Rich Henthorn Sorted By Project

600034 - Control Tech - Rock

- Development, test, and prep for Dorado TRN/Obstacle-Avoidance test Thu Feb 6. (Week 5)
- Successful day on the Carson last Thursday. Many new and updated components worked well. (Week 7)
- Post-mission data analysis (Week 7)
- Repaired the TRN replay build (Week 10)
- Fixed a intermittent error (unrelated) in TRN replay (Week 10)
- Listing candidate updates from auv-qnx to libtrnav (Week 12)
- Merging G2 of TRN with libtrnav (Week 14)
- Listing updates to G2 since before libtrnav branched-off (Week 14)
- Meeting with team to identify issues and milestones going forward (Week 14)
- Pushing changes back to libtrnav (Week 14)
- Identifying candidate tools and build systems for libtrnav going forward (Week 14)
- More work cleaning libtrnav (Week 15)
- Researching TRN test automation (Week 15)
- Planning to remedy a trn-server issue (Week 15)
- libtrnav replaces G2TerrainNav as development repo going forward (Week 16)
- Using trn-replay to validate libtrnav ⇔ G2TerrainNav numerics (Week 16)
- TRN LCM comms (Week 16)
- Regression tests: updated git apps vs. legacy CVS apps (Week 17)
- Meeting with TRN team to discuss new development practices (Week 17)
- Addressed bug in map loading code (Week 17)
- Addressing TRN replay-to-server interface bug (Week 18)
- Team discussions about combing TRN communication designs of MB-System and LRAUV (Week 19)
- Replay-to-server interface issue (Week 19)
- Reviewing pull-requests (Week 20)
- Reviewing architecture documents (Week 20)
- Discussing repo concerns (Week 21)
- LRAUV TRN with McEwen (Week 23)
- Looking into mission-replay connecting to trn-server issue (Week 24)
- TRN replay utility bugfix (Week 26)
- Replay data sources (Week 26)
- Replay-TRN server connection issue (Week 29)
- Team meeting (Week 29)
- Proposal (Week 30)
- Wrapped the replay-trn_server issue (Week 30)
- TRN on the LRAUV picked up where we left off in Q1 (Week 37)
- App builds and runs on target with updated lrauv-lcmtypes (Week 37)
- Need tests to ensure message data is read correctly (Week 37)
- Modifying the mission replay application for use with LCM (Week 38)
- Integrating TRN into LRAUV (Week 39)
- Address issue with measT constructor that was causing memory allocation erros (Week 42)
- TRN (Week 48)
- LRAUV TRN mission analysis (Week 51)

800139 - EyeRIS

- Online meeting covering the upcoming strobe concept review (Week 13)
- Team meeting concerning strobe concept review (Week 14)
- Attended virtual Prelim Design Review Monday (Week 41)
- Researched central controller boards (Week 47)
- Discussed software development roadmap with Paul Roberts (Week 47)

901101 - Ocean Imaging

- OI-Sim (Week 10)

901221 - Midwater Time Series

- Planning for auv-qnx CVS to git migration (Week 16)
- Created a script to sift through an i2MAP syslog and produce a transects spreadsheet file (Week 41)
- Create the transects spreadsheet by processing the syslog and dvl.log files (Week 42)

901405 - PowerBuoy Development

- Fitting-out the new controller CPU with build tools, languages, and software installs. (Week 7)
- Installed software on the new buoy control computer (Week 8)
- Implementing new micro controller commands (Week 8)
- Implementing changes to CANBUS packet structure (Week 8)
- Creating a data server for the Crossbow AHRS (Week 10)
- Working on AHRS server app (Week 12)
- Slack telecon on Tues (Week 13)
- Progress on the AHRS server (Week 13)
    - Root code ‘nav440’ - reusable vanilla C interface to the Crossbow Nav440 AHRS (Week 13)
    - Server nav440_server uses the nav440 interface to read packets (Week 13)
    - Server then uses LCM to broadcast ahrs_data structures to interested listener (Week 13)
    - Code tested on target and now resides in bitbucket (MainBuoyController) (Week 13)
    - Working on integrating nav440_server into existing logging application (Week 13)
- Working on the MBC systemd services (Week 13)
- Minor updates to Main Buoy Controller software (Week 14)
- General modifications for future comms (Week 15)
- Minor MBC repository restructuring to accommodate project-wide LCM types (Week 16)
- Reviewed proposal ideas (Week 18)
- Minor workspace reorg (Week 21)
- Some ROS research, install (Week 22)
- ROS tutorials (Week 23)
- Meeting with Open Robotics and Software/Controls team about FOA proposal (Week 24)
- ROS tutorials (Week 24)
- Enable processing on CANBus (Week 26)
- Improve CANBus options (Week 26)
- Addressed CANBus id configuration (Week 29)
- Team meeting (Week 29)
- Adding to the command suite (Week 34)
- Broadcast data from the various controllers over LCM (Week 34)
- Broadcasting logged controller data on LCM channels (Week 35)
- Implementing some new commands (Week 35)
- Install updates on target and test (Week 36)
- Tested and updated packet rate commands (Week 47)

901618 - Pelagic-Benthic Coupling

- Migrating Snappy project to version 5 of MPLAB. (Week 7)
- Visited MBARI to grab camera controller hardware (Week 17)
- Camera controller setup (Week 17)
- Planning controller development effort with team members (Week 18)
- Progress on camera controller - moving functionality from older to new microcontroller (Week 19)
- Nearly ready for testing with the lights and camera - when we return to campus (Week 19)
- Proposal meetings (Week 20)
- Camera controller code (Week 20)
    - Further refinement (Week 20)
    - Refactored (Week 20)
    - Created git repo (Week 20)
- Camera controller project (Week 21)
- SES acoustic comms (Week 21)
- Proposal abstract (Week 21)
- Acoustic modem automation and tools (Week 22)
- Acoustic comms tools (Week 23)
- Abstract and proposal stuff (Week 23)
- Collecting electronics and equipment for hand-off and return to MBARI (Week 24)
- Proposal discussions (Week 24)
- SES updates (Week 24)
- Detective work on last years SES mission failure (Week 26)
- Implemented solutions, awaiting opportunity to test (Week 26)
- Building utility to scan syslog for mission analysis (Week 26)
- SES acoustic modem work on campus (Week 29)
- SES tank test prep (Week 29)
- Team meeting (Week 29)
- SES MARS configuration prep and testing (Week 30)
- Lots of progress but some minor networking issues remain (Week 30)
- SES system microSD file system IO extremely slow during testing (Week 31)
- Causing intermittent reboots of the control board (Week 31)
- Spare will be installed ASAP (Week 31)
- MARS Tank Testing when MBARI reopens (Week 31)
- Installed spare system microSD card in controller to address flakey behavior (Week 32)
- Testing MARS configuration in test tank (Week 32)
- SES MARS configuration setup and test on the MARS Wet-node simulator (Week 33)
- Benthic Larvae In-situ Sampler (BLISS) setup and test (Week 33)
- Meeting (Week 33)
- Prep and mobilize for SES and BLISS deployments at MARS (Week 34)
- Tue and Wed on Carson at MARS (Week 34)
- Tuesday deployments of instruments went very well (Week 34)
- Recover BLISS Wednesday (Week 34)
- Variable speed SES carousel feature to minimize sample movement on the slide (Week 35)
- SES doesn’t seem to be collecting sediment at MARS - might be clogged (Week 35)
- SES may have a clogged sediment trap as no apparent sediment is being collected (Week 36)
- Continue to hold carousel in flow-thru position hoping clog will clear (Week 36)
- The trap seems clogged beyond the ability of the instrument to correct (Week 37)
- Plan is to use the Ventana to clear it (Week 37)
- Mission prep for SES (Week 38)
- Final 24-hr SES test on MARS after unclogging (Week 38)
- Coaching folks to run BLISS and SES missions for next weeks MARS deployment (Week 39)

- Examining results of final MARS mission (Week 41)
- SES prep for Sta.M deployment in 2 weeks. (Week 42)
- Found source of poor SES images in the liquid solution between the lenses (Week 42)
- Preparation for Sta.W cruise (Week 43)
- Mobilization (Week 43)
- SES acoustic comms development (Week 43)
- Annual Sta.M cruise started Tuesday. Great weather so far. (Week 44)
- Deployed SES and BLISS this AM. Rover will be recovered this afternoon. (Week 44)
- At Station M enjoying surprisingly great weather all week. Heading home today. (Week 45)
- Recovered Benthic Rover last Wednesday with a full year of operational data. (Week 45)
- Recovered and redeployed BLISS larvae sampler Saturday morning. (Week 45)
- Recovered Dual-Camera Tripod Saturday afternoon. (Week 45)
    - Many “stainless” hardware components on the mooring string showed signs of corrosion. (Week 45)
- Deployed Dual-Camera Tripod Monday morning. (Week 45)
    - Deployed without sediment traps because of unreliable hardware. (Week 45)
- Recovered Solo Camera Tripod Monday afternoon. (Week 45)
    - The window in the camera housing shattered on Sept 28, ending the mission. (Week 45)
    - Bringing the instrument home for upgrades and repair. (Week 45)
- Pieced together a sediment trap mooring with elements from both camera tripod moorings and deployed on Wednesday morning. (Week 45)
- Recovered BLISS larvae sampler. (Week 45)
    - Motor housing failed at depth before sampling had begun. (Week 45)
- Post-cruise unloading and data analysis (Week 46)
- Attempting to recreate the BLISS failure experienced at Sta.M here on shore (Week 49)
- Larval sampling system fault analysis (Week 51)

901800 - LRAUV Payload & Support

- Meeting to discuss updated LCM data vectors/matrices type (Week 10)
- Planning for auv-qnx CVS to git migration (Week 16)
- TRN LCM comms (Week 16)
- Discussing LCM interfacing with team members (Week 18)
- Design/implementation review of the lravuLcmType (fka DataMatrices) (Week 19)
- Part of the overall LRAUV interfacing strategy (Week 19)
- Good work, looking forward to using it on LRAUV TRN (Week 19)
- Data structure discussions (Week 21)
- LRAUV TRN with McEwen (Week 23)
- Working with McEwen on LRAUV TRN modules (LR-TRN) (Week 24)
- Mapping LRAUV data to TRN inputs (Week 24)
- Requirements/Design/Notes/Task document in Team Drive (Week 24)
- TRN LCM comms (Week 29)
- Met with Brett and Rob to discuss obstacle avoidance project (Week 30)
- Created source code structure and repo (Week 30)
- Working on Delta T parser module (Week 30)
- Imagenex Delta T driver ported from Dorado codebase to target Ubuntu system (Week 31)
- Ready for testing on target CPU with updated Linux beamformer (Week 31)
- Researching logging and configuration options (Week 31)
- Prototyping Obstacle Avoidance app (Week 31)
- Obstacle Avoidance (oahu) updates (Week 32)
- Data logging and syslogging (Week 32)
- Tested Delta T client app with Imagenex Windows beamformer (Week 32)
- Obstacle Avoidance DeltaT data logger (Week 33)

- Some small touches to DeltaT data logger (Week 34)
- Deployment soon after some integration with lab CPU (Week 34)
- Trying out the DeltaT logging application (Week 35)
- Developing beamformer external control for enhanced configuration options (Week 35)
- Supporting pontus obstacle avoidance mission (Week 36)
- Multibeam obstacle avoidance test runs (Week 37)
- Delta T logging updates (Week 38)
- TRN for LRAUV (Week 38)
- Rebooted the TRN application for the updated LCM types (Week 38)
- Integrating TRN into LRAUV using the updated lrauv-lcmtypes (Week 39)
- Obstacle avoidance updates (Week 39)
- Obstacle Avoidance (Week 43)
- Obstacle avoidance progress with Rob. (Week 44)
- Obstacle Avoidance code merge (Week 46)
- Discussed obstacle avoidance testing and development plans with Rob McEwen (Week 47)
- Adding DeltaT LCM channel (Week 47)
- Obstacle Avoidance work (Week 48)
- TRN server prep (Week 48)
- TRN server deployed and configured on both Tethys and Pontus (Week 49)
- Obstacle Avoidance app (Week 49)
- Obstacle Avoidance application (Week 50)
- TRN mission support (Week 50)
- Obstacle Avoidance application development (Week 51)
- TRN mission analysis (Week 51)

901807 - Next Gen Acoustic Dorado

- Analyzing i2MAP mission failure of Jan 08 and how bottom dredging can be avoided in the future (Week 7)
- Prep for offboard light switching (Week 10)
- CTD power issue (Week 10)
- Planning for auv-qnx CVS to git migration (Week 16)

901904.99 - Coral Camera System

- Camera controller setup (Week 17)
- Assembled camera controller development toolchain (Week 18)
- Minor improvements to reduce code size (Week 18)
- Camera controller (see Pelagic-Benthic above) (Week 19)
- See 901618 above (Week 20)
- Minor mods to Snappy (Week 22)
- Meeting to discuss progress and plans for camera integration (Week 24)
- Team meeting (Week 29)
- Meeting (Week 33)
- Weekly Meeting (Week 43)

Out of Office

- Thu Jan 30 - Wed Feb 5: Vacation, VPN access, PST
- Mon Feb 24 - Thu Feb 27: Vacation, VPN access, PST
- Thu March 26: Vacation, VPN access, PST
- Mon Mar 9 - Thu Mar 12: Vacation, VPN access, PST
- June 29 - July 6, vacation
- July 27 - July 31, vacation

- Beginning Friday!
- June 26 - July 6, vacation
- July 27 - July 31, vacation in PDT with email and networking
- This Week! July 27 - July 31, vacation in PDT with email and networking
- Oct 27 to Nov 5: WF cruise to Sta. M
- Aug 18 and 19: Carson cruise to MARS to deploy SES and BLISS
- Sept 23 - 29 Vacation, MDT timezone, limited comms
- Sept 23 - 29 Vacation, MDT timezone, spotty email-only
- Beginning next Wednesday, Sept 23 - 29 Vacation, MDT timezone, spotty email-only
- This week, Sept 23 - 30 vacation, MDT timezone, spotty email-only, returning Oct 1
- 14-day quarantine away from MBARI, allowed back on Oct 14 assuming no COVID issues

Overhead

- Performance review (Week 5)
- Watched some ERC proceedings (Week 10)
- Some overdue reorganization of everyday tools (e.g., editors) (Week 12)
- Gathered hardware for use during closure (Week 12)
- Training (Week 15)
- Training (Week 16)
- Training (Week 17)
- RDE meeting (Week 18)
- MBARI reopening input (Week 18)
- Training (Week 18)
- Training (Week 19)
- Training (Week 20)
- Reviewing back-to-work docs (Week 20)
- Visited MBARI for hardware (Week 21)
- Training (Week 21)
- Training (Week 23)
- Proposal input (Week 29)
- Division meeting (Week 29)
- Meetings and such (Week 31)
- Phase 1 resource balancing (Week 33)
- Meeting (Week 33)
- Workstation issues - Windows laptop does not mount external drives plugged into USB ports (Week 41)
- Division meeting (Week 44)
- COVID testing drama (Week 44)
- Prep for exclusive Work-From-Home (Week 51)