

# Mike Risi Sorted By Project

## 200105 - Core Navigation - MDUC

- Working on generic UDP input/output processes (Week 4)
- Finalizing process list for Doc Ricketts integration this Spring (Week 4)
- Implementing remaining Doc Ricketts processes for integration later this year (Week 5)
- Working on final configuration of system for navproc (Week 5)
- Started overlay process (Week 7)
- Review of new configuration setup for navproc (Week 7)
- Modifying some of the processes after doc-ricketts process changes (Week 7)
- Finishing up overlay process (Week 9)
- Working with Drew on trying to move some processes to UDP (Week 9)
- Compiling process configuration list for Doc Ricketts integration (Week 9)
- Working on getting Procman Sheriff running on Ubuntu 22 (Week 11)
- Working with Kevin on navproc-dpdk deployment configuration (Week 11)
- Procman Sheriff now working on Ubuntu 22 (Week 14)
- Working on configuration of Doc Ricketts NUCs for July install (Week 14)
- Completed Ricketts overlay process (Week 17)
- Working with Kevin G. on some Ubuntu 22 migration issues (Week 17)
- Working on a few remaining navproc processes (Week 19)
- Configuring navproc machines for R/V David Packard (Week 19)
- Working with Kevin on finalizing navproc process configuration (Week 19)
- Install of navproc in building D, currently interfaced to SMD control system (Week 20)
- Working on getting Digi terminal servers going in building D to start interfacing with ROV sensors and actuators (e.g. CTD, digiquartz, pan/tilt units, etc.) (Week 20)
- Deployed code up and running in building D (Week 24)
- Serial ports installed and functional (Week 24)
- Working with Drew B. to start plumbing in ROV serial instruments (Week 24)
- Logging and nightly downloads to be enabled as soon as data is available (Week 24)
- Finalized wind sensor process (Week 28)
- Installed 4K lapbox simulator for pan and tilt testing (Week 28)
- Working on finalizing the UHS process, final spec. still pending (Week 28)
- David Packard navproc updates after switch to new SMD control system NUCs (Week 30)
- Worked Helios simulator for ROS pan and tilts (Week 33)
- Completed HD lapbox process and tested with pan and tilts (Week 33)
- Fixed some pt-control bugs after testing with Helios pan and tilt simulator (Week 34)
- Developed TCP stream input/output processes for new David Packard terminal servers (Week 39)
- Working with Kevin on serial terminal testing (Week 39)

- Working on a few remaining processes for the David Packard (Week 41)
- Working on fix for Rachel Carson navproc GPS process failures to be installed during next maintenance period (Week 41)
- Planning navproc upgrade for Rachel Carson with Kevin (Week 43)
- Working on Rachel Carson processes for navproc upgrade (Week 43)
- Meeting with Kevin and Drew to work out installation details of new Digi terminal servers for David Packard (Week 43)
- Finalized all processes necessary for navproc 2.0 deployment on Rachel Carson, reviewing with Kevin G. (Week 46)
- Bringing up navproc machines for deployment of navproc 2.0 on the Rachel Carson this Spring 2025. (Week 46)
- Modified 4D Nav process for use on Rachel Carson and David Packard. (Week 46)

### 300062 - DMO Support - Doc Ricketts

- Met with Drew to discuss Doc Ricketts integration tasks occurring later this year (Week 5)
- Misc. pan and tilt support (Week 9)
- Working with Drew on navproc/Doc Ricketts setup in building D. (Week 9)
- Working with Karen on pan and tilt configuration and setup on Ricketts (Week 11)
- Working on pan and tilt testing on the ROV in building D (Week 14)
- Sending PT-25 pan and tilts to ROS for servicing and firmware upgrade (Week 14)
- Setting up navproc machines for Building D. deployment (Week 17)
- Misc pan and tilt support with ROS (Week 19)
- Working on external control interface for SMD control system (Week 33)
- Working with ROV pilots on McGregor winch interface for SMD control system (Week 34)
- Developing KPT-45 pan and tilt interface process (Week 39)
- Working with Drew on KPT-45 pan and tilt integration (Week 39)
- Finalized pan and tilt integration plan with Drew B. (Week 41)
- Developing KPT-45 pan and tilt interface process, waiting on KPT-45 for final testing and development. (Week 41)
- Helped Karen M. troubleshoot some Accupositioner pan and tilt problems (Week 43)

### 300070 - DMO Support - Ventana

- Support work for 4D Nav integration (Week 2)
- Worked with Andy to update lapbox firmware and get camera data reporting on Dataprobe (Week 11)
- Working with Kevin G. to incorporate 4K camera temperature into Dataprobe (Week 14)
- Applied updates for navproc machines during maintenance period (Week 17)
- Worked with Kevin G. to cutover to 4D Nav, Wifrog is officially retired on the Rachel Carson (Week 17)

## 701147 - MARS O&M IV

- MARS meeting (Week 7)

## 701147.99 - MARS IV Node Upgrade

## 901101 - Seafloor Mapping

- Kickoff meeting for LASS development (Week 2)
- Trigger board revC design review (Week 7)
- Working on firmware changes for trigger board revC (Week 7)
- Adding configurable IP settings to rev C. trigger board (Week 9)
- Finished integration and test of BME280 for trigger board (Week 9)
- Working on trigger board revC firmware changes when time permits (Week 11)
- Trigger board rev-c firmware nearing completion (Week 14)
- Working on GUI updates for rev-c firmware and environmental warnings (Week 14)
- Continuing GUI changes for rev-c trigger boards (Week 17)
- First cut of trigger board firmware for rev-c is complete, waiting for hardware (Week 17)
- LASS planning meeting (Week 19)
- Completed first cut of GUI for rev-c trigger board (Week 19)
- Working on bridge to bring GSS control system data into LASS (Week 19)
- Working with Chad on bring up of rev-c trigger board stack (Week 20)
- Miscellaneous BME280 sensor work WRT the LASS trigger board (Week 24)
- Trigger board firmware finalized (Week 28)
- Trigger board user interface completed and deployed on TCU and Euler (Week 28)
- Meeting with LASS team to scope 2025 development efforts (Week 28)
- Procman GUI testing with Ubuntu 24 (Week 28)
- Testing for rev. D trigger board (Week 30)
- Working on gss-telem-bridge for August 27th cruise (Week 30)
- Started LASS control system refactoring (Week 30)
- Working on LASS control system refactoring (Week 33)
- Finished gss-telem-bridge and tested on Rachel Carson (Week 33)
- Continuing work on new LASS control system (Week 34)
- Working on LASS tank testing in preparation for next week's cruise (Week 34)
- More testing/fixes of gss-telem-bridge and mbari-effort-repeater for next week (Week 34)
- Prototyping LASS control GUI (Week 39)
- Continuing work on new LASS control system (Week 39)
- Continuing work on new LASS control system (Week 41)
- Working on test for RP2350 TCP/IP communications (Week 41)
- Prototyped RP2040 interprocessor communications for new trigger board (Week 41)
- Working with Chad on prototyping timerblox sections of new trigger board (Week 41)
- Continuing work on new LASS control system (Week 43)
- Developed trigger board prototype firmware for the RP2350 (Week 43)
- Continuing to iterate on new trigger board design with Chad (Week 43)

- Developed two different prototypes for trigger generation on LASS sled, planning review with LASS team. (Week 46)

## 902204 - Scalable Robotics

- Preparing for January 18th cruise (Week 2)
- Developed Sprint INS LCM driver (Week 2)
- Preparing for February 9th cruise (Week 4)
- Modifying Sprint INS LCM driver for serial interface (Week 4)
- Tested Sprint INS serial driver on Ventana using GSS port with LNav message (Week 5)
- Reviewed logs from January 18th and modified rov-control to address scripting issues (Week 5)
- Met with Sebastian to review rov-control changes and deployment configuration for February 9th (Week 5)
- Working on deployment folder for August 6th cruise (Week 28)
- Tested August 6th deployment config on Ventana and SPRINT INS serial interface (Week 30)
- Helped with August 8th cruise deployment (Week 33)

## 902312 - Seafloor Processes

### 902405 - Precision Control Technologies

- Meeting with Steve Rock for obstacle avoidance task (Week 2)
- Meeting with Steve and some administrative tasks (Week 7)
- Finalizing contractors agreement (Week 9)
- Working on sonar simulation for obstacle avoidance (Week 19)
- Continuing work on sonar simulation for obstacle avoidance (Week 20)
- Sorted out sonar mounting issue with Steve Rock (Week 24)
- Working on process to simulate DeltaT data at Portuguese Ledge (Week 24)
- First cut of simulated sonar working (Week 28)
- Performed some simulated runs at constant depth using Portuguese Ledge octree map (Week 28)
- Proposal input for 2025 (Week 28)
- Producing simulated Delta-t LCM data of Portuguese Ledge (Week 30)
- Working on tool to process Delta-t sonar LCM data in real-time (Week 30)
- Cleaned up sonar simulator and added startup instructions for simulation. (Week 46)
- Working on a simulation logger to generate matlab friendly output files. (Week 46)

## Out of Office

- Out of office on Fridays
- March 4 - March 8, 2024
- January 16 - January 19, 2024
- May 20 - May 24, 2024

- Offsite on Tuesday and Friday
- February 22, 2024
- March 4 - March 8, 2024 - vacation
- April 24, 2024 - vacation
- May 20 - May 24, 2024 - vacation
- June 17 - June 18, 2024 - vacation
- September 3 - September 9, 2024 - vacation
- November 6- November 7, 2024 - vacation
- November 26 - November 27, 2024 - vacation
- December 30 - January 3, 2025 - vacation

## Overhead

- Linux and HDD upgrade on workstation (Week 14)