

Rich Henthorn Sorted By Project

300078 - DMO Divisional Support - AUV

- Experimentation driver/server arch (Week 1)
- Test build and run of code in repo (Week 3)
- Build latest repo and run simulation (Week 4)
- Got fastsim to run after setting env vars (Week 4)
- Used i2map.cfg for a mission (Week 4)
- Kickoff meeting of sorts with topics including merging and standardizing modules, simulation testing, repo branching model (Week 9)
- Shared-memory IPC mechanisms (Week 11)
- Migrate dev to local VM (Week 14)
- Build system and set up a TRN test (Week 14)
- Simulated test mission (Week 15)
- Build and test a mission using updated repos (Week 22)
- Support TRN tests on Carson at Portuguese Ledge (Week 25)
- Refinements to configuration file loading (Week 29)
- Working towards running simulations on dorado dev VM (Week 31)
- Porting various modules and drivers preparing for hardware testing (Week 36)
- CTD instruments, dvl, adaptive sampler, LOPC, CARL (Week 36)
- More dorado-auv-qnx modules ported to dorado-auv-linux (Week 37)
- Porting modules in Dorado code (Week 38)
- Ready for next phase after merge (Week 38)
- Met with team to discuss OTH comms (Week 39)
- How the Dorado system may be modified for remote missions (Week 39)
- Review pull requests (Week 40)
- Review PR from ET (Week 41)
- Research Simulator implementation (Week 41)
- Porting i2MAP post processing software to Windows for Midwater Ecology Lab (Week 43)

600034 - Precision Control Technologies for ROVs and AUVs

- TRN upgrades (Week 3)
- Looking at re-architecting a little to simplify the main TRN application (Week 4)
- Met with Rock and LRAUV team about TRN and CoNav (Week 6)
- Working on ingesting TRN data into front seat (Week 6)
- Setup spare Jetson board for use by LRAUV folks (Week 6)
- Data input to CoNav undergoing some change, will require some redesign (Week 6)
- Setup spare Nano for LRAUV lab use (Week 7)
- Rock visit with discussion of TRN progress on LRAUV, CoNav options (Week 9)
- Addressing some issues Rock is having with batch processing of TRN replays (Week 10)
- Scope work for remainder of 2023 (Week 26)
- Dorado simulation with mbtrnpp (Week 28)
- Proposal discussions (Week 28)
- Dorado simulation with mbtrnpp (Week 29)
- Reviewed CoNav and TRN comms and status (Week 31)
- Met with LRAUV SW dev team and Rock about TRN and CoNav work (Week 31)
- Agreed on short term work plan involving simulations and comms (Week 31)

- LRAUV sim with TRN (Week 32)
- Backseat computer needs backseat helper (Week 32)
- Efforts to get Gazebo sim running with TRN on BSC (Week 33)
- Dorado simulation mbtrnpp issue (Week 34)
- LCM networking issues between conduit and rastros (Week 34)
- mbtrnpp simulation interface (Week 35)
- Meet with Rock (Week 37)
- Issue with LCM communications between BSC and conduit (Week 38)
- Running gazebo simulation with TRN (Week 39)
- Meeting with Rock and LRAUV team about the way forward for TRN and CoNav (Week 40)
- Scoping auxiliary LCM streams to support CoNav simulation (Week 42)
- CoNav simulation prep (Week 43)
- Aux r&b emitter for LRAUV sim (Week 44)
- CoNav sim glue app (Week 45)
- Meet with Rock (Week 45)
- Met briefly with Rock (Week 46)
- CoNav (Week 46)
- Working on gazebo simulation (Week 48)
- Training session with Kieft (Week 48)
- LRAUV simulations with TRN and CoNav (Week 49)
- Simulating two vehicles with TRN and CoNav (Week 50)

705102 - Open Wave-E Control System

- Integrating logger for simulator (Week 15)

708167.51 - Option 3

901405 - PowerBuoy Development

- Prep for buoy sim TF controller implementation (Week 3)
- Prelim design of simulated Logger (Week 4)
- Design of trefoil and battery controllers (Week 4)
- Using 'buoy entypoint' docs to build simulation environment (Week 5)
- Implementing Logger for the buoy_sim (Week 6)
- Issues building the buoy_sim project (Week 6)
- Porting Logger to buoy sim platform for future use on target (Week 7)
- Successfully build the ROS/Gazebo buoy_sim project (Week 8)
- Integrating a Logger node (Week 8)
- sim_pblog - logger in buoy simulation (Week 9)
- Progress on the sim_pblog module for csv-logging of buoy simulation (Week 10)
- Implementing sim_pblog for buoy sim project (Week 11)
- Populating AHRS and Trefoil sections (Week 11)
- Cleared CI issues with sim_pblog (Week 12)
- Addressing epoch seconds issue with sim_pblog (Week 12)
- Simulation logging - passed baton to andermi for gazebo launch params and launch command (Week 13)
- Addressing issues as they come up (Week 13)
- Deployment prep (Week 15)
- Some renaming of the sim_pblog components (Week 17)
- Testing buoy-sim with logging (Week 18)
- Minor modifications to simulation logger (timestamps and unit conversion) (Week 19)
- Weekly meeting with OSRF (Week 20)

- Test sim_pblog updates (Week 20)
- Wrapping up the simulation logger (for now) (Week 21)
- Timestamps look good (Week 21)
- Last unit conversions to match real logger (Week 21)
- Checked on the buoy currently deployed in Monterey Bay (Week 22)
- Ocean Energy Webinar (Week 29)
- Checked the nav440_server for anomalies (Week 50)

901618 - Pelagic-Benthic Coupling

- Meeting (Week 3)
- Weekly meeting (Week 4)
- Investigating Rover and SES failures (Week 4)
- Weekly meeting (Week 5)
- Testing and addressing SES issues at the test tank (Week 5)
- New cable to address hall switch issue (Week 5)
- Tested new Rover MF modem burn wire electronics (Week 5)
- Rover MF modem remote burn code (Week 6)
- Rover optode issue seems to be resolved - fuse resistance cause fatal voltage drop (Week 6)
- Finished Rover optode issues and she is now stowed in the tin shed (Week 8)
- Benthos MF modem burn wire code issue resolved (Week 8)
- Rover lab cleaning (Week 10)
- Weekly Meeting (Week 11)
- Meeting to discuss remaining lab tasks (Week 12)

902305 - Event Detection using the Sedimentation Event Sensor

- Initial planning - electronics, expenses, software tools, etc. (Week 1)
- Meeting (Week 3)
- Planning Eng tasks (docs, reviews, etc) (Week 3)
- Meeting to discuss what image processing can be done onboard during a mission (Week 4)
- Some project planning (Week 4)
- Dev meetings to discuss requirements, reviews, early May deployment (Week 5)
- Firing-up spare SES stack for dev (Week 5)
- Setup spare stack for development (Week 6)
- Broke out the spare SES stack for development (Week 8)
- Spare stack dev (Week 9)
- Meeting - discussed May SES deployment (Week 10)
- Working on dev stack while SES is undergoing maintenance, prep for May deployment (Week 10)
- Tested reassembled SES for motor and fluorometer comms (Week 12)
- Weekly meeting (Week 13)
- Install python image processing tools on target (Week 13)
- Turns out we need to upgrade OS and main CPU board (Week 13)
- Ordered upgraded main processor CPU (7250-V3) (Week 13)
- Image analysis (Week 14)
- Test SES for upcoming deployment (Week 14)
- Preparations for MARS wet node simulator testing (Week 15)
- Acquire and setup next-gen control board (Week 15)
- SES MARS Wet-node Simulator Test Tank preparation and operation (Week 16)
- Results look good (Week 16)
- SES acoustic modem issues - serial communications from the modem (Week 17)
- Preparation for MARS deployment (Week 18)

- Mob for SES MARS deployment (Week 19)
- SES MARS deployment (Week 19)
- SES data processing (Week 19)
- Automating data extraction from SES while on MARS (Week 20)
- SES data pull from the weekend - functioning well (Week 21)
- Working on automated data pulls and processing (Week 21)
- TODO: Check-out Kent's xFOCE www system to provide web access to latest data (Week 21)
- SES data pulling during MARS deployment (Week 22)
- Data being synced to shore after each measurement (Week 22)
- Installing data transfer and processing scripts on SHORE server (Week 25)
- Prep Linux server pulse for data transfer and processing (Week 26)
- Port prototype processing scripts to Linux server and test (Week 26)
- Currently running SES science mission for month of July with data handled by pulse (Week 26)
- *Tuning SES data xfer and processing script (Week 27)*
- 2024 proposal (Week 27)
- Refining data-processing scripts (Week 28)
- Proposal discussion (Week 28)
- Modifications for periodic SES reference measurement (Week 29)
- Refinements to data processing SES on MARS (Week 29)
- SES and shore-side processing working well (Week 31)
- Processing adapted to the recent Atlas storage space issue (Week 31)
- Updating repo with newest software and scripts (Week 31)
- Acoustic modem quotes (Week 32)
- Sediment trap triggering (Week 32)
- SES data reviews (Week 32)
- SES mission on MARS - reset logs and restart mission (Week 33)
- Benthos modem spec, quote, and PO (Week 34)
- Telecon with McLane concerning adaptive sampling (Week 34)
- Acoustic modem purchase (Week 35)
- Project meeting (Week 35)
- Controller upgrade (Week 35)
- Reviewing recent MARS data (Week 36)
- Met with Paul Devine of Teledyne Marine about our recent modem purchase (Week 37)
- Offload latest data from SES on MARS, clear logs and restart mission (Week 37)
- Rotate logs and restart mission (Week 41)
- Recover SES scheduled for Oct 26 (Week 41)
- Prepared SES for MARS power disruption scheduled for today (Week 42)
- SES scheduled for recovery next Thursday the 26th (Week 42)
- Prep for next phase in new SES controller development (Week 42)
- SES recovered Tuesday Oct. 24 (Week 43)
- Opportunity arose due to winch issues while Carson was at MARS (Week 43)
- The lab team zoomed-in with tele-presence and accomplished what we needed (Week 43)
- Next gen SES controller (Week 44)
- Next gen controller (Week 45)
- Meeting with McLane about their TriggerTrap development (Week 46)
- Reduced boot time of main controller (Week 48)
- New controller stack - data storage (Week 49)
- Investigating fluorometer light issue - confirmed no issue (Week 50)

902306 - SINKER

- Dev meeting to discuss requirements and concepts (Week 5)

- Weekly Meeting (Week 13)
- Assembling dev environment - duplicating env from AyeRIS (Week 17)
- Tested with AyeRIS code (Week 17)
- Weekly meeting (Week 22)
- Dev kit (Week 22)
- Checking on new controller (Week 33)
- Dev meeting (Week 34)
- Camera control board testing (Week 34)
- Camera controller testing (Week 35)
- Issues with bootloader on camera control boards (Week 38)
- Programming camera board with integrated Moteino M0 (Week 39)
- Issues programming after burning bootloader (Week 39)
- Wrestling with camera board, bootloader (Week 40)
- Both bootloader and application needed to be built with CRYSTALLESS option (Week 40)
- Flipping switches on camera controller (Week 41)
- Writing camera controller app beginning with test and BIT program (Week 41)
- Camera controller software dev (Week 42)
- Camera controller development (Week 43)
- Camera controller dev (Week 44)
- Camera controller board testing (Week 45)
- Move into lab (Week 45)
- Dang camera controller testing (Week 46)
- Camera controller (Week 48)
- Testing at the test tank (Week 50)
- Wednesday test deployment on Ventana canceled due to crew sickness (Week 50)

Out of Office

- Jan 23 - 27: WFH, vacation, all-access, PDT
- Feb 13 - 17: WFH, vacation, all-access, PDT
- Jan 23 - 27: WFH (MWF), vacation (TuTh), all-access, PDT
- Feb 2 and 3: Some lingering appointments, WFH TBD
- Feb 13 - 17: WFH (MWF), vacation (TuTh), all-access, PDT
- Feb 2 and 3: I will be in and out of the office at various appointments, email access
- Feb 13 - 16: WFH (Tu), vacation (MWTh), all-access, PDT
- Feb 13 - 16: Vacation (MWTh), WFH (Tu), PDT
- Mar 13 - 16: Vacation (MWF), WFH (TuTh), PDT
- Feb 13 - 16: Vacation this week (MWTh), WFH (Tu), PDT
- June 29 - July 10: Vacation
- Mar 20 - 23: Vacation (TuTh), WFH (MW), PDT
- May 3: SES deployment near MARS node
- June 28: SES recovery near MARS node
- July 24 - 27: Vacation
- Apr 4 - 6: Vacation, WFH, PDT
- May 3 : SES deployment near MARS node
- May 8 : SES deployment near MARS node
- July 24 - Aug 3: Vacation, WFH
- May 8: SES deployment on MARS node
- June 1 - 9: Vacation
- April 12 - illness
- Apr 24 - 28: WFH, Wed and Thu vacation, VPN, email, and phone access
- July 31 - Aug 4: WFH

- May 15 and 17: appointments mornings only, onsite afternoons
- June 1 - 9: Vacation: available on email, Zoom, Slack, VPN, MDT timezone
- June 29 - July 7: Vacation/WFH: available on email, Zoom, Slack, VPN, PDT timezone
- July 24 - 27: Vacation: available on email, Slack, EDT timezone
- July 31 - Aug 4: WFH: available on email, Zoom, Slack, VPN, PDT timezone
- June 20 - Rachel Carson
- June 28 - Illness/WFH: available on all
- June 29 - July 7: Vacation/WFH: available on all, PDT timezone
- July 31 - Aug 4: WFH: available on all, PDT timezone
- June 29 - July 7: Vacation: available on all, PDT timezone
- July 24 - 27: Vacation: available on email, EDT timezone
- July 12: WFH, available on all, PDT timezone
- July 19: WFH, available on all, PDT timezone
- Sept 5 - 7: Remote work, PDT
- Aug 30: Afternoon appointment
- Oct 16 - 19: Remote work, PDT
- Sep 27 (today): Afternoon only for appointment
- Dec 18 - 28: Holidays
- Oct 26: Rachel Carson to MARS for SES
- Nov 2: Out
- Nov 2: Scheduled sick day
- Dec 13: Rachel Carson

Overhead

- Eng Meeting (Week 1)
- Workstation specs (Week 1)
- Review prep (Week 3)
- Annual Eval (Week 4)
- Re-eval of task management and documentation tools (Week 4)
- New workstation will require a new UID (Week 5)
- New UID necessitates updating other CPUs that access IS resources (Week 5)
- New computer setup and issues (Ubuntu NVIDIA drivers) (Week 6)
- Ubuntu MATE distro problematic with nvidia hardware, going with straight Ubuntu (Week 7)
- New computer setup (Week 8)
- MBARI Declared Emergency (Week 11)
- Director's Dialog (Week 12)
- Attempts to fix new computer (phantom) display issues (Week 12)
- Configuring phantom Ubuntu system for multiple displays (Week 13)
- Rec-Com (Week 14)
- Rec-com items (Week 15)
- Rec-com activity (Week 17)
- Rec-Com items (Week 18)
- Proposal season kickoff (Week 18)
- Engineering meeting (Week 19)
- DAS scoping meeting (Week 19)
- A pair of schedules appointments Mon and Tues mornings (Week 20)
- Rec-Com (Week 21)
- Seminars, DD, etc. (Week 25)
- Rec Com (Week 25)
- HR (Week 25)
- Proposals (Week 26)

- Illness (Week 26)
- Rec-Com (Week 28)
- Engineering meeting (Week 28)
- Rec Com (Week 29)
- HR (Week 29)
- Rec-Com (Week 32)
- Rec Com (Week 33)
- Rec Com (Week 34)
- R/V Packard project update (Week 34)
- Rec Com stuff (Week 35)
- Engineering Meeting (Week 37)
- Bike-to-Work Tuesday (Week 43)
- Health benefit changes (Week 43)
- Vanpools (Week 45)
- Rec-Com stuff (Week 46)
- GeoSense meeting (Week 49)
- Holiday auction (Week 49)
- Director's dialog, reception, silent auction (Week 50)