

Mike Risi Sorted By Project

200105 - Core Navigation Data - MDUC

- sprint review of single LCM type (Week 3)
- starting sprint for new Doc Ricketts UDP interface (Week 3)
- Sprint meetings and reviews (Week 5)
- Developing of interfaces for Doc Ricketts telemetry system upgrade (Week 5)
- Working on framework modifications to accommodate the single LCM type. (Week 9)
- Modifying framework to eliminate direct LCM dependencies and make it more middle-ware agnostic. (Week 9)
- Continuing to develop the Doc Ricketts navproc interface processes for SMD visit in March. (Week 9)
- Continuing working on single LCM type modifications to framework. (Week 12)
- Completed Doc Ricketts navproc interface processes for SMD visit now scheduled for April. (Week 12)
- Working on single LCM type modifications to navroc framework (Week 14)
- The first cut of the navproc framework is done. (Week 18)
- Development of the various data acquisition processes that use the framework has begun. (Week 18)
- Continuing work on data acquisition for the R/V David Packard and Doc Ricketts. (Week 24)
- Working on porting the Doc Ricketts interface code to use the new framework. (Week 24)
- Finished conversion of Octans and serial interface processes to Navproc Framework. (Week 28)
- Continuing conversion of Doc Ricketts interface code to Navproc Framework. (Week 28)
- Worked on input for the 2024 proposal. (Week 28)
- Looking into <https://github.com/OceanDataTools/openrvdas> for full speed data logging on the R/V David Packard. (Week 28)
- Finished conversion of Doc Ricketts interface code to Navproc Framework. (Week 32)
- Starting NMEA GPS and digiquartz drivers to Navproc Framework. (Week 32)
- Converted more processes to the Navproc Framework. (Week 37)
- Developed a 4K lap-box simulator for navproc process development and testing of viewing system changes. (Week 37)
- Reviewed completed processes for David Packard with Kevin G. (Week 42)
- Working on ROV UHS process based on preliminary specification (Week 42)
- Implemented ROV UHS process and basic simulator based on preliminary specification from MacGregor. (Week 45)
- Working on console based debugging tools for navproc messages. (Week 45)

300062 - DMO Divisional Support - Doc Ricketts

- Meeting for Ricketts telemetry system upgrade and preparing for SMD visit at end of February (Week 5)
- Started looking into AccuPositioner pan and tilt protocol. (Week 9)
- Working on navproc interface to Doc Ricketts with SMD. Everything appears to be working fine, just chasing down one small latency issue with the external control interface. (Week 18)
- Tested the Doc Ricketts interface code with John E. from SMD. After resolving a few small bugs everything is working and all of the changes have been committed to bitbucket. (Week 24)
- Working on interface for new Accupositioner pan and tilt units. (Week 32)
- Starting to test the interface for IMENCO down looking pan and tilt camera. (Week 32)
- Started libVISCA lite for ROS Accuposition pan and tilts. (Week 37)
- Looking into control protocol for new down looking camera. (Week 37)
- Converted one of the Accupositioners to the ROS Helios protocol after discussions with Drew B. (Week 42)
- Continuing testing and driver development for Accupositioner. (Week 42)
- Working with Drew on misc. control room integration issues. (Week 45)

- Looking into firmware upgrades for PT-25 pan and tilts. (Week 45)

300070 - DMO Divisional Support - Ventana

- Working with DJ on Octans upgrade for Ventana, will start driver development when the protocol selection has been finalized. (Week 9)
- Added a process to navproc to send GPS data to the newly installed Octans gyro. (Week 18)

300079 - DMO Divisional Support - Rachel Carson

- Helped debug issue with ships GPS after shipyard. (Week 12)
- Performed navproc update after Rachel Carson returned from shipyard. (Week 12)

600034 - Precision Control Technologies for ROVs and AUVs

- Changes to mwt-control to accommodate update to MiniROV status topic (Week 14)
- Meetings with Steve Rock on 2024 proposal. (Week 24)
- Meeting to discuss the development of Real-time 3D topography model for obstacle avoidance and path planning of autonomous vehicles. (Week 28)
- Worked on input for the 2024 proposal. (Week 28)

701147 - MARS O&M IV

- reviewed code for MARS MVC serial monitor (Week 3)
- Meetings with Dave French to capture MARS operational procedures before his last day (Week 14)
- Met with Duane Thompson to go over MVC environmental monitoring board (Week 14)

701147.99 - MARS IV Node Upgrade

901101 - Seafloor Mapping

- Trigger board 2.0 meeting (Week 5)
- Worked with Chad to diagnose and hopefully fixed the lockup problem with the trigger board microcontroller. (Week 9)
- Working with Chad and James on trigger board 2.0 prototype. (Week 9)
- Started updating code for trigger board 2.0 prototype, looking into trigger pulse generation options for RP2040. (Week 12)
- Tested the sled with Eric and Chad in preparation for the May 10-12 LASS expedition. (Week 18)
- Attended design review for the LASS trigger board 2.0 design. Working with Chad on some of the changes incorporated from the review. (Week 18)
- Reviewed final schematics of the LASS trigger board 2.0 before layout. (Week 24)
- Implemented test code for all of the new hardware on the trigger test board. (Week 24)
- Started developing LASS trigger board 2.0 firmware. (Week 24)
- Participated in a successful three day cruise series of the LASS using Ventana. (Week 24)
- Continuing development of LASS Trigger Board 2.0 firmware when time permits. (Week 28)
- Worked on LASS Trigger Board 2.0 bring up with Chad. (Week 32)
- Finished I/O and trigger changes LASS Trigger Board 2.0 for October cruise. (Week 32)
- WiSSL 2.0 design review (Week 32)
- Worked with Chad on in-system bring up of Trigger Board 2.0 and test. (Week 37)
- Updated Trigger board GUI to accommodate new relays and trigger pulse output. (Week 37)
- Misc. debugging for LASS Trigger Board 2.0 firmware and update to calibration for environmental sensors. (Week 37)
- Misc. trigger board testing and LASS MOB (Week 42)

- Participated in 3 day cruise series to sponge ridge with LASS (Week 42)
- Starting to work on a new driver for Octans IX.blue format on Ventana. (Week 45)
- Working with Andrew and Adriana IEEE 1588 access on David Packard. (Week 45)
- Working with Chad on debugging one of the rev. b trigger board stacks. (Week 45)
- Rev. b trigger board firmware changes to accommodate user configurable parameters and MAC address. (Week 45)

902204 - Scalable Robotics

- lab kickoff meeting (Week 3)
- RRE hiring committee meeting (Week 3)
- started sprints for LCM types, mola control and logging all data (Week 3)
- Updating imaging logging for flir-mola (Week 5)
- Installed mola update for high rate depth measurement and tested on bench (Week 5)
- Porting existing mola applications to use CoMPAS LCM types new_standard_wip (Week 5)
- Working on control interface for lcm-mola using CoMPAS LCM types new_standard_wip (Week 5)
- Working with Kent, Giancarlo, Sebastian and Bastian to standardize CoMPAS LCM types and make them more compatible with ROS2. (Week 9)
- Refactored lcm-mola, flir-mola and frame-grabber to accommodate LCM type changes as necessary. (Week 9)
- Meetings and interviews for CoMPAS RRE position. (Week 9)
- Developed driver for WaterLinked A125 DVL. (Week 12)
- Performed final interviews for CoMPAS RRE position. (Week 12)
- Refactored lcm-mola, flir-mola and frame-grabber to accommodate LCM type changes as necessary. (Week 12)
- Modified rov-mini-intfc to accommodate VectorNav AHRS and WaterLinked DVL instruments. (Week 12)
- Adding scripting to RovControl for April Fulmar cruises. (Week 12)
- Completed testing and modifications to WaterLinked DVL driver during tank testing (Week 14)
- Completed RovControl scripting and tested in tank (Week 14)
- Helped with Sonar logging setup on Ventana (Week 14)
- Tank testing of CoMPAS sled with rov-mini-intfc changes (Week 14)
- Made some small changes to RovControl scripting during tank testing. A bug was discovered in the mission scripting during the April cruise series on the Fulmar that I'm looking into. (Week 18)
- Added a logging directory to the frame grabber program to make it more consistent with flir-mola. (Week 18)
- Modified the Octans publisher on LASS to publish the senlcm::imu_t type. (Week 18)
- Small changes to LCM serial bridge to accommodate message timeouts. (Week 24)
- Meetings to discuss CoMPAS control system development. (Week 24)
- Working on synchronizing GigE stereo cameras using IEEE 1588 protocol. (Week 37)
- Support for LASS cruise series (Week 42)
- Misc support and control system testing for new MiniROV sled (Week 42)
- Developed application to capture stereo images from GigE cameras on MiniROV sled (Week 42)
- Looking into a work around for lack of Procman support on Ubuntu 22.04 on Atuncita (Week 42)

Out of Office

- Out of office on Fridays
- May 30 - June 6
- August 21
- September 5 - September 7
- March 4 - March 8, 2024
- November 20 - 23, 2023
- November 20 - November 23
- December 19 - December 22

- December 26

Overhead

- performance review (Week 3)
- Participated in multiple interviews for the Software EAD position. (Week 24)
- Participated in proposal related activities and meetings. (Week 28)