

Brian Kieft Sorted By Project

300082 - DMO Support - Wave Glider

- Geolocation of CPF via Waveglider (Week 30)
- Assisted with geolocation of Rover (Week 33)
- Hacked up a temporary script to get around a CCU issue preventing backseat control (Week 33)
- Troubleshooting a bit with waveglider issues returning from Station M (Week 34)
- Assisting with bringup of new 1U hotspot payload (Week 34)
- A bit of piloting over the last 46 days. Congrats to Chris on a new record for MBARI! Damage is currently preventing Tiny from continuing to support the LRAUV engineering deployment. (Week 36)
- Used Tiny for acommms testing on Tethys/Pontus. Thanks to Chris and the team for the very fast turnaround after significant glider/wing damage during the Station M deployment (Week 37)
- Debugging issues with LF connection to SES at MARs. (Week 38)
- Piloting Tiny/Hansen (Week 39)
- Covered some piloting for Station M return (Week 46)

300083 - DMO Support - LRAUV

- Prepared LRAUV daphne for mbts run. Mission debugging and vehicle prep (Week 5)
- CANON (Week 30)
- Assisting CANON operations (Week 42)
- See CANON (Week 43)
- On call for MBTS deployment (Week 47)

600034 - Control Tech - Rock

- Met to discuss plan for 3 vehicle run and go over recent results with Rowe DVL (Week 5)
- Sent latest Portuguese ledge data off (Week 31)
- Preparing for next run at Portuguese ledge which will involve relative positions between two vehicles (Week 33)
- See below. TRN runs at Portuguese Ledge. (Week 37)
- Working on 2 vehicle relative positioning for TRN runs. Harbor testing (Week 38)
- Sent off logs for analysis to Steve (Week 40)
- Reviewing data from last TRN run (Week 42)

708133 - eAUV Technology

- Support for ESP during CANON (Week 31)

708158 - DHS Y6

- Ran tests of new under ice behaviors and missions over the weekend and shipped equipment for testing under ice on the east coast next week. (Week 5)
- Met with WHOI team to discuss logistics (Week 5)
- On Deployment at WHOI running test missions in Buzzards Bay prior to heading to N Maine for under ice. A delayed shipment and weather are causing delays for Maine but we hope to head up on Saturday. (Week 6)
- Vehicle arrived in good shape and everyone here at WHOI is happy to have it on the E coast! (Week 6)
- (Week 6)
- (Week 8)

- LRAUV B team was on location at WHOI and also in Maine running under ice tests of the WHOIDHS vehicle recently named Polaris. This was the first time an LRAUV was run under the ice and, while there's more work to be done, initial results were very positive. (Week 8)
- Added upward looking DVL interface (Week 9)
- Troubleshooting network issues at WHOI (Week 9)
- Lab testing with remote team (Week 9)
- Meetings to prepare for March under ice demo in Lake Superior (Week 9)
- Wrote summary of February under ice demo (Week 9)
- Reverse thruster testing (Week 13)
- Data review (Week 13)
- Meetings to discuss next deployment (Week 15)
- Review of data from last deployment (Week 15)
- Working on data flow on whoi dash (Week 15)
- Found bug in upward looking DVL code and made a fix (Week 15)
- Weekly meeting to discuss plans and data review (Week 16)
- Y7 budget/scoping (Week 16)
- Met to discuss last docking mission and go over vertical control (Week 17)
- Assisted with plotting tools on whoidash (Week 17)
- Reviewing budget (Week 18)
- Reviewing proposed MB sonar and INS integration (Week 18)
- Met with team to discuss progress and plans for deployment (Week 18)
- Assisted with standalone binaries for host side simulation of under ice missions at WHOI (Week 18)
- Fixed a minor bug associated with tracking acoustic targets in sim (Week 18)
- Preparing for deployment in Buzzard's Bay tomorrow! (Week 19)
- Met with team to discuss plans and year 7 budget/tasks (Week 19)
- Analyzing issues from last deployment and debugging whisker box problems. (Week 21)
- Met to discuss deployment plans (Week 21)
- Added a fix to allow dynamic docking module to be more compliant with failures to retrieve status information while changing modes (Week 22)
- Assisted in debugging a potential kernel issue on our SPI/UART bus that was causing docking failures during the last deployment. (Week 22)
- Fixed some typos in the DVL code (Week 22)
- Met with team to prepare for upcoming payload integrations, cruise, and a deployment next week. (Week 22)
- Tested bug fixes in WHOI lab for DDM component (Week 23)
- Prepared for Polaris deployment. Vehicle was launched yesterday in Buzzard's Bay (Week 23)
- Supported docking test deployment in Buzzards Bay. (Week 24)
- Debugging failure on dynamic docking module. (Week 24)
- Added some new feature requests in JIRA (Week 24)
- Vehicle recovered Thursday. (Week 24)
- Working through JIRA issues (Week 26)
- Assisted Noa with some WHOI micromodem questions and configuration issues (Week 33)
- Wrote an ocean current estimation behavior. Sim/tank tests passed. Will test offshore soon. (Week 34)
- Met with team today to discuss progress/plans (Week 34)

708158 - DHS Y7

- Minor fixes in JIRA and weekly meeting (Week 36)
- Wrapped up DHS Jira issues 1,2,4,5 relating mostly to the DDM interface (Week 38)
- Finished up JIRA issues in preparation for deployment. (Week 39)
- Have been assisting with SOM bootloader issues (Week 39)
- Advising on kernel upgrade options (Week 39)
- Loaded latest release after testing in (their) lab. (Week 39)

- Meeting today to discuss further deployment details (Week 39)
- Assisting with Polaris deployment in Buzzards bay (Week 40)
- Troubleshooting new SOM and updating bootloaders to be backward compatible with the new/old NAND flash device on the latest revision of the SOM. (Week 40)
- Working on reverse thrust and various JIRA issues in preparation for the next docking deployment (Week 42)
- Debugging issues with the bootloader. Working with phytec to figure out a file size discrepancy between online binaries and those built from source. (Week 42)
- Finally wrapped the mystery of the bootloader binaries. Issue was the compiler version. Got phytec to update their FTP site as well since they reproduced the issue too. (Week 43)
- Added ADC count output writer to IR docking sensor (Week 43)
- Wrapped up reverse thrust testing and debug. Ready to test in the tank (Week 44)
- Preparing for deployment in Buzzard's Bay (Week 44)
- Updated repo for new bootloaders (Week 44)
- Helping to debug reverse thrust on polaris and support upcoming deployment (Week 45)
- Supporting docking tests in Buzzard's Bay (Week 46)
- Wrapped up reverse thrust for undocking (Week 46)
- Debugging water current estimator (Week 47)
- Weekly meeting. (Week 49)
- Added a latch delay feature for docking deployment today (Week 50)
- Added a latch delay feature for docking deployment today (Week 51)
- Supported docking and LBL deployment in Buzzard's Bay (Week 52)
- Added latch delay fix (Week 52)

800139 - EyeRIS

901009 - CANON

- Tested DVL firmware fix on Pontus (Week 9)
- Prepped vehicle software for launch tomorrow (Week 9)
- Identified bug in Wetlabs sensor following Monique's analysis of backscatter data. Logged in JIRA but have not implemented a fix yet (Week 15)
- Reviewed rough deployment plan for June (Week 18)
- Reviewed initial experiment plan (Week 19)
- Supported MBTS deployment this week (Week 25)
- Participating in summer field program (Week 30)
- Supporting ongoing summer experiment (Week 31)
- Recovered Brizo and discovered shark bite (Week 31)
- Used hotspot to locate missing CPF (Week 31)
- Assisted building up blue ROV for this and future shallow recoveries (Week 31)
- (Week 31)
- (Week 31)
- Assisted with deployment of REACT PCO2 vehicles. Will check status on them again today. (Week 33)
- Supported recent MBTS run with Daphne (Week 36)
- Figuring out requirements/missions for coincident water/ESP sampling (Week 38)
- Preparing for upcoming experiment. Modifying behavior/mission for dual sampling (Week 40)
- Participating in the Fall CANON campaign with Makai/Pontus. So far it's going quite well and the team has, for the first time ever, taken both ESP and sipper samples at the same time from the same vehicle. (Week 42)
- Wrapped up CANON with recovery and negatives on Friday. This fall campaign went really well from an engineering perspective. (Week 43)
- Supporting MBTS deployment (Week 46)
- Supporting MBTS deployment for Daphne and Pontus (Week 49)
- Supported MBTS deployment (Week 52)

901513 - Targeted Sampling by AUVs

- Pulled some data for an upcoming paper (Week 5)
- Pulled minor data for Yanwu's paper (Week 8)
- Minor clarification for Yanwu's paper (Week 15)
- Quick final read of Yanwu's paper (Week 17)

901706 - Fault Prognostication

901800 - LRAUV Payload & Support

- Setting up test bed on Brizo for Tom's LCM tests (Week 8)
- Test architecture updates (Week 13)
- Refactoring test architecture and attempting to add coverage and static analysis (Week 15)
- Working on BSD architecture with the team (Week 15)
- Working on SLCD for backseat architecture (Week 16)
- Build environment work on tethyscode2 (Week 17)
- Automated B&T value acceptance and tested in sim (Week 18)
- Added automation of ballast and trim and tested in tank (Week 19)
- Fixed issue with old SSL version on new okeanids dash front end (Week 19)
- Further work on SLCD for LCM architecture (Week 21)
- Cleaned out some bugs in JIRA (Week 21)
- Testing some feature branches on makai/brizo (Week 21)
- Assessing issues with Benthos modem and DAT data transfer (Week 21)
- LCM architecture meeting (Week 22)
- Worked with Mike G on coordination of acoustics fixes (Week 22)
- Tested power variable that's now being written (Week 22)
- Tested acomms from topside to vehicle and noted bugs existing in inner-vehicle acomms for the Benthos subsystem specifically. (Week 22)
- Prepped ESP/Brizo for launch (Week 23)
- Tested new ESP scripts for OTH ESP configuration (Week 23)
- Configuring DATs for installation (Week 23)
- Prepared Brizo for first sea trial test, ESP test, and acomms test (Week 24)
- Deployed Brizo yesterday and daphne today for joint testing. Some minor issues so far but generally a good first sea trial. (Week 24)
- (Week 25)
- Acomms testing (Week 26)
- Reviewed deployment data (Week 26)
- Working on current estimator derived from DVL measurements while underway (Week 33)
- Worked a bit on sonar/backseat integration (Week 34)
- Currently involved in an engineering deployment with Pontus and Tethys to test a large merge and some acomms fixes. (Week 36)
- Large engineering deployment for Tethys/Pontus that ran 8/31 until we recovered yesterday. Testing included new behaviors for current estimation, new components for altitude, the backseat sonar computer, an obstacle avoidance test, multi-vehicle TRN testing, a shark bite, and many bug fixes. (Week 37)
- Preparing for deployment Monday 9/21 to test multi vehicle TRN, DEIMOS live depth adjustment for camera capture of layers, and possible homing tests with DAT. (Week 38)
- Deployed Tethys yesterday following multiple harbor tests addressing acomms issues (Week 39)
- Testing DEIMOS camera and ESP sampling missions with waveglider Tiny. Then on to Portuguese ledge for dual vehicle relative position TRN runs. (Week 39)
- Working on reverse thrust (again). Seemed to be going well but hit a snag with dead spots that pop up every so often. Working with the vendor as well to solve and set up a test rig for diagnostics. (Week 43)

- Preparing for deployment in Monterey Bay on Monday (Week 44)
- Engineering deployment to test DAT line capture homing (Week 45)
- Working on USBL high speed implementation (Week 47)
- Working on integration of USBL mode for Benthos DAT component. Initial lab testing was favorable. (Week 48)
- Testing quick GPS fix mission (Week 49)
- Working on USBL mode integration (Week 49)
- Testing on Pontus offshore and working on Tethys for a docking run (Week 50)
- Testing on Pontus offshore and working on Tethys for a docking run (Week 51)
- Engineering tests offshore for docking and quick GPS. (Week 52)
- Supported tank docking tests. (Week 52)

901800.96 - Whisker Capture Box

- Met to discuss our own design (Week 44)

901800.98 - Bioacoustic Payload

- Met briefly to discuss data dissemination (Week 49)

902009 - AUV UI

- Working on final details of the SOW and ICA with Sliced Bread. (Week 8)
- Responding to Kevin on simulator issues (Week 8)
- Met with the team to go over progress to date. They've done a great job thus far. Will be separating out state/situational awareness from mission planning. Will plan to pull the trigger on the UI design company once simulation analysis is done. (Week 21)
- Met with team to view latest status. Things are progressing nicely and we will involve our corporate partner (<https://www.slicedbreaddesign.com/our-work>) soon. (Week 25)
- Planned a status to include in this year's proposal (Week 25)
- Met with team to review progress and prepare for proposal (Week 26)
- Met with team to incorporate our corporate partner Sliced Bread and continue on with the next phase of testing (Week 33)
- Team is actively watching this deployment and beginning to roll out user testing (Week 34)
- Held brainstorming workshop. Design review to follow next week followed by end of year summary. (Week 47)
- Attended design workshop Tuesday and initial concept review yesterday. Wrapping up that meeting today and will schedule the final concept review for early December. (Week 48)
- Followup meeting to discuss command and schedule queues. Design decision meeting tomorrow. (Week 49)

DQ1935 - Goodwin eDNA II

- CANON prep, deployment, and ongoing support. (Week 30)

Out of Office

- Feb 1-13 WHOI/Maine under ice, EST
- Feb 17-21 Ocean Sciences?, PST
- Mar 2 - 10, Vacation, GMT -7
- Mar 16-25 Michigan (NMU) under ice, EDT
- July 18-31 Arctic, ADT
- Mar 16-29 Michigan (NMU) under ice, EDT
- 7/20-24 tentative
- Vacation 8/27-31

- WFH this week. Got reapproved for entry following a backpacking trip. Will return onsite on my normally approved days.
- TBD early October
- 9/30 - 10/05 (mom AZ)
- 10/19 - Monday
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- Wednesday 10/28
- Wednesday 11/2-11/5
- Work from home until PCR/Antigen tests return.
- 11/19-11/27 (Thanksgiving w/ boys)
- 11/23-11/27 (Thanksgiving w/ boys)
- 12/3 - Thur (kids)
- 12/7-8 (travel)
- Will not be in the office due to quarantine policy
- Intermittent vacation until next year. Also Dec 25-29

Overhead

- Meet with Mesobot team to discuss plans for this year (Week 5)
- Hosted seminar speaker (Week 5)
- Eng meeting (Week 13)
- Weekly meetings (Week 15)
- Various engineering meetings and action item response (Week 17)
- Pulled some images for the annual report (Week 17)
- Meetings for work on UX and ROS proposals (Week 26)
- Pre interview with Madison on STEM project (Week 37)
- Covid tests, proposal work for BIOSWAT, etc. (Week 38)
- Working on sorting out some data from our Lake Erie projects with GLERL. (Week 43)
- Covid testing (Week 44)
- Supporting WET program crab pot recovery proof of concept (Week 45)
- Took second covid test and am cleared to return. (Week 47)