

Brent Roman

Week 52

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - March 8-15 visiting my dad in Sarasota, FL

Week 51

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - Surveyor returned from Mendocino Monday.
 - Could not replicate problems we had with bubbles in intake last time.
- 708165 - NOAA-MERHAB
 - Contributing my little bits to their new proposal document
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Helping Nadia bring up a couple new ESP 3G portable units
 - Added convenient methods to derive wiring tables from software network configuration
 - Participated in call with Bad Wolf software consulting on REDI-net implementation
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - OceanComm has the modems again
 - They say logging failure was caused by a bad SDcard in one of the modems
 - They are replacing and shipping them back
- Overhead
- Out of Office
 - March 8-15 visiting my dad in Sarasota, FL

Week 50

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - Sampler has been working well on Surveyor, which is returning to Alameda shortly.
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Trouble with NOAA GLERL recent deployments appears to be due to cell comms failure

- My current theory is that a wire in the telebuoy tether broke.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - First sea trial did not go well. LRAUV's mass shifter jammed and Oceancomm modems could not transfer more than a couple pings. Waveglider did manage to track LRAUV.
 - Shipped modems back to OceanComm for analysis of internal logs
 - When modems are returned, I will test them by deploying off a pier.
- Overhead
- Out of Office
 - March 8-15 visiting my dad in Sarasota, FL

Week 49

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Helped Nadia re-installed ESP into Saildrone Surveyor
 - Met with Birch, Gomes and Jensen to discuss ESP sampler project kickoff
 - Still working with NOAA GLERL to replicate their ESP comms failures
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Streamed video between pair of H150 modems in Test Tank
 - Worked with Hobson and Wahl to arrange LRAUV and Waveglider
 - Test deployment scheduled for 12/9/22 – 12/12/22
- Overhead
- Out of Office

Week 48

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - Helped Preston and Nadia diagnose MV3 failure on Surveyor
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Participated in NOAA GLERL telecon to discuss how to support their 2G ESPs better
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Received pair of H150 modems and arranged payment of annual leasing fee
 - Failed at getting them to run in a bucket or large lab basin 😞
 - Managed to get reliable video transfer in the test tank with very careful positioning of transducers.
- Overhead
- Out of Office

Week 47

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK

- Worked with Chris Preston to enable scheduling of samples every other day or week, etc.
- 708165 - NOAA-MERHAB
 - Supported Nadia's visit to NOAA Fisheries Seattle to convert 2 ESPs to short pucks
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Used gstreamer to make LRAUV video feed available on the MBARI web
- Overhead
- Out of Office

Week 46

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 45

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
 - Review materials for their 2023 season
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Continued testing with updated ESP 3G firmware looks good
 - Preston discovered bug in Ruby event schedule caused by pressing Control-C
 - At a very inopportune time.
 - Added Exception deferral to better manage this
 - Creating stress tester for the Ruby event scheduler
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 44

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - It's back and looks good. Working with Preston to replicate some transient failures we saw during the transit. Suspect these were due to sudden pitching or rolling of Surveyor in storms.
- 708165 - NOAA-MERHAB
 - Investigating transient failures due to trying to step back in time a few tenths of seconds.
- 708175 - CIMAS eAUV III

- 901205 - SURF Center
 - Meet with crew to discuss "Readi-Net"
 - Much of the trouble I'd been having with ESP gateway firmware rewrite appears to have been due to early serial interrupts from Linux host during gateway initialization. Latest version seems solid. Bill Ussler is set to test it.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Load agreements in place, money allocated, Vehicles supposedly available for early December test. Fingers crossed...
- Overhead
- Out of Office

Week 43

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 42

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Looking into a couple odd, minor, transitory bugs that occurred during this season's deployments
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Still on track for a test deployment of Video Streaming from LRAUV in early December.
 - Oceancomm claims they will deliver modems before end of November
- Overhead
 - Contributed series of patches to get Armbian up and running on tiny \$30 IOT Linux boards (<https://www.armbian.com/rockpi-s/>)
- Out of Office

Week 41

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
 - A couple odd software glitches marred an otherwise excellent 9-wk deployment
 - Plan to look into them when we have ESPfriday back in the NOAA Fisheries lab
- 708175 - CIMAS eAUV III
- 901205 - SURF Center

- Mad scramble to deploy ESPmv1 for CANON resulted in replacing most of its electronics
 - Trouble with its Intake valve early on has mysteriously corrected itself. We'll see...
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Lined up LRAUV and Waveglider for test after Thanksgiving
 - Got approval to pay Oceancomm in 2022 so we could get modems by then
 - Confirming with Oceancomm that they can, indeed, deliver in time.
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 40

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Working with Preston and Jensen to diagnose myriad electrical problems on ESPmv1
 - Ended up replacing almost all boards
 - Found and fixed firmware bug preventing in situ updates when ≥ 5 elves on I2C bus.
 - I2C clock was being momentarily pulled up by elves as they booted.
 - Added facility to periodically pause sampling to retare pressure sensor
 - To cope with mv1 sensor's significant drift
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Wahl and Hobson established we have vehicles for test in early December.
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 39

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 38

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III

- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 37

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 36

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 35

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 34

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen

- 708179 - Saildrone AK
 - Rogue DHCP server was confusing ESP, so disabled DHCP client.
 - ESPserver's banIP service erroneously blocked Surveyor's Iridium IP
 - Todd Ruston helped temporarily disabled banIP
- 708165 - NOAA-MERHAB
 - ESPFriday's forearm actuator is failing – probably mechanical slippage
 - Patched with hacks to rehome Forearm after any failure
 - Seems to be working again, for now.
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
 - Working with Preston and Ussler diagnose sampling trouble on ESPhonu
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Sept 6 through roughly Sept 16

Week 33

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 26 through roughly August 26

Week 32

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 26 through roughly August 26

Week 31

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center

- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 26 through roughly August 26

Week 30

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 26 through roughly August 26

Week 29

- 706005 - eDNA Grass Carp Sandusky
 - Scott Jensen and Jim Birch ESPgordon and ESPwaldo on the Snake River in Montana. First samples looking good.
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - Half way to AK. We've not tried taking a sample yet.
- 708165 - NOAA-MERHAB
 - Lots of support of Stephanie Moore's deployments of ESPfriday and ESPeddie of La Push, WA
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Supporting Nadia in her efforts to measure the thermal properties of the new cartridges
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 26 through roughly August 26

Week 28

- 706005 - eDNA Grass Carp Sandusky
 - Supported deployment of ESPgordon and ESPwaldo at Snake River
- 708143 - ECOHAB - Andy Allen
- 708179 - Saildrone AK
 - Discovered that IP packet MTU must be reduced to from 1420 to 1376 bytes
 - Why suddenly now?
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Supported Nadia in her ongoing struggle to make cartridge heating sufficiently uniform
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi

- Wrote and submitted proposal
- Overhead
- Out of Office
 - July 21 through roughly August 21

Week 27

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 21 through roughly August 21

Week 26

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - July 21 through roughly August 21

Week 25

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
 - Surveyor still in port at Alameda
- 708165 - NOAA-MERHAB
 - They have one more sample and not much battery energy left
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Finally Switched from 32-bit to 64-bit Linux
 - Choose embedded Open Source OS “RIOT” for new ESP Sampler development
 - Playing with STM32 Nucleo dev board
 - Convinced Function to remove the divot from the cartridge backing plate
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Postponed next test until November/December
- Overhead
- Out of Office
 - July 21 through roughly August 21

Week 24

- 706005 - eDNA Grass Carp Sandusky
 - Tweaked sampling schedule again
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
 - Got comms back. Reduced console baud rate to 9600. Surveyor still in port at Alameda.
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Working with Scott Jensen on microcontroller for new ESP sampler. Ordered a couple protoboards.
 - Evaluating various RTOS's for ESP sampler. Leaning towards RIOT
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Planned deployment last week canceled.
 - Finally got pricing for OceanComm's subscription model
 - Continuing to work on next year's proposal.
- Overhead
 - Finally switching my Linux development environment from 32 to 64-bits.
- Out of Office
 - June 19th
 - July 21 through roughly August 21

Week 23

- 706005 - eDNA Grass Carp Sandusky
 - Updated Daily mission framework to allow changing start time of next phase
- 708143 - ECOHAB - Andy Allen
 - Ussler reports code for evaluating SPR results in real-time seems to be working
- 708146 - Saildrone
 - Surveyor still in Alameda. ESPmv3 loaded and ready for it to depart.
- 708165 - NOAA-MERHAB
 - Discovered that external pump flow rate is not being reported correctly by can
 - But it is correct in the logs (alerted NOAA so we can replicate in their lab)
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Finished last of the seven 2hr ESP training sessions via Zoom
 - Google disabled Gmail login for ESPs yesterday
 - Disabled user chosen passwords for 3rd-party apps
 - Switched to one of their generated passwords
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - OceanComm sent me their updated lease agreement.
 - Still negotiating the "special conditions" therein.
- Overhead
- Out of Office
 - July 21 through roughly August 21

Week 22

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone

- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Thanked and Excuses from Jury Duty last Friday afternoon.

Week 21

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Thanked and Excuses from Jury Duty last Friday afternoon.

Week 20

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Thanked and Excuses from Jury Duty last Friday afternoon.

Week 19

- 706005 - eDNA Grass Carp Sandusky
 - Worked with Kevan to add ability to change sampling schedule while mission runs.
- 708143 - ECOHAB - Andy Allen
 - Worked with team to ready MV1
- 708146 - Saildrone
 - Just got stable satcomms to the “brain box” left on Surveyor yesterday.
- 708165 - NOAA-MERHAB
 - ESPeddie still deployed off La Push, WA. Working perfectly.
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Had to revert to older ESP gateway firmware after discovering weird crash bug in version that includes ability to be reflashed in place. Bummer.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi

- Met with Brett, Chris Wahl and Brian Kieft to schedule next test deployment for mid-June
- Wrote 1st draft of abstract for project extension.
- Overhead
- Out of Office
 - Thanked and Excuses from Jury Duty last Friday afternoon.

Week 18

- 706005 - eDNA Grass Carp Sandusky
 - Help Kevan alter mission sampling schedule on the fly (two per day and sunrise+1hr and +2hr)
- 708143 - ECOHAB - Andy Allen
 - Updated firmware for the ECOHAB ESPs. Discovered an intermittent crash bug in the new Gateway firmware. Reverted back to an earlier version. Will have to investigate later.
 - Added support for new "Toxicant" valve to send bleach out ESP's exhaust port.
 - Worked with Ussler, Kieft and Rueda to design and implement a method of summarizing SPR runs on the ESP in a form suitable for uploading acoustically.
- 708146 - Saildrone
 - Installed ESP brain to ride along on Surveyor's shakedown cruise this week.
 - Surveyor was supposed to leave Monday, but seems to still be in port.
- 708165 - NOAA-MERHAB
 - Supporting Stephanie Moore as she preps their two ESPs for deployment
 - ESPeddie deployed off La Push, WA
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Frustrated by MBARI-Staff network's WiFi flakiness.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office
 - Jury Duty at SC Court since Monday

Week 17

- 706005 - eDNA Grass Carp Sandusky
 - Investigated why sample volumes are low – seems just to be due to turbidity.
- 708143 - ECOHAB - Andy Allen
 - Worked with Bill Ussler to have ESP produce an SPR results summary
- 708146 - Saildrone
 - Visited to install ESP test "brain" and verify satcomms are working
 - Working with Doug and Scott to build a watertight ESP "brain" to ride along on next week sea trial
 - Worked with Saildrone to conform to their Ethernet connector standard
- 708165 - NOAA-MERHAB
 - Ongoing support of NWFSC's upcoming deployments
 - Fixed bug that arose due to firmware update that added Ah sensor
 - Old real.log file was confusing the dumplog utility
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - 2 stepper motor connectors had ripped off Elf boards on ESPtower
 - disssabled , replaced damaged boards, updated all firmware
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead

- Out of Office

Week 16

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 15

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 14

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 13

- 706005 - eDNA Grass Carp Sandusky
 - Switched over from separate router to plugging cellular modem directly into ESPs ARM processor
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
 - Shipped Step a dongle so NOAA Fisheries can update their 2G ESP's gateway firmware
 - Before upcoming May deployment.
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Working toward enabling in-situ updates of ESP 3G's STM32 gateway microcontroller

- Goal is to allow complete remote firmware updates of ESP
- ESP 2G training course to start in mid-May
- Rescued another old MacBook Pro from the dumpster
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 12

- 706005 - eDNA Grass Carp Sandusky
 - Tested new reagent tracking code by simulating Kevan's missions
 - Discovered bug where "quick" mode was skipping sampling syringe strokes
 - Updated ESPwaldo to latest ESPlinux
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Added feature where SPR stays "on" for 10 minutes after any protocol error for Ussler
 - After numerous position errors, determined that Honu had been reassembled
 - Worked with Ussler to tweak syringe positions for the new build
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 11

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 10

- 706005 - eDNA Grass Carp Sandusky
 - Cobbled together a travel router for use in solar powered JobBox
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Added ability to track fluids into and out of 2G pucks
 - Added ability to simulate pressure in fluid containers
 - Worked with Kevan to test fluid tracking against WCR protocol on ESPwaldo
- DQ1971 - PCM/HAB Lake Erie

- 901913 - WetWiFi
- Overhead
- Out of Office

Week 9

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 8

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Completed new fluid volume tracking module for ESP 2G
 - Working with science types to verify estimate volumes are accurate
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 7

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Adding reagent volume tracking to core ESP Ruby software
 - Participated in initial telecon regarding ESPs on IBM's "Mayflower" autonomous boat
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
- Overhead
- Out of Office

Week 6

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB

- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Working on code to track volume of reagents consumed and waste produced
 - Implemented method returning reagent bag connected to specified syringe
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - First test deployment last Thursday produced real-time video streams from 90 meters
 - Only a minute or so as a time because Waveglider and AUV were not tracking
 - Returned modems to Oceancomm for firmware update and log evaluation
 - Next try, with tracking, tentatively scheduled for late March
- Overhead
- Out of Office

Week 5

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Found and fixed old bug in 3G ESP firmware that was causing it to crash occasionally after recent code simplification.
 - Bug was causing a thread to be woken prematurely.
 - Helped Nadia test and debug Gripper issues on ESPbetty.
 - Working on adding the ability to track reagent use to better estimate volumes required for 2G missions.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Transmitted video from LRAUV to Waveglider in MBARI test tank.
 - Deployed Waveglider Hansen and LRAUV Tethys to Portuguese Ridge
 - Successfully streamed 640x480 15fps color video from Tethys 60meters below Hansen!!
 - Biggest challenge is keeping LRAUV within the 120 degree cones of the H150's acoustic transducers.
 - OceanComm claims the modems max range is 300m. We'd like to verify this.
- Overhead
- Out of Office

Week 4

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Supporting Nadia in her efforts to bring up ESPhonu, ESPbetty and ESPwaldo
 - Testing up updated ESP3G firmware looked good, until I discovered a flakey crash bug :-(
 - Now appears that was caused by assuming chips had 2x the RAM they actually do.
 - Testing continues ...
 - New firmware framework allows for remote code updates.
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi

- Got commitment to extend project funding through early 2022
- Still waiting on LRAUV availability – maybe next week ?
- Overhead
- Out of Office

Week 3

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
 - Rewrote ESP 3G “core” Elf microcontroller firmware to allow remote reflashing.
 - Helping with initial cleaning and chemistry tests on ESPbetty.
 - Participating in evaluating thermal design tradeoffs for “Function” 3G cartridges
- DQ1971 - PCM/HAB Lake Erie
- 901913 - WetWiFi
 - Extended equipment loan through end of February
 - Verified BadWolf video encoder can act as FTP server
 - First test deployment with LRAUV and Waveglider scheduled for next week
- Overhead
- Out of Office

Week 2

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- Overhead
- Out of Office

Week 1

- 706005 - eDNA Grass Carp Sandusky
- 708143 - ECOHAB - Andy Allen
- 708146 - Saildrone
- 708165 - NOAA-MERHAB
- 708175 - CIMAS eAUV III
- 901205 - SURF Center
- DQ1971 - PCM/HAB Lake Erie
- Overhead
- Out of Office