

901800.98 - Bioacoustic Payload

Week 49

1. Brent Jones
 - a. Temp tested mechanism in cold room. No temp affect observed
 - b. Re-ballasting gimbal with a better piece of Pb.
2. Brian Kieft
 - a. Fixed missing data issue from last deployment

Week 46

1. Brent Jones
 - a. Deployed Triton. Processing data
2. Brian Kieft
 - a. Recovered vehicle

Week 45

1. Brian Kieft
 - a. Deployed yesterday. Issue with antenna fouling. Deploying again this afternoon.

Week 43

1. Brent Jones
 - a. Attempting to process raw SIMRAD proprietary data in python. Prep for LRAUV/AUV SIMRAD data ingestion in situ

Week 42

1. Brent Jones
 - a. Looking at raw data from last deployment.

Week 40

1. Brent Jones
 - a. Prepped, deployed, flew, and recovered Triton
 - b. Real-time data returns from Triton indicate gimbal mechanism is working better (baby steps!)
 - c. Still experiencing brown-outs of bioac computer. Found a way to keep caps charged while on the surface

Week 39

1. Brent Jones
 - a. Prepping LRAUV Triton for next deployment. Testing modified gimbal
2. Brian Kieft
 - a. LCB test on bioacoustic payload to confirm 5A operation
 - b. Tested new current limit resistor and the payload works. Tank testing to follow

Week 38

1. Brent Jones
 - a. Helped diagnose inrush brownout when pinging. Ordered soft start resistor

Week 37

1. Brian Kieft
 - a. Load controller debugging for ducer payload

Week 36

1. Doug Pargett
 - a. Removed material of driver weight to better fit inside shell

Week 31

1. Brent Jones
 - a. Continued analysis of AOS sensor data

Week 30

1. Brian Kieft
 - a. Assisting with Triton deployment for bioacoustic testing

Week 29

1. Brent Jones
 - a. Processing field results from last week. Gimbal still screwed up and noise still present. ARGHGHG
 - b. Testing in the tank and processing results. Doing an in situ calibration of AOS sensor using LRAUV pitch/roll as standard

Week 28

1. Brent Jones
 - a. Proposal
 - b. Prepped/deployed/flew Triton with new backing plates on transducers in attempt to reduce noise. Also testing different flight attitudes and speeds. Tested new missions that run the BioAc sensor

Week 26

1. Brian Kieft
 - a. Fixed a connection issue with Triton elevator and closed. Prepped for launch.
2. Doug Pargett
 - a. Inspected the gimbal assembly, and fixed a protruding screw head.
 - b. Adjusted cable ties/clamps to improve motion clearance.

Week 25

1. Brent Jones
 - a. Modified several LRAUV missions to now run the BioAc
 - b. Continue to optimize gimbal mechanism. Minor mods to allow better swing
 - c. Increased recording rate on Absolute Orientation Sensor to better coincide with onboard LRAUV data recording
2. Brian Kieft

- a. Assisted with lab testing
- 3. Doug Pargett
 - a. Installed stainless steel backing plates to try and shield the transducers from “crosstalk”.



b.

Week 24

- 1. Brian Kieft
 - a. Met to discuss results of test deployment #2. Noise from thruster was less and vehicle stability improved. Plans are made for test #3 potentially as early as next week.
 - b. Integrated new HV motor controller that Scott made. It's really cool and low power. And we can go much faster with boost mode!

Week 23

- 1. Paul McGill
 - a. Settled on design for Remus payload chassis, going to fabrication

Week 22

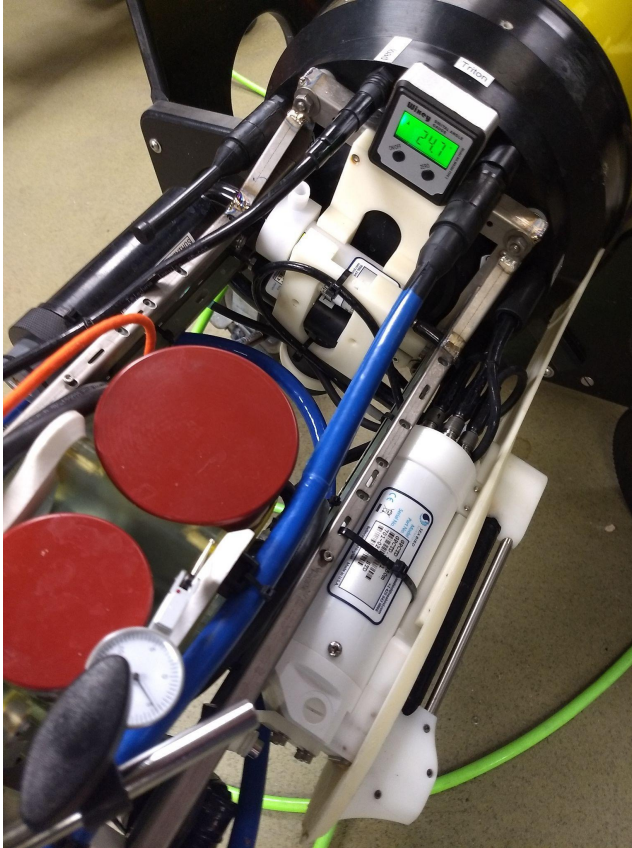
- 1. Brian Kieft
 - a. Prepping vehicle for deployment today.

Week 21

- 1. Brent Jones
 - a. Cleaning up mechanical installation
 - b. Continuing to digest AOS sensor data from initial field trial
 - c. Initial field deployment!!!!
- 2. Brian Kieft
 - a. Reviewed last deployment with team
 - b. Integrated new motor controller component for hopefully more quiet operation

Week 20

1. Brian Kieft
 - a. Met to discuss recent deployment, review data, and plan for new mission
2. Doug Pargett
 - a. Measured deformation of structure due to vehicle roll.



b.

Week 19

1. Brent Jones
 - a. Calibrated Absolute Orientation Sensor (AOS) and finalized Triton for deployment
 - b. Deployed Triton for initial BioAc test. Flew her for a little of 24 hours. System worked well for the first time in the real world
 - c. Processing AOS data from deployment. Trying to decipher what orientation the gimbal was in.
 - d. Developing plans for the next neployment
2. Doug Pargett
 - a. Shaped the new lead gimbal weight and adjusted the mechanism to try and best fit the available swing area. More adjustment is probably needed.

Week 18

1. Brent Jones
 - a. Final mounting of gimbal assembly weight and check outs in the tank. Calibrated Absolute orientation sensor
2. Brian Kieft
 - a. Configured triton for deployment
3. Doug Pargett
 - a. Adjusted the gimbal mechanism for better operation.
 - b. Sculpted the new lead weight to clear the shell.

Week 13

1. Brent Jones
 - a. Tested payload in test tank. Noise seems acceptable

Week 10

1. Brent Jones
 - a. Design and manufacture of CPU backplane/heat sink. Installing in LRAUV Triton
 - b. Design and manufacture of Diode OR power board for internal use in Triton

Week 9

1. Brent Jones
 - a. Designing power diode pcb for use inside LRAUV with payload

Week 6

1. Brent Jones
 - a. Water jetted heat sink and delivered to Waluck for testing. Looks like it is marginal but will try in LRAUV anyway

Week 5

1. Brent Jones
 - a. Designed bracket for LRAUV BioAcoustics CPU. Did Solidworks thermal analysis

Week 4

1. Doug Pargett
 - a. Prepared documents for annual review

Week 3

1. Brett Hobson
 - a. working on the wiring mods to support the BA computer inside LRAUV

Week 2

1. Brent Jones
 - a. Still trying to figure out wiring for moving BA CPU into Spray LRAUV