

Brent Roman

Week 53

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 52

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 51

- 901205 - ESP SURF Center
 - Worked with Doug Pargett to test temperature probes in Function's "alpha1" prototype cartridge
 - Added code to support the "Frankentower" deep sampling ESP3G lab prototype
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Resurrected the GoMex satcomms off ESPmoe for testing in my home office
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
 - Moved more MBARI equipment to my home
- Out of Office

Week 50

- 901205 - ESP SURF Center
 - Helped Dack with en masse file name renaming on ESP share
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Worked with Dack to remove cabling from moribund ESPmoe to test Iridium link
- DQ1870 - NOAA Merhab

- DQ1904 - NOPP Saildrone
 - Delivered ESPkoa to Alameda for one day of testing
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 49

- 901205 - ESP SURF Center
 - Continuing support of WHOI
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Test fit ESPkoa onto Saildrone's 60ft long "Surveyor"
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 48

- 901205 - ESP SURF Center
 - Found and fixed a bug in 3G syringe pressure servo (for Chris Preston)
 - Looking into a suspected problem with EEPROM data management on 3G Lysis Cartridges
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 47

- 901205 - ESP SURF Center
 - TU Denmark's ESP deployment off Norway was successful. They are waiting to recover.
 - WHOI's ESP at Bowdoin College failed due to puck misalignment
 - Recovered by tweaking the alignment remotely. It's been working for the last 5 days.
 - Working with Chris Preston on optimizing 3G puck heating for lysis cartridges
 - Looks like we're going to need unique heat loss curves for each heater board :-)
- 901913 - Wet Wifi
 - Made OceanComm aware of more Waveglider modem mounting options.
- DQ1865 - Bryde Whale
 - Started disassembling ESPmoe for its retirement after corrosion damage
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 46

- 901205 - ESP SURF Center
 - Fixed bug Chris Preston identified in ESP 3G puck heating code.
 - Patched bug WHOI found with DA protocol
 - Investigating bug GLERL identified in microcontroller initialization sequence.
 - Used Kevan's old HP48GX calculator to reprogram memory cards for the ESP group's Saigene processors.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 45

- 901205 - ESP SURF Center
 - ESPmer in Denmark, ESPdennis near WHOI and ESPkoa on the Flyer all sampling well.
 - Jinxed it!
 - Working with Preston to revamp protocols for updated cartridges from Function.
- 901913 - Wet Wifi
 - Met with Chris Wahl to view Waveglider "Hansen"
 - Discovered that we could mount our transducer aft with no can height restriction
- DQ1865 - Bryde Whale
 - Iridium comms still working on the now defunct ESPmoe
 - The motherboard is getting worse. No serial command port now.
 - Supplied replacement motherboard for Scott to mate to the lid for satcomms tests.
 - Lost track of spare antenna. Sigh...
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 44

- 901205 - ESP SURF Center
 - Installed ESP 3G on the Flyer with SSH reverse tunnel for comms
 - Wrote mission scripting capability for ESP 3G as Unix command interpreter
 - Testing this now on the Flyer's Smith Cruise
 - The same scripting capability will be used for upcoming Saildrone deployments
 - Working with Brian Kieft to figure improve SBD comms to ESP
 - Most of the trouble seems to be with quoting Ruby command arguments in shell scripts.
- 901913 - Wet Wifi
 - Hosted virtual meetings with LRAUV and Waveglider teams for plan integration of modem onto those platforms
- DQ1865 - Bryde Whale
 - More damage identified: 5 of the 13 conductors in the Falmouth tether broke
 - Shipping damaged cables back to APL this week

- The Iridium antenna was filled with water (this is not unexpected given that it was submerged)
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays and Thursdays after 1PM

Week 43

- 901205 - ESP SURF Center
 - Fall CANON exposed minor bugs in toroid leak detection/retry logic
 - Not decrementing spare cartridge count on toroid leaks
 - Help prepare ESPkoa for deployment on the Ken Smith Flyer cruise to M1
- 901913 - Wet Wifi
 - Productive call with OceanComm and Brett Hobson on modem integration with the LRAUV
- DQ1865 - Bryde Whale
 - Determined that Gulf of Mexico comms failed due to corrosion in can cause by bleach leak
 - There may have also been an underwater cable failure
 - Remotely updated WHOI's ESPdon to latest and greatest
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Mad scramble to backport SSH tunnel support to older ESP software
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays and Thursdays after 1PM

Week 42

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 41

- 901205 - ESP SURF Center
 - Helped diagnose grounding issue with analog pressure sensor on ESPmv1 for fall CANON
 - Diagnosed and fixed Forearm calibration issues on GLERL ESPs
 - Worked with WHOI and Gomes to add WHOI's ESPs to MBARI's ESPshore and ESP portal
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - The equipment is finally back at MBARI!
- DQ1870 - NOAA Merhab

- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 40

- 901205 - ESP SURF Center
 - Delivered 50+ calibrated heater boards to Preston
 - Ongoing support of DTU in Denmark
 - Organized call with WHOI to discuss future of their 7 ESPs
 - Moved 2 of them to our ESPshore server, more to follow
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Worked with Preston to implement sample line bleaching protocol
 - Last minute calibration tweaks
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 39

- 901205 - ESP SURF Center
 - Working with NOAA to set up conference call this Friday to understand their ESP deployment and networking plans
 - Finished calibrating Lyse-N-Go heater boards
 - Verifying calibrated cartridges in ESPhonu
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Testing ESPkoa
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 38

- 901205 - ESP SURF Center
 - Helping to calibrate/debug ESPmv1 for use on Fall CANON
 - Prepped electronics and software to APL comms test mooring off La Push, WA
 - Deployed 9/10. Lost contact with it after 3 days :-)
 - Ongoing thermal calibration of ESP3G smart cartridges
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale

- Mooring is being trucked back to MBARI
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Helped to repackage ESPkoa in polycarbonate housing for use on Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 37

- 901205 - ESP SURF Center
 - Helped test and calibrate ESPkoa and ESPmv1
 - Working with NOAA to gain reaccess to their ESPs after networking “upgrades” on their end
 - Investigating intermittent carousel encoder failures on mv1
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 36

- 901205 - ESP SURF Center
 - Testing Linux 3.18 Kernel with all our modem variants.
- 901913 - Wet Wifi
 - M-team’s recommended phase I labor adjustments made
- DQ1865 - Bryde Whale
 - Mooring recovered. Surface expression was submerged. ESP seems intact, but somewhat corroded to prolonged high humidity in the can.
- DQ1870 - NOAA Merhab
 - Worked a couple feverish days with UW/APL to recover from a fried CPU board they intend to deploy this week.
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 35

- 901205 - ESP SURF Center
 - Heater board calibration in LRAUV chassis ESPhonu
 - Helping with bring up of first flower pot ESP
 - Working with APL on integration of new Telit ME910 modem for comms test deployment
 - Updated ESPrush and ESPniagara at GLERL
 - Discovered and Documented ESP2 manipulator wiring working connector out of its socket

- 901913 - Wet Wifi
 - Project approved for 2021 with very minor labor tweaks
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 34

- 901205 - ESP SURF Center
 - Found that one of the older 2G ESPs can pull out its Forearm wiring connector
 - Working with McLane on a mechanical fix
 - Added code to automatically choose between InStage and InCarousel heating profiles
 - Testing InCarousel heating on Honu in TTL "EasyBake" oven at ambient temperature
- 901913 - Wet Wifi
 - Telecon with OceanComm to discuss LRAUV real-time video application next year
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
 - Repaired my fanless desktop computer by replacing no-name PSU with one from Meanwell
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 33

- 901205 - ESP SURF Center
 - Set up thermal calibration with heating stage extracted from ESPtower
 - Compared thermal calibration from that stage with ESPhonu's
 - Tested new logic to retry leak checks when very slight leaks are indicated
 - Should eliminate false leaks reported due to plastic creeping
 - Found and fixed a couple minor, but long-standing bugs causing unneeded reinitialization
- 901913 - Wet Wifi
 - Spoke with Brett Hobson about integration into a video LRAUV payload next year
 - Scheduled call with OceanComm to discuss integration in detail
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Still waiting on their VPN tests
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 32

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 31

- 901205 - ESP SURF Center
 - Calibrating dozens of ESP3G heater controller boards (tedious)
 - CANON support
- 901913 - Wet Wifi
 - Starting work on modifying modem simulator
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
 - Discussing integration of LTE-M modem into University of Washington's ESP mooring
- DQ1904 - NOPP Saildrone
 - Conference call covering integration issues
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 30

- 901205 - ESP SURF Center
 - Helping Chris Preston support CANON
 - Supporting TU Denmark in debugging PCR issues
 - Determined that air currents have a very significant impact on heating accuracy
 - Replaced temperature calibration oven with much quieter fan
 - Refined temperature calibration procedure
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 29

- 901205 - ESP SURF Center
 - Set up test SPR test fixture for Bill Ussler using Linux laptop rather than an ESP motherboard

- Doing so uncovered a race condition in the SPR serial driver (now fixed)
 - Prepped software for CANON
- 901913 - Wet Wifi
 - Submitted proposal for the final year where we integrate modem onto LARAUV and Waveglider
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Decided to interface ESP via Ethernet rather than serial PPP on the large Surveyor drone.
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - At MBARI Tuesdays after 2PM

Week 28

- 901205 - ESP SURF Center
 - Updated ESP Linux kernel from 2.6.33 to 3.18.140
 - Incorporated WireGuard VPN patch into the kernel (needs testing)
 - Submitted upstream patches for ARMv5 and GCC 4.1.2
 - New kernel now properly handles I2C bus and LED drivers on it.
 - Needed for Embedded Artists dev boards.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - In a conference call we decided to interface with ethernet rather than PPP in large "Surveyor" saildrone.
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
 - Attending (virtual) Embedded Linux conference
- Out of Office
 - At MBARI Tuesdays after 4PM

Week 26

- 901205 - ESP SURF Center
 - While setting up Scott Jensen's new env chamber for ESP 3G heater board calibration, we discovered the board bracket was holding it upside down. Paul Coenen fabricated a new bracket.
 - While updating ESP linux from 2.6.33 → 3.14.30, found and fixed an old bug in NXP's SPI driver that was causing all devices to run at the slowest's rate.
 - Linux used to take 15sec to load from SPI flash. Reduced this to 2.5sec!
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Recovery delayed for weather
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Finally heard back from their lead software engineer.
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

- At MBARI Tuesdays after 4PM

Week 25

- 901205 - ESP SURF Center
 - Porting the Linux kernel for our ESP controller boards from 2.6.33 to 3.14 to get access to WireGuard VPN (<https://www.wireguard.com/>)
 - Quite the adventure. New kernel compiles but does not boot. JTAG debug time!
 - Picked up new heater board calibration oven from Scott.
 - Connector soldered backwards. Returning part to Jose Rosal for repair.
 - Worked a couple late nights supporting ESP deployment off Denmark's coast
 - Lost comms a week ago. Visited with ship, but could not reestablish a link to ESP. We need a way to reset the mooring controller from the float!
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Prepped laptop for Scott Jensen to use during recovery
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
- At MBARI Tuesdays after 4PM

Week 24

- 901205 - ESP SURF Center
 - Calibrating 4 Lyse-n-Go cartridges for Chris Preston
 - Delivered
 - Lots of testing and debugging of the new cartridge NVRAM handling code
 - Installed on ESPhonu and ESPstumpy for science testing
 - Investigating use of Bench-top thermal control system for ESP cartridge thermal calibration
 - See <https://mechanical-devices.com/portfolio-posts/fixtc-temperature-forcing-system/>
 - Could our EE lab use one of these?
- 901913 - Wet Wifi
 - Scheduled call with OceanComm to discuss next moves
 - OceanComm will send me modem simulator with Python source code I can modify.
- DQ1865 - Bryde Whale
 - Packed up a laptop to give me remote access for the GoMex ESP recovery on the 26th
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
- At MBARI Tuesdays after 4PM

Week 23

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab

- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 22

- 901205 - ESP SURF Center
 - Added ability to defer exceptions using pure Ruby
 - Needed this for atomic database updates
 - Might be a good talk topic for RubyConf 2020
 - Merged “function” protocol mods into the master branch
 - Developed and documented install procedure for MacOS “Catalina”
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Saildrone managed to bring up an ESP simulation environment
 - Fixing a Ruby Fixnum multiplication overflow bug due to new gcc-9.x optimizations
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 21

- 901205 - ESP SURF Center
 - ESP 2G successfully deployed by DTU Denmark
 - (running lots of PCRs looking for fish pathogens)
 - Took a deep dive into debugging the vi-clone texteditor included in busybox
 - Lots of bug fixes, added features like window resizing via serial link, etc.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Sent detailed instructions on how they can bring up an ESP simulator on their Linux dev boxes
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 20

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 19

- 901205 - ESP SURF Center
 - Reading long (>10Kbyte) data streams from microcontrollers was causing time-out errors
 - Finally tracked this to throttling by the Linux host system.
 - Ruby on the slow ARM processes at a rate of <7kBytes/s!
 - Lowered baud rate and increased timeout delays to allow for this
 - Investigated rewriting the byte-level processing in 'C' to remove this bottleneck
 - Ongoing support of DTU Denmark and Function mechanical engineering consulting
- 901913 - Wet Wifi
 - OceanComm says they will have a product ready in June.
 - Exploring other, more established options with Brett Hobson
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
 - Shipping NOAA/APL spares they loaned us for Gulf of Mexico deployment
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 18

- 901205 - ESP SURF Center
 - Got ESP Linux to function as a WiFi "hotspot"
- 901913 - Wet Wifi
 - Responded to
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
 - Kickoff telecon with UW and APL
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th) [postponed...]

Week 17

- 901205 - ESP SURF Center
 - Wrote a 15 page "cheatsheet" to help new users of the ESP3G
 - Incorporated Linux "backports" into ESPlinux
 - Gives our 2.6.31 kernel access to networking drivers from 3.14.30
 - We finally have 5Ghz WiFi support
 - Working on added hostapd so ESP can act as WiFi access point
- 901913 - Wet Wifi
 - Contacted by Thomas Riedl (our collaborator) about next steps
 - Not sure myself how best to proceed...
- DQ1865 - Bryde Whale
 - Still no contact :-(
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab

- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th) [postponed...]

Week 16

- 901205 - ESP SURF Center
 - Supported recovery of ESPgordon from Scotts Creek
 - Finally managed to tame the Sara-R410M LTE-M1 USB modem
 - Lots of low-level shell scripting to recover from firmware crashes
 - Confirmed that Raspberry Pi users see the same lockups I do
 - Swapped ESPtower for ESPstumpy in my home office
 - Fun times reassembling the internal plumbing :-)
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th) [postponed...]

Week 15

- 901205 - ESP SURF Center
 - Finished with in-situ flash programming of cartridge elf microcontrollers via I2C bus
 - Separated firmware app into bootloader and “booted” flash partitions
 - Working on backporting driver for Huawei USB modems to support ESPs in Europe
 - Designing involatile key->value storage in EEprom or cartridge configuration data
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Still no contact with the mooring
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)

Week 14

- 901205 - ESP SURF Center
 - Supporting Chris Preston in her efforts to get GLERL's ESP's up and running again
 - Working with DTU Denmark to find a new cell modem for their ESP.
 - 3G service appears is apparently being sunsetted in Denmark!
 - Debugging in-situ reprogramming of ESP3G cartridge elves.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Still no response from mooring :-)
- DQ1870 - NOAA Merhab

- DQ1904 - NOPP Saildrone
 - Working with their software lead to arrange access our Github repo so they can simulate an ESP
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)

Week 13

- 901205 - ESP SURF Center
 - Smuggled an ESP 3G out of MBARI. Set it up in my home office/lab.
 - Developed a procedure to “tare” the heaters in absence of store configuration data
 - Gets us within 1C of target temps, which is within the +/-2C error allowed.
 - Supporting Chris in her efforts to figure out why GLERL’s ESP’s are all failing assays
 - Supporting Technical University of Denmark in the effort to get a modem working with their ESP (again, sigh).
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Still no news. MetOcean cannot tell whether or not the satphone is registered on the Iridium.
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)

Week 12

- 901205 - ESP SURF Center
 - Supporting ESP 2G users in Denmark and Great Lakes
 - Characterized ESP 3G temperature sensors
 - Implemented Piecewise-Linear control of 3G puck water temperature
 - Repeatable and accurate to +/- 0.05C for reference test puck!
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Lost comms on Friday 3/13. Don’t know why.
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)

Week 11

- 901205 - ESP SURF Center
 - Continuing to investigate heating accuracy on the 3G ESPs
 - Delays for temperature to stabilize makes this a slow process
 - Updated software and calibration on the 3G ESPs slated for CANON
- 901913 - Wet Wifi

- DQ1865 - Bryde Whale
 - Increased sample volume from 2 to 2.5L
 - Some concern about high humidity on the ESP can.
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Met Saildrone engineers in Alameda.
 - They use the same, slow Iridium links we do :-(
 - The “surveyor” vehicle we’ll be on produces 9Kw of electricity!
 - Mostly for their advanced sonar package
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)

Week 10

- 901205 - ESP SURF Center
 - Working with Doug Pargett to bring up 2 3G ESPs
 - Working with Chris Preston to improve accuracy of 3G puck heating
 - Participating in meeting with Function (mech design consulting firm)
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Two weeks in without incident (touch wood)
 - Confirm sampling flow rates were reasonable by using another ESP in lab
 - Increased sample volume from 2 to 2.5L
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - First week of April (college prospecting)

Week 9

- 901205 - ESP SURF Center
 - Supporting McLane Labs visit
 - Converted a few more ESPs to new, more compact configuration file format
 - Characterizing 3G cartridge heater boards (this will be a slow process)
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Mooring appears to be collecting samples like clockwork
 - Comms cost is about \$5 per sample
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
 - Upcoming kickoff visit in Alameda, March 6th
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office
 - First week of April (college prospecting)

Week 8

- 901205 - ESP SURF Center
 - Working with Preston on calibrating ESP3G cartridge heater boards.
 - Replaced sampling pump at Scott Creek with Dack.
 - New pump still exhibits occasional sampling failures. Probably do to gas in water.
 - Discussing how to eliminate air bubbles by reorienting pump head in stream.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Took a last minute trip this weekend to the Bayou to deliver repair parts.
 - Swatted a couple coms bugs and lots of chiggers.
 - Iridium satcoms is (finally) working as intended.
 - R/V Pelican is deploying ESP as I write this.
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 7

- 901205 - ESP SURF Center
 - Worked with Scott and Chris Preston to plan 3G heater tests
 - Helped Bill Ussler get ESPbruce working (fixed carousel binding issue)
 - Found and fixed faulty I2C cable that had been plaguing ESPgordon for months!
 - Identified binding in ESPwaldo's gripper mechanism (another months old problem)
 - Wrote up procedure for replacing RTC batteries, as requested by ESP users in Denmark.
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Worked with Scott Jensen and Jim Birch to prepare ESPmoe for shipment Louisiana
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office

Week 6

- 901205 - ESP SURF Center
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- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
 - Successfully tested mooring in Test Tank with Iridium comms from bld B roof mounted antenna.
 - Worked with Mark Chaffey, Aaron Schnittger, and Larry Bird to assemble Iridium antennas.
 - Debugged (hopefully) lots of comms recovery logic.
 - Worked with Scott Jensen to measure mooring energy use and estimate its endurance.
 - Put together a kit with router and Verizon + T-Mobile cell modem for comms staging in Louisiana
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp

- Overhead
- Out of Office

Week 5

- 901205 - ESP SURF Center
- 901913 - Wet Wifi
- DQ1865 - Bryde Whale
- DQ1870 - NOAA Merhab
- DQ1904 - NOPP Saildrone
- DQ1925 - NOAA Ecohab
- DQ1955 - Grass Carp
- Overhead
- Out of Office