

Ben Raanan Sorted By Project

300083 - DMO Support - LRAUV

- Prep and support for Daphne and Pontus time-series deployments (Week 20)

600034 - Precision Control Technologies for ROVs and AUVs

- Tethys sea trial at Portuguese Ledge with TRN running on the backseat (Week 7)

708168 - DHS/LRAUV Under-Ice

- Meetings and support for WHOI team (Week 7)
- Tethys deployed for docking testing (operations and data analysis) (Week 9)
- Tethys deployed for docking tests. DAT noise has been an issue, but converging on a filtering approach that will allow line capture docking with reasonable success rates. (Week 10)
- Recovered Tethys after docking sea-trials with the mock-dock. Ironed out some issues — docking success rate with the DAT is ~70% (Week 11)
- Docking development and analysis (Week 13)

901009 - CANON

901502 - Soundscape Research and Education

901513 - Targeted Sampling by Autonomous Underwater Vehicles

- Pull request review and sea trail prep (Week 7)
- PR review (Week 8)

901910 - Plankton Taxonomic Groups from AUVs

902009 - AUV User Experience Design

- Met with the SliceBread team for design review (Week 6)
- 2023 abstract (Week 20)

902101 - LRAUV Technology Development and Fleet Operations

- Terminal homing improvements — Resolved vehicle→navigation frame projection issue. Adding median and single pole IIR low-pass filtering on dock nav-frame projection and bearing rate calculation. (Week 6)
- Major rehaul of terminal guidance stack using velocity based proportional navigation guidance law (Week 7)
- Added single-pole IIR filter and median filter classes and integrated into the acoustic tracking stack (Week 7)
- Docking sea trials with new proportional navigation guidance code (Week 8)
- Resolved config set issue (Week 8)
- Resolved mission manger issue (Week 8)
- (Week 8)
- Fixed altitude following behavior (testing offshore) (Week 9)
- Fixed configuration set bug (Week 9)
- Fixed mission manager bug (Week 9)

- Fixed minor bug in the acoustic tracking behavior (Week 9)
- Fixed additional issues with config set (Week 10)
- Tethys deployed for docking tests (Week 13)
- Processing ROMs data from Santa Barbara for EcoHAB pre-deployment testing (Week 13)
- PR reviews (Week 18)
- Prep for EcoHAB (Week 19)
- Supporting EcoHAB deployment in Santa Barbara (Week 20)
- LRAUV video clip (Week 20)
- Resolved network configuration issue on LRAUV backseat computers (Week 20)

902102 - Multi-LRAUV Simulation Environment

- Working on new aocomms sim module, AHRS sensor model, surface simulation (Week 6)
- Export control stuff (Week 7)
- Testing new aocomms module (Week 7)
- Wrapping up new AHRS sensor model unit tests (Week 7)
- Wrapping up surface dynamics simulation (Week 7)
- Starting work on DVL sensor plugin (Week 7)
- Starting work on surface wind plugin (Week 7)
- Updating virtualization layer to use Rocker (Week 7)
- Integrated new aocomms sim interface (Week 8)
- Working on surface dynamics plug-ins (Week 8)
- Devising Q1 test plan (Week 8)
- Wrapping up surface buoyancy gradient (Week 9)
- Added science data interpolation unit tests (Week 9)
- Integrating new AHRS sensor model with LRAUV app (Week 9)
- Starting work on adding digital elevation maps support (Week 9)
- Started work on DVL plugin (Week 9)
- Updates in the lrauv-app to accommodate the new AHRS sensor model (Week 10)
- Team is working on adding in digital elevation maps of Portuguese Ledge (Week 10)
- Team is working on surface winds (Week 10)
- Team is working on DVL plugin (Week 10)
- Working on test plan for Q1 (Week 10)
- Working on acceptance testing for the Q4 (Week 11)
- Test will include 2 vehicles (Week 11)
 - Vehicle 1 will simulate Chl patch tracking (Week 11)
 - Vehicle 2 will simulate acoustic tracking (track vehicle 1) (Week 11)
- Added tiled DEM to the simulation environment (Week 13)
- (Week 13)
- Acoustic tracking now working in the simulator (Week 13)
- Working to resolve issues with the science data interpolation (Week 13)
- Acceptance tests with science data in the loop (Week 17)
- (Week 17)
- Wrapping up data lookup/interp (Week 18)
- Acceptance testing — running multi-LRAUV targeted sampling tests with synthetic data (Week 18)
 - Tethys (blue line): hover on chlorophyll max, trigger ESP water sample on a timer (Week 18)
 - Daphne (red line): acoustically track/circle Tethys while profiling the water column (Week 18)
- Starting work on battery plugin (Week 18)
- Starting work on DVL plugin (Week 18)
- Integrating ROMs data from Santa Barbara to test EcoHAB scenarios ahead of the deployment (Week 19)

902106 - Niobicon-Based AUV Docking Development

902204 - Scalable Marine Robotics Foundations

- Working on project update presentation (Week 20)
- Testing 4D science data interpolation (Week 20)
- Integrating simulation env with TethysDash (Week 20)
- Integrating new battery simulation with LRAUV application (Week 20)
- More work on DVL plugin (Week 20)
- Intern project rampup (Week 20)

DQ2032 - DOE Wave-Energy Control

- Met with the team at Open Robotics for project kickoff (Week 6)

Out of Office

- 02/23-24
- 04/4-7
- 04/27-05/5
- 04/13-23
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Overhead

- SR committee (Week 20)