ocean Ecology

- Drove Paragon in support of monthly survey (Week 24)
- Drove Paragon for WG recovery (Week 24)

901805 - Coastal Biogeochemical Sensing Program

- Looking at how to adapt Acusond+batt canister to Spray (Week 4)
- Validating new NanoFET Spray software (Week 5)
- Helping Carbon lab recover CF2 programming ability after personnel departure (Week 10)
- Flying spray 34 (Week 18)
- Swap sn29 mid section pcase (Week 18)
- Flying SN34 in support (Week 20)
- Meeting with Kaya to go over WW deployment from Packard in 2025 (Week 25)
- Helping prep Spray34 (Week 32)
- Deployed and flying spray29 in support of Yui's experiment (Week 33)
- Flying and recovering Spray 34 in support of Yui's experiment (Week 34)
- Helping diagnose errors in Spray CF card data (Week 37)
- Investigating ways to run SBE pump on Spray during a loiter (Week 46)

902004 - Planktivore

- meeting (Week 10)
- meetings (Week 11)
- Coordinating joint i2Map + ahi + planktivore deployment. Flying ahi (Week 12)
- Meetings. Hot wash of last week's I2MAP mission (Week 13)
- Deployed Ahi (Week 18)
- Flew Ahi (Week 20)
- Meetings (Week 20)
- Adding LCM publishers for pressure case engineering data (Week 24)
- Helped debug crashing app on spurious serial input (Week 24)
- Now sending housing pressure, temp, and humidity back onshore (Week 25)
- Alerts issued if humidity is too high (Week 25)
- Deploy, flew, recovered LRAUV Ahi (Week 32)
- Prep, deploy, and fly ahi (Week 37)
- Recovered Ahi+ptvr for test mission (Week 38)
- Checking out new board build (Week 49)
- I2C drivers for batt charger (Week 49)

902101 - LRAUV Technology Development

902111 - Carbon Flux Ecology

- Prepping CPF for next week deployment. Fixed a bad valve controller board (Week 27)
- Ballasted CPF for carrying Fernanda's multi-CAM (Week 46)
- Deployed and recovered CPF with multicam (Week 49)

902311 - Power Generation Onboard Wire Walker

- Continuing designing piston/cylinder (Week 9)
- Finished preliminary drawings for piston cylinder (Week 10)
- Initial ball screw design for piston was too small. Redoing with larger piston (Week 11)
- Completed theoretical columnar instability calcs for ball screw (Week 12)
- Completed theoretical crush pressure for cylinder (Week 12)
- Starting calcs for regen motor selection (Week 12)
- Documenting calculations for ReGen, ball screw, and pressure case (Week 13)
- Preparing for design review (Week 13)
- Finished preliminary project update (Week 18)

Out of Office

- 3 days
- ½ day vacation
- Vacation
- 2 days sick
- 1 sick day
- 1 vacation day
- 3 sick days
- 2 sick days

Overhead

- Integrated BME280 PTH sensor in M1 cell telemetry package. Final assembly. Ready to be installed on M1 turnaround (Week 20)
- Cell package deployed on M1. Monitoring performance (Week 27)
- Analyzing returns from deployed M1 cell package (Week 32)
- Reconfiguring deployed M1 telemetry to report 1x/day. Trying to characterize energy usage (Week 34)