Visit Sites S8, S15, and S4

I filled the boat gas tank yesterday with mid-grade gasoline.

We left earlier this morning than usual, around 8:30 am local, to head into the marsh. Low tide was just before 9:00 am at 1.25 ft above MLLW, so we had no trouble getting under the bridge.

S8

We visited S8 first to replace the charge control monitor board. Steve had mounted the new solar controller and new monitor CPU card he received in yesterday's shipment on an existing board, and that board went into S8. That restored the power monitor messages to the DSM. The readings at the time were 13.3V, .7A load current, 2.7A charge current.

- [x] Still need to update the config on S8 to correct the sample processing for the power monitor messages. Gary Granger

After powering back up, the Gill sonic was not coming in. It looks like that was related to port ttyS6 not getting set to 422 mode, and restart of dsm fixed it.

- [ ] Even after updating packages, the Gill did not come back after a reboot, and this time it did not come back after a dsm restart nor a power cycle using 'tio 4'. There is no response from it using rserial to /dev/ttyS4. The Gill appears to be down indefinitely. We can replace it with a spare. Gary Granger

We then realized we forgot to bring the updated PIC processor card for the TP01, also received in yesterday's shipment, so we boated back to the marina so Steve could get it.

S15

At S15, Steve replaced the TP01 PIC processor card on ID2 (m2). We mounted the repaired NR01 and the original mote ID1 (m1), and verified that radiation and power messages came in from that mote. (It took a little while to realize I had left rfcomm bound to that radio when we removed it, so I had to release it to allow the DSM to connect.) The ID2 mote took longer to verify the TP01. We had to try several power cycles, and Steve tried pressing the I2C rescan button also. I connected directly over bluetooth and we tried to look at the output from the mote on boot up and after a rescan. Finally we started seeing all the messages we expected: NR01, Tsoil, Qsoil, Gsoil, TP01, and power.

Steve unplugged and replugged the soil heat flux plate, and that got it reporting "better numbers". He's not sure what good numbers would be for saturated marsh mud.

S4

Installed the tipping bucket rain gauge at 105 cm high on port ttyS6, 9600 8n1. I added to the dsm config and verified the dsm was recording the raw messages, and we simulated some tips also.

- [x] Fill out the rest of the tipping bucket config to process samples. Gary Granger

By the time we were done the tide was too high to fit under the bridge, so we had to return the long way on Old Mill Creek.   We returned to the marina around 2:00, pulled the boat out and sprayed it down. The marina seems a little busier now that school is in session. We had to wait for people parked on the ramp both when we launched and when we pulled it.