# January-March 2012

Notes from my first expedition to Fagaalu watershed, Tutuila, American Samoa, Jan-March, 2012

“don’t you think it’s much more interesting just to be like Japhy and have girls and studies and good times and really be doing something….”-Dharma Bums

## January 2012

Day 1 – Jan. 5,2012

Departed LAX at 11am. Jerry Treadway gave me a ride to the airport. I was up until 5:30 am the night before packing supplies and checking equipment. I believe this was the first time a surfboard bag ever contained 500mL sample bottles. Trent took one suitcase of equipment and I brought all the rest including Autosampler, sample bottles, balance, turbidity meters etc. By some miracle, Al, the guy at the Hawaiian airlines counter was from Vatia (a small village in American Samoa) and only charged me $105 for all the extra baggage. The boardbag alone should have been $200. My first instance of Samoan hospitality and it was before I even left LA. I met a good-looking girl from Hilo who studies marine science but didn’t exchange info, oops, maybe I’ll see her again. I met up with Trent, Arielle and Sierra (11 months) on a beautiful day in Honolulu and then slept the whole way to Pago Pago. Arrival was interesting since there are only 2 flights per week and it’s kind of a big event. All equipment and surfboards arrived intact and the customs agents were happy to hear I was doing research on their island and wished me luck. It is so different from India that I am constantly having to readjust to how friendly and accommodating the Samoans are. They seem genuinely happy to have us here and excited to collaborate and learn with us. Trent rented us a sweet black SUV and we are staying at a friend’s house in Coconut Point, Nu’uuli, while they are away on Upolu. It was a smooth journey and we are happy to finally be here and start the work.

Day 2 – Jan. 6, 2012 Rainy

First day on island. The first day is meetings day as Trent is introducing me to everyone I’ll be working with at ASEPA, DOC, DMWR, and ASCC, collectively called CRAG. We met with Christianera and Josie at ASEPA, and then Fatima at NOAA. Plate lunch at L&L. Then met with Reinette and Hideyo at DOC. Hideyo has lots of Surfing magazine photos up, seems to be about 23 and is from Southern CA. They’re our contacts for administering the grant and we have to work out the logistics with them. We’ll conference call with Foundation Frank at 8am on Monday. We toured Fa’gaalu and checked out the quarry but didn’t stay too long since we haven’t met with the Matai (chief) yet and don’t want to get started without his permission. Bought supplies at True Value and groceries at foreskins, I mean Forsgren’s. You really have to pronounce that right, Christin. For dinner Hong Kong House: fish cube, wonton soup, veggies, sweet&sour chicken.

Weather Station: FagaaluPrime

PT’s: Fagaalu 1, 2, 3, 4

Rain Gauges: Timu 1,2,3

Day 3 – Jan. 7, 2012 Rainy

Assembled housings for PT’s. Drove to Fa’gaalu and replaced weather station console (new batteries). Some confusion with the connection: when the X is flashing press the ‘Done’ button. I reset the console to my watch, probably should have left it synched to the computer since the PT’s are. I’ll reset it next download. Placed a PT (serial#: ) at the LBJ bridge. Stage: 10cm. Ziptied it to the wire mesh under bridge. We gauged flow just below the bridge with Rocco. Pretty ghettho operation with just a ruler, and not sure what depth units were on flow meter. We later re-measured depth. Then hiked up above quarry to survey stream. Steep waterfalls proved impassable in the rain. High turbidity just below mine, but not down at bridge. Later checked and it was turbid all the way to rivermouth. Collected 4 samples: waterfall, above quarry, below quarry, at LBJ bridge (while not turbid). Gauged flow just below quarry on the road pass. Lunch: Carl’s Jr. (Rocco’s suggestion). Rocco is a great field assistant/intern and is very dedicated and helpful. We sited a rain gauge at a local man’s house just below quarry but couldn’t install because lack of wire. Finally swam in ocean (what was I waiting for?) and cut my foot on a broken wine bottle but not badly. Dinner: BBQ at Steve’s house. Steve is a good ol’ boy in the USCG out here and invited me to go golfing on Sundays. Stoked. Watershed work is moving along, the science has begun, tomorrow we rest because it is the Sabbath. I see potential in several reefs, can’t wait for a swell.

Day 4- Jan.8, 2012 Rainy

Today we observe the Sabbath by not working…in the watershed. I compiled all the USGS precip records available online (through NWISmapper?). I mapped out potential instrument placements in GoogleEarth, can’t wait to get everything installed since there are already rains albeit small and short duration. We drove to Tisa’s Barefoot Bar and had a few beers with lunch. Lunch was Dogtooth Tuna (delicious!) and locally grown pumpkin, banana, and string bean ($12). Trent and I went for a short snorkel around the reef, observing fairly healthy coral and a light layer of turbid, fresh water floating on the surface. I took lots of photos with the GoPro but they were slightly out of focus, possibly due to lens fog. Also still working out the GPS on my ZS7. Dinner was sashimi ($10) and fried noodles at Jade Chinese restaurant. Sort of a chill day but still got some work done and had a nice little beach day. Not looking forward to an 8am conference call with Foundation Frank but we need to secure the car. Days are going by quickly already, which is odd because everything seems so slow here. There are no stoplights, the speed limit is 25 at most and nobody does anything on Sundays. It’s like Hanalei without all the hustle and bustle.

Day 5 Jan. 9, 2012 Partly cloudy/mostly sunny

Today we were supposed to meet with Reinette but she wasn’t available. Instead we discussed routes to hike up to Matafao and along the North Ridge of Fagaalu. She also showed us some old geologic maps that could be useful. We shopped for supplies at the hardware store in Pago (ABS pipe, clamps, box, locks etc.), NAPA (sealant), Pacific Supplies (motorcycle batteries), and Cost-U-Less (battery charger). First surf on Tutuila! Surfed Alao with Hideyo, Steve, Dr. Mike, and Capt. Crook, the 4 most avid surfers on the island and half of the surfers in total. Had a great session with a little bit of rain and a gorgeous sunset. Head high+ barreling rights and lefts. Off to a good start!

Day 6 Jan. 10, 2012

This morning we met with the Fagaalu chief, Uso, his wife Susan, and Christianera (ASEPA). We discussed our project and the ongoing proceedings with Samoa Marine and the quarry operation. Uso and Susan seem very nice and very supportive of our work. We gave Christianera a tour of our sampling/instrument sites and did a recon of the watershed with Rocco. The LBJ PT was still there, stage was 11.5’’, and already showing algae growth on the PVC housing. We installed the tipping bucket rain gauge/logger (Timu 1) near the quarry and attached a non-recording rain gauge to the side (14deg17’18.798’’S, 170deg41’27.831’’W, elev.40m). We surveyed options for where to site the TS3000 and PT at the dam but need a cordless drill to install. Lunch: Luigi’s Pizza. Quickly met with Reinette at DOC to discuss purchase of Christin’s car. Met with Doug (E-Fresh) Fenner at DMWR and he gave us a tour of the North side of Fagaalu reef, pointing out a N-S and W-E sedimentation gradient with heavier sediment and less coral away from the ‘ava and towards the rivermouth, as was expected. Four types of coral dominated: staghorn, finger, massive, posilla(?). Also saw a sea turtle, octopus, and seahorses, neat! Took the kayak out for a spin at Nu’uuli and got totally caught inside, bailed, and lost my sunglasses. Oh well, it was pretty fun anyway. George taught me how to pick and open coconuts, sweet!

Day 7- Jan. 11, 2012

Checked out my new place, Christin’s old house, and my new car, Christin’s old car in Faganeanea. We tried to sort out buying the car but there are more Foundation hoops to jump through. We met up with Rocco and got a cordless drill from Dr. Mike at the Pediatric clinic at LBJ. We went up to the quarry but had to wait for them to blast some dynamite! Got grab samples at Drive Thru and Dam. Measured flow at dam. Installed TS3000 at dam but drill didn’t have enough power to install brackets, will try again tomorrow. Started TS3000 logging and locked up in toolbox and cabled to tree, hope it stays. Installed PT (Fagaalu 3). Met with Kelly to discuss Rocco’s internship and future projects. Kelly says Fagaalu was listed as a Superfund site for PCB’s as recently as 2006. Had a great burger for lunch at Sadie’s Inn. Met with John Womack at USDA to discuss using RUSLE and their rain gauges. Stopped by DMWR to weigh some test filters and then filtered at the house and measured NTU, tomorrow I’ll weigh the filters and get our first TSS samples, yay. Downloaded FagaaluPrime and Fagaalu1 and got stage and rainfall. Looks good but I need to sync up the instruments better and switch FagaaluPrime to 15min. intervals to match the PT. Also need to turn off some channels so the memory doesn’t fill up so fast. When we were downloading FagaaluPrime the family that is hosting the console served us cake and sodas, some impromptu Samoan hospitality. The Samoans have been amazingly friendly so far, its awesome. Calculated discharge from our 3 flow measurements at LBJ, DriveThru, and the Dam. DriveThru seems a little off (too low). It’s Trent, Arielle, and Sierra’s last night, they fly out tomorrow. I’m trying to talk with Trent as much as possible about methods, approaches, future work etc. We’re tentatively up and running. Still need to install Fagaalu2 PT at DriveThru, Timu2 on top of the ridge, Autosampler, and install brackets on TS3000.

Day 8-Jan.12, 2012

Trent’s last day. Still trying to sort out the car situation. We took it to Asco Motors for inspection and sent the report to Frank. We met with Christianera to discuss Bacteria samples and funds for interns. They have money for interns so possibly for a Fagaalu villager to sample. They also want bacteria samples. I sampled at LBJ, DriveThru and Dam. I noticed a very small tributary just below the new bridge and got a sample. I spoke with the foreman, Lou, who has worked at the quarry for 20 years. He is aware of the turbidity problem and seemed nervous we’re going to shut them down. Moved to Christin’s place which is epic and surfed Airports with Hideyo.

Day 9-Jan.13, 2012

Went to True Value Nu’uuli, Ace, and True Value Tafuna (CBT) to get rebar, braided cable, and brackets, etc. The guys at True Value Tafuna bought me and Rocco banana bread. They’re so friendly and hospitable here, they wouldn’t let us pay for it. Downloaded data from TS3000, looks good but not much action. We installed 3 brackets to the dam wall with Dr. Mike’s drill so it should be secure. Sampled at dam for TSS and N. Installed PT at Drive Thru (Fagaalu2) and measured discharge; sampled for TSS and N. Very turbid while quarry was in operation. Cleared up considerably when they stopped work. Baseflow from the pond at the base of the blast face was contributing turbid water during lunch break and no precip. Installed Autosampler (Atu) just above Drive Thru and below the last runoff point (I think) from quarry. Hope it works. Set it up to get samples every 3 hours from 9am tomorrow. I think the Liquid Sensor I ‘fixed’ is not really operational, bummer. It was a pretty big day in the field, Rocco was indispensable. I got way more done with him helping in one day than I could have in a whole week. Whatever we’re paying him ($6/hr) is not enough. Lunch: Fagaalu corner store bevvies and Macca’s. Paddled outrigger with Christin at Sadie’s. Gave Rocco ride home to Vaitogi, very different ova deh. Got Christin’s car (gay Ken) and she’s taking the Baller SUV back to Oscar’s girlfriend at her baby shower, I love this small island way of doing things. Dinner: Taco night at Dr. Mike’s with the Palangi crew, super fun. Tomorrow we hike Matafoa!

Day 10-Jan.14,2012

We were too tired and started too late today to hike Matafao. Instead we ended up trying to fix the driver side window on Ken which turned out to be quite an ordeal. We hiked up Blunt’s Point trail for about 3 hours but couldn’t find a clear spot for Timu 2. We hiked back down and found a somewhat clear spot though it’s not ideal. It’s sort of covered but the best we’re going to find on that ridge. Pretty gnarly hike and we forgot the machete…and the GPS…and the screwdriver…kind of Busch league.

Day 11-Jan.15,2012 – Sunday

Woke up at 5 to watch the sunrise. Checked the surf all the way to Poloa with Hideyo, Poloa looked gnarly but we couldn’t surf it on Sunday. Ended up surfing Sliding Rock with Capt. Crook who is from Huntington it turns out. We went to to’onai at Rocco’s and had some great food. We hung out at his house and he showed us around his place, Vaitogi beach aka Turtle and Shark (I didn’t see the shark) and then we drove/walked to Fa’ama’a (?). It was beautiful but I think my ipod/radio got stolen while we were there. Then I got a flat on the way out. Went to Palagi Sloshball at Lyon’s Park, hilarious. Came home and packed up for the mission to Matafao.

Day 12- Jan. 16, 2012

Woke up to another flat on gay Ken and cockroaches in a juice can, gross. Got 2 new tires and a new rim and Rocco met me at the station in Utulei. Despite trying to leave at 6 we ended up leaving at 9. Very strenuous trip to the top of Matafao with lots of machete work. We made it to the top in about 3 hours and took a long nap because we were both exhausted, dehydrated, overheated, and sweating an incredible amount. We installed Timu3 using some found cast iron pieces, hope it stays put. We ran out of water and it was a quick but thirsty trip down. I don’t think my attempts with the GPS worked, it didn’t record points but averaged them into one point, dammit. So much to do and not enough time to do it! Another adventure, another day in paradise!

Day 13- Jan.17,2012 Tuesday

Trying to get survey equipment. Good day at Sliding Rock with Hideyo and Craig. Hideyo snapped a board. Sushi at Manuia’s with Doc, Hideyo, and Craig.

Day 14-Jan. 18, 2012 Wednesday

Was filtering samples at DMWR and it started pouring rain! Ran around and got samples. The quarry was very actively eroding. All equipment looks like it’s staying put. Hospital outflow was more turbid than LBJ bridge and then later it was less turbid than LBJ bridge and less turbid than it was earlier. It stopped raining in the afternoon and I surfed Sliding with Craig and Steve, pretty small but got one good little tube.

Day 15-Jan. 19, 2012 Thursday

Took some Flow measurements at LBJ, DT, and Dam. Checked the rain gage multiple times. Collected more samples. Filtered many samples at DMWR until 11pm, they finally gave me the key to the lab. 7 samples were too turbid for the LaMotte 2020 and several I had to subsample as low as 100mL. I’m trying hard to keep everything organized but its crazy with all the data coming in and trying to get things scheduled and equipment and everything. Hopefully we can get the sed. tube traps in tomorrow.

Day 16-Jan. 20, 2012 Friday

No rain so I calculated Q from yesterday’s measurements and tried to compile notes/data. Trying to stay organized. Rocco and I downloaded data from Timu 1 and 2, Fagaalu Prime and Fagaalu 1 and 2. Got samples from Autosampler but only up to #15, then it started losing power or something. Timu 1 had a wire loose and didn’t record anything since installation, bummer. Everything else looks good, still not sure how to plot Timu data. Surfed Sliding, lost my board through the boneyard but it was miraculously OK after a daring swim through the rocks to rescue it from harm. Got a good barrel and ate at Jade. Up til 2am analyzing data.

Day 17-Jan.21, 2012 Saturday

Bought sed. Trap supplies at ACE: tiles, Astroturf mats, nails,etc. Hideyo had to bail to fix his truck so Rocco and I did a test installation on the south reef, near shore and midway to the reef crest. Very beautiful snorkeling under the turbid layer. We’ll see how the traps fare before a full scale deployment. Surfed Nua, super fun and got some good little tubes and some longer waves to do turns. Absolutely stunning sunset and beautiful beautiful surf session with Hideyo and Craig. Going away party for Christin tonight in Lyon’s Park.

Day 18-Jan.22, 2012 Sunday

Slept til about noon after an early morning to late night on Saturday at Christin’s/billiards/bowling alley yesterday. Worked on more data analysis and surfed Sliding Rock, head high but too high tide. Dinner at Lucky Dragon with NOAA Observer guys. Michael Jackson is on the island!

Day 19-Jan.23, 2012 Monday

Surfed Sliding with MJ and Steve. Got 6 cinder blocks at Ace and assembled better sed. Trap setups at Doc’s. Downloaded PT F3 and TS3000. Tried to camoflouge TS3000 better, looks like someone messed with it again. Battery died on Autosampler so no samples. Not exactly sure when I started the previous samples either. Record-keeping is a bitch. Filtered lots of samples.

Day 20-Jan.24, 2012 Tuesday

Got the DEM from Christin at DOC. Finished filtering samples and analyzed PT3 data. Went to ASTCA with Christin to change the phone and internet over to me. Retrieved sediment traps from Fagaalu reef and finished assembling the rest of the sed. traps. Replaced battery in autosampler and set it sampling for the 9am the next day. YSI turbidity sonde arrived at DMWR from Oliver today, can’t wait to deploy that thing!

Day21-Jan 25, 2012 Wednesday

Rain! Was supposed to deploy traps with Hideyo but canceled due to rain. Visited Big Ben at the Tool Shop in Pago for a rain slicker, made all the difference in the world. Ran around and took lots of samples and discharge measurements. Filtered samples at DMWR til 11pm again. Lost a sandal at the LBJ and had to buy a new pair. Hilarious sandal-buying at HoChiMinh’s Emporium Mart. Exhausting day in the field and then lab but stoked to be working outside and on my own project. Its like not having a job or a boss but working super hard, weird.

Day 22-Jan 26, 2012 Thursday

Inputted sample data and did more data analysis, its looking pretty good so far I think. I visited the watershed but didn’t do any discharge measurements. Also didn’t take any samples because it looked like it was clearing up. But then it rained while I went to ASEPA to get the Autolevel! Dang. I retrieved samples from R2 and that was about it. Word on the street is that Faga’alu is being selected by CRTF as the Watershed Initiative site, cha-ching! Drove out to Alao on the report of a building SW swell. Amouli looked good, Usutai(?) just west of Gas Stations looked insane. Couldn’t find Gas Stations but I don’t think there were waves there anyway. Also checked a possible right near the boat to Aunu’u. Went to a going-away party for Casey and Christin at Tisa’s. Excellent fish dinner but $20 for fish and a Vailima in Am. Samoa?!

Day 23-Jan 27, 2012 Friday

Dawn patrol with Hideyo to Sliding but no waves. Got acquainted with the YSI 600MS, silly software. Captured my first little storm from start to finish, stoked. It was pouring and Rocco was unavailable so no survey with Mataio. Just lots and lots of samples. Talked with the guy at the house by the quarry. Surfed Sliding in the arvo with Hideyo after some sample filtering, some sick tubes. Need to retrieve the autosampler. Met with Domingo about my talk on Tuesday, better get my ppt together, gonna be on tv probably.

Day 24-Jan.28, 2012 Saturday

Scuba’ed at Faga’alu, so sick! At one point my gauge hit 89 degrees! Talked with Crook about quarrying and waves. Surfed Matu’u, sooooo rad. Small but tubes and turns and all by myself in crystal clear 86 degree water! And then my leash fell off and I had to crawl over all the coral to get it. Several small miracles occurred and I didn’t get any cuts and no dings. Epic session. Then went and downloaded all the instruments and retrieved Autosamples. Changed Fagaalu Prime to 15min (?). Best day ever.

Day 25-Jan.29,2012 Sunday

Worked on some data entry and analysis from the last week. The Rock looked really good out front but didn’t surf it because it’s Sunday. Surfed Sliding with Hideyo, Doc, and Steve. Fun, good rights, some good tubes but a funky side wind on it. Prepared housing for YSI 600 and made survey rod.

Day 26-Jan.30, 2012 Monday

More data entry and analysis. Put out all the reef sediment traps (6) and then went to surf the rock. Had a pretty epic session and then rushed back to Faga’alu to do the survey with Mataio. I guess we didn’t confirm so I installed the Turbidimeter, programmed the autosampler and went back to surf the rock. It looked good but I couldn’t stay in the right spot and broke a fin and dinged my rail on the way in. oops. Time for some ding surgery and a FCS transplant at the Doc’s. Prepared presentation for tomorrow.

Day 26-Jan.31, 2012 Tuesday

Well, no TV crews at my talk today but the newspaper and radio were there to do a little interview which was cool. I think the talk went well, I was happy with the presentation and it turned towards mostly a discussion for about an hour, so I think that was good. Hideyo’s friend is visiting and she helped me put out the sediment traps on the deeper forereef at 30ft on SCUBA. We stayed out until it got dark and saw lots of turtles and sedimentation. Dinner at Doc’s and started in on the fin plug repair, gonna take a few days. All equipment is installed and hopefully working in Faga’alu, right on schedule!

## February 2012

Day 27-Feb.1, 2012

I think it poured rain last night. It sort of cleared up for a little bit today so I went to find containers to retrieve reef sed. traps. Got something that will work but not ideal. It rained some more today but not much, the big rain was last night. Filtered TSS samples at DMWR all day. Retrieved autosamples and reset to start at 9pm. It started raining around 8:30 so I think the autosampler caught it. We were in the newspaper today!

Day28-Feb.2,2012

Sort of rained on and off today but most of it was last night. Checked on the rain gage and staff gage but nothing we haven’t seen before. Stream was oddly clear. Filtered some samples from the autosampler but dumped most out since they were so low in NTU and only 300mL samples. Installed the liquid detector on R2, hope it works. Still trying to fix my board, major issues with the Q-cell to fill in the fin plugs. Fixed the dings just fine though. Weird SW winds, seems like there’s swell but too blown out.

Day 29-Feb.3,2012

Worked (sampled all morning and made sure Autosampler was working) and surfed Alao. It got windy as soon as Hideyo paddled out. Went to First Friday market for Shan-J’s and watch Mataio’s band. Finished fixing my board.

Day 30-Feb.4,2012

Today is Carolyn’s last full day on the island so we had a going away party and slip and slide at Dr. Mike’s which was pretty epic. Ray, Hideyo, Megan and I went out to Alao and had one of the best sessions of my life. Double rainbow for most of the session, calm to light offshores, head high rights and lefts, 2 other guys out, barrels and long walls for turns. Went back to the party and it was still raging.

Day 31-Feb.5,2012 Super Bowl Sunday; Rainy all day

Day of rest. Stretched a lot and recovered from an epic Saturday. Ended up surfing The Rock with MJ, Ray, and FBI Matt. Got some good barrels. Read a book in the hammock. Did some data analysis. Saw Carolyn off to the airport, kind of sad. Pouring rain but no sampling on Sundays.

Day 32-Feb.6,2012 Rainy all day

It rained a lot last night and today. Very windy also, a cyclone is passing to the south. Went straight to Faga’alu and started sampling. Retrieved samples from Autosampler. Rocco met me at LBJ and we went into the lab. He filtered samples all day and I went back to get the Autosample battery to take home for a charge. Got more samples and we filtered all of them, what a huge help to have another person. This seemed like a significant rain. Highest stage I’ve seen yet.

Day 33-Feb. 7,2012

Sampled a bit in the morning. Downloaded data from Timu 1, 2 (hiked it with Meghan) and TS3k. Checked Nua but the winds were on it. Ended up driving home and surfing the Rock. Got worked and my leash ripped off (4th time that’s happened) and the nose got dinged up and I got butt-slammed on the reef. Then the very next wave I got a real deep, clean barrel and made it out so… Had a little house-warming party with Carolyn’s leftovers with Meghan, Hideyo, Ruey, and Kristine. Kristine moved in today.

Day 34-Feb 8,2012

Snorkeled around looking for sed. traps, found 2, looked OK. Surveyed the quarry with Ruey, Meagan, and Mataio. Rocco showed up later and we sampled at the Dam, downloaded the TS3K, and surveyed LBJ. Surfed the Rock with like 7 guys out (including me, haha). BBQ at Mikes’.

Day 35-Feb9,2012

Surfed the Rock with Ruey, downloaded all the instruments (except TS3k), hiked Alava with Meagan, surfed the Rock with all the boys. Dinner at Sushi Tokyo, Ruey’s treat! Ruey left.

Day 36-Feb.10,2012

Drove all the way to Poloa with MJ and Meagan on eva’eva. No waves, just ice cream and postcard beautiful beaches. Got tanks at DMWR and checked on deep trap south of ‘ava. It had no sediment at all so I moved it to where I thought it was in the first place. The one near the rivermouth was covered in sediment! Surfed the Rock really good, solo til MJ and Steve paddled out just before dark.

Day 37-Feb.11,2012

Drove out to Alao with Hideyo and Meagan but too small and windy. Took boat to Aunu’u and surfed a pretty epic left. Got lots of good tubes but my board was buckled and the fin plug was loose so I was a little worried about it staying in one piece. Very beautiful island with good waves! It was also cool to leave the island for a bit. Checked out Masafau and Saile’le on the way back. Fish burger at De Tama Lelei, so good. Dinner party at our house.

Day 38-Feb.12,2012

Day of rest in observation of the Sabbath. Went over to Mike’s to fix my fin plug and discovered my board was completely buckled across the top and it’s a miracle it stayed in one piece. Pulled out the fin plug, grinded out the buckle and scraped out a ding on the bottom to let it dry out overnight. Dinner party at Nick and Alice’s in Coconut Point. A dog stole my sandal. Started raining again, supposed to just be passing showers.

Day 39-Feb.13,2012

Woke up to a fairly intense, but short rain. Worked on some data analysis including the recently downloaded PT/precip/turbidity data and quarry survey. Put together some GIS stuff. Went over data analysis with Rocco. Filtered samples at DMWR, checked Autosampler and instruments. Everything looks ok. Signed Rocco’s MOU. Got an Argonaut from DOC and met Sean. Returned tanks to DMWR.

Day 40-Feb.14,2012

Rained last night and a little this morning. Got some samples at Dam, DT, LBJ. Saw G. Poiski but didn’t get to talk to him. Did more data input and analysis. Worked on fixing my surfboard. Dove by Coral Heads and saw 2 Blacktips (or 1 Blacktip twice, not sure). Wrote Rocco a letter of rec for URM.

Day 41-Feb.15,2012

Met with Phil Wiles and Nick about the quarry over a fine lunch at D.D.W. aka Don’t Drink the Water. Phil was really cool and both of them had good info about the quarry and methods. I think Phil offered me a job at SPREC. Picked up Rocco and a kayak at Coconut Point and met Kristine at Faga’alu. We got GPS points at each of the sediment traps, except for the 2 closest on the south side of the ‘ava. All looked good and collecting sediment. It got dark before we could get to the closest ones but those should be easy. Moved 1b (middle, north side of the ‘ava) closer to the rivermouth by about 100 yards. It wasn’t really where I wanted it and didn’t have any sediment on it.

Day 42-Feb.16,2012

Finished up some data analysis, trying to put a figure in tons/storm of sediment outflow to Faga’alu. I believe I was successful and got a figure of about 14 tons from 1/30-2/7 that seems plausible. More analysis tomorrow. Another dry run out to Wilma’s wah wah wah. Ended up surfing the Rock pretty fun on my 6’6’’ (Fort Knox is still in the hospital) and saw the most spectacular sunset I think I’ve ever seen. Dropped Hideyo off at the airport, he’s going to DC and CA for 2 weeks.

Day 43-Feb.17,2012

Mailed receipts to Trent, rent to Christin and broken stuff back home. Spoke with Domingo about ongoing grant and restoration work, very promising. Downloaded data from YSI at LBJ and changed the batteries, which died last night at 10pm. What a piece of junk. Shitty software and the batteries don’t last for anything. Downloaded TS3000 and collected some samples. Did a quick GPS outline of the quarry and finally met George Poiski. Autosampler seems to be working, it’s still on at least. Surfed Amaouli and got some pretty good tubes.

Day 44-Feb.18,2012

Worked on Fort Knox. Surfed Alao with Crook and FBI Matt.

Day 45-Feb.19,2012

Played golf at Ili’ili with Caskey, Bill, Pat, Cable and Joe. Nice and cool til we got rained out. Surfed Coral Heads with Steve and Doc. Caught the end of Palagi Olympics over at Lyon’s Park, pretty epic.

Day 46-Feb.20,2012

Finished sanding Fort Knox and painted a rail wrap. Surfed Sliding. Did laundry. Dinner at Manuia’s.

Day 47-Feb.21,2012

Collected some N samples. They’re paving from Faga’alu bridge to the Trib. Filtered some samples at DMWR. Did some board art, an Uncle Sam on the Knox. Ran to Faga’alu and back.

Day 48-Feb.22,2012

Hung around waiting for rain but got shut out. Bought some sediment fence. Rocco and I installed the Argonaut in 20cm of water just downstream of the LBJ bridge. Hope it works. Sited the sediment fence locations and made some erosion pins with ASEPA labels.

Day 49-Feb.23,2012

Took some samples in the ‘shed. They’re doing heavy construction at the Trib-Fagaalu bridge so its kind of a pain in the ass. Finished samples at DMWR. Chased a rain that never moved over to Faga’alu. Met with Nick at NCRS and did a little Rusle’ing. Surfed Coral Heads and got scraped up.

Day 50-Feb.24,2012

Worked on getting GeoWEPP going. Did some RUSLE. Tried to get Google Sketchup going to do a CAD of the quarry. No luck, I suck at Sketchup apparently. Rocco called in sick after I drove all the way to ASCC. Got some barrier at Ace for the erosion plots. Kind of a frustrating day but progress was made.

Day 51-Feb.25,2012

Drove out to Poloa but the wind was wrapping around from the North side-shore. Hiked up to Steve’s plantation and looked for avocados and such. Hung out at Doc’s and then SUP’ed out at Pala Lagoon, pretty cool. Jammed on ukes and guitars with Doc and then went to BBQ at Coconut Point. Nice little Saturday in paradise.

Day 52-Feb.26,2012

Went over to Rocco’s and drank kava and made umu. So good! Ate to’anai with his family and then got some papayas and limes and a big ol’ umu for the road.

Day 53-Feb.27,2012

Downloaded data from Fagaalu1,2, and 3, Timu 1, TS3K, and the YSI. The YSI ran out of batteries after only 3 days, so lame! So we missed a week of turbidity measurements. They were doing a lot of work on the upper landing of the quarry, moving it around somewhere I guess. I put an erosion pin in at the dam. I couldn’t get the weather station, the family wasn’t home so standby on that. Surfed Sliding with Steve, pretty bumpy but I got a good barrel and then banged up on the inside.

Day 54-Feb.28,2012

Felt sick all day, guess I finally got the flu that’s been going around. ☹

Day 55-Feb.29,2012

Installed sediment fence with Rocco at the quarry entrance. Changed batteries on YSI sonde again and set wipe interval and turbidity to 15min. Surveyed stream profile at the Argonaut and reset it. When LBJ stage is at 10cm there was 8” of water above Argonaut.

## March 2012

Day 56-March 1,2012

Downloaded weather station data. The family left and a new family is coming in. Signed Rocco’s time sheet. Sieved sed. trap sample at DMWR. Surfed Sliding with Steve and Doc. Heavy and low tide but got some good ones. Worked on putting instrument data together and got some more tiles for trap swapout tomorrow.

Day 57-March 2, 2012

Swapped out sediment traps 1A, 1B, 1C on the north side of ‘ava pretty quickly and smoothly. Lots of surge with a 5ft SE swell running. Very turbid also. Current was too strong to get to 3A and 3B. Swapped out 2B (labeled 2A), 2C and 3C. Rocco flipped the kayak coming in and dropped the GPS, an extra mask, some small items and all the samples in the ocean, oops. He landed on a urchin and got a lot of spines in his hand. However, he did not panic and recovered some samples and the GPS, which is still working! I accidentally knocked the bottom off of tube 2C but then Rocco lost it completely. We recovered tube 2B and 3C, Mats 2B, 2C, and 3C, and Tiles 2C, and 3C. Tile 2B was lost but we noted it was totally clean when we retrieved it anyway. We lost the replacement tile for 3C but it doesn’t look like that one get sediment anyway. Kind of a rough one today but we rolled with it. Need to get 2A, 3A, and 3B tomorrow and check on the YSI.

Day 58-March 3, 2012

Dove on remaining sediment traps. Current was still very very strong. 3B was upside down and no samples were recovered. 2B was perfect but recorded very little sediment. 2A was very murky and the tube has disappeared. The bottom was present nearby. Surfed Sliding and it was pretty fun. I think I buckled my board. Went to the Fa’afafine Pageant and it was absolutely hilarious. Went out to Oasis after Coconut Point, pretty awesome Saturday.

Day 59- March 4, 2012

I love Sundays here. The surf looked epic out front but I went golfing instead with Lt. Caskey. Went straight to Gas Stations after that and it was pretty good. First time surfing there and I had a pretty good session. My board is definitely buckled. Great dinner over at Doc’s after, pretty nice little Sunday. Small downpour around 8pm with lots of lightning.

Day 60-March 5, 2012

Swapped out batteries on YSI (piece of…) and it died after 2 days. I got new batt’s at the store, hopefully those go better. The Argonaut was dead too so I took that battery home and charged it and swapped it in. I got 2 new batt’s for it at DOC. Sieved reef trap 1A-Tile but there’s no 63um sieve and I forgot to save the fines fraction. Put the samples in to dry. Went to Aeto to try to take care of insurance, still need the title though. It started raining so I went back to Faga’alu and sampled extensively. Went home for a quick meal and a regroup and came back to Faga’alu just in time for another rain, got more samples. Late night in the lab filtering til 1130. Samoans are so damn friendly the security guard, Dimitri, hung out with me and took videos on his iPhone. He was all excited to see a “real scientist” at work.

Day 61-March 6, 2012

Checked batt’s in the YSI, still good, yes! Put in erosion pin at quarry. Sieved 1A-Mat but same as 1A-Tile, only saved about half of fines fraction. Put 1A-Tile samples and 1A-Mat fines in to dry. Finished weighing samples. Started raining so I took lots of samples in Faga’alu. Checked on R2 and it was still waiting to trigger. Went home and went for a run to Faga’alu and took some samples, then ran home. Went to CostULess to get some batteries for YSI. Went back to Faga’alu to get more samples since there was a lot of rain.

Day 62-March 7, 2012

Checked YSI, batt’s still good. It appears the Argonaut didn’t work for some reason. Switched in DOC battery for the Argonaut and got a new tool box to house it. I was having a lot of trouble getting it to sample. Hope it works. Downloaded TS3K and the batt is still at 12V so I’ll leave well enough alone. Downloaded PT3 at the Dam and Timu 1. R2 had triggered at 2000 last night but not enough battery to actually pump samples so no samples for another big rain. Dammit. Luckily I was sampling at LBJ til 9pm. Downloaded PT 2, PT1, YSI, and restarted Argonaut. Downloaded Fagaalu Prime and the time was way off. I downloaded it around 1530 and it was reading 722 am, WHAT? Have to sort that out, it might have gotten messed up when the new family moved in? Weighed 1A-Tile samples and put 1A-Mat in to dry. Surfed Poloa 1-2ft with Hideyo and got flied lice at Rucky Dragon. Finally did some laundry, yeah!

Day 63-March 8, 2012

Worked on synthesizing all the data and figuring out what went wrong with the weather station. I think I figured it out and corrected it. Changed batteries on the YSI, checked and redeployed the Argonaut and got some samples. Checked on weather station, everything seems ok. Lunch with Hideyo, Kristine, Doc, Beth and Lisa at the LBJ cafeteria for $2! Worked on more data stuff and then went to lab to see what I could do. Weighed 1A-mat stuff and tried to figure out what to do, not getting much traction. Surfed Poloa with Hideyo and Doc. Doc didn’t surf because it was pretty sketchy and I cut my foot pretty good so I guess he was right. Still a pretty epic session though with some good big tubes.

Day 64-March 9, 2012

Ran around checking instruments and working on analysis at the DMWR lab. Got all the reef trap samples into pans to dry and settle. Surfed Runways on Steve’s SUP, so challenging but really fun.

Day 65-March 10, 2012

Drove out to the NOAA Obs. At Tula with Hideyo and Courtney. Took the boat over to Aunu’u and scored. Kind of inconsistent on the bigger ones but super fun, long, tubing, warm waves with gorgeous surroundings and no other surfers on the island. Got some Detamalelei and took a nap. Downloaded samples from Autosampler, YSI, and Argonaut. All seems to be working. Sanded and prepped my shortboard for laminating but no catalyst for the resin so I’ll have to wait til Monday to go to Ace.

Day 65-March 11, 2012

Surfed The Rock with Doc for about 3 hours. Pretty sick session, some of the better waves I’ve seen at the Rock with some good tubes and good turns on my 6’6’’. Doc gave us a ride over to Freddie’s for Bloody Mary Sunday at the pool, EPIC. After about 5 hours of lounging poolside we got the BBQ going and had dinner, Pina Colada’s and played boardgames. So fun, I love Sundays!

Day 66-March 12, 2012

Worked on some data analysis and email correspondence in the morning. Bought some resin and epoxy over at ACE to glass my board and Hideyo’s board. Got gas and filled the tires. Got the title to Ken in the PO Box but OMV was all the way in Tafuna. Finished washing, and decanting reef trap samples, I think I have a working method now. Yay. Ran to Faga’alu in the evening, very pretty sunset, what a surprise.

Day 67-March 13, 2012

Got the Title for Gay Ken transferred at OMV by the airport and the insurance at Aeto in Pago Plaza. Tried one final attempt at drying reef sediments in trays. Still having issues, will try smaller drying containers. Replaced batt’s in YSI and downloaded Argonaut. Checked on reef sediment traps (took my speargun just for kicks but didn’t get anything. 3B tube was gone. 1A tube was loose. Very low tide and lots of current despite small surf. Bought glasses at CostULess to try drying samples but then saw they’re labeled not for oven use, oops.

Day 68-March 14, 2012

Bought small stainless steel containers to dry reef sediment samples, I think I might finally get it figured out. Transferred sediments to the small containers to dry in the oven. Finished sanding the Knox and repainted the rail wrap, good as new albeit slightly heavier.

Day 69-March 15,2012

Worked on some data analysis. Switched out reef trap sediments in the oven. Went to meeting at DMWR to discuss wetlands/coral restoration grant application. Did laundry and went running. Got some stuff ready for Sarah’s visit. Picked up Sarah at the airport and met her with a lei and a pitcher of pina colada’s to welcome her.

Day 70-March 16, 2012

It rained all day. A very slow, steady rain. Sampled in the morning and then went to DMWR lab to switch out samples, I think it’s working. Erosion pin at the quarry was removed but nearby so I reinstalled it. Got YSI sonde from ASEPA, kayak from Nick at Coconut Point and did a quick plume survey in Faga’alu Bay with Sarah. Collected some TSS samples but observed very little turbidity which was very surprising given the rainy conditions. Surfed Alao with Doc and Steve for a little bit and got a good barrel. The Knox is back. Got Detamlelelei fish burgers and hit the Fagatogo market.

Day 71-March 17,2012

Downloaded Timu 2 and TS3000. It started raining when I was up at the dam. I downloaded the YSI and changed the batteries. Think I nailed it. After I got home it started absolutely pouring for about half an hour but we were headed to Aunu’u already. Looked like there was a really good plume when we drove by. Dang. Went out to Aunu’u with Doc, Cammy, Hideyo, Courtney, and Sarah. Waves were good. Our lil’ buddy was there but no problems. Stopped at Tisa’s and grabbed a beer. Went up to Captain Crook’s house for a quick whiskey and talk story. Ate at Sadie’s by the Sea and it was really good. Went over to St. Patty’s day party at Lion’s Park.

Day 72-March 18, 2012

Didn’t wake up in time for umu or golf, oops. We hiked Nu’uuli Falls with Lisa, Hideyo and Courtney. Went up to the 3rd fall. I ate shit pretty hard on a rock and got cut up. Then I banged my elbow on a rock doing the rock slide. Pretty epic hike, just slippery and challenging. Got lunch at Seafood Restaurant and hit up CostULess for some provisions. So tired by the end of the day we just chilled out at the house.

Day 73-March 19, 2012

Went to ASCO to try to get Gay Ken’s door fixed but no parts. Dropped off the sonde at ASEPA and got the piggery data, and some more stuff. Met with Domingo and Alice to discuss handing off the sediment traps and future work with DMWR. Picked up Sarah at the house and went to Faga’alu to download all the instruments. Everything seemed to work except for the Argonaut which wasn’t deployed apparently. Went over to DOC to get the GPS and other data. Also got some batteries to switch out with the Argonauts etc. Carpooled out to Gas Stations with Hideyo and Doc. Sarah snorkeled and we got some fun peelers, nothing spectacular. Fish sangwich at De Tamalelei.

Day 74-March 20, 2012

Compiled and analyzed data, I think the stage-discharge relationships are messed up because the dam is showing higher than expected flows. Need to get better velocity profiling measurements. Got a funnel. Dropped off some tanks at DMWR. Tried to dive Faga’sa but they’re on Mackerel Watch 2012 so we went to Vatia. Very pretty village. We dove the north side of the ‘ava and saw a lot of sediment. Saw 2 turtles and lots of fish. Very beautiful sunset over Pago Harbor on the way back.

Day 75-March 21, 2012

Got some tiles at Ace. Put the reef trap samples into bottles over at DMWR and got tanks. Met with the Samoana High School OSOS group at the quarry to talk about watershed impacts. Picked up some trash and walked around the stream. Alice called in sick so no diving. Water was very very rough so probably a good idea. Took several discharge measurements at the LBJ bridge and the Dam. Tried the float method a few times, pretty fun. Snorkeled Faga’alu with Sarah, very very strong current, bad for diving. Went back at 9pm to measure flow and get a sample from all the rain that started after we left.

Day 76-March 22, 2012

Met with ASEPA at 9am. Met with Christianera and Michael Wolfram, the regional program director for Region 9 South Pacific. Mr. Wolfram seemed very excited about our work in Faga’alu and getting us involved with the Coral Reef Task Force Priority Watershed work. Went over to DMWR and finished weighing the sediment trap trays and trying to tally up samples. Alice still had chest congestion so no diving. Met with Michael Wolfram at Faga’alu and went for a snorkel tour. Rocco met us out in the water and we did a full tour of the reef, it was awesome. Michael was stoked on the tour and is now acutely aware of the sediment problem. He said there’s more money on the way for restoring Faga’alu so it looks like everything is shaping up for future work. Dropped Rocco at ASCC for his play practice. Went to Doc’s and borrowed the SUP’s to paddle out to Coconut Point. Fresh island dinner.

Day 77-March 23, 2012

Dove in Faga’alu with Poasa to retrieve sediment traps. Processed a lot of them at DMWR.

Day 78-March 24, 2012

Mustache Ride.

Day 79-March 25, 2012

Went to Rocco’s for umu and then to Fogama’a for a little Survivor Sunday.

Day 80-March 26, 2012

Did more samples at DMWR. Got soil samples at the sediment trap by the quarry, in the quarry, the dam, near the gutter by DT. Showed Rocco how to do the data downloads and flow measurements. Surfed the Rock. Umu at Marsek’s.

Day 81-March 27, 2012

Worked on presentation for CRAG. Gave presentation to CRAG. More samples at DMWR. Went to see the Hunger Games. Made dinner at Hideyo’s.

Day 82-March 28, 2012

More samples at DMWR and packed up the lab. Last day in the field with Rocco. Went over autosampler, got PT out for Trent, and got Lydia at the LBJ bridge into doing some sampling. Rocco is supposed to get her the bottles and labels. Went to Sliding Rock pools.

Day 83-March 29, 2012

Finished samples at DMWR! Went to Land-Based Sources of Pollution meeting at DMWR with Christianera, Hideyo, Alice, Nick, Christine etc. and briefed them on my work. Packed up a little bit at home and then surfed Nua with Hideyo. Did some souvenir shopping. Had an epic going away Happy Hour and then went to Airport bar for dinner before getting on the plane. Got charged $100 for extra weight. Samples were pretty heavy I guess. And that was it, just like that.

# August 2012

August Field Trip for the CRTF 2012 Meeting in Pago Pago

Tuesday, August 14

Arrived late last night since the plane out of Honolulu was a few hours late due to mechanical issues. Take your time I say. Dr Mike picked me up from PPG and dropped me at my old house. Kristine was asleep but had my room made up, so nice of her. Chuck is in my old room, I’m in the corner room. Strange being a guest in my own (old) house. Trent picked me up and we went over some results from my analysis and discussed next steps and the CRTF presentation. Got a new BlueSky sim card and put some money on it. Met with Domingo at DMWR to touch base about grants etc. Lunch at DDW. Dropped Trent off at Moana O Sina, and borrowed the car to go to Rocco’s to get equipment, and get materials for mounting solar panel at TrueValue. Made up PVC frame and tested out solar panels. Only reading 10V but sun was not direct. SUP’ed Pala on Dr. Mike’s board, so so beautiful. I’m so stoked to be back! Dinner at Sushi Tokyo with Kristine and Mike.

# February-August 2013

Research Journal – American Samoa February-August 2013

## February 2013

Feb. 4, 2013: Departed LAX 10:30 AM HA 3 to Honolulu

Jennilee gave me a ride to the airport and everything went pretty smooth. HA465 to Pago Pago was on time and pretty mellow. Got 3 boards through for $150 from the mainland, not bad. Doc picked me up at Tafuna Intn’l and I moved in to his house in Nu’uuli. It rained pretty hard during the night.

Feb. 5

Pretty sunny and clear today, no rain. I check out Ol’ 76, it’s pretty rusty and leaked a lot. No parking brake, the doors don’t lock but it did start after a month. Hopefully it doesn’t fall apart. Got my cellphone un-suspended at BlueSky. Called Citibank and BofA to get travel allowances on my cards. I stopped by DOC to say hi to everyone and get the equipment from Lauren Wetzell’s grant. Got 3 Solinst PT’s with USB optical cable, 3 rain gauges with HOBO loggers and cable. Got some house keys made at CBT and got some pillows and toiletries at Tutuila Store. Swung by LBJ bridge, looks like Turbidimeter may be intact, fingers crossed! Got some new White Tops at Ho Chi Minh store. Stopped by DMWR, looks like most of my stuff is still there, including ~ 200 GFF filters so that’s good. Talked to Akuetta, Doug, and Alice, didn’t see Domingo. Surfed The Rock with Bob on my ‘new’ Ft. Knox and got my first tube back on-island. There was a Tsunami watch in effect but we didn’t feel anything. Had a beer on the balcony and kinda tripped out on being back. Fight night at Steve’s and Doc made a good dinner.

Feb. 6

Kinda pissy rain and overcast. No wind. Tested out new Moultrie cameras. Got some feedback from Curt about drifter design. Setup Skype credit and talked to dad. Checked on equipment arrival, I think everything is on the way. Lots of emails and tracking down equipment and finalizing plans. SUP’ed out to Coconut Point and went to Nick’s birthday BBQ at K’s. Feeling kind of sick today, sore throat etc. maybe from the weather change.

Feb. 7

Clear, sunny and HOT. Hit all the hardware stores getting stuff for drifters, PT’s, and sed traps. Had to get 8” pipe scraps at ASPA since nobody on-island has them. Tested out Moultrie cameras some more. Scored Poloa pretty good with Stan, Dustin, and Kilopa. Got a really first wave with a cover up and then got one of the best tubes I’ve gotten on island on my second. No blood, no broken board. Still waiting to get laptop from Rocco so I can ascertain the fate of my instruments in Faga’alu and figure out deployment of new instruments.

Feb. 8

Woke up to pouring rain ~6am-7:30am. Nu’uuli looks like it’s about bank full and turned fairly turbid after about 45 min. of rain. Cleaned up sample bottles to start collecting samples. #1 at 7:50. Collected samples at upper Nu’uuli. It was a raging rapids and stage up to the foundation of the bridge. Couldn’t cross stream to reach falls. Very turbid and dirty looking but darker and not muddy looking. Went to Dam at Faga’alu. Stage was pretty high, spilling over sides of spillway and about the same color and turbidity as Nu’uuli. Difficult to wade across DT. Sampled at LBJ also, stage was 64 cm. No work at the quarry today but changes and BMP’s (attempts at, at least) have occurred since last visit. Tried to get Turbidimeter from Fatima but she was out to lunch. Got GPS loggers from Kristine at DOC and then the rain cleared out completely and it was a beautiful dry afternoon-night. Eventually got the OBS-5000 from Fatima, it looks rad but some assembly required. Golfed with Bob, Fiji, and Vehar. Losing my voice. Camera tests came out pretty good.

Feb. 9

Clear this morning and then a little rain around lunchtime. Rocco dropped off the laptop, some sample bottles and other equipment. I went to Faga’alu to check on the equipment. TS3000 and PT at dam are gone. PT housing at DT was there but PT was not inside. PT and YSI-turbidimeter were there (!) but PT maxed out memory around October. One out of 2 turbidimeters and 1 out of 3 PTS. I think the rain gauge is out of batteries as well. Wasn’t able to check weather station due to church services. Capt. Crook brought over about 100 lbs of yellowfin, albacore, dorado, and ono and it took us a bit of effort to saw them up. I cleaned up the porch and organized equipment. Had a bit of a welcome back party with the crew, pretty fun.

Feb. 10

Not feeling well, my voice is still gone and now I have a bit of a cough. Cleaned up the house and chilled out, it was clear, sunny and HOT. Checked the stretch, did laundry and dishes, got water and watched some surf videos. Ended up surfing really fun Gas Stations with Steve, Bob, and Stan. Still trying to figure out the OBS-500, it’s pretty complicated.

Feb. 11

Sunny and clear. Surfed my new JS at Coral Heads, which was pretty epic. Crystal glassy barrels right and left all by myself until Stan paddled out. Got some car repair materials and tried to fix my car. I lined the inside with plastic trim and then filled it with foam. Tried to get the autolevel at the Post Office and then at the Mail room at DOC, no luck. Put the PT back in at LBJ and changed the batteries in the HOBOLogger at Timu1. I think the family at the church is gone, couldn’t check the Wx station today either. Went to Cost U Less for C-batteries and a USB drive and my brakes went out when I pulled up and I crashed into the store. Then I let my foot off the clutch in a panic and crashed into the store again! The brake fluid was way below Min so I bought some fluid across the street and got the brakes working again. Pretty bummed on Ol’ 76, definitely could have been a lot worse though. Continued work on my car, did a first pass of bondo above the windshield, seems to be holding out most of the torrential downpour.

Feb. 12

Another hot one. Still not feeling well. Surf was down on the stretch so no surfing. Got to work on learning the new Campbell Sci equipment for reals this time. I think I have it ready to install, still want to figure out the wifi connect. Deployed rain gauge in my yard. I went up to Nu’uuli falls looking for a good spot for the upstream discharge site, didn’t really find one. I think I’m going to use the bridge at the end of the road and just sample at the stream crossing on the Falls trail. Bob came over to look over some dings, he hit the rocks at Sliding pretty bad. I knocked together the shaping blocks to assist his efforts, we’ll see if that Pala mud dries like cement. Sanded and put another coat of Bondo on the ’76, that oughta do it. Worked on fixing some of the window seals also. Undercoated around some of the roof, now it just needs some paint. Pulled out the GPS loggers but I need a USB charging hub. Put together the other rain gauges too.

Feb. 13 Wed.

Worked out housings for batteries for the Turbidimeter up at the Dam and got the OBS500 up and running. OBS500 wifi needs a radio connected to the computer so no go on the inaccessible installation. Got USB hub and charged up GPS loggers. Bought food and supplies for Ofu and dropped off at the harbor, heading to Ofu at 10pm.

Feb. 14 Thurs.

Arrived Ofu in the early morning following a not terribly unpleasant overnight boat ride on the M/V Sili cargo ship servicing the Manu’a islands. Helped Jim unload stuff for Vaoto and then took a long nap in my fale. Walked to bridge, hitchhiked back. Read a bit and then Vehar arrived. We had some beers and dinner and then played some billiards with Shrek (Malo Mike), Donkey (Mo’ money mo’ problems), and Jim.

Feb. 15 Fri.

Amazing snorkeling at the NPS. Saw Sammy briefly and tons of good stuff until the tide dropped too low. The rest of the crew arrived in the afternoon.

Feb. 16 Sat.

Went bridge-jumping in the am and then snorkeled in the afternoon. Had a few beers in the shallows and then hung out at the lodge. Went out with the spear in front of the lodge and had the most epic snorkel session ever. Saw rays, lionfish, blacktip sharks and every kind of fish and coral during an absolutely stunning sunset.

Feb. 17 Sun.

Hiked up to the top of the ridge, pretty epic view. Trail was well-maintained and easy to follow. Tried to snorkel but too tired. Had beers and played horseshoes instead.

Feb. 18 Mon.

The crew left in the morning. Went fishing down at the bridge and jumped off some more. I walked out to check the left in front of Olosega and met the WorldTeach teachers. Then we pretty much just chilled out and read books in the fale by the beach.

Feb. 19 Tues.

Mellow morning reading at the fale and then went snorkeling one last time. Got a good view of Sammy the shark (~4 foot black tip) and saw tons and tons of cool fish and corals. Chilled on the beach and climbed coconut trees and ate coconuts. Pretty epic last day.

Feb. 20 Wed.

Took the ali’I boat from Ofu to Tau with Vehar and Carlo the NPS guy who described an interesting waterfall that he samples for baseline water quality on the north side of Tau. Said he’s seen it turn pretty brown. NPS gave us a lift to the Manu’a High School and the Police station. The policeman said his truck was out of gas so we hitchhiked to the airport with the guy who runs the stores on Ta’u. Flew back Inter-Island and unpacked, showered and laundry. Not feeling particularly well and it was as hot as it gets. My shaping blocks are drying out but the rain gauge was removed from the yard and put under the roof, no data was recorded however.

Feb. 21 Thurs.

Went to Ace and True Value and CBT and got everything rigged and ready. Went by EPA to get the data and ended up getting a corner window office, thanks Travis!

Feb. 22 Fri.

Installed OBS 500 at LBJ with Rocco, had to run back and get a steel post to mount it on. It looks really good I’m stoked. Three Legged Dog played on our porch and it was pretty Action Packed as well.

Feb. 23 Sat. rg-8mm

Worked on SedPods, surfed Alao and it was pretty good but I dinged my board by falling on it with my elbow. Went to Prom! Aka Vehar’s Tofa, it was pretty fun.

Feb. 24 Sun. rg-11mm

Worked on SedPods, then surfed Sliding with Aaron Wisdom. It was a little high tide but still got some barrels and a few good whacks. Emailed Dr. Wu about sediment particle size analysis.

Feb. 25 Mon. rg 12 mm->0; 64 tips> 0

OBS at LBJ is looking good. Got the battery box at the dam installed and everything rigged up but then Rocco had to go to class. I bought the concrete and we were all ready to finish the install but when I tried to recalibrate the YSI it appears it quit working! So we brought everything but the battery box back, total bummer. We installed one of Lauren’s PT’s up at the dam (started at 3:30pm, installed around 4:00pm). Organized a lot of stuff at home and then surfed Sliding. Brakes went out again on my way home and I had to swerve into the oncoming traffic lane going downhill, tried pumping the brakes, tried downshifting and went fishtailing into family bingo night in Ili’ili. So the ’76 is grounded until I get the brakes checked out.

Feb. 26 Tues.

Took the 76 over to Singh to get checked out. Brake line is rusted through on the starboard forward brake. Starboard forward tie rod is shot. Forward idle arm is shot. Rear brakes ok but need a new seal (?) and the e-brake needs connecting. Timing cover gasket is leaking oil. We bought the tie rod, cover gasket and brake seal at the place by the airport. Singh said he had to remove the brake line and take it to his nephew to fit at Napa. I gave Singh $20 to get him started, he said the whole repair should be about $300-350. Singh dropped me off back at the house so I tried the Turbidimeter and it is still not working. Talked to YSI tech support, they advised cleaning with isopropyl and drying, didn’t work. I think I have to send it in for repairs. Finished cutting SedPods and got about half the screw eye in. Worked on a mockup of a drifter, not incredibly pleased with I but it’s coming together. SUP’ed to CP and caught a few waves off the ‘ava left. Doc’s sick, throwing up.

Feb. 27 Wed. rg 11mm->0, 41 tips ->0

Rained last night for about an hour but not very heavy. Possible rain trough next week. Hopefully I get my truck back today and can work on the last few things. Shopped at ACE, CBT, and TMO for supplies for the drifters, I think I have everything now. I think I have bought every ¼” lag screw eye on the island for the SedPods but still cannot find the qwik caps. May have to order. Doc is super sick so I got to borrow his truck. It rained for a bit so I went to Faga’alu and grabbed a sample. Not sure the OBS is working so I went home to grab the computer to check it. YSI says to mail back their POS Turbidimeter but I have to get a form printed out at EPA. Checked the OBS and put in a new program, I think it’s working now. Got the form but missed the post office by 5 minutes (sonofa…). Checked on the weather station. A new family has moved in and the station is in good working order, got data back to Feb. 1, 2013 which is good. I replaced the batteries and restarted everything. Alt. 13 ft (4m), large cup size (yeah baby), etc. Ted shit all over the porch so I had to clean up the area. Misi is pissed at Mike and wants Ted gone. Made a prototype of the drifter, I think it’s much better now. Singh brought my truck back, $285 for everything, plus $40 in parts and $20 from yesterday. Went back to Faga’alu to grab a sample, NTU~100? Went to Vehar’s to get some food and stuff since he’s moving away.

Feb. 28

Spoke with D. Fraley at YSI and he says to mail the whole YSI instrument, sonde and probe. Mailed the sonde and the probe at the Post Office which took forever. Checked on the OBS and it appears it is working, I’ll have to figure out the data. Went to Peter Houk’s presentation at ASEPA and then worked on the proposal response. Ran on the stretch and tried out the new kicks. Went to Vehar’s tofa dinner at Manuia.

## March 2013

Mar. 1 rg 3 tips, 1.5 mm -->0

Did the hardware store run-around to Ace and CBT for stuff to mount PT’s in Nu’uuli. Installed Nu’uuli 2 PT. Batteries ran out on the drill so I had to come home and charged up. Finished my drifter prototype, it looks sick! Sent Curt a photo and he approves. Went back up to Nu’uuli and finished driving in the concrete screws. I’m really stoked on the setup and talked to a lot of the local families (Lola, Stu, Le’eapu, etc.) and they said they’d keep an eye on it. I went and did some more recon on the lower Nu’uuli one and now I’m not sure where to install, there’s a few options.

Mar. 2

Surfed Sliding Rock in the morning and got a couple good ones. Christina was shooting photos and I got a pretty good one. Went for a “quick” lunch at Tradewinds and ended up taking over 2 hours. Worked on the response to the NOAA CRCP grant app. SUP’ed out to Airport, starting with a terrible mud-walk in the Pala. Waves went pretty flat when I got there but I like the quad setup on the new JS. SUP’ed back while Bob and Stan did the trash walk. I couldn’t do the mud walk in the dark so I paddled to Lyon’s and got a ride home from Tina’s with Bob. One of the clearest days I’ve seen here, lots of stars at night during my paddle.

Mar. 3

Worked on NOAA CRCP grant app response. Surfed Pua Trees with Stan. It was a beautiful session but kinda weak waves. Starting to cloud up, I think the trough is heading this way from the Southwest. Poured concrete in 10 SedPods and did some email correspondence with P. Houk. More work on grant response.

Mar. 4

Finished CRCP response and sent to Trent. Installed PT at downstream bridge in Nu’uuli. Went to DMWR to get tanks and talked to Domingo about CRCP grant funding. I think I tweaked my back putting the tanks in the truck. Dropped tanks off at home and then Domingo called me to meet with the Director Ruth. Drove all the way back to DMWR and met with Ruth for about 15 mintues. They’re very supportive of the SedPod work and want to expand to Leone at least and hopefully more locations. Replaced batt’s in Timu 1. Downloaded PT at dam and LBJ and OBS. Went for a run on the stretch.

Mar. 5 Finally rained last night

Sampled Nu’uuli and LBJ. Went to ASEPA while it was not raining and looked over some old photos of the Faga’alu dam complex in the far upper watershed. Finished revising Trent’s revision of the CRCP grant response. Went to DDW with Rippy, Tim Bodell, Travis and Bob. Working at ASEPA is sweet. Grabbed some more samples in Faga’alu and then went for a surf at the Rock. Came home after and worked on Drifters. Went and got more samples at Faga’alu and went to Bob’s.

Mar. 6 Rained a lot last night, more this morning

Finally got a good day of rain. Sampled Nu’uuli and lots at Faga’alu. Around 1315 I was at LBJ and talked to Stan about Alao and told him I had to grab one more sample at the Dam. It was raining lightly and the runoff from the quarry was pretty clear. I grabbed the sample and was walking down when the rain got heavier and must have hit the threshold for sediment erosion because all the runoff turned very muddy. Whatever that rain rate was, I think it was significant. Tried to surf Alao with Stan during a break in the storm but it was blown out. Went back to sampling. Deployed the time-lapse cameras at the weather station and LBJ. The batteries on the OBS are dead, fuck. The truck is acting weird, couldn’t make it up the other side of the Drive Thru.

Mar. 7 Rained on and off

Re-formatted the CRCP response according to Joey’s correspondence with Liz Fairey. My truck wouldn’t start, something with the fuel pump. The #2 injector was unplugged also. Called Singh out to fix it. Tried to re-code the OBS500 so it doesn’t run out of battery. Mike drove me to the LBJ and I got it working again, just in time for a serious downpour. .8in. in less than an hour and the stream jumped up to 45 cm and chocolate brown. I went to DMWR to get my filtering stuff and returned to grab some samples. Came home, paid Singh $60 for fixing the wire going to the pump. Went back to Faga’alu to grab some samples and reprogram the OBS. Swung the solar panel around to the other side too. Went to Fight Club Yoga. Sampled Nu’uuli , there was a little flash downpour but nothing special it turned out.

Mar. 8

Attempted to find an arrangement for suctioning the TSS filters. Went to Ace, MeeWon, Tool Shop, Hawthorne and Transpac. No dice. Downloaded data from every instrument except for the weather station because the family wasn’t there. Retrieved the rain gauge that was up on Blunt’s Point ridge. Surfed the Rock with Bob and got some sick ones. Went to Dustin’s house to celebrate Superstar Produce’s powering up.

Mar. 9

Worked on CRCP revision and sent off to Trent for revision. Drove out to Gas Stations and got it fun but inconsistent with Stan, Bob, and Steve. Went over to DeTama’s for a fish burger and then out to Tula Climate Observatory. Had an epic night of stargazing out on the point!

Mar. 10

Had a nice morning walking around the point and checking out the Observatory. Checked Gas Stations on the low tide and it looks pretty gnarly. Really pretty beach around the corner though. I hacked out the trail pretty good with a machete so it should be nice and easy for a while. Had a quick lunch at Bob’s and went to the Sliding tide pools. Very relaxing day.

Mar. 11

Woke up to thunder, lightning and torrential rain at 3am. Got up and grabbed a few samples in Nu’uuli and one in Faga’alu. Sent final CRCP revision to Joey. Got some gas after a bit of run around. Got batteries for the flow meter. Took some Q measurements and downloaded the rain gauge by the house. Downloaded the OBS and the Wx. Looks like everything was working, now to check the Backscatter measurements. Surfed Sliding with Steve.

Mar. 12

Sanded out windshield repair and tried to seal it up a little better. Worked at ASEPA on analysis, got the NDBC barometer data going. I’m pretty certain it’s from the tidal station at DMWR. Golfed with Bob, Marsek and Fiji.

Mar. 13

Took Lucas from NOAA out to Sliding, it was pretty good. He got rocked on a few. He was down here training school teachers how to do water quality monitoring so we’ll probably keep in contact on that. Bought a little shop vac at ACE and built a little filtration setup for TSS samples. Built drifters, they look neat. Cleaned out the ’76 with the shop vac and threw a coat of paint over the windshield.

Mar. 14

Finished last drifter. Did some more with the NSTP6 barometer data. Tried to get to the post office and missed it by a minute. Did yoga at Tina’s.

Mar. 15

Worked on barometer shenanigans some more. Got set up at DMWR to do the TSS filtering but I think I need a bigger shop vac. Dove in Faga’alu with Brian George. Tina Hammock ran the kayak for surface support. Beautiful day to dive. We got 1A, 1B, 1C, 2A, 2C, and 3C. Didn’t have time to get the others. Very few were left intact. Surprisingly the deep ones were gone too.

Mar. 16

Hiked Matafao to get rain gauge. Nice hike up and then it rained a lot on the way down so it was a bit slippery. We had a lot of Mike’s visiting doctors over for umu prepared by our neighbor Rodney. The food was good and I was starving from the hike.

Mar. 17

Very sick, gnarly stomach flu

Mar. 18

Still sick, made it out of bed to do emails.

Mar. 19

Overcast so nice and cool. Worked on some more coding. Tried to exchange the shop vac at ACE but the manager was in a meeting. I bought a bigger model, will have to try it out tomorrow. Checked sediment traps 3B, 3A, 2B. Nothing from 3B, a tile from 3A (I broke the tube but it appeared to have very little sediment, and nothing from 2B. 2B was a sonofabitch to find. I had to come home and deploy the SUP, which worked really well. I think I’ll use the SUP from now on. I put the samples in the lab at DMWR to decant. 7 in total. Still not feeling well. Got the GPS software working and the loggers downloaded. Tried to sort through some GoPro footage.

Mar. 20

Met with Alice and Domingo to discuss monitoring in Leone. Got sediment trap samples into the oven. Tried to return the shop vac, no dice. Got a new shop vac. Worked on code. Checked out Leone via SUP, it was epic. Looks like a good study site though perhaps more complex than Fagaalu. I think it will be a nice change and see if what we learned in Fagaalu applies.

Mar. 21

Worked on code. Put a timelapse camera at LBJ. Went to grab some samples and ran into Mitch at the quarry. Talked to him for a long time about how he started the quarry and old surf stories. The stream above the quarry was very muddy, Mitch says there’s a landslide up there. Worked on finishing up sedtrap samples. Had to split one and had to do one in two steps. Filtered a bunch of TSS.

Mar. 22

Worked on code, got the aggregator function working fairly well. It’s way way way faster now. Went over to DMWR to finish filtering samples but they were dissecting a dead dolphin, gnarly. Finished weighing the sedtrap samples but I scorched some of the TSS samples (F!). I think there’s about 6 or 7 that I can’t figure out. Met with Steve’s uncle Sua, a high chief in Leone about the work over there. Checked Poloa, surfed Nua. It was small and fun.

Mar. 23

It rained pretty hard around 11am. I ran around getting samples (nutes too) in Nu’uuli and Faga’alu. It was a good, clean storm, hopefully I got some good samples out of it. Had a bit of an encounter with a dog up in Nu’uuli and met some kids swimming in the pools above Faga’alu. It looks like the metal box for the Turbidimeter at the dam has been tampered with but there’s nothing in there. After the rain cleared I went surfing with Stan at Poloa. It was pretty solid with some double overhead sets that I wanted nothing to do with. Got a couple big pits though, even got a few photos.

Mar. 24

Reworked the aggregator code functions to fit with the rainfall data. Data recorded after a start time, up to but not including the end of the interval is aggregated to the beginning time of the interval. Think about how daily rainfall is recorded. Steve took his boat out to Airport and I met Stan at Elbows for a super fun SUP surf. Got some good footage with the GoPro

Mar. 25

Worked on some code and other things and then had an epic day of filtering all the TSS samples (54 of them!) at DMWR. Got the rest of the sedtrap samples into bottles. I don’t think those trays are going to work, they get little pin holes in them too quick. Drove out to Poloa with Stan and Steve, it was close to perfection but not close enough! Breaking on 2nd peak too much and not enough on 1st peak. Went back to Sliding and had a really fun session. I got washed through the grater rocks on my first wave and miraculously me and my board emerged unscathed in the lagoon. Stan gave me his old tv to use as a monitor.

Mar. 26

Worked on code, redefined the PT loading module to make it more generic and grab PT data from different PT’s. The PT used last year at the Dam was a Hobo, but I replaced it with a Solinst LevelLogger from Lauren. Had to work that out. Reworked the TSS sample input so it’s more streamlined. Set up the barometer data so it fills in 1 or 2 missing values with the previous value. Spent several hours figuring out how to make colored scatter plots to investigate hysteresis. It was an out of place comma in a an assignment like Stage, = plt.plot(). Ran around for some quick samples in Faga’alu (~9 or so) for a small rain. Worked on code some more, need to sort out the Q more rigorously so there are no negative values.

Mar. 27

Worked on code, readjusted some discharge calculation stuff and rating curve stuff to remove negative discharge values. In July either the stream got really low or something happened at LBJ. The stage is down to 1.5cm. Seems improbable. Using logarithmic rating curves removes negative values but then the high values are way too high (I think?). Right now Q is just set to be ‘NaN’ if negative. SUP’ed out to Airport but too windy. Finished Mad Men.

Mar. 28

Dawn patrol at Coral Heads on the newly repaired Pod, super fun solo session. Downloaded data from all instruments. Data processing, trying to streamline. Went to yoga to ‘create space’. Had dinner with neighbor Rodney

Mar. 29

Surfed Coral Heads. Worked on loading in barometer data from FagaaluPrime. At some point around 2/25/12 there was some sort of malfunction. On 3/7/12 I downloaded the data from the wx and noticed it was off by several hours. I fixed it but did not detail how I did that. The FP-8\_16\_12.txt file is corrected (again, no idea how) so I used that. Now I can just copy and paste FP data into FP\_Master-Copy. I also fixed the error handling on the NDBC data. It also works now. Going camping to Amalau!

Mar. 30

Woke up at Amalau after a great night of camping and made breakfast and coffee. Got kind of a late start but got over to Gas Stations for some pumping head high+ tubes and runners. Doc is back on a longboard. Came home and took a nap and read a book and then went for a run on the Stretch.

Mar. 31

Surfed the Rock in the morning, super super glassy, like surfing on an aquarium. Got 2nd in the What Would John Daley Do Golf Tournament and won the longest drive competition. BBQ’ed at the house after and then crashed out.

## April 2013

April 1, 2013

Slept in a bit and then surfed Coral Heads with Doc, it was really fun and I got some good tubes at the HoneyHole. Spent the day getting receipts together and doing accounting. I think it’s all ready to submit for reimbursements. Got the GoPro footage all sorted out and both cards cleared. Finished getting all the data prepared for the code. Got a lot of code worked out for the Nu’uuli stuff. Now there are two folders, one for Faga’alu and one for Nu’uuli. Each has folder with the Master data files. I still never sorted out the Faga’alu weather station issues but now I have a file that I can just cut and paste new data into. Also, looks like the Nu’uuli rain gauges defaulted to 1 min. interval though I’m not sure how. They used up all the memory too quickly.

April 2, 2013

Woke up with the worst neck cramp, can barely move. Got the OBS500 data up and running. Worked on the Moultrie camera time lapses and sent emails to Alice, Liz Fairey and Trent (about the YSI thing). Bought 21 more Eye-bolts for the SedPods and made 8 more SedPods. They should be ready in a day or two. Checked out our potential new house in Faganeanea and dove with Kristine and Bob out by Coral Heads to about 70 ft. It was kind of dark but pretty cool.

April 3, 2013

My neck is still really sore and I can’t turn to the right. Got the timelapse stuff pretty dialed on the computer. Had to download some new programs. Maybe time for new computer? This thing is getting full and slow. Organized and cleaned up all the equipment and odds and ends I’ve been accumulating. Did a test deploy of drifters in Faga’alu but they sank. It was kind of a scurry to find them all. Bernardo and Oliver were out doing transects. Bernardo pulled up SedPod 3A without realizing it but he said there was no sediment on it. I think I’ll just leave them in til the end of April? Got some pipe insulation at ACE to increase the buoyancy of the drifters, it appears to work. Ran on the Stretch in the dark.

April 4, 2013

Sorted out some issues with YSI. I spoke to Curt the Technician and he explained the batteries in the 600 OMS probably died then leaked. I talked him down to a $725 repair with a nice discount from him. I worked on some OBS500 analysis and learned some more stuff about CRBASIC and SDI-12 commands. Deployed drifters in Faga’alu with much more success! It was really fun and I think it worked. I left one drifter in the truck as a control and deployed 2 near Doc’s Rock about 20 min. apart (~1340 and 1400). I dropped one about midway between Doc’s Rock and Rebar Island. Went back to the truck and grabbed the 4th drifter, dropped near 2b. To kill some time I caught a few waves near Rebar Island, it was pretty wild. Winds were light SE, then strong E, then calm. It seemed the drifters went straight to the ‘ava and then just sat there. I thought they would go out the ‘ava but they kind of just hung on the side of it. I retrieved them all without incident and then golfed 9 holes with Bob, Kristine and Fiji.

April 5, 2013

Woke up to a call from CampbellSci’s Jeff Adams to discuss the OBS500 issues (@630am). We discussed at length and then I sent him some data and photos. Worked out the GPS Bluetooth stuff so I can load the data quickly. Took a quick stab at analyzing the GPS drifter data, it’s pretty cool. Got the drifter tracks and some preliminary current speeds. Surfed Gas Stations with Doc. When we got there Bob and Steve were just leaving because Bob cut his leg pretty bad. He broke the nose and fin of his board, I think the fin got him in the leg. I carried his board up to his truck and grabbed a towel and duct tape. I met him back on the trail and he had his rashy wrapped over it. We got him in his truck and gave him some water. Steve drove him back to LBJ. He cut the muscle so they admitted him overnight for a morning surgery to reattach the muscle. Bummer. We got some good waves but it was kind of slow and then got burritos at First Friday market.

April 6, 2013

Worked on data analysis and inputting my field notes. Got Picasa and started organizing photos/videos. Saw Bob in the hospital, he was just getting out of the O.R. He cut a few muscles and won’t be able to surf for a few months, bummer. Surfed Gas Stations with Doc, Steve, and Stan. It was inconsistent but the winds were good. Had a steak dinner!

April 7, 2013

Worked on organizing photos/videos. Surfed Gas Stations with Steve, Stan, Oliver, another NOAA guy and Tim Clark. Wind was shit but there was a bit more swell.

April 8, 2013

Woke up to a call from Susie Holst, can’t believe I forgot! Spoke to her about what is going on at the quarry and getting a new CampbellSci Turbidimeter for ASEPA to put at the quarry from NFWF. Finished organizing photos. Got some feedback from Curt, Carter, and Libe about the drifters. Deployed drifters in Faga’alu Bay. Did all 5: 2 South, 2 North, 1 at the stream mouth. They all worked pretty well and were easy to spot. I let them go for an hour and then redployed them to slightly different starting positions. Conditions were typical moderate wind and low swell. I tried to find SedPods but could only find 3A (disturbed) and 3B (ok). 2B was very difficult to spot and I couldn’t find it. I put the Moultrie on the ASEPA advisory sign and got a cool shot, though I forgot about it and had to drive back to get it. Overall, an awesome day of science and I think I’ve worked out my drifter program. Went food shopping and struck out on nearly everything I wanted, ha. It’s official, we’re moving to Faganeanea, Mike signed the contracts.

April 9, 2013

Worked on the drifter data. It’s easy enough to load the data, kind of a pain in the ass to separate the tracks but not too bad, and then it was quite difficult to get the data into ArcGIS. I had to download a script to get the GPX files to convert to Features, and then alter the source code of the GPX converter to modify the time to work in Arc. The timestep function in ArcGIS was kind of ridiculous but I wrote a function to sync up the timesteps of the drifters and managed to export an uncompressed video without ArcGIS crashing. I’ve been trying to write README’s for stuff as I go through it now. It didn’t like video compression at all. I went over to DMWR to give Alice my GoPro and do some samples that have been lingering around since 3/28. Kristine texted me about the CRAG meeting which I completely forgot about. I was a little late and then was asked to present! Miraculously I had my computer and showed them the drifter stuff and some Quarry photos (stoked I had Picasa all fired up and organized!). They said they enjoyed my “presentation” and then there was some craziness with Lelei not being in charge and Domingo/DMWR stepping in. Crazy politics. I finished filtering my samples at DMWR and then went for a run on the Stretch. Went over to Bob and K’s for a little ‘welcome home, Bob’ dinner.

April 10,2013

Deployed drifters in Faga’alu again, it was pretty rad. Oliver and Co. were out and I paddled out to say hi. Caught a wave at Doc’s Rock finally on the SUP. Got 2 drifts in. Unloaded at home and then went over to DMWR to finish the TSS samples. Started reading up on pandas, a sick module for python that specializes in time series and data analysis. I think I’ll start using this method.

April 11, 2013

Woke up early and got to work on pandas. I’m slowly figuring it out but it is really helpful when it works. I’ve got the barometric data and PT’s working. Went for a run on the Stretch.

April 12, 2013

Dawn patrol at Poloa with Stan, Steve and Crook. Epic tubes, I think I got the best barrel I’ve got so far in Samoa. A real deep one from behind the section with a pump through like 3 sections and spit out. I got a few more good ones but not like that first one. It was a few feet overhead on the sets but some fun head high+ ones for doing some turns. I got caught on the axe and bailed my board and got wrapped up on a coral head, scraped my side. I also got clipped on one and the nose of my board went in my armpit, glad I had a tshirt on. On my last one I had to duck out the back and then got hammered by the next one. I went over the falls and crunched the tail of my Ft. Knox. Epic session though. I came home and finished up some pandas stuff. I got the hydrograph data separated, FINALLY!!! So stoked. Now I have a list of events defined by a threshold value and can really get to work. Did some sundown drinks at Moana o Sina with the Sayles’.

April 13, 2013

Surfed Gas Stations with Stan, Steve, Doc, Ephraim and Ben Goodwin, kind of a big crew. It was pumping though and we all got tons of waves. Came home and set up for the Mustache Slide. Called Jen for her birthday. The Mustache Slide was epic. Party ended by breaking up a 415 verbal going physical between Rodney and Dustin.

April 14,2013

Drove out to Gas Stations but missed Crook. It was big but messy and weird. Didn’t end up surfing, just checking a lot of spots. Worked on Mustache Slide video and cleaned up the house.

April 15, 2013

Applying hydrograph separation technique to sum up storms. Got a call from Captain Crook that Gas Stations was doing it’s thing so I went out there and got a few waves and a few more stories. Picked up my package at the Post Office with new phone and clothes. Downloaded all the instruments. Timu 1 wasn’t working. Not sure what happened, maybe the memory was full or maybe it wasn’t launched or the batteries crapped out. Really frustrating but at least we didn’t miss any big storms. Worked on migrating code to use pandas, wish I had known about it a lot earlier. I basically wrote a ton of code functions for nothing since they’re already in pandas, e.g. aggregator. So now I have Timu1, FP, NDBC,Tula, and the PT’s loaded. I have a hydrograph separation routine that can be customized. Time to do this thing!

April 16, 2013

Looked like a good north wind day so I decided to do some drifters. There was a fair bit of south swell and Doc’s Rock was kinda going off. I grabbed some stream samples just in case and I started the drifters at 930 and deployed in reverse order with D5 going out first by the rock. I did another deploy after D3 was out taking bombs on the finger reef. There was some good rains but short while I was out and then it just started pouring. I threw all 5 drifters in the streammouth to hopefully follow the emerging turbid plume. It appeared the plume moved right on past the drifters which were moving very slowly away from the stream. One even ended up back on the beach. The plume stuck mainly to the ‘ava and you could see a clear line on the south reef where something (current?) was pushing it into the ‘ava. It was well delineated until about halfway to the rebar island where the boundary was more diffuse and it appeared there was some mixing. It appeared to me that the turbid plume was a thin layer sliding right over the top of the underlying current regime. The drifters were nearly stationary and the plume made it out the ‘ava. While they were drifting I threw the SUP in the truck and got some stream samples. I was running pretty low on gas and didn’t want to run out up at the quarry so I went to Cocounut point but was randomly closed. I went back to Faga’alu and retrieved the drifters. I continued sampling and then went home for a hot shower and some soup. I went back to grab more samples and it appeared the rain had stopped and everything was clearing up.

April 17, 2013

I think it rained lightly to heavily all night. Up at 5:30 and out to get some samples. I couldn’t get any in Nu’uuli yesterday since I was busy with the drifters. I’ll get some today. Looks like a nice recession limb of the hydrograph kind of day. I grabbed some samples from Nu’uuli but not sure how useful they’ll be. I put out the timelapse cameras in Nu’uuli and Faga’alu anticipating another big rain but nothing happened. I got a few samples and Q measurements at the Dam and LBJ. It’s difficult without an assistant. It’s Flag Day here so everyone has the day off and it’s a big holiday. I missed the Fautasi boat race since it was at 7am! I checked the Stretch around 10am on my way to Nu’uuli and it looked epic. Since not much was happening with the streams today I figured I’d go out for a Flag Day surf. I ended up surfing The Rock about 10 foot and nearly as good as it gets, by myself, for about 3 hours. Bob, Kristine, Travis, and Dustin sat on the point with cameras and I got some good tubes and some good shots. I got probably the biggest tallest barrel I’ve gotten here (and in a long time) but on video it looks pretty short haha. I went over to Bob’s to check the photos and video and ended up staying all day since everyone was off for Flag Day. The waves were beautiful out front all day and we hung out on the balcony for awhile just watching offshore bombs off Coconut Point. Pretty good Flag Day all things considered.

April 18, 2013

Pretty beat from the last two days so I slept in til 9. Doesn’t look like it’s rained last night. Worked on migrating/enhancing code with Pandas. Finally got ShadeSundays to work! I posted it on StackOverflow.com and got an answer right away. Some bullshit about np.arrays vs lists broadcasting Boolean values. Surfed Doc’s Rock FINALLY with Dustin and Xavier, it was soooo fun. Head high righthand peelers with some tubes mixed in. I scraped my back to pay some dues a little but no harm done. I hustled in when I saw some storm clouds and got some good samples from a very short rain. Got a Q measurement under the bridge. Came home and did some more work on stage-Q rating curve stuff with Pandas, got it working.

April 19, 2013

Rocco rainchecked on the survey, we’ll do it Monday I guess. I worked on P vs Q plots, they’re coming along nicely. Surfed Coral Heads and then it got blown out right when Hideyo showed up. Got some photos and footy from Wednesday from Bob and then came home and worked on code some more. Talked to parents and Jen on Skype.

April 20, 2013

Slept in til 10!! Worked on timelapses of streams from Tuesday. Did some picture and video organizing. Backed up computer on WDPassport. Bought a new 2TB Passport because I’m running out of space on everything. Tried to go through and clean out duplicate crap from SEBAL and everything else. Ran a bunch of Glary defrag stuff etc. Hideyo and Crook came by for story time for about 2 hours. Grocery shopping. Did some yoga. Shopped for a new laptop. Happy 4/20.

April 21, 2013

Bought a new laptop! Worked on some code stuff. Got the storm totals working! Victory! Went for a run on the stretch. Watched some surf movies with Bob and Tina at Steve’s while he was packing and getting psyched for his Savai’i trip.

April 22, 2013

Presentation at DMWR was canceled. I got the SedFlux data going at LBJ and at the Dam. Got P-Q plots and P-S/Q-S plots to Trent. Had a stuffed squid and pasta lunch with Doc, even had some wine! Doc’s leaving tonight and Steve, Hideyo and Stan left for Savai’I this morning. My camera that took a swim on the Mustache Ride mysteriously started working again.

For tomorrow: plot Storm Erosivity Index vs. S

April 23, 2013

Doc left last night, everyone else went to Savai’I and Crook is going to Fanning on Thursday. Time to put work into hyperdrive! Rocco flaked again on surveying. Worked on some data analysis: P vs S and Q vs S with dotsize as function of Pmax and Qmax respectively. It started raining so I went to Faga’alu and saw a real cracker of a storm. I’m guessing ~70mm of rain. LBJ stage was up to 93cm at one point. Got like 23 samples and like 10 nutes samples. At one point I could barely drive through the DT, it was super sketchy. The family saw one drive thru and it was a real crowd pleaser. A piece of ‘ol 76 fell off in the hospital parking lot and I recovered it some time later. Got a good AV measurement at 50cm stage, stoked. The Dam was gnarly. Waterfall was roaring, it was at pretty much bankfull on the right side, up to the veg. I put some rocks and took some photos. During the first part of the rain when it was super radical there was still a guy up on the top of the quarry dumping a bunch of material down. Like huge boulders coming rocketing off the face with shrapnel getting blasted out. Definitely the sketchiest sampling of my life. There were jets of water shooting out of the ground near the dam. Not gurgling springs, freakin’ jets of water hosing out of the mountain. There was kind of another storm burst after I went home to grab more bottles but nothing too crazy. A little more rain after dark but not much.

For tomorrow: EI instead of just Pmax. EI requires raw data from rain gauges to compute 30 minute moving window total. yeah Pandas.

April 24, 2013

Woke up to 17 emails at 630am, yikes. NFWF report past due, SDSU semester research summary due, Frank needs VIN and address for truck, YSI shipping quote, etc. Good morning, real life. Got Research summary to Patti, VIN to Frank, YSI is shipping the OMS600 back to me. I inputted data from my field notebook and sorted out some StageDischarge stuff for Fagaalu and created a xlsx for Nuuuli. I wrote a README for how to get AV Q measurements into the right format and calculate. Made a standalone StageDischarge python script. Surfed Gas Stations with Crook. It was really slow but stunningly beautiful.

April 25, 2013

I was reading a USGS how to calculate Q document and it said to use rectangular bins for Q-A measurements. I looked into it and I think my Stage-Discharge from file module wasn’t quite working. In Fagaalu-StageDischarge.xlsx I made a comparison and kind of started over. I think it’s fixed now. Going to need to fix the Mannings from file module. Need to figure out how the rectangular bins works on the Dam too. There’s an issue with starting at a depth. Rocco and I surveyed the Dam site. We did a longitudinal profile from the upper pool going down to the Dam. We did 3 cross sections across the Dam structure: just in front of it, the upstream side and downstream side. Went to yoga. Crook came over and told me fishing stories for awhile before I took him to the airport. He’s going to Fanning atoll for 6 weeks!

April 26,2013

Wrote NFWF interim programmatic report. Need to proofread, polish and email. Surveyed LBJ bridge and DT with Rocco, went pretty smooth I think. The plots look good anyway. I hashed out some more junky analysis of those dang Q measurements, I think it works now. I got a haircut! First international haircut, ha. Happy Friday. Worked on ols models of P-Q and Q-S. House sat Crook’s house with Tina, Bob, Fiji, and Vedney.

April 27, 2013

Slept in because it was actually cool and breezy at Crook’s. Had some brunch on the deck and went to Saile’le for a little beach day. Sunset dinner at DeTama and then went to Kim’s tofa on Keiko Hill.

April 28, 2013

Raining a lot today but it’s Sunday so no sampling allowed in the village. Took out the trash, bought water and groceries. Fixed boards with Hideyo.

April 29, 2013

It rained a fair bit last night and a little today. I submitted the NFWF report, not sure if the Financial one is due too. Worked on Mannings Q calc’s from the A-V flow measurements. Basically using the cross-sectional area from the measurements and plugging that into Manning’s equation. Mannings predicts much higher Q! I picked up my new 2TB portable harddrive and got the keys to the new place from CEO Mike!

April 30, 2013

Worked on some pandas csv reader stuff to get Erosivity Index and found out HOBOware has been exporting all my csv’s at GMT -8hours instead of -11hours!! Going to have to change everything. I’m going to redo all my code for the 4th time. Put some oil and brake fluid in the ’76. Took a lunch break surf at Doc’s Rock and it was EPIC! Offshore wind, overhead sets, tubes, turns, even threw a grab rail reverse! Went to DMWR to double check on tanks etc. for diving tomorrow. Downloaded PT at Dam, found out Timu1 crapped out again so I went home to get a new logger. And then….it started raining. I switched in a new HOBO event logger and tip-counter for Timu1 under an umbrella as a steady rain fell. Grabbed samples, got a A-V measurement at LBJ, tried a midpoint front and back on the Dam Flume. Lots of thunder and lightning. Downloaded OBS500 under the umbrella and got a simultaneous SS (37) BS (.05) for the grab samples. Almost adopted a puppy. Came home exhausted and went over to Skeevie’s for pisupo tacos and fight night. POURING at 10pm-….went back to the stream but stage wasn’t really that high, like 74cm. Got one sample and saw that puppy. Ended up bringing the puppy home out of the rain.

## May 2013

May 1,2013

Went to the stream and grabbed some samples, it’s like the whole island is soaked to the bone and draining out. The air even feels cooler. Went to DMWR to check with Kristine (Sean is at sea doing FAD training) and get tanks. Picked up my new laptop!! Grabbed a quick bite and then surfed Doc’s Rock with Stan. Not as big as yesterday but super fun and got some tubes. Paddled in to meet Kristine and dive on the sediment traps. We got 3c,2c, then drove over to Matafao Elementary and got 1c. We did a nice relaxing dive and saw a lot of sea turtles and fish. At 3c there was sedimentation down at 60ft. 2c and 1c had a lot of sediment on the ‘Pod. Dropped off grab samples and SedPods at DMWR and went home, exhausted. Fired up the new laptop and started installing software. Windows 8 is kind of tricky. To summarize the day, I hiked up a tropical waterfall, surfed perfect waves, did two dives, and got a new computer. What a day!

May 2, 2013

Went to retrieve the rest of the sediment traps and realized it was another good drifter day. I retrieved 3B, then 3A, then went home to get the drifters and SUP. Deployed drifters standard (D1 by Doc’s Rock, D5 at the stream mouth). Wind was light-moderate from the NNW, very little swell, nearly flat. While they were drifting I got 2B, looked for 1B (presumed stolen?!), finally found 1A after a lengthy search, and miraculously found 1A right away (it was nearly buried in sediment). Looks like 3A-3C and 2B recorded no sediment. I know for sure 3A was disturbed by Bernardo et al, I think 3C was too. 1A and 2A both had sediment, 1B probably did?, and 2C had sediment. Looked like there was sedimentation below 60ft at 3C though, just none up at 30ft where the trap is. I dropped the tanks and samples off at DMWR and then went to Kelley’s to get de-wormer for the puppy. Downloaded the drifter GPS data. Worked on setting up my new laptop, it’s pretty cool but Windows 8 is a little tricky to figure out.

May 3, 2013

Went to KS Mart to find better drying dishes, got 3 bread-baking pans and 3 porcelain type things. Went to Tutuila Mart to get washing/rinsing trays for the sedPods since all mine have disappeared from the lab. Just got 3 this time. Tried to get lab keys copied at Tool Shop, they’re out of the key, went to CBT and they gave me a shite key that doesn’t work. At least I had fun driving all over the island. Got the SedPod samples into trays and into the oven, sooo much easier than the last approach, hopefully the data comes out. Went over stream samples, there’s 67 to filter, yikes. The DMWR lab guys took the scale so I can’t do the filtering.

May 4, 2013

Went straight over to DMWR but the guys were in the lab. I left my samples in the oven to dry out some more. I went to Faga’alu and downloaded the PT at the dam, the PT and OBs at LBJ, and the Weather station. Computer died at Timu1,f. Came home and worked on data. I thought I had discovered that PT and Timu1 data from last year was incorrectly at GMT-8 when it should be GMT-11, however, when I plotted the stage data at GMT-11 it looked bad. I put it back to GMT-8 and it looks good. I ended up deleting the FP data from 3/1/12-3/7/12 where there was that glitch. I think I’m happy with the barometric data now. I tried to get the pandas read\_csv going and went at it for a few hours trying to get the FP data into datetime index, kind of shot my whole afternoon/evening really. Reading csv data I way better but it’s not going as quickly as I was hoping. I think I need to split Fagaalu1 into an A-B like the dam. Something was hosed last year with the time. Happy cinco de mayo.

May 5, 2013

Went to DMWR and started filtering samples. Got all 67 finished, but some are still in the oven. Saved 20 with TSS>100mg/L for particle size analysis in 35mL or 20mL bottles, hope that’s enough. Cleaned up/lubed tools. Fixed broken drifters.

May 6, 2013

Finished weighing TSS filters. Did some more read\_csv conversion with Pandas. Did some grocery shopping and got the house ready. Jen’s flight got delayed though, won’t be here til tomorrow.

May 7, 2013

Jen got in at 6:30. We cruised around Faga’alu showing her my “office”. Went to DDW for a drink with everyone on their lunch break. Came home and had a cocktail and then went to Sliding Rock Tide pools. Too much swell! It was gnarly so we had a pina colada in the kiddie pool. Jen got gang banged by mosquitoes, oops.

May 8, 2013

Went snorkeling in Faga’alu and saw the most beautiful sea turtles! It was so epic! They let us get really really close, it was an incredible experience even at this point. Drove out to Gas Stations for an evening session. It was pumping but kind of closed out and a little weird. Jen read her book up at the Gas Station and enjoyed the sunset. Jen got gang banged by mosquitoes, oops.

May 9, 2013

We had breakfast at Sadie’s then went to Sailele. It was really pretty, the best kind of day in Samoa. We had the beach to ourselves and just cruised it. Stopped in to see Hideyo but Tisa’s was closed so we went back to Sadie’s for dinner and sundowners.

May 10, 2013

Did some emails and work stuff real quick. Met up with Hideyo to hike Mt. Alava, it was beautiful!. It started raining on the way down and rained all night. We had Hideyo and Brian over for dinner and then went to Nick’s on Coconut Point for drinks. Jen started getting sick and sneezing.

May 11, 2013

Just kind of resting and recuperating. Jen is feeling sick. I did some yoga, laundry and went for a run. We booked tix to Samoa and reserved a car. Going on Monday! Had a “mom and dad are gone” party, Jen slept through the whole thing, haha.

May 12, 2013

Got packed up and cleaned the house up. Went over to brunch at Tina’s and then to Fogama’a for sunset. Jen is still pretty sick but recovering.

May 13, 2013

Booked an earlier flight with Inter-Island, $280 round trip for both of us. $50 for my surfboard. Huge swell as we’re leaving. Inter-Island takes you to Faleolo, on the East side. Oops. We decided instead of renting a car and taking it back and forth on the ferry for 90 Tala each way we would rent a car on Savai’i. We had already called Funway but then got a taxi to the wharf (20 tala). We went in to get our tickets and some random guy tapped me on the shoulder saying the phone was for me, it was Funway, hahaha! 12 Tala each on the Lady Samoa III to Savai’i. We asked around for a rental car and got a 5 tala taxi to Salafai Rentals. We got a little hatchback for 120 tala/day. I went to the bank to change the rest of our money and get 300 tala for the bond (got 600 out). We paid 240+300 tala (got the 300 back). Jen reserved Aganoa (120 tala/night each, included breakfast and dinner) while I was gone and we hit the road. There was a really cool Filipino guy who helped us out. Arrived Aganoa and the waves were huge! We got a sweet fale, number 4 right on the water with view of the peak. Not many people in the camp: a Canadian couple and 4 Aussie surfers. There’s a local guy, Lee, who said he went out today but I’m not sure where. We went to the Taga blowholes (5 tala each), which were incredible!! The swell was massive and the blowholes were going crazy! Went back to Aganoa and stopped at the black sand beach on the way. Dinner was good, Cajun fish.

May 14, 2013

After watching for awhile Lee and I paddled out at the right. It was huge, probably 20 foot faces on the biggest sets. I pretty much was in survival mode. I got a double tube on my first wave and made it, thinking I had it dialed. Lee got 2 and then broke his 6’10’’ on the third. It was just pulsing and I was trying to dodge the sets that were all swing wide death bowls. Finally picked off an up the reef runner and got shacked but then clamped and didn’t make it out. Didn’t feel like surfing that by myself so that was it. Went to Satuiatua/Saleilua and got lunch (eventually) and watched the waves from the surf camp. Went snorkeling with Jen in the shallows and relaxed on the beach. Made our way back to Aganoa and an epic sunset in the hammock with a tequila.

May 15, 2013

Woke up and guess what, the waves were massive again but the swell was even more South and shutting down. I waited for high tide and Lee but then Lee jumped ship to got to Saleilua with the Aussies. It was too late for me to go so I ended up just swimming in the lagoon and chilling with Jen. No way I was surfing 15 foot + sketchy barrels alone. We went back to town and got cash (600 tala for Jen) and lunch (Jet Over Hotel) and dropped off the rental car. Filipino guy took us to get gas and then dropped us at the ferry. We both slept so hard on the ferry, haha. Took a taxi (10 tala this time) back to Faleolo and picked up a rental car from Funway. They only had a Hyundai SUV left for 140/day. More than we wanted to spend but for 2 days and no time to mess around it was ok. It was left hand drive manual though, kind of sketchy. We drove through (past?) Apia and then took the cross-island road to Maninoa. Had an epic view of Boulders coming down the road. Checked in at Maninoa (60 tala to sleep there, but 30 each for meals so Jen was 110 to eat there. The surfer package is meals and 2 boat rides for 150). We had a few drinks at Sinalei and then ate at Maninoa. The food was bad, no sugar-coating it. 2 guys ended up getting sick from the mystery meat sausage. Kind of a rough adjustment from Aganoa. Jen particularly didn’t care for the prison-style community bathrooms after the Aganoa fale with attached shower.

May 16, 2013

Woke up early and boated to Boulders. Henry the crazy Aussie hopped out at ridiculously sketchy Coconuts alone, to paddle in later. Crazy. We pulled up to empty Boulders and I was first in the lineup. I got a good one and then had to straighten out on the next one at the big section. My leash came off and I had to scramble up the boulders to get it. Miraculously my board only had small dings on the nose and tail. I tried to walk down into the bay but couldn’t find the trail. I got jacked up trying to paddle back out and rolled around in the rocks. Got back out and got a lot of good waves. The Salani folks showed up with some Brazilian girls, one on a SUP even. Sa’Moana also showed up so it got quite crowded. The kiwis from our camp were back in the boat pretty quick but I stayed out for about 3 hours. I got a big tube but got caught flatfooted trying to get the stand up shack and just tipped over and crashed. I got a good view and one of the guys was claiming it was sick anyway. Oh well. We got back just before noon and Jen was having a great time at Sinalei in the pool so we chilled there a bit. I got the coffee in me and got all fired up to go to To Sua Trench. We had the Trench mostly to ourselves, one couple showed up at the end. It was so rad! Came back and went to Lupe’s for drinks and dinner with a nice Aussie couple and had a great time.

May 17, 2013

Surfed Boulders in the morning with just our crew and 3 guys from SPREP. Still lots of waves if just a bit smaller. I got an insane long tube on my second wave, sick view, a few sections and got spit out in front of everyone on the boat. I even claimed it, oops. I got another big tube but didn’t quite make it through the last section but a guy on the boat snapped a sick photo of it. I hit the bottom but not bad. We all got lots of waves and I ended on a standup tube but it was just a short one and doggy doored it. Grabbed a beer at Sinalei after Jen’s massage, and then headed back to Apia. I got 600 tala out of the ATM for the market and then realized the market was closed at noon on Saturday, ha. Found a nice café and had lunch and a farewell drink. Drove to Faleolo and then had a bit of an exciting ride home. Doc was home and our planned mellow night turned into sushi night party! Woo!

May 18, 2013

All attempts at resting here are foiled by too much fun stuff to do. We went to the Sayles’ tofa at Coconut Point and it was a total party. They had the “Mustache Slide” for a few hours and then dance party time with DJ Fisher Price. Totally epic.

May 19, 2013

Recuperated all morning until Bob and Tina came over with a full umu and Old English 40’s. We all went to Coconut Point and laid out the rafts in the cock and balls formation for a good boozy float. Had dinner at Tradewinds.

May 20, 2013

Jen packed up and we went out to Tula Observatory and did the tour. Hideyo and I checked out Stan’s secret spot, haha. Picked up about 10 high school hitchhikers on the way back to Aua. Got ice cream and then did Nu’uuli Falls, probably a little over ambitious on my part. Dinner at Manuia’s per usual and then I took Jen to the airport. Saw Rocco and Moose there. Sad goodbye but the trip must end some time.

May 21, 2013

Slept in big time. Got mostly caught up on emails. Tried to get python working on new laptop and Samoa stuff transferred over. Ran on the stretch. Pisupo tacos and fight night at Skevie’s.

May 22, 2013 – May 30, 2013

Got python/spyder working on new computer, worked on analysis. Moved houses over to Faganeanea including painting etc.

May 31, 2013

Worked on python stuff and then Stan picked me to go out East. We surfed Gas Stations super fun, Tina took photos. Went back to Crook’s/Hideyo’s and just chilled out. Such a nice early start to the weekend. Greek night at Hideyo’s, super fun and epic food!

## June 2013

June 1, 2013

Went to Ace to get catalyst and a surge protector for the fridge. Fixed my 6’0’’ but not in time to go to Gas Stations. Picked up new guy Joe and went to Gas Stations to meet Hideyo. He got a sick tube right a we pulled up. Seemed to big for the keyhole so I paddled around. Got a few good ones but nothing super amazing. Bob got some good video footage. Changed real quick and caught a bus over to Utulei for HNIS. While Bob and I were waiting for a bus we saw Logan, the dog next door, get hit by a car. Not feeling too confident about Ted and Delilah now. HNIS was insane, so much fun!

June 2, 2013

Finished fixing my 6’0’’ and checked Doc’s Rock, it’s on! Surfed Doc’s with Stan, Bob took pics. We paddled out a full 2 hours before high tide and it was the sketchiest paddle out ever. I almost got clipped by a big set and saw the reef go dry behind me, sticking like 2 feet out of the water. The winds were not a problem but the swell was too big/strong for the reef. It was just closing out the place on the sets. Got some good ones and Bob got some good photos. Even ended the session with a big double rainbow. BBQ’ed at Bob’s and then settled Catan.

June 3, 2013

Traffic jam on the road from Samoana graduation. Snorkeled on sedtraps. 3B was missing, a search of the area turned up nothing. Got 3A, 2B, 2A, 1A no problem. 1B was flipped over about 5 feet away from the cinder block, towards shore. I ziptied the replacement traps down. Met up with Sean Felise and we went to get 2C and 3C. We couldn’t find 2C but got 3C. It was very rough and difficult swimming. Sean ran out of air before we could do a better search for 2C. 1C will have to wait. Went to yoga and Michelle’s Tofa fo now. Ted got hit by a car either while I was unpacking dive gear or shortly after I left. So sad for him, and for Cammie.

June 4, 2013

Worked on EI stuff in python. Too rough to dive on remaining sediment traps. Downloaded data from instruments. Got sedtrap samples in the oven at DMWR. Drove to CostU to get food and realized I forgot my wallet. Went to Fly and dominated their vegetable selection.

June 5, 2013

Gnarly storm when I woke up. Thunder, lightning and cold. Started sampling in Faga’alu but it had rained during the night quite a bit. Tried to get samples of Nu’uuli too since the storm seemed to be long and drawn out. Large sediment plume in Faga’alu and very brown sediment plumes at pretty much every stormwater outlet as well as lots of flooding. There were areas I’ve never seen water flowing out of that were overflowing with sediment. Near Fatumafuti was a gutter or something just overflowing with mud. The DT was impassable during the peak of the storm. Lots of bed deposits on the DT. Had to run to DMWR and turn off the oven at one point, so much trash and sediment in the harbor, gross. Got a good timelapse of the stream. The bay timelapse ran out of batteries, bummer. Settled Catan with The Block, super fun.

June 6, 2013

Finished timelapse with GoPro Cineform, looks good. Worked on trying to get Q/C hysteresis plots. Not working very well. Got some containers and stuff at ACE (also oil, zipties etc.). Went to Costu with Mike to fill the house some more. Looks like we’re pretty much moved in.

June 7, 2013

Went to GIS users group meeting at DOC where Bob gave a presentation on the new LiDAR and imagery, exciting stuff and looks real cool. Went diving in Faga’alu to get the SedPods I didn’t get last time but since there was such a big storm recently (June 5) I decided to collect all of them that had sediment. I switched out 2A, 1C, 2C, 3A, 1A (in that order). 3C, 2B, 3B, and 1B had no sediment (in that order). 3B had a lot of algae and what looked like mostly coralline sediment. Sean brought a zodiac and 2 guys from DMWR, one to drive and one for shore safety and it was awesome! So much easier and safer. I dropped off the samples in the lab and will get to them tomorrow. The reef by the school was fucked up, sooo much sediment covering everything. By 2C there was also tons of sediment. By 3C there was sediment around 40 ft but none on the trap at 30 ft. I wonder if having it in the keyhole helps clean it, there’s not much sediment around. Saw about a 30lb dogtooth tuna, that was exciting. Lots of suspended particles and shitty vis (for here). Snuck in a few waves at Pua Trees, even got a good barrel but the water had a lot of trash and debris and was gross. BBQ at our house for a “porch-warming”.

June 8, 2013

Not feeling so hot after a long week and a longer night. Slept in and then packed up for camping at Tula. Epic epic epic camping trip at Tula. There was lightning, shooting stars, and crazy clear skies with a super fun crew. As good as it gets.

June 9, 2013

Chilled at the Tula in the morning, just enjoying it. Cruised to Michelle’s Tofa/umu at $2 Beach (it costs $5). Played some volleyball with the kids and had a blast. Another epic weekend in Samoa, shocker.

June 10, 2013

Surfed Doc’s Rock in the am. Worked on labeling x,y points in plots and figuring out what’s up with the NTU->TSS plots in the hydrograph-separated data.

June 11, 2013

Remotely attended OneNOAA seminar at noon DC time, 5am here. C. Storlazzi gave a cool talk about sediment flux to coral reefs and future effects of climate change. Surfed Pua Trees after. Still can't figure out what's up with extending the times of the storms graph. I need to do this to get the right data for storms. Went to DOC to get Lidar from Bob, it's pretty epic. He showed me some stuff with QTmodeler. Went to DMWR lab to finish TSS samples. Ran out of filters.

June 12, 2013

Surfed Gas Stations with Steve and Hideyo. Super fun and we were all psyching from the Fiji contest yesterday. Checked on sedpod samples but they hadn't dried yet. I turned the oven up and hopefully they'll be done tomorrow. I ordered the filters for nutes (400) and TSS (300) from Environmental Express ($172). Got Qtmodeler and OpenOffice.

June 13, 2013

Recalibrated YSI turbidimeter with 0 (water), 12.7, 126 and 1000 NTU YSI standards. I found a broken pin on the field cable so I had astronaut Tina (Banana) Hammock help assess the connector and we ended up cutting into the cable and just adding terminals to the power wires. Rocco and I installed the whole deal up at the dam, and cemented over pretty much everything. It was raining moderately but I think everything went in as planned. Got some new size 10.5 white top slippers so I don't slip and fall to my death at the dam. Went to lab to turn off oven.

June 14, 2013

Did expense accounting and called Environmental Express about the $100 shipping charge. Did some email stuff: furnace at ASCC, carbon flux project with Institute of Remote Sensing. Installed battery in box up at dam for turbidimeter. I had it cross-wired and then switched it so it's correct. Bob showed me a bunch of Lidar stuff at DOC. Weighed samples at DMWR. Golfed with Travis. Movie night at Bob's, watched Gatsby.

June 15, 2013

Surfed Gas Stations with Doc, Hideyo broke a board. Went for a run. Relaxed around the house and watched a movie.

June 16, 2013

Played golf, played wiffle ball, watched hockey.

June 17, 2013

Attended CRAG meeting at DMWR. Weighed samples. Answered a lot of emails and did some Lidar stuff. Built box for Autosampler.

June 18, 2013

Finished Autosampler box and painted. Surfed Amanave with Doc.

June 19, 2013

Emails, conference call in the am. Spent a few hours trying to get F@)#(($\*ing Office installed. Eventually successful. Compiled stream data from ASEPA and Peter Houk. Ready to write!(I think). Picked up filter package at airport. Returned paint and got for sale signs at Ace. Surfed Doc’s Rock, went grocery shopping. Catan. Finished Office install.

June20, 2013

Picked up Rocco and Valentine at DMWR and installed the autosampler, it looks great. Dropped them back off at DMWR and went to ASEPA to talk to Tim about the groundwater study with ACOE. Looked up some Peter Houk stuff. Surfed Doc’s it was fucking epic. BBQ at Bob’s.

June 21, 2013

Met Adriell, Lomi, and Charlie from ASPA, Dave from AS Historical Pres. Office and our guide (Palagi?) at 0645 for a hike up to Matafao reservoir. Super gnarly hike, most dangerous thing I’ve done here but we checked it out and it was pretty cool. Checked on the autosampler install, everything is looking good, stoked. Checked on the OBS at LBJ and I’m not sure if the bed has been reworked or if it’s been tampered with. They blew up something at the quarry. Surfed Doc’s AGAIN, super fun. Tim Clark paddled out and got a few on his new longboard.

June 22, 2013

Read P. Houk’s 2013 coral report, definitely some interesting context for my results. There’s a lot of good justification for what I’m doing in Faga’alu in his report. Helped Bob with the preparations for the Astronaut party at Coconut Point. Read some of the Marine Pollution Bulletin Great Barrier Reef special issue from last summer. Attended said Astronaut party at Coconut Point.

June 23, 2013

Astro-Brunch at our house, breakfast burritos with homemade tortillas. Golfed 9 holes with Travis and Bob. Relaxed and watched a movie and read some.

June 24, 2013

Rainy and ugly in the morning. Grabbed some samples. Tried to get the Title to the ’76 from OMV, no luck. Went to Ace to get stuff to install PT’s in Faga’alu in stilling wells. Assembled stilling wells. Checked on the autosampler and the YSI. Tried to find a connector for the YSI field cable, decided to just wire directly to the DB9. Went over a bunch of Pe

June 25, 2013

Picked up Rocco, Val and Ruby at DMWR and it was pretty rainy. We installed the PT stilling well at the LBJ in the rain but the batteries on the drill were not really working well enough to finish the job. We downloaded PT at LBJ and the rain gauge up at the quarry. Went back to DMWR and showed Rocco and Val how to filter samples. Organized keys/locks for everything.

June 26, 2013

Picked up Rocco and Val at DMWR for some stream surveys in Nu’uuli but I forgot the survey rod. Oops. We downloaded data from everything in Nu’uuli but the rain gauge at N2 had a corrupted header file. We downloaded the OBS at the LBJ and the Weather station in Faga’alu. Val bought us lunch and we finished samples from yesterday at DMWR. I installed the PT up at the Dam in a (hopefully) better configuration and finished the install of the PT at the LBJ. Attempted to download data from the malfunctioning HOBO logger from Timu-N2. Had to reinstall Java and HOBOware on the old and new laptops.

June 27, 2013

Picked up interns and went to Nu’uuli to do stream surveying. Did 100+ feet up/downstream at N1B of thalweg and water surface. Did 3 cross sections at N1B. Did 100+ feet up/downstream at N2B and 1 cross section. Val and Rocco did pretty well with the surveying. Met with Hideyo, Susie Holst, Fatima, Tim Bodell, and Kuka at Mayor Uso’s house to discuss community projects. Did a little tour of Faga’alu and the quarry to show Susie all the equipment and then went to Sadie’s to discuss further.

June 28, 2013

Email stuff in the morning: selling ’76, title, transcripts to UCSB, diving with Sean/Alice etc. Worked out the code to graph individual storms and got the new data migrated in. Went to LBSP meeting at DMWR at 2 and gave a short presentation of my recent results. Went for a run on the stretch, and then just chilled at home.

June 29, 2013

Dove with Susie at Faga’alu and there was a lot of cloudy brown water, even out at Doc’s rock. The layer was from 0-20 feet and visibility was about 15 feet. It looked gross and extended over nearly the whole reef crest with some areas worse than others. We came in over the reef flat at high tide and the reef flat had a lot of dead coral and black cyanobacteria growing on it. I think Susie enjoyed getting to see the reef she’s worked so hard on and it was great diving conditions. We had lunch at DDW and then I came home and just relaxed a bit. I compared island ages of Samoan and Hawaiian islands and it looks like West Maui and Tutuila are about the same age. However, West Maui receives ~15” of rain in the lower part and Faga’alu receives 150” according to my data. Went to Travis’ for BBQ veggie burgers.

June 30, 2013

Made Huevos Rancheros sin Huevos con Tofu which was pretty good. Checked Doc’s but it was a little bumpy so Steve and I went to Gas Stations and SCORED. So pitted. Best Gas Stations in a long time. Had BBQ at our house and made beer with Travis and Mike.

## July 2013

July 1, 2013

Got CR2032 batteries at Ace, $4 each, yikes. Got some electrical stuff to make the YSI connector. I wired a DB-9 connector as shown in the pin out from YSI. Went to meeting at ASEPA with Susie, Tim Bodell, Kristine and Wendy to discuss the ACOE $300,000 study for Faga’alu. I think we settled on Quantity and Quality of Groundwater in Faga’alu or Occurrence and Movement of Groundwater, not sure which. Tim is interested in the quantity and hydrogeology and I think quality parameters like nutrients should be assessed to make a connection to coral reef health. I suggested Bob is probably the best to lead this on-island. I’m wondering if I should set up a contractor license for myself. Tried YSI connector up at the dam but no luck. I cut off the field cable connector and wired pin 3 to orange and pin 2 to yellow but no dice. I emailed YSI for tech support. I replied to Anne Kitchell’s request for precipitation data with data from 12 USGS stations 1958-2008, no big deal. Changed my ticket home to July 17 for free, stoked. Now I need to get a custom made suit for the wedding. Surfed Doc’s Rock in about 20 kts of wind. Got a few fun ones but not much more than just getting wet, getting exercise and doing some floaters. Found some baggies (dimebags) for the nutrient filters at Tutuila. Ran into Susie, Kristine, Cammie, Amber and Travis at Foreskin’s, guess it is a small island. Started filtering nutrient samples but only got through 20. It’s going to take me awhile.

July 2, 2013

Erin Hoffman says the turbidimeter will arrive to DC July 9, not sure it’s going to make it here in time. Got an email from Chris Shuler from UH about a groundwater study on Tutuila, nice timing. Recovered data from Timu1a HOBO logger from 4/15- 4/18 and added it to Timu1-Master.csv. Went to deploy time-lapse camera at Blunt’s point but all the trees were moving too much because it was super super windy. Returned tanks to DMWR and discussed sediment monitoring with Alice and Domingo. Stopped at Post Office and got Title to ’76 but no bumper stickers. Went to OMV to transfer Title. Got button batteries for rain gauge counters. 2 were broken so there’s one working and an extra battery. Got 2 rain gauges ready to go. I think I’ll deploy them as backups. Got a new HOBO logger in at Nuuuli-Timu2, it was the former Timu1 at Faga’alu but with a new battery hopefully a good one from Ace). Went up to the Dam to troubleshoot the YSI turbidimeter. It seems like the connector I made is not in contact with the instrument. I pulled out the instrument and it was spitting out garbage when connected directly. I thought that it was dead batteries so I put everything back, got some batteries at home, went back to the dam and got everything opened back up. I put in the new batteries and it worked just fine. It said it was recording data with no gaps and was showing 12.6 volts (meaning the remote battery) with just a few blips of 6.4 volts (meaning internal battery)...wtf? Put everything back and it still wouldn’t work with the homemade connector. I triple checked the connections to the pinout but no luck.

July 3, 2013

Read over Chris Shuler’s groundwater study proposal and I think it’s good. It’s what I was going to write. I emailed him and Kristine. Got in contact with Laura Lorenzoni at Institute for Marine Remote Rensing/IMaRS College of Marine Science University of South Florida about a potential carbon flux study. Got hooked up to the DMWR blog (asmpa.blogspot.com) with Juice’s login credentials: [sionelamyuen@yahoo.com](mailto:sionelamyuen@yahoo.com) pw: americansamoa. Contacted Onset tech support about the logger and support associate Dick Servis was more than helpful. HOBOware needed to be updated to 3.4.1. Contacted YSI tech support about the cable issue at the dam. Deployed drifters with Rocco and Val. It was super gnarly wind and swell. I started 3 up near Fatumafuti and 2 were sucked into the paddle out keyhole above Doc’s Rock and went over the falls! There was so much swell they just got knocked right back in and survived it pretty well, with minor damage. Only one drift was possible due to conditions. I showed Rocco and Val how to download and view the data with EzTour. I went for a run on the stretch and you could see Taema Bank breaking way out there and HUGE sets at Faga’alu.

July 4, 2013

Worked on a timeline of water/hydrogeology studies in Faga’alu/Tutuila. I found some very interesting reports. Drove to Amanave to see what this huge ESE swell was doing. Amanave looked surfable but funky. Healing Garden was small, probably fun for a SUP. Drove up to Aloafaou finally, it was pretty neat up there. Went to Coconut Pt and picked up some people to go see the fireworks in the harbor.

July 5, 2013

Continued work on the study timeline and trying to piece together historical data. Got water, looked for housings for tip-o-meters on the rain gauges but no luck. Wired up DB-9 connector and successfully hooked it up to the YSI OMS and downloaded data, woo-hoo.

July 6, 2013

More historical literature review. Went to Palagi Beach with Kristine, Amber, Brian George, Cammie and Megan. Went to Mas’ and then to the Fiji “concert”.

July 7, 2013

More historical literature review. Hiked from Sliding Rock to Fagatele Bay with Stan, Brian George and Lisa. It was pretty awesome. More historical literature review.

July 8, 2013

Historical literature review. Spoke with Chris Shuler from UH about the groundwater project. Picked up bumper stickers for instruments at the Post Office. Emailed CampbellSci tech support about reprogramming the OBS. Emailed Christianera, Kristine, and Travis about selecting the keeper of the turbidimeter. Put bumper stickers on instruments and retrieved time lapse cameras. Checked out the stream capture near the autosampler. Taught astronaut swimming lessons.

July 9, 2013

Surfed Doc’s Rock. Stan SUP’ed it. Glassy, sunny, solid swell and some real fun ones but a little too much east in the swell. There was evidence of a local diesel spill in the harbor. Did some email correspondence with Christopher Shuler and talked to Jen on the phone. Read over the Sedpod paper by Storlazzi and it applies well to my pilot study from last year. Time to write that thing up. Went to ASEPA and talked to Tim Bodell about some groundwater stuff. Organized data on SedPods and old pilot study. I need to figure out how to get monthly NWW3 data.

July 10, 2013

Met up with Sean et al at DMWR to retrieve SedPods. We got 1C no problem, there was lots of sediment on the Pod and surrounding reef. We left 3C on land so we got 1B (almost no sediment on Pod though just towards the stream the water was cloudy and there was sedimentation on the reef), 1A (lots of beach-type sand on it possibly from resuspension), and 2B (no sediment). We then went to 3C which we found flipped over about 10 feet downslope from the cinder block. It was possibly fishermen or massive swell activity during the last several days. 2C had lots of sediment on the Pod and lots of sediment around on the reef. We got 2A which had a lot of sediment, then 3B (mostly algae), and 3A (lots of algae with broken off coral branches on top of it. Overall observations were that the water quality on the reef crest was absolutely awful. It was very brown and murky at all depths. It was much clearer on the reef flat and even in the ‘ava. There were many areas of coral damage on the reef crest and reef flat with several corals broken off and flipped over downslope. Some were large (~10ft diameter). I came home to grab some lunch, shower, and rinse gear, and then met Sean at DMWR lab to process sediment samples. We got all but 2A and 2C in the oven.

July 11, 2013

Surfed Docs’ Rock but kind of missed the good glassy time. Went to DMWR and got 2A and 2C in the oven. Met with Christianera and Jewel, the new Water Quality supervisor at ASEPA. Filtered a bunch of samples.

July 12, 2013

Talked to Laura at USF about the carbon monitoring for January 2014. Surfed Doc’s Rock with Stan and Xavier. Super fun during a little glass off. Grabbed the interns and did the bathymetry survey in Faga’alu. Rocco flipped the kayak right in the middle of the ava and I had to free dive about 40 feet to get it and the staff gauge. Saw lots of turtles, it was awesome. Had my “Guido” tofa, it was really fun and lots of people came and dressed up. Crook is back on island from Fanning and came dressed as a girl! Hilarious. The cops showed up and asked for Counselor Cammie to tell us to turn the music down.

July 13, 2013

Cleaned the house and drove the ol 76 out to Alao with Bob. Big crowd out. Me, Bob, Stan, Kilopa, Xavier, Hideyo, Crook and 2 med students from Hawaii. Dustin and another med student went spearfishing pretty far out. The waves were fire-ing and we all had a great time. I stayed out for about 4 hours. Got lunch at DeTama and then tried to track down Lewis Wolman in Alega with Crook to sell the truck. Ended up waiting and getting strung along to find out he didn’t really want it anyway. Came home and took a nap and then filtered samples.

July 14, 2013

Surfed Gas Stations and then golfed with Bob. Waves were super fun but a little slow.

July 15, 2013

Filtered samples. Met with Jewel at ASEPA and showed her all the instruments and what to do with the turbidimeter. Filtered samples. Met with Ali Pili about buying the truck. Finished filtering samples. Did accounting of receipts.

July 16, 2013

Fagatele Bay. Worked on presentation for ASEPA/DMWR.

July 17, 2013

Gave presentation for ASEPA. Cleared out lab space at DMWR. Did one final download of all instruments. N1 and N2 rain gauge batteries were low. N1 PT was vandalized and stolen. It looked like recently. Packed up my life and left for the airport. Faasoifua Samoa

July 26, 2013

Drove down to SDSU to meet with Trent and drop off samples (packed in cooler). I put the nutrient and particle samples in the refrigerator in the physical lab and the reef trap samples and filters on the counter. I got arc 10.1 installed and worked on figuring out how to get the .las data for the lidar working. Met with Trent briefly. Finished tabulating expenses and filling out the forms and getting receipts together etc. Need to print everything out but don’t have the printer on the new computer.

August 2, 2013

Conference call with ACOE about the PAS groundwater study with Athline Clark in HI. Not sure what we accomplished. I think it was more for Hideyo and Susie Holst.

August 6, 2013

Emailed Dr. Wu about when we can start particle size analysis. Submitted Abstract to AGU.

September 9, 2013

Submitted receipts/reimbursements to Frank at SDSURF. Wrote a new Abstract for the SEBAL paper following Friday’s meeting with TB. Compared the “reef-truth” bathy survey to the Tutuila CTM. Had issues getting survey lat/lon into Arc because I’m rusty on Arc and didn’t do decimal degrees right for a little while. The first GPS point’s location is not right, not sure why. I corrected them to 0 ft. tide per CStor. And sent him the results.

## October 2013

October 3, 2013

Changed Nutrients lab results from uM/L to mg/L and plotted by Location and plotted max, min, mean, avg. Did a bunch of lit review and got back into the analysis code. Downloaded the NSTP6 barometer data to extend the PT data from 6/26/13-7/17/13. Started writing/re-writing the intro to the 596 paper to get it ready for JoH.

October 7, 2013

Did Lidar watershed delineations. Used the LAS files from Bob to make a LASD (LAS dataset in arc). Then used LAS to multipoint with the LAST\_RETURNS codes. Then used that multipoint file to interpolate with Natural Neighbors at a 1.2m cell size. Then Filled and Flow Direction then FlowAccumulation then manually snapped the pour points to the channel to delineate the watersheds. All are saved in the fagaaluws/Lidar/ folder. In Arcscene I set all the base heights to the faggrndnn1pt2 and it seemed to work (=Fagaalu Ground for ground returns Natural Neighbor 1.2 m cell size).

Finished up lit review of consultants etc. reports and combined into excel table of source, location, and flows etc. I think I got to the bottom of the dam development.

October 10, 2013

Checked out piggery locations 2008, 2010, need current from Travis. Analyzed Papa Stream and Wong’s 1996 predictions of streamflow. USGS Gauge at Faga’alu claims max of 15” of runoff in one day? Did lots of comparing of different streamflow figures.

October 11, 2013

Checked out some discharge stuff. The orange peel measurements, at least the highest one 6/5/13 130pm stage 103cm, match up the best with Wong’s 1996 predicted Q2 flood. Intersting. Got the Land cover map from Bob and tabbed up the watersheds in Faga’alu and Nu’uuuli. New piggery data from Travis shows that the 2 piggeries I thought were influencing the TRIB were closed, rats! I wonder what the date was….Looked at Nutes from 2012 and it appears concentrations are diluted during storm events. Really hard to tell with so few samples though…should have taken more baseflow samples. Making progress. Still not sure what 15” of runoff from the USGS Fagaalu gauge means, seems fishy. Also the Q100 flood Wong 1996 would way way overtop the banks. I guess that’s the point. I think anything over the Q2, maybe the Q5 is over BankFull.

October 17, 2013

Finished writing Precip records from FP, Timu1 and Timu2 to csv’s and looking at them in Excel. It appears there isn’t much difference according to elevation, at least in the daily values.

October 18, 2013

Cleaned up and did a z shift for all the PT3 records to account for moving the PT location. It appears there are a lot of missing barometric data records and those need to be cleaned up as well. Going to have to then QC with the field notebook data.

October 29, 2013

Now have a filled Precipitation DF. There are some gaps in the Timu1 data. It looks like the FPrime can fill in fairly one to one. There is a slight increase from FP to Timu1 sometimes but not always.

Plotted all the ratings. Looks like for LBJ the AVMeasuredLog is the best, however it seems like it is very low especially for the high values. I used pandas.ols instead of the statsmodels.api.OLS because it seemed easier and gave more understandable values for the regression coefficients (form mx+b). For pandas.ols you have to change the second regression coefficient for use in the powerlaw equation. See lab notes. The rating calculated from the Orange Peel method (in excel) showed much much higher Q.

# January-March 2014

## January 2014

Friday January 10, 2014

Jen dropped me off at LAX for another trip to beautiful Tutuila. Pretty smooth flight and all baggage arrived including the 2 autosamplers and 2 suitcases. Extra baggage was $300 on the Pcard. I met with Chris Schuler (UH) at Honolulu airport to quickly discuss his recently funded groundwater proposal in Faga’alu. Jameson and Carolyn picked me up at the airport and I got quite a Talofa when I arrived at Doc’s.

Saturday January 11, 2014

Unpacked and did a quick inventory of what arrived and if anything was broken. Looks good! I tracked down most of my equipment (I think), except for the laptop and field cables. I sent a few emails and checked in with the family. Surfed Alao in the afternoon with Bob and Jameson and it was pretty epic. Went to Sadie’s for dinner with Kang and Junior from DOC. Saw just about everyone else at TOA.

Sunday January 12, 2014

Constructed new SedPods. Got my phone reactivated. Had chili cookoff at Bob’s and tried to track down laptop with Kristine. Paddled out at Faga’alu but the wind switched and we went to the Rock. Did some grocery shopping and made up a to do list. Emailed Rocco for laptop.

Monday January 13, 2014

Checked on equipment in Faga’alu. OBS500 at LBJ was detached from bed but still submerged and could possibly still be working. The Autosampler appeared ok but I didn’t have all the keys to check. The battery for the YSI sonde at the Dam was vandalized, AGAIN. The box had the door ripped off and the battery and terminals were gone. On the way back down I found where someone spelled out in rocks “Ufa aima oe”-“Eat shit” but I’m pretty sure it was there before I walked up. I got NOAA’s OBS500 and the field laptop from Travis and went home to plug it in and then went to Ace to get cement and batteries for the Autosamplers. Tried to find the boxes for the Autosampler samples but no luck. Poured cement for the SedPods. Went to the Dam to assess the situation. Downloaded the PT just fine. Retrieved the YSI sonde and brought home for data download and recalibration. Took Doc home and went back in Kristine’s car. Timu1 in Faga’alu was full of water and the battery was really low; will have to replace soon. Checked on R2, it was really full of ants and the battery was dead; no samples…Download PT at LBJ but didn’t have serial-USB to get OBS because it was downloading YSI sonde at home. Got a quick session at the Rock with Jameson and Ben Goodwin. Ben suggested calling Jason Cory (?) about renting a truck so we called him and it sounds promising. Went to the Airport with Jameson to meet Trent/pick up boxes.

Tuesday January 14, 2014

Failure to communicate with the CR206x at LBJ. Zip-tied the OBS back to the stream bed. Repositioned the solar panel towards the south. Timu2 at Nuuuli was full of water and the battery died back in July. Timu1 in Nu’uuli seems to have not worked at all. Replaced batteries on both but only launched Timu2. Timu1 was suspicious, there must be data on it. Lock on N2 PT was frozen; broke the key trying to free it. Looks intact. Batteries were dead on the Wx in Faga’alu. Replaced batteries and got data from September-October 2013. Replaced the Wx unit in a new location by the window adjacent the Wx. Tried the OBS again, no luck. Brought battery home to test and it seems charged up. Not sure what the communication issue is. Went to Faga’alu with Trent to see if we could fix it, no luck. Brought it home and tried same setup with a new logger and it worked so I think the logger is shot ☹. Cleaned out R2 up at the quarry and put in a new battery but not sure the actuator is working. “surfed” Coral Heads with Doc to cool off and wash the sweat off.

Wednesday January 15, 2014

Met with Domingo and Alice to figure out the CRCP diving part. They said they’re not going to do it so we are back to the drawing board finding divers. Cut the lock off the PT at N2 and downloaded the PT, got all the data! Checked the TimuN2 and it was working. Met with Loma and he said everything is cool up there. Met with Jameson and Don Vargo at ASCC and checked out their respective labs. It looks like they have the right equipment, space, and hopefully students to do the work. Dropped Trent of at Moana O Sina. The rental wouldn’t start so I jumped it and went to Hideyo’s to meet with Megan about diving. Hideyo and I had a board meeting at Gas Stations which was good. Megan said she’s in! Had a great dinner and then had to jump the car to get home. Got a f@#king ticket on the way home for passing a slow-moving bus. Fuck the police!

Thursday January 16, 2014

Switched out the rental car. Met with Kristine at DMWR to discuss supporting the diving. Met Curt at DDW and then went to Faga’alu to chase a storm. We worked out some sampling protocols and checked on the Autosampler. It was grabbing 2 samples at a time. Went home to work out the DOBIE wave gage with Curt and ready it for deployment. I had to go get batteries and went over to Tradewinds to set it up with Curt. It appears ready to go, hope it works! Surfed the Rock with Jameson.

Friday January 17, 2014

Diving to deploy wave gauge. Paddled to Airport and surfed. Bonfire on the full moon

Saturday January 18, 2014

Watershed Tour with Curt, Trent, Hideyo, Meagan, Susie Holst, and Dave Whiteall. Met with George Poiski and Mitch at the quarry. Met with Fatima, Arielle etc for lunch at church in Faga’alu. Replaced datalogger at LBJ, couldn’t get turbidimeter out of the housing. Golfed 9 holes with Bob, Travis, Carolyn and Jameson

Sunday January 19, 2014

Surfed Coral Heads. Did drifter deployment and snorkeled north reef with Curt. Very small waves, no wind. Took Curt out East and then met Trent at Tisa’s.

Monday January 20, 2014

Surfed the Rock, BIG. Meeting with Susie et al at Moano O Sina. Sketched out paper 2 with Curt and Trent at Jade over lunch and then did 2 drifter deployments. There was a large swell but it didn’t seem to be making it into Faga’alu. Dave Whitall took some surficial sediments in the bay for me. Had dinner with Curt, Susie and Dave before Curt had to fly out.

Tuesday January 21, 2014

Met with Christianera, Jewel, and Josie at ASEPA to check in on our project and discuss grabbing nutrient samples for Trent (monthly Total Nutes at 8 streams plus 3 special sites) and installing staff gages. They said we could use their refrigerator. Organized meeting with Domingo to finalize diving stuff. Went to CBT to get some metal rulers for staff gages. Went over data with Trent and sketched out paper 1, very productive! Tested out eBay Autosampler. The spare Actuator is not working, bummer. I tried it with the new actuator and it seems to be working. I tried it on Toggle with “sample on enable” “no sample on disable” and Yes to “reset sample interval”.

Wednesday January 22, 2014

Wrote READM/HOWTO docs for how to do drifter deployment and analysis. Made deployment matrix and worked out how to get oceanographic data for deployments in real time to keep track. Will need to substitute Wx for NSTP6 wind data, and DOBIE wave gage for observational wave data. Went over lab procedures for marine sediment with Trent and Scope of Work for Jameson. Measured turbidity with the YSI using standards and then re-calibrated. Redeployed the YSI turbidimeter at the Dam. I had to put it in through the water and then blew out the water with Dust Off. Reprogrammed the Autosampler and tested it out. Changed the battery in Timu1 rain gage. Reprogrammed the CR200 at LBJ, couldn’t get the OBS500 out. Downloaded the weather station and made sure it was working. Collected some benthic samples by Faga’alu boat ramp. Installed one of our time lapse cameras (5minute interval) at Falepule and had a nice happy hour with Dave Whitall, Susie Holst, Bodie, Doc, Kristine, Bob, Hideyo, Tim Clark, and Nick.

Thursday January 23, 2014

Wrote Scope of Work for Jameson. Picked up Trent at Moana O and met Prof. Newtson at ASCC to go over paperwork and lab procedures. Left sieves, funnels, beakers at Prof. Newtson’s office. Got lunch at CJ’s. Wrote Scope of Work and Dive Plan for Sean and Meagan and went over to DMWR to meet with Domingo, Meagan, and Sean. Negotiated a Cooperative Agreement with Domingo about sharing Sean’s time and got all squared with everything. Trent went home. Checked new battery box at Dam, gonna need some modification. Checked rain gage Timu1. Switched out OBS500 at LBJ with the one from NOAA from last July. Installed one of Curt’s time lapse cameras (5minute interval) at the Weather Station by screwing it to the telephone pole by the stream. Installed one of our time lapse cameras (5minute interval) at LBJ on the CR200. Checked time lapse camera at Falepule and talked to Rebecca to make sure it’s ok. Got nutrient filtering stuff from Jameson. Prepped some staff gages from T-Squares. Mexican Night at our house with Bob, Kristine, and Doc.

Friday January 24, 2014

Wrote Cooperative Agreement between SDSURF and DMWR. Presented at/participated in LBJSP meeting at ASEPA. Got algal bloom samples from Josie. Fatima said her son took some colorimetric phosphate samples in Aua during the bloom. Took Trent to Moana O Sina and got a cooler at Costuless to package up samples. He also took the samples from Jameson that have been filtered and frozen from a refrigerated sample every week for about 5 weeks. Got Trent a letter from CRAG to take samples. Reinstalled a new battery box up at dam. Chcked OBS at LBJ but it appears the data is garbage and it’s not working. I wrote a new program and loaded it on but I don’t think it’s working either. WTF. Got pics off all the time lapse cameras. Unloaded all the equipment out of the rental and went to get Trent for dinner. Had a nice farewell dinner with Trent, Susie, and Dave.

Saturday January 25, 2014

Well it finally rained…last night and this morning. Kind of squally rain though, nothing substantial I think. Lots of lightning though, that was neat. Checked out time lapse cameras, they look good I think. I tested out a CR200x with an OBS500 with new code and it totally worked at home and then totally didn’t with the exact same shit at the LBJ. FFFF. Went to Alao and checked around on North side for a big North swell. Got some fun clips.

Sunday January 26, 2014

Registered for classes. Tried to figure out nutrient filters. (Gray, Glysson, Turcios, & Schwarz, 2000) says filters for SSC can be Millipore AP40, Whatman 934-AH, [Gelman type A/E](http://www.pall.com/main/laboratory/product.page?id=20027); E-D Scientific Specialties grade 161, or another product that gives demonstrably equivalent results. [Whatman 934-AH](http://www.sigmaaldrich.com/catalog/product/aldrich/z690805?lang=en&region=AS) and the others are 1.5um. [Whatman GF/F](http://www.sigmaaldrich.com/catalog/product/aldrich/z242489?lang=en&region=AS) filters are 0.7um. According to the [EPA](http://water.epa.gov/type/rsl/monitoring/vms57.cfm), the colorimetric nitrate method requires that the samples being treated are clear. If a sample is turbid, it should be filtered through a 0.45-micron filter.

Monday January 27, 2014

Tried to figure out more about the filters. Getting annoyed and frustrated since it seems like the information is not consistent. Registered for 897. Emailed CampbellSci again about getting the OBS fixed. Chased a rain to Faga’alu but nothing happened so I went home. Made plot of available data up to July 2013. Surfed Coral Heads with Doc, Jameson and Bob mostly shot GoPro. Bob is getting his truck fixed so I can use it.

Tuesday January 28, 2014

Got samples out of R2 by the quarry. It collected 24 samples, mostly from Saturday morning (1/25). I remember it raining a lot Sunday morning but it was already full. I guess it rained enough Saturday. Its hard to know when it rains at night. Checked up at the Dam, looks like some rocks got moved around and one of the lock covers was opened but otherwise undisturbed. Got a nutrient sample up at the dam but I guess I’m waiting on filters from Trent (need 0.7um). Maybe I can use the magnetic filter funnel? Downloaded pics off of LBJ time lapse cam and it looks good. I dropped off a bunch of nutrient and particle size samples at ASEPA refrigerator with Daystar and got some labels printed up with Mr. Travis. Went to Sook’s for K2’s bday lunch. Spent the rest of the day at Traffic Court for my Illegal Passing on the Left charge and had to pay $40. Went to Sliding for a sundown session (got a good tube!) and had a beer on the bluff with K2, and just about every other Palagi for K2’s bday. Saw Jupiter and 2 of its moons with Marsek’s binocs, so sick!

Wednesday January 29, 2014

Got lat/lon of Dave’s benthic samples, and I sent him my instrument locations. Bob forgot about using his truck and took the keys to Aunu’u. Hopefully it doesn’t rain…Downloaded LoggerNet Trial so I could use CRBAsic Editor. I learned a lot about how to write CRBAsic code and managed to get the 100 measurement thing going. I learned how to communicate directly through the CR200 to the OBS by using Terminal Emulator->Open Terminal->type SDI12->type command like 0M! etc. I did some major surgery on the old OBS that was at LBJ. It had some condensation behind the power port but the circuit board appeared ok. The slider was all fucked up and full of dirt. No wonder it jammed. The motor showed signs of life but just couldn’t open or close the slider all the way. It was using tons of power and still barely moving. I think I’m good to go on the programming for the new OBS’s. Just not sure how to do 100 measurements while leaving it open. The C9! Command seems to be hardcoded to open and close…Surfed out front at Coral Heads and it was pretty fun, a little bigger and more consistent than the other day. Went food shopping with Doc.

Thursday January 30, 2014

Made final map of ADCP/Drifter deployments. Corresponded with Campbell about the old OBS at the LBJ. Tried to fix tail cancer on the Pod. Goofed around with the OBS some more. Finalized filtering protocols with Trent for nutrients. One with 1.5um, one with 0.7um, and one unfiltered. Went to LBJ to sort out the OBS. It was not loggin ☹. Downloaded camera at Church and made time lapse. Checked Autosampler, it’s good, no samples taken. Checked rain gage at Quarry. I pulled out the OBS and tested it with the benchtop test cable and same datalogger and it worked. I reconnected it and it’s working ☺. I think it was a loose connection or had some water in it. Pain in the ass but it’s working now. Planned out materials and installation for Nu’uuli instrumentation.

Friday January 31, 2014

Finalized Coop Agreement with DMWR. Set up work with Rocco next week. Got RMA from Campbell and tried to mail but USPS was out of boxes. Got gas at Pago Way Gas Station but PCard was declined due to vendor info. Got box from home and packaged up OBS and CR206x. Read Oliver’s report and there were a few issues, mainly his calculations of Faga’alu Bay volume. His report says the bathy is from Lidar but I doubt it. Will have to follow up on that. Bought all the supplies for installing the turbidimeters and Autosamplers in Nu’uuli and by the quarry. Might have overbought on a few things but I got it all home with Bob’s truck in a bit of Dr. Seuss fashion. Surfed out front at JZ’s with JZ himself and Carolyn filmed. She got a bunch of good clips including a solid little barrel of me. Stoked! Romantic movie night with Doc.

## February 2014

Saturday February 1, 2014

Pretty small surf again. Deployed drifters twice in the morning and once in the late afternoon/evening. Surfed during drift 1, SUPer fun SUP at Doc’s rock. L4 went out to sea! Very high tide and little swell. Quick tide drop though. Watched cricket during drift 2. Came home and read and took a nap. Went back out when the tide came up a bit and got one before dark on the rising tide. Wind was dying.

Sunday February 2, 2014

Super Bowl Sunday. Team Allison wins the 2nd Annual John Daley Golf Classic at Ili’Ili Country Club!! We shot an overall 12 over for an 84 and the win! So many good moments. Watched super bowl at Coconut Pt but it sucked, terrible game so we had to make our own fun. Again, many good moments.

Monday February 3, 2014

Downloaded drifter data, plotted in ArcGIS to verify launch locations. L1 was a little squirrely, everything else looks fine. Built boxes for Autosamplers and nearly took out an eye when I stabbed myself in the forehead with a needle nose pliers. Real close call and I thought I needed stitches for the Harry Potter gash in my forehead. Bob took me to see Mike at the Hospital and it turned out to be nothing. Doc glued it up, hopefully it doesn’t scar. Coulda been worse. Painted boxes.

Tuesday February 4, 2014

Painted second/third/fourth? Coats on the boxes. Took Bob to EOB and went to Post Office to get stuff from Curt. It turns out the mail delivery to DMWR just means someone from DMWR picks it up occasionally. If they don’t go get it, it just sits there. For future put C/O Kristine OR Alex Messina. Looks like everything arrived though: Aquadopps from Curt, Fisher box from Kris/Trent, and the caps from Amazon for the SedPods. Went to ACE to get some more hardware. Finished boxes but had to do a return trip to Ace due to mismarked hardware. Fixed up the Drifters with some metal hose clamps to attach the housing to the fins, much stronger. Finished reading Dunne’s Wolman lecture for seminar. Very nice sunny day with light east winds. Great day to work on the porch doing man things.

Wednesday February 5, 2014

Did some accounting of receipts and whatnot. Prepped the two turbidimeters going to Nu’uuli: set up the enclosures, prepped pipes, fittings etc. and loaded OS’s on the CR200s. Went to CBT for some fittings that weren’t the right size and some concrete anchors. Rocco and I went to Faga’alu and installed the 4th camera on the white house way above the park. Looks like a perfect spot for it, hopefully it stays. Installed the Autosampler housing at N1 next to the house on the upstream side of the road. Reconned the location for N2 at Frank’s house just upstream of Loma’s. There’s one house upstream but I don’t think it’s a problem, the drainage goes down the road to downstream.

Thursday February 6, 2014

Paid student fees $647, yikes! Made up an hour tracking Google Doc for the Contractors. Went back to N1 to finish installation. Mounted the OBS500, the Autosampler intake, and the actuator to the same downtube and put the solar panel and the CR200 enclosure on the mast. The downtube and mast are connected with a pvc elbow and encased in concrete. I programmed the Autosampler and it’s 10-8. The guy at the house was cool, I think his name was Ifioma (?). I programmed the OBS with the 100times 15minute program. Relaunched NuuuliTimu1 by Steve’s house, battery 63%. Got GPS unit from Jameson. Totally exhausted and no energy, wtf..

Friday February 7, 2014

Beautiful sunny day. Light east winds. Talked to mom about my forehead, she didn’t sound too optimistic about healing without a scar. Collected 14 baseflow samples in Faga’alu around noon and put in cooler. I started at the 1) dam, 2) then got one from the seep on the quarry blast face, 3) then the stream capture by R2, 4) then R2, 5) then the seep downstream of R2, 6) then a little trickle by Timu1, 7) then the New Bridge (where they used to have flooding and have recently built some swimming pools according to the guy who lived there), 8) then a little bridge by the houses on the south of the main road, 9) main stem between New Bridge and LBJ, 10) Trib, 11) bridge upstream of LBJ, 12)LBJ, 13) storm drain outflow just below LBJ bridge, 14) down by Uso’s house I think where the hospital discharge is. Packed up everything for N2 and met Rocco there. Installed Autosampler box and OBS at N2, just upstream of Frank’s house. Poured concrete, installed electronics, everything. Hope the concrete set in time before it may have been disturbed. It needs an Actuator and a battery. Cammie’s tofa dinner at Manuia’s, big turnout.

Saturday February 8, 2014

Downloaded sample points from GPS. Went to Ace to get locks for N2 and N1 turbidimeters but they didn’t have a battery for N2 Autosampler. Checked a few places, no luck. Deployed drifters in Faga’alu. D2 didn’t go very far at all on the first drift. The second drift I put them all out and went back to the truck to filter some of the baseflow samples (got through three with unf., .45, and 1.5). Went back an hour later and D2 was GONE!!! All four others were in a fairly tight group on the south side of the ava. There were a lot of fishermen around and I think it got yanked or ran over by a boat. Something seemed…’fishy’? I paddled all over looking for it and finally came in when it got dark, and started pouring rain. I ordered 2 Holux M1000c replacements, hopefully they’ll be here in time for the ADCP’s.

Sunday

Surfed Airport, surfed the Rock

Monday February 10, 2014

Checked Drifter GPS data and didn’t get all drifts the first time. Must be something about turning them on in the water? Picked up Jameson and did some data download training. N2 and N1 turbidimters were good. N2Auto had six samples (see field notes for times). TimuN2 did not record any rain, maybe the wires were not connected right. I switched them and it seemed to work. It was moved because they graded the area around it. Now over by the trees. TimuN1 had a read error and bad header file or some bullshit. Batteries dead on Wx, need replacements. Recorded up to 2\_14. Downloaded Church camera ok. Reset to 15minute interval. PT and Turbidimeter at Dam were good. Rain gage at Timu1 was good. R2 had 3 samples but didn’t look very turbid. PT at LBJ was not launched (WTF). OBS at LBJ seems to not be working, bad battery? Drawing too much power? Epic shred session afterwards at Doc’s, just me and Jamie getting Indo-like tubes with the cruise ship going by and insane sunset. Carol made dinner and we planned some wedding stuff for her.

Tuesday February 11, 2014

Sent 2014/2015 teaching request to Trent. It was due last Wednesday. Not sure I’ll be teaching again according to Trent. Should be gone Fall and Trent’s arguing I shouldn’t have to teach my last semester. Did PCard allocations. They were due Feb. 4th, oops. Made allocations cheat sheet and figured out the online form. PPT was helpful. I think the Amazon.com Fernco 6” caps need to be returned but maybe they fit the ASPA pipe SedPods? Went to CostU to get batteries. Replaced batteries in Wx, looks like that’s all it was. Checked on LBJ-OBS, I think the battery isn’t holding a charge for shit. Going to have to switch it out I guess. Went up to Blunt’s point to scope for the drifter. I thought I saw something but couldn’t spot anything out by Fatumatfuti, maybe I’m seeing things. Surfed Faga’alu with Jameson again, super fun. Catan.

Wednesday February 12, 2014

Worked on the Data Download instructions and moved data from Field Laptop. Got Google Drive set up on the Field Laptop and my laptop. I made a google account ([fieldlaptopSDSU@gmail.com](mailto:fieldlaptopSDSU@gmail.com), pw: geoguser) to share just those files. Now any files saved to the “Field Laptop” folder get synced to my computer. I compiled as much data as I could into two big master excel files. Now switching code to read from the excel files. Replaced battery at LBJ. Went to dinner at Jameson and Carolyn’s.

Thursday February 13, 2014

Worked on code to read field data from excel files but it’s really slow. Got a reply from HOBO about the force offload and read error, just needed an upgrade to HOBOware. Dick Servis doesn’t work there anymore! Bought stuff to make 2 more driters (one replacement and one spare). Surfed Coral Heads, dinner at Bob’s.

Friday February 14, 2014

Woke up at 4:30 to some kind of big boom. Worked on the excel sheet for data. It was taking so long because it was opening the file multiple times. Just opens it once and then parses for each thing now. Filtered the rest of the Baseflow Snapshot samples (Fagaalu) and washed out the bottles. Returned stuff to Ace and got some stuff I was missing for the drifters. Downloaded Timu-N1 (moved by family; looks like it’s recording well now), N1 and N2 and got samples from N1Auto. Reprogrammed N1Autosampler. Downloaded PT-F1 and LBJ, looks like the batteries on all three OBS are working and charging. Surfed Alao and got tons of sick right barrels. We got a talking to by the Aumaga for surfing during ‘sa.

Saturday February 15, 2014

Looks like it rained last night. Clearing up now. Wrote construction manual for drifters. Deployed ADCP’s with Meagan in Faga’alu. We put AS-1 on the south side near LZ5, AS-2 near LZ3, and AS-3 near LZ1. We tried to find locations with good surrounding coral so we scouted around quite a bit. The SedPod at 2B was gone but the cinder block was still there. SedPod and cinder block at 1B were gone; I found a replacement cinder block on the reef and we put it at 1B to deploy next time around. I got GPS, water depth, and time of deployment for each and put into an Excel. Got the tide data from NSTP6 and corrected depths for tide. GPS loggers have arrived but are stuck in the Post Office until Tuesday. Doc and Tim got a bucket of lobster out front.

Sunday February 16, 2014 DRIFTER WEEK DAY 1 (Year Day 47)

Built two new drifters and wrote up a construction step-by-step with pictures. Did a drift from like 1600-1800ish. Only had D1,D3,D4,D5. Downloaded data off the Drifters. Epic lobster feast!

Monday February 17, 2014 48

Happy President’s Day! Put battery in N2Auto and set to 30min. samples since it looked like a big storm was coming. I don’t think it ever happened. N1Auto had no samples and was ready to go. I downloaded the camera at LBJ (took like 30min.) and reset it to 15min intervals. Borrowed Doc’s truck and went to Falepule. The camera recorded til Feb. 11 when I think it got wet since the screen isn’t working and it has water inside it. Brought it home for repairs. Downloaded the Faga’alu Bay camera at the house. Did drifters from the North side parks. Very windy to begin but tapered off. Downloaded all the data when I got home and fixed the camera that was at Falepule, set it to 15min. intervals.

Tuesday February 18, 2014 49

Went to Post Office to get holux loggers and it was a ZOO with the cruise ship Queen Elizabeth in port. Took Doc’s truck up to Falepule and put the camera back up on a 15min. interval (I hope, can’t see the screen). Went for some drifts. The wind was really variable with strong side-on- and offshore gusts. All three ADCP’s looking good. D5 got stuck on the second drift because it was too shallow, just had to pull it. Only got two drifts in because the low tide and then the rising tide was too late. Went home to call it an early day (6pm) but then it started raining. Went to Faga’alu and it only rained for about 20min. but it rained hard. The guy hacked the grass in the stream and it all piled up on the turbidimeter, dang. R2 showed samples from 2/10 and 2/14, up to bottle 10. Lobster pasta for dinner.

Wednesday February 19, 2014 50

Drifters. AS-1 ADCP was flipped on its side, I flipped it back over at 1256. Meagan met me in Faga’alu around 1400 and we went to check the Dobie wave gauge. All good in the hood

Thursday February 20, 2014 51

Got out to Faga’alu a little earlier. Got in four drifts and a few good waves at Doc’s Rock on the SUP. It rained like crazy with thunder and everything around 1100. I got a few rivermouth samples and noted some strange behavior with the drifters. I kind of freaked out and grabbed the drifters when I couldn’t see them in the downpour, maybe should have let them go. I noted that the storm drain at the beach launch point was running perfectly clear the whole time. There was a decent sediment plume that moved out of the bay during the 3 later drifts. The plume moved South all the way to the Scout house and it seemed like D5 couldn’t penetrate into it. The plume then dissipated, moving NE towards Pago harbor. There were long lines of high sediment/turbidity in the plume, streaming off coral heads maybe? Seemed like the highest concentration was on the North reef. I got 7 particle size samples over the plume and GPS points to go with them. Winds were light-moderate all day. I’m not sure the Wx is capturing the wind conditions out on the reef. There are lots of gusts and wind shifts out there while it’s mostly calm a the Wx. On the final drift I found D2 on the reef flat past the school and totally yard-saled on the reef trying to get it. Got a little banged up but overall not too bad. Retrieved samples out of R2, got some good ones! I poured a 150mL subsample for LPS and the rest to a 500mL ssc sample. OBS at LBJ looks clear now, that storm cleared most everything out. What a long productive day!

Friday February 21, 2014 52

Downloaded drift data from yesterday while watching Team USA vs. Team Canada hockey match to go to the gold medal match. USA loses 0-1, F! Deployed drifters for a change… Bob took some photos when it was sunny. It rained really hard later in the day and I split to LBJ twice to get some samples. Got four drifts in. Waves were big, MJ and X bodyboarded for a bit. Wind seemed mostly offshore all day. Finished a little early to go do some stream stuff. Went to Nuuuli to check the Autosamplers. N2 was full of clear samples, guess it didn’t rain that one day. N1 hadn’t triggered either since it was so low. Looks like they cleared the veg upstream of N1. Went back to Faga’alu and got a sample at the Dam, at DT, at Trib, some at LBJ and recorded the sampling times on R2 (up to bottle 11 already). There were kind of two big rain pulses, the first being smaller that discharged sediment plumes. Downloaded the drifter data and split tracks for 2/21/14 but still need to do the other days. Input everything in the drifter deployment checklist.

Saturday February 22, 2014 53

Got 4 more drifter deployments, swell was still big. I did two on the rising tide but then some fishermen were netting on the North side so I had to take a break while they also did the south side. I thought they were really mad at me but when I walked over to talk to them it was Frank from Nu’uuli! Small world. While I was taking a break I checked the weather station and it doesn’t seem to be working. I got data up to 1330 2/22/14 but when I checked it at 1430 it was blank. I went home and grabbed some batteries but they didn’t work. I bought new batteries and they didn’t work. I went home and got the power adapter and it didn’t work. I said f it and went back out for two more drifts on the falling tide. The winds were very light and offshore for those two drifts. Went to Marsik’s for umu dinner.

Sunday February 23, 2014 54

Downloaded previous day’s data. Did two more drifts on the rising tide to even the balance of falling and rising tides. Still some swell but it seems it dropped a bit. Very light W-NW wind. Pulled the ADCP’s just after 1300, and got them all! A big squall came in and it poured for about 15min but then cleared up. I cleaned everything up, left the ADCP’s to dry and surfed Doc’s with Jameson, it was pretty good. Sadie’s for dinner and beers to celebrate a successful Drifter Week 2014.

Monday February 24, 2014

Slept! Did P-card allocations, I can finally login! Everything should be ok now. Downloaded final drifter deployments and added to checklist. I got 30 in total! Curt is stoked on it. Changed my ticket to fly out on March 7. Did my rehire stuff for lifeguards. Missed the post office to see if the vacuum pump is in and didn’t find it at DMWR. All sedpods and caps are at DMWR and are ready to go. Sean is down to dive Friday or Saturday. Met with Domingo real quick to remind him about the MOU. Surfed JZ’s with Jameson and Doc. Helped Jameson with his grant for student training.

Tuesday February 25, 2014

Filtered 9 nutrient samples from the kegerator in the morning and all the 70 sediment samples in the afternoon. Only took me til 9pm! Picked up the vacuum pump at the Post Office with Whitney. They didn’t want to deliver it to DMWR for some reason. It worked pretty well for how small it is.

Wednesday February 26, 2014

Developed a bit of a sore throat yesterday and tried to sleep it off today but no luck. Doc is sick too, he stayed home yesterday. It poured last night and was hard to sleep. Checked N2A, no samples due to power failure but OBS and its data look good. Grabbed one “Manually”. Checked N1A, had 7 samples from this morning and last night, good! OBS at N1A was also looking good and data is good. Checked YSI at the DAM. There was big tree that fell right on the north wing of the dam, gnarly! The YSI was ok, only has 4 days of battery though, better change tomorrow, stage was too high today. Checked R2, had 24 samples from 2/21/14, that big storm last week. I got all 24 out with LPS subsamples. Downloaded LBJ-OBS, data looks good, and it is clear of debris. Checked FP, it was still off. I disassembled it and cleaned the battery contacts. I held down “Done” and it popped on, hmmm. I wonder if that was all it needed. When the little girl brought it out on 2/22 I heard it beep and it went blank. I wonder if it just missed the 1400 record and I just needed to hold “Done” to restart it. Downloaded PT-Fagaalu1, looks good. Filtered all nutrient and sediment samples except for 15-23 odds out of R2 since they looked pretty similar. I think hourly samples on the falling limb are adequate. Made a little lab timelapse video that is kinda neat.

Thursday February 27, 2014

Went to Nu’uuli to check N2A, grabbed every fourth sample since they all looked pretty clear; poured out the rest. Downloaded PT-Nuuuli2 and Timu-Nuuuli2. My throat is still feeling sore, had to go to Foreskin’s for some cough drops. Met with Bob and Hugh, his GIS independent study student from ASCC working with Jamie Baby. Took photos at all locations in Nuuuli. Downloaded Timu-Nuuuli1 and saw Kilopa! Went to all sites in Faga’alu except for the camera at the house. Downloaded Falepule camera, the dates are all messed up. Downloaded Church camera, downloaded LBJ camera (which mysteriously stopped a few days ago; no battery issues, no water, just stopped). Reinstalled big battery at the DAM, too rainy to change inside batteries. Downloaded DAM-YSI and PT-Fagaalu3. Then it started pouring and I grabbed a bunch of samples. Throat is getting very sore, I don’t think running around in the rain is good for it.

Friday February 28, 2014

Not feeling well at all, slept in late and still not feeling like moving. Got samples out of N1A and then also got the corresponding samples from N2A. Got samples out of R2 and went to the lab. Filtered all samples but some are still drying.

## March 2014

Saturday March 1, 2014

Slept in trying to get over this whatever this is. Went into DMWR lab and finished filtering nutrient samples from 2/27/14. Finished SSC samples as well. Packed up lab and came home. Started packing stuff and wrote up an inventory of tools, equipment etc. Moved some stuff over to Jameson’s.

Sunday March 2, 2014

Couldn’t sleep last night due to sinus congestion, lame. Moved a bunch of stuff over to Jameson’s. Put in a shelf and built a quick little board rack to keep everything organized. Worked out Marine sediment filtration methods. Input all nutrient and LPS samples into spreadsheets. Made map of Dave Whitall’s sediment collection spots. Tried to snorkel but viz was shite and my sinuses weren’t having it.

Monday March 3, 2014

Met with Jameson at his house at 0830 for a full field day. First we went to ASCC to drop off lab stuff and Jameson to take care of some stuff. Got some tarps and plastic containers at Ace. Downloaded OBS-N1, no samples in N1A, retrieved N1A. Downloaded OBS-N2, dumped samples from N2A since no storm samples, retrieved N2A. Downloaded Timu-Nuuuli2, PT-Nuuuli2, and Timu-Nuuuli1. Dropped off Nuuuli Autosamplers at Jameson’s and stored in laundry under the tarps for safekeeping. Went to Faga’alu. Midway through downloading DAM-YSI there was some problem; it said “connect to local using Kermit protocol” or something like that but froze and we couldn’t do anything. Prior to download it appeared to be perfectly normal with good status and battery voltage. We changed the AA batteries in the YSI and tried downloading again. No luck, same error. The computer died so we retrieved R2 but left the box. There were no samples in it. We then went to the weather station. The display console looked perfectly normal but no data was logged in the recorder. It looked like maybe the logger was loose. No data since 2/22/14. We tried one more time at the DAM-YSI but this time it wouldn’t even open the terminal, it appeared there was some issue with the serial-USB adapter perhaps. Downloaded PT-Fagaalu3. Unable to download Timu-Fagaalu1 due to same USB issue. We went home and grabbed my computer and downloaded Timu-Fagaalu1, it looked ok with 70% battery. We downloaded PT-Fagaalu1 and it was ok. Retrieved timelapse cam at LBJ, it was good. Connected to OBS-LBJ and it connected ok, the real time data and clock were fine. I clicked Collect Data and it froze. I canceled it and tried again. It was unable to connect to the CR-200x at all. The red scan light stayed on for some time though it was not on a 15min. interval. We unplugged power and plugged back in. Still unable to connect to CR-200x. Went to ASCC lab and did a dry run of marine sediment analysis. It’s ok, going to be some issues up front but I think it will work. Took Jameson and Carolyn to Manuia’s to say thanks for letting me store stuff at their house and for Jameson’s help.

Tuesday March 4, 2014

Went to ACE to get 2” pipe for SedTubes. Downloaded OBS-LBJ with a different serial-USB and it worked just fine! Met up with Ann and Jerry from USGS at NPS warehouse after going all the way to NPS Office in traffic. Helped them rig the Hummingbird sonar. Went up to the Dam real quick and downloaded DAM-YSI and it worked too! Must have been the serial-usb. Went out on the NPS boat with capt. Tim Clark and we had a pretty smooth bathy survey. Very cool! Checked out the kayaks and planned kayak survey for Thursday. Waves were FIRING at the Rock, hard to watch it and not surf. Transferred some photos and such from Bob and had dinner over there with Kristine, she just got back from DC.

Wednesday March 5, 2014

Dropped Bob at EOB and got samples out of ASEPA lab. Need to filter some Nutrient samples! Logged in the LPS samples (1 whole container). Moved some furniture over to Jameson’s and got kayak for dive later. SURFED, finally. Coral Heads for some tubes then paddled over to Pua for some turns. Probably should have just surfed the Rock and rolled the dice. Made SedTubes. Sean Felise had to cancel but Tim Clark saved the day. I got the tanks and Pods from DMWR and met Meagan around 3 in Faga’alu. We deployed all the reef flat pods and tubes (except 1B) and then Tim showed up. They deployed 1C, 2C, and 3C while I supervised from above. So lame not being able to dive! They retrieved the Dobie and it’s looking good. Wave gage was retrieved at 1830. Finished in the dark and Meagan and Tim did a night dive in while I went home and cleaned up. Band-aid tofa!!

Thursday March 6, 2014

Put SedPod locations on GPS for Meagan. Checked to make sure all field data was synced on FieldLaptop. I think my wallet got stolen! Surfed Faga’alu. Picked up second kayak at Arvin’s and met Ann and Gerry at NPS. Got battery from Carolyn for Gerry. Got Curt’s stuff at DMWR and took to Post Office with Ann. She also mailed the ADCP’s so that’s good. Rigged up the kayaks for video and sidescan. Did some preliminary tracks to test the configuration. Had a beer with da boys on da beach when we got out, pretty classic. Filtered samples from early in the trip (1/16-1/28).

Friday March 7, 2014

Did kayak tracks of the Northern and Southern reefs. Gerry did video. Surfed Faga’alu and it was epic. Packed up like a crazy person, had dinner and a send off from Coconut Point and left with Bob.

# September 2014-January 2015

## September 2014

Monday September 29, 2014

Flew Kauai to Honolulu to Pago Pago. Jameson and Carolyn picked me up at airport and took me to my old house (Kristine’s house).

Tuesday September 30, 2014

Moved stuff from Jameson’s to my house. Cleaned, organized. Surfed Airport with Jameson and Mike Jackson. Dinner at Jameson’s.

## October 2014

Wednesday October 1, 2014

Got Field Laptop connecting to the internet to sync through Google Drive. Checked on Nu’uuli and Faga’alu stream instrumentation. Didn’t get to Timu-N1. Couldn’t open PT3 (lock rusted). Retrieved batt from DAM YSI for charging. Did as much data downloading as possible. Reattached LBJ-OBS to stream bed. Moved N2-OBS to underside of mount pole so its more in the water. Removed PT-N1 for cleaning/downloading. Had to relaunch a few things, and replace batt at Timu-Quarry. Tried to get BlueSky number reactivated. Surfed Airport with Jameson. Food shopping at CostU.

Thursday October 2, 2014

Synced up data from Field Laptop and reorganized folders/data. Sent update emails to Trent. Went to ASCC to see Hokulea presentation. Downloaded PT from DAM after cutting lock, looked good. Painted the refrigerator and washing machine and did laundry. Saw a bunch of whales out front!

Friday October 3, 2014

Plotted some of the new Faga’alu data, barometer data is shite. Made presentation for Jameson’s class about careers in Marine Science then met them at the Hokulea and Hiki… for a tour, so rad! Classes got canceled so Jameson and I surfed Faga’alu.

Saturday October 4, 2014

Dove “Hole in the Reef”, which is a hole in the reef flat that goes under the surf zone and out to sea through a series of semi tunnels! Awesome! Saw lots of neat fish and corals. It was tricky getting back in through all the false ‘ava’s. Beautiful diving and very sunny. Drove out to Poloa for a surf with Jamo and Mike Jackson. Got fun tubes! Watched the Rip Curl France Pro contest live streaming from France!

Sunday October 5, 2014

Golfed with Hideyo, Meagan, Kristine, Chuck, and Marsek. Big lunch at Seafood Restaurant. Cleaned house.

Monday October 6, 2014

Dove on SedPods 0930-1530. 2B, 3C had no sediment on the SedPod. 1B was flipped over. There was a large disturbance of the staghorn coral adjacent 3A. Widespread damage to reef flat and forereef and water quality was terrible on Northern reefs and Southern reef crest from 0-20ft. Delivered Sedpods to ASCC lab, picked up Jameson and surfed Faga’alu.

Tuesday October 7, 2014

Took Jameson to ASCC and tried to find Don Vargo to discuss lab options. Downloaded data from N1-OBS. Did some data QC. Moved all SedPod samples and lab equipment over to Don Vargo’s lab, Mark Schmaedick let me in but Don wasn’t there. Bromantical snorkeling CPT with Jameson.

Wednesday October 8, 2014

Rinsed out all SedPods and Tubes, and got everything decanting or gravity filtering. Saw The Maze Runner, the worst movie ever.

Thursday October 9, 2014

Killed Crown of Thorns near Fagasa. Went to Lab to finish getting samples onto filters and rinsed down a few more times

Friday October 10, 2014

Caught up on some emails. Went to DAM to get the YSI. Tried to download data several times and then computer ran out of battery. Downloaded it at home: data stops at 4/23/14, then starts up again 8/6/14 after Jameson checked on it and reconnected the battery in the box. Gave a presentation to Jameson’s students at ASCC about my career in Marine Science. Went to Lab and finished getting samples onto filters and moved to back room. Rinsed down some more. Went to dinner at Jennifer’s for spaghetti and making Flubber.

Saturday October 11, 2014

Jameson and I went to Aunu’u Rights and SCORED. Surfed for like 3 hours, super consistent rippable. Saw some crazy whale breaches in Fagaitua on the way there and the Hikianalia sailing out of Pago on the way back. Got lunch at Sadie’s. Talked to parents on the phone. Got burritos at Triple C’s and went to Marsek’s, then Karen Shelley’s Bday party at Kenko Hill

Sunday October 12, 2014

Slept til 11am, talked to Jen for awhile. Just chilled and relaxed, did a lot of stretching and stayed out of the sun. Fixed the radio on the Green Goblin! Went to Hideyo and Meagan’s in Alega for dinner. Had a nice short paddle on the SUP and a great dinner.

Monday October 13, 2014

Went to Aunu’u and surfed Shipwrecks and the Right, double sesh. Stopped at Hideyo’s for breakfast and lunch.

Tuesday October 14, 2014

Wow! Overcast and rainy and cold! Like low 70’s haha. Went to lab to dry samples. Got all dried and weighed and recorded. Made a little video edit of diving while I was waiting around. Worked on some data analysis to compare to Jameson’s results.

Wednesday October 15, 2014

Skyped with Trent. Worked on analyzing sedimentation results and comparing to Jameson’s. Went to lab to finish transferring samples for transport but Don wasn’t there. The truck overheated on the way home and I had to pull over by CPT. Turns out it was out of water and Jameson happened by to help get it filled up and going again. Fixed a hose leak in the power steering, and topped off with some fluid. Dropped Jameson off and filled up the radiator, the cap is shot, no seal. Switched the wiper blades over since the driver side one was pretty bad, and rusted stuck on there. Replaced some questionable fuses. Went to Jeremy and Mia’s for Jeremy’s birthday and had a great dinner and jam session with Hideyo, Jeremy, Ian and Jameson.

Thursday October 16, 2014

Organized spare room for equipment and Greg’s eventual stay in December. Put in some shelves and cleaned out some junk. Saw Hokule’a and Hikianalia departing Pago under full sail in about 15 knots of South wind! Went to lab to package SedPod samples for transport.

Friday October 17, 2014

Tried to get the registration and insurance renewed but you need insurance to get registration and I couldn’t find the insurance since Bob didn’t leave the policy and couldn’t remember the carriers name. Fail. Packaged up samples (Sept\_Oct only since issues with Jameson’s samples) and dropped off at Post Office on the way to Aunu’u with MJ. Scored! Welcomed Carolyn’s mom and sister to the island with a big pizza party at CPT

Saturday October 18, 2014

Went to Sailele with Carolyn’s family and hung out for a bit. Went to Aunu’u and scored again though much more wind, current, and people. Were actively sinking on the way out with more than 20 passengers in rough seas. Got a ride back to the harbor with Peter! Went out for a karaoke dance party at Oasis/Bowling Alley and had a great time.

Sunday October 19, 2014

Recovery day after last night. Surfed Gas stations with Jeremy, MJ, Ian and Tim. Super fun waves! Watched some of the Moche Rip Curl Portugal contest.

Monday October 20, 2014

Missed a Skype call with Suzie and Trent! OOPS! Worked on comparing Faga’alu sedimentation results with other studies. Looks good. Surfed Gas with Hideyo, super fun.

Tuesday October 21, 2014

Got insurance renewed, got cash, went to OMV to renew registration. Had to get the truck “inspected” and paid $94. Went to NAPA and got windshield wipers and a taillight bulb, saw Singh there. Dropped off check for $150 at insurance (Amerika Samoa Insurance). Got plexi and a tape measure at Ace, installed window AC. Got water at Family Mart. Worked on data overview and some emails. Surfed Poloa with X, Jameson and Andy. Toa for dinner.

Wednesday October 22, 2014

Conference call make up with Susie and Trent. Started watershed training with Meagan, showing her methods and results etc. Reinstalled Autosampler at R2, toured quarry with Samoa Maritime, G. Poysky Jr. was there, he’s literally 93 yo and still handling business, so rad. Surveyed R2 cross sections, input into Excel. Dinner at Adam/Mareike’s, Adam caught a fish off the whale research boat.

Thursday October 23, 2014

Emails…Meagan came over and we installed a turbidimeter at the quarry, next to R2. Input R2 cross section data into HECRAS. Surfed Coral Heads with Jameson and MJ. Submitted grant progress report to Kristine.

Friday October 24, 2014

Worked on R2 cross sections in HECRAS. Met Peter, Sean, and Peter’s uncle at DMWR and drove to Vatia. Gassed up and drove to Poloa, then back to Fagasa (oops), then back to Fagamalo. Moored the boat and drove home. Tried to settle tickets at Court building but didn’t have enough cash and they don’t take cards like a normal government office. Surfed Faga’alu with MJ.

Saturday October 25, 2014

Surfed Faga’alu with Jameson. Talked to parents on phone. Tried to surf again at the Rock but it was bad. Had Mexican food night with Hideyo/Meagan, Sabrina, and Tim.

Sunday October 26, 2014

Golfed with Kristine, Hideyo/Meagan. Got lunch/dinner with Mia and Jeremy at Tradewinds where Matt Thiel was working, which was cool. Got a cheap meal. Stopped by CPT on the way home for some beers.

Monday October 27, 2014

Peter called in sick (?) so no COTS diving. Bought Jen’s ticket to Samoa. 35,000 AA miles LAX-HNL and then $1,200 HNL-PPG. Went to court to settle ticket and they said the officer didn’t turn in the tickets so no problem. Got my clearance to get my driver’s license and dad emailed my ss card. Worked on Manning’s rating equation, I think I got it by converting the stage to zero and the bottom profile as a positively numbered line and integrating under the curve. Dinner at Luke and Sabrina’s.

Tuesday October 28, 2014

Worked on the Manning’s rating curve. COTS dive at Fagamalo with Mareike and Meagan, I killed around 30 and they got a bunch too. Hit our deco time at 80 feet oops. Watched a movie and relaxed and then worked on code some more before bed.

Wednesday October 29, 2014

Worked on Manning’s rating curve and calibrating n and S parameters to the A/V discharge measurements using the flow meter. Got billed $700 for campus fees, trent paid with the grant! Yes! Went to OMV to get license, they said they need my actual SS card, not a copy. Went to Hideyo’s for dinner and jam.

Thursday October 30, 2014

Checked on new OBS 500 at the Quarry and Autosampler, no samples. Battery not holding through the night for the OBS. Rain gauge battery low, didn’t have replacement. Couldn’t get up to the DAM due to blasting. Came home and worked on Manning’s rating curve stuff. Made Eskimo Bro costume at Jameson’s

Friday October 31, 2014

More Manning’s rating curve stuff. Trent got back to me with some rec’s about using variable Mannings n. Surfed Coral Heads real quick, not good. Went to Val’s amazing Halloween party, super fun.

## November 2014

Saturday November 1, 2014

Rested after a late night. Surfed Healing Garden, fun but too inconsistent. Relaxed, movie night

Sunday November 2, 2014

Slept in, raining and ugly out. Went to Tisa’s for Jazz Fest. Goblin overheated at Faga’alu, added water. Overheated again at McDonald’s on the way back. The car struggle is real here.

Monday November 3, 2014

Did some AV discharge measurements with Meagan. Plotted them up, looks good. Checked on turbidimeter at Quarry and LBJ. Downloaded PT1 and 3. Battery not holding at Quarry. Started pouring rain around 5 so I went and sampled quarry and took photos of retention ponds filling up and overflowing. Stand pipes not installed so overflowing at low levels. Saw John Wick at movie theater.

Tuesday November 4, 2014

Compared AV measurements to others. Checked Autosampler, FULL! Had samples from Sunday and Monday evening. Had to come back to get more bottles and the N1 solar panel and battery to switch out. Put new battery, enclosure and solar panel at QUARRY. Looks good. Restarted Autosampler. Surfed Amanave with Jeremy and then Lumpia Night at CPT for dinner. Got some coolant and power steering fluid at KS Mart.

Wednesday November 5, 2014

Too rough to dive today. Worked on car trying to find coolant leak. Worked on stage-discharge stuff all day trying to correct and use USGS type protocols. Surfed Gas Station, pretty bad but nice to get out of the house. Dinner at Hideyo’s

Thursday November 6, 2014

Checked coolant in truck, very low. Revved engine with cap off and lots of bubbles, I think the head gasket is blown. Worked on stage analysis, went for a run on the stretch.

Friday November 7, 2014

Finished correcting LBJ stage data, looks like it’s making sense now. Singh came and picked up the Goblin to fix the head gasket, it’s blown. Had pasta dinner at our house with Jamelyn, Marsik, Mareike and Elana.

Saturday November 8, 2014

Surfed Aunu’u Rights, on the smaller side, still East wind hanging around but super fun waves. Brownbagged it for lunch on the way home. Chilled out and read books, took a nap. Went to boxing match, Oasis, Bowling Alley and night swim at CPT. Whew!

Sunday November 9, 2014

Scored epic JZ’s in the am. Got many proper tubes with Jameson. Made a big breakfast with Krs One and then took a nap. Went to Sliding Tide Pool with a bunch of good folks and then dinner at Seafood Restaurant.

Monday November 10, 2014

Picked up tanks at DMWR in the morning, picked up batteries at Post Office but couldn’t get the two packages until 830. Surfed JZ’s again with Jameson, still epic. Loaded up at the house and met Meagan in Faga’alu. Parked at the school and swam to 1C, then across ‘ava to 2C and 3C then back across ‘ava and dropped off samples at car. Snorkeled to 1B, then moved cars to North park and snorkeled 1A. Then moved cars to launch ramp and snorkeled 2A. Then walked to Fatumafuti and tried to get to 3B but tide was too low. Snorkeled down to 3A and 2B to finish up at the launch ramp. Lots of swimming but it was a nice calm day so no big deal. Dropped off samples at Don’s lab at Land Grant. Stopped at Foreskin’s for groceries, and a container for samples in the future. Also got a stream sample clear container at the Asian mart next door. Rinsed dive gear and just chilled out, went to bed early.

Tuesday November 11, 2014

Veteran’s Day! Surfed out front again. Got epic barrels again. More rain, less offshore wind and fewer bombs though. Still got some shacks and Carolyn filmed. Chilled out then worked on correcting DAM stage data.

Wednesday November 12, 2014

Went to Faga’alu with Meagan to get last sedpod. 3B was flipped over so no sed on pod but maybe in tube. There was a storm drain by the black rock emptying out, maybe going down current to 3a? Went to Don’s lab and did sed processing with Meagan and Mareike. Did some of the storm samples from 11/2 and 11/3. Took a bus home, still no truck. Kristine made an amazing pasta dinner.

Thursday November 13, 2014

Mareike picked me up at 8 and went to lab. Had to get cupcake holders for SSC samples. Beakers weren’t ready to decant yet so we finished the SSC samples and slowly got some water through the filters. Dried and weighed sand fraction and SSC samples (from 11/2 and 11/3 storms, R2 and grab). Lunch with Prof. Newtson at Tradewinds. Changed all code from TSS to SSC nomenclature. Went to Faga’alu with Jameson to use his YSI sonde. Removed some veg from all three turbidimeters. There was a MASSIVE pile of grass on the LBJ OBS.

Friday November 14, 2014

Went to Don’s lab to finish up samples, got all in filters after decanting. Still some residual cloudiness. Reweighed sand fraction, all within a mg or two. Went for a snorkel out front and it was amaze-balls. Saw a false stonefish, octopus, huge school of flagtails, schools of convict tangs, 4 red firefish (look like lionfish), and 7 COTS. Killed 5 of them with my spear. Worked on some code stuff, doing storms analysis. CPT for Brenda’s welcome back BBQ.

Saturday November 15, 2014

Huge North swell in the water but Thiel gave us a bad report from yesterday so we explored. Checked Fagasa and Vatia. Ended up surfing a sketchy right in Vatia, it was ok. Read some more Hitchhiker’s Guide. CPT for Wendy’s bday.

Sunday November 16, 2014

Jamie Baby’s MAN shower. The girls did a surprise Bridal Shower brunch for Carolyn so we picked up Jameson and came back to Faganeanea for a dive with all the bro’s. Lunch at TWinds and then golfed, so fun.

Monday November 17, 2014

Worked on some data analysis. Turns out that despite the info on the CamSci website, the OBS 500 doesn’t measure NTU it measures Formazin Nephelometric units. Found some good info on the USGS site comparing the different turbidity measurements. Had to break out the T-SSC relationships into NTU and FNU. Tried to get laptop from Post Office but it turns out I sent it to Kristine at DMWR. Went to lunch with Bernardo and CRAG folks, took forever, not very productive. Tried to get money for Singh, no money at BoH. Couldn’t get the mail key from DMWR because the girl who has it isn’t in today and hasn’t been in for “a long time”. No help from the staff, standard. Got $500 at ANZ and went to ASCC lab with Meagan. Rinsed samples and explained analysis to Meagan. Gave Singh $360 for parts and machine shop, saw the Goblin all ripped up. Surfed Doc’s with Jameson, not very good. Did laundry and cleaned up the house a little. TC came over for dinner.

Tuesday November 18, 2014

Worked on data analysis. Went to lab and weighed sand fraction. Got ride home with Jameson. It rained pretty hard for a few min. right around 5pm, then cleared up. Snorkeled in front of the house and killed 2 COTS.

Wednesday November 19 2014

Worked on data analysis doing the Qmax-SSY plots and storm\_data filtering. Went to lab and weighed fine fraction, seemed like the balance weight was changing a lot as they cooled. Jameson picked me up, then Carolyn then drove to Jeremy’s and we went to Poloa. It must have been raining because many of the streams were pretty turbid. Poloa was totally brown! Then it really started raining and we just drove back to Jeremy’s and went home.

Thursday November 20, 2014

Frances woke me up, haha. Worked on data analysis all day until Jameson picked me up and we surfed Faga’alu; pretty fun and not too onshore.

Friday November 21, 2014

Worked on data analysis until Meagan picked me up and we went to the field. Got samples from R2, downloaded QUARRY OBS and DAM YSI before the computer battery died. Came home and unpacked. Kristine brought home the new field laptop! Yes! Snorkeled to Coconut Point for a pizza party for Bernardo, who is leaving tonight after conducting a week-long benthic monitoring workshop.

Saturday November 22, 2014

Worked on setting up the new field laptop. Went to Vatia with Kristine, Elana, Meagan, Hideyo, Ian and Tim Clark, and hiked over the saddle trail. Me and Ian and Tim swam to the Pola and through the arch caves. Saw some big ulua, a BIG barracuda, and some big eagle rays. Super cool! Dinner at Evi’s. Toa after for a few beers. Not raining much at our house but POURING in Nu’uuli!!

Sunday November 23, 2014

Surfed FAga’alu early with Luke, MJ (he’s back), and Lukes doctor friends. Pretty fun and the wind was good at the end of the session. Tim Bodell came by and I bought his Nikon AW1 for $600, happy birthday to me. Talked to Nonna, Mom, Dad, and sarah, they had a surprise 90th bday party for Nonna. Food shopping with Kristine. Snorkeled out front to test the AW1, super cool!!

Monday November 24, 2014

It was forecast to rain like mad but hasn’t materialized yet. Installed software on the field laptop. Went to LBJ to download but the USB serial cable wouldn’t work with Windows 8. Hmph. Got samples out of Autosampler (full from Saturday night’s rain 11/22-11/23/14). Realized I left car key in car door. Got car key (Kristine’s car). Came home and reinstalled drivers for the alternate USB cable. Went back to LBJ, downloaded PT1 (couldn’t read header, force offloaded) and LBJ-OBS. Cleared veg from OBS. Went up to Dam and found the installed Ecowatch wasn’t actually functional. Couldn’t download DAM-YSI. Downloaded PT3. Went down to QUARRY-OBS, realized I left keys at DAM. Went up to DAM, found keys. Downloaded QUARRY-OBS. Downloaded Timu-Fagaalu1. Realized I hadn’t locked QUARRY OBS. Locked QUARRY OBS. Talked to Mitch and he said it rained a lot and there was a high water mark at the first hole of the standpipe in the upper pond. I told him the samples looked clear. Went home and charged up field laptop for Nu’uuli, but ended up going to lab. Filtered samples from 11/12/14 and 11/22/14 and grabs today at Don Vargo’s lab. Reweighed SedPod filters, still weird readings. Dried and weighed about half the filters, will get the rest tomorrow. Talked to Singh and he said something about fixing a cam shaft; might be ready Wednesday. Made curry vegetable dinner with Kristine. Worked on installing VirtualBox virtual machine on new field laptop to emulate the old field laptop. I think it is working now.

Tuesday November 25, 2014

Pretty rainy in the morning. Finished setting up the field laptop some more. Went to walk out the door and Kristine had taken her car, oops! Took bus to DMWR and got car and came back to house and loaded up. Storm didn’t really develop. Did an AV measure at the LBJ, and then at DAM. Tried to download DAM-YSI but drivers weren’t installed for cable on virtual pc. Got samples from Autosampler. Met Meagan at Family Mart. Checked on N1-OBS, panel was down but I think ok. Timu-N1 and Timu-N2 both were either dead or full of water. Did AV at N2 bridge, couldn’t connect to PT ☹. Finished samples at Vargo’s lab. Input data from the field day.

Wednesday November 26, 2014

Got started on some codework. Did NOAA CRCP update for Trent. Got some A+ tubes at JZ’s real quick. Filtered storms list and cleaned up a lot of code and data. Went to Tradewinds for Ian’s dirty 30.

Thursday November 27, 2014

Surfed JZ’s with Jameson, Ian, Jeremy. Then we got out and went to Faga’alu, Hideyo met us out there. Talked to the family real quick and then went to Thanksgiving feast at Jim Bacon’s in Malaeimi, SO FUN! We ate and played guitar and threw Frisbees all afternoon into the evening.

Friday November 28, 2014

Picked up where I left off trying to finish the analysis and cutting out weird data and storms. Surfed The Creek with Ian, Hideyo, Kilopa, and Jameson. Crook, MJ, and X were at Alao. It was very good. Worked on data analysis until late.

Saturday November 29, 2014

Worked on data analysis. Tried to add Quarry storms and something has gone wrong. Surfed Aunuu Rights and it was absolutely glorious. Had dinner at Sadie’s on the way home.

Sunday November 30, 2014

Trying to fix the QmaxS plot. It’s showing the Total watershed much lower than previous. I think mg is 10\*\*-9 tons, not 10\*\*-6!!! Oops

## December 2014

Monday December 1, 2014

Responded to Liz Fairey about not spending any of the CRCP money. Still trying to fix everything. Finally reverted to the old code and it looks right. Still had the SedFlux tons/15min values Way too high. Now compare to one of Duvert’s other catchments COmx? Met with Meagan and Jameson to sort out CRCP finances. Started writing out narrative of data analysis. Dinner at TOA

Tuesday December 2, 2014

Sorted out CRCP funding. Just need to dive until April 1, 2015 and we should still have about $5k extra hahah. Continuing writing out narrative of data analysis. Went for a good run and swim out front. Dinner at Luke and Sabrina’s, they’re leaving for Fiji tomorrow morning. Tried to fix GitHub, merged the Master branch with revert-before-quarry.

Wednesday December 3, 2014

Worked on figures for Curt’s and Trent’s AGU posters. Met Michael Wolfram and John at the quarry in the afternoon for an inspection tour. Proceeded on foot from quarry, and downloaded all instruments in Faga’alu except for Timu1. Stayed up late getting all the figures to plot right. Seems like I got it just in time for my birthday.

Thursday December 4, 2014

Thirtieth birthday today. Hope I have as much fun in my next thirty years. Meagan picked me up and we went to Faga’alu. Looked very rough and ready to rain. Small Craft, High Surf advisories. Meagan forgot her booties so we grabbed Kristine’s at the house. Got 2A, too shallow to get 3B, got 3A and 2B. Got 1A, 1B and then I had to poop. Took a quick break at the house and then met Michael and John. They snorkeled with us to 1C, then had to go to a meeting. Meagan and I went to 2C, then 3C then back. We jammed out to 3B real quick to finish then came home to rinse and shower. Dropped everything off at Don’s lab. Went to happy hour at Falepule with Michael and John, Hideyo met us there. Not a bad “work” meeting with that view! Came home to an amazing dinner, MJ brought fish, we had cake and it was fun.

Friday December 5, 2014

Finished up some figures and poster stuff. Went to Don’s lab around 12, and knocked everything out in 5 hours of beast mode. Finished the poster and sent to Trent at about 855pm. Went to get Jen at 9pm. Jen’s here!!! Went to Toa for dinner but they didn’t have the kitchen open and only had poke! They had some awesome live music though!

Saturday December 6, 2014

Went food shopping at KS and Cost U and Foreskin’s. Picked up my truck from Singh, it was $400 for parts and $650 for labor, yikes. Carolyn rented and aiga bus for my bday and it was epic! Went to Tisa’s then Evi’s then (after dropping some people off) finished at Bowling Alley, so fun!

Sunday December 7, 2014

Chill morning then snorkeled Faga’alu with Jen, so rad! Went to CPT to hang and get my truck, then to Hideyo’s for an epic ribs feast with Nerellian and JereMia.

Monday December 8, 2014

Revised some figs for Curt. Tried to go to lab but nobody home. Went to Wilma’s beach for a picnic. We called it “spare tires beach” and it was beautiful. Stopped at lab on way home. Had Jamelyn over for dinner at our house. Jen made salmon, quinoa and veggies. So good.

Tuesday December 9, 2014

Rained a lot. I worked on some poster stuff for Trent. Meagan and Kristine said there was a big sediment plume in faga’alu and went to take pics. Jen and I went to the quarry and dam. Got a haircut. Jen went to Zumba with Carolyn. Saw Hunger Games 3

Wednesday December 10, 2014

Got samples from Autosampler, battery was dead. Went to the lab to work on samples. Went to Alofau for a snorkel and fishies were biting me. Went to Two Dollar Beach but got rained out. Went to Sadies for happy hour and Sooks for Sushi with Hideagan

Thursday December 11, 2014

I surfed big Gas Stations with MJ and Jameson, it was overcast and a bit rainy but pretty fun. Jen and I got sandwiches at Herb’n Juice and stopped at Fatumafuti and then it started raining again. Went to Carolyn and Jameson’s for taco night. Yum. Tried on my I’e faikoga for the wedding

Friday December 12, 2014

Drove to Vatia and went snorkeling until Jen got scared of the murkiness. Picnic at NPS fale overlooking the Pola, vry beautiful. Snorkeled Faga’alu from Doc’s Rock to the Launchramp and it was amaze balls. Went to Manuia’s with Marsek and Val and Jermia, and Ian, and Kristine, to see off Hideagan to the airport. Then went to TOA to see off the Michel’s guys then went home.

Saturday December 13, 2014

Went to Aunu’u with Jamelyn and Nerellian and surfed. Super fun, took my GoPro out a little. Chilled on the beach all together and then walked to the far cove. Dinner at Tradewinds and ate all the food. Kelly burger and shrimp Po boy WITH onion rings. Uh.

Sunday December 14, 2014

Went golfing with Jamelyn and the Adams. Had an amazing time, so much fun. Lunch at tradewinds then picked up Thiel and went to Coconut Point Beach Club for lounging in the water and drinks, yay.

Spaghetti.

Monday December 15, 2014

Surfed Alao and it was pretty good with Jameson. Jen filmed which was cool. Tried to get tacos but Evi’s was closed. Went to Sadie’s for lunch. Chilled at the house and Jen packed. Went to Manuia’s for dinner and then dropped Jen off at the airport, Kristine left too. Greg arrived safely.

Tuesday December 16, 2014

The GPS unit from Jameson doesn’t seem to be working. Saltwater damage? Bummer. Went to Faga’alu and got some baseflow samples for Greg, discharge measurements, and downloaded all the instruments, except Timu1 because it was too hot. The YSI at the Dam took forever to download. Went to lunch at Triple C but it got expensive, yikes. Went to Nu’uuli and downloaded all instruments and sampled at N2, but nothing at N1. Went to lab to meet with Don and rinse SedPod samples one more time. Snorkeled Faga’alu and took photos, then it started raining. Sampled DAM-LBJ a few times and then it stopped raining and got dark. Went to CostULess to get some food.

Wednesday December 17, 2014

Picked up Autosamplers from Jameson. Installed one at N1 while it started raining. Sampled

Thursday December 18, 2014

Sampled, checked Autosamplers, couple Q measurements. Nerellian’s for dinner.

Friday December 19, 2014

Got the GPS points on the GPS but the basemap is shitty. Went to Faga’alu and got samples from Autosampler. Took a hilarious comedy of errors discharge measurement at LBJ with the kids. Went to lab to finish up SedPod coarse fractions and stream samples. It started raining so I went back out while Greg stayed in the lab. It was flooding like crazy in Malaeimi and Nuuuli. I got a sample from N2 and N1 and then went to Fagaalu but it wasn’t really even raining. Tried to get back to Nuuulli but traffic was jammed. Went for another lap in Fagaa’lu and then back to Nuuuli then the lab

Saturday December 20, 2014

Slept in a bit but then it started raining. Went to N1 and got samples from Autosampler. I didn’t reset it to first bottle so it got 5-13 from yesterday’s big rain. Went to Faga’alu and got samples from Autosampler. Went to Don’s lab and filtered. Came home for a quick lunch around 4pm and then finished in the lab. Went to Sliding Tide Pools for sunset. Elana’s Hannukah party for dinner and then went to Bowling Alley woop woop.

Sunday December 21, 2014

Raining a lot all day. Dropped off Zana at the harbor and grabbed a sample at LBJ. Pretty ugly day out, rained a lot. Worked on backing up and organizing photos. Went to dinner at Jade with Thiel and Jamelyn, grabbed sample at N1 on the way.

Monday December 22, 2014

Raining still this morning. Worked on moving some stuff from FieldLaptop to where it needed to be. SSC and SedPods stuff. Went to Faga’alu to get Autosamples out. Took Q measure and sample up at DAM. Got Autosamples. Took Q measure and sample at LBJ. Stopped at home for a quick sandwich. Went to N1 and got Autosamples and Q measure. Went to N2 and found the turbidimeter vandalized. Lock broken off and solar panel smashed. Poles bent and concrete broken. Data was ok, must have happened yesterday. Downloaded PT at N2 bridge. Downloaded raingauge at Loma’s house, it needed a new battery already? Tried to do a few manual tips and it seemed like it wasn’t working, then it was. Went to lab and filtered all Autosamples and grab samples from Sunday.

Tuesday December 23, 2014

Sampled all of Greg’s streams on the East side, starting in Faganeanea. Jeremy let us borrow his truck, which was awesome. Long day but got em done.

Wednesday December 24, 2014

Sampled all of Greag’s streams on the West side. We started at our house and then went to Fagamalo and worked our way backward. Nice day. Went to Vinettes on CPT for a white elephant gift party, super fun.

Thursday December 25, 2014

Merry Christmas, Manuia Le Kerisimasi. Greg got some SPAM last night so we had that for breakfast, listened to Christmas music and called our families. Went for a snorkel in Faga’alu and then to Jeremia’s for Christmas party and white elephant, very fun. Played guitars til well after dark. Rained on the way home.

Friday December 26, 2014

Surfed Poloa, pretty big but not super scary and got a great barrel. It rained pretty hard on the way back but wasn’t raining at the house much. Worked on data analysis. My laptop keyboard is slowly dying.

Saturday December 27, 2014

Put Autosampler at LBJ and started at 1815 at 45 min intervals (note, when samples retrieved it looks like the first one may have sucked up sediment from bottom. Went to Toa for dinner and then Bowling Alley again.

Sunday December 28, 2014

Surfed Faga’alu then golfed. It rained a little bit while we were surfing and then golfing but not enough to trigger the Autosamplers (checked Monday). Went food shopping then CPT for BBQ at Jamelyn’s and Thiel’s sort of tofa.

Monday December 29, 2014

My sister’s birthday! Downloaded all instrument data in Faga’alu and Nu’uuli and checked all three Autosamplers. Noticed the PT data at N1 is rounding off the decimals on the kPa pressure data. Wtf. It was super duper hot so I cooled off in the shade of some sweet lil tubes in Fag’alu, best session to date probably. Filtered all remaining samples at Don’s lab.

Tuesday December 30, 2014

Worked on data analysis. Surfed Faga’alu with Jameson and Jeremy and it was super good.

Wednesday December 31, 2014

Did “synthetic” T-SSC rating curve for turbidimeters at QUARRY, DAM, then LBJ. Then surfed Coral Heads and it was fire-ing. So so good. Got it to myself for the last hour and got tons and tons of tubes. Amazing sunset, and then NYE at CPT out in the water.

## January 2015

Thursday January 1, 2015

Rest day. Grabbed a few samples in the morning at LBJ and started the Autosampler because it looked like it was still cloudy from last nights rain. Surfed Coral Heads and guess what it was real good again.

Friday January 2, 2015

We got a mouse in the house. Went to Ace to Got samples from Autosampler and then headed to the lab. Filtered all samples while Greg ran errands. Finished in time to get home and surf Coral Heads to cool off after cleaning behind the washing machine and trying to patch the hole in the wall. Set rat traps.

Saturday January 3, 2015

Went to Aunu’u with Jameson’s parents and Greg, and others. Finally hiked the whole island and then we pushed some Samoan kids into waves. Then snorkeled. No surf so we went home and had dinner at Koko Bean. Had the best swordfish dinner.

Sunday January 4, 2015

Third Annual John Daly Golf Classic. Super fun. Went for a run after and then Kristine drove me to the Autosampler at LBJ when it started raining at dark.

Monday January 5, 2015

SedPod collection with Jeremy. Greg kayaked which was helpful. Calm day, easy dive. Got to the lab and rinsed out tubes before they get all stinky tomorrow.

Tuesday January 6, 2015

Surfed Coral Heads big and good with MJ who just got back from his worst boat ever, and Jameson. Went to lab to do SedPod processing and storm samples. Greg picked me up later and we went to Tradewinds for dinner.

Wednesday January 7, 2015

Surfed Faga’alu for a few hours with MJ and Jameson and it was gangbusters. Jameson’s dad filmed again, maybe get some good ones. Went to Nu’uuli and did the synthetic sediment rating curve with the two turbidimeters OBS 500 that were in Nuuuli previously. Went to lab to do all that stuff. Went to Manuia’s with Greg and everyone and then took him to the airport. He got super hassled by security and almost couldn’t get his samples on the plane.

Thursday January 8, 2015

Got my driver’s license, FOR FREE! Went to lab to do SedPods. Pulled instruments from Nu’uuli. Kind of bittersweet. Started cleaning and packing up equipment.

Friday January 9, 2015

Tried to download data in Faga’alu but only got halfway when it started raining. Installed water level trigger at LBJ R2. Put in the PT that was formerly at N2 in the PT tube in LBJ but realized it is a BAROLOGGER!!!! What??? Guess I never noticed. Had to do a force offload at Timu1 at the quarry, relaunched it so hopefully its ok. It opened fine on my laptop. It started raining immediately after I finished downloading Timu1. I wanted to finish lab stuff and it didn’t look like it would last long so I left. Went to lab and finished SedPod coarse fraction weights and SRC weights. Looked like it was raining so I went back to Faga’alu and caught the tail end of a decent size storm. Talked to Mitch for a bit and then it really started raining. Got a bunch of good samples and pics of the ponds filling up and high SSC at the DAM. And then I locked my keys in the truck. Thankfully I had some bottles in the back so I would run up to the Dam, then mess with the truck, then go to DT, etc every 15 min. until I slim jimmed the lock open on the passenger side with an old hose clamp from N2!!!!!!!!!!!! Most triumphant moment of grad school!!!!!!! Came home soaked, cold, and muddy to everyone having cocktails on the porch for Kristine’s 3rd anniversary on the island. Manuia’s for dinner to send off Jamelyn.

Saturday January 10, 2015

Got up early and copied photos and data from recently. Went to Fagaalu and put in the new Autosampler at LBJ (from N1. Got samples from LBJ R2. Downloaded data from everything. Went scuba diving out front at Faganeanea and it was awesome. Went to lab and started filtering and finishing sedpods. Ducked out to go to sloshball at Val’s shop and it was EPIC.

Sunday January 11, 2015

Surfed JZ’s fun size and got a couple sick tubes and then the wind went slightly on shore. Packed up a bit around the house and then went to the lab. Finished filtering and SedPods, just need to weigh everything. Packed up lab and got a pic with Don Vargo. Packed up a bunch at the house and went to MJ’s for house-warming and SUSHI.

Monday January 12, 2015

Last morning of the trip and boy was it beautiful out front. Went to lab to finish SedPods and pack up lab. Bought Jamelyn’s wedding gift and put at their house. Surfed Faga’alu and had a fun session until I got popped in the lip by my board on my last wave. Mailed out 5 flat rate boxes just in time at three pm. Packed up at home and then had some folks over for dinner. Had fish stick tacos and some beers then went to the airport. Almost forgot my iPhone, oops. Saw Hideyo at the airport and was on the same flight as Sabrina. Fa’ Samoa, soifua.

# July-August 2015

## July 2015

Wednesday July 8, 2015

Flew from LAX to Pago Pago, met Greg in Honolulu. Carolyn, Jameson, John Fuzel, Tracy and Adam picked us up at the Airport, took us to Kristine’s. John is at Jamelyn’s so I’m staying at Kristine’s until he leaves on Friday. Can’t believe I’m back.

Thursday July 9, 2015

Went to Blue Sky to get our phones turned on, had to get new numbers for $20: 252-2207. Scouted out a location for a PT in Pala/Tafuna, found an ok spot next to the jail, Tafuna Correctional Facility TCF. Carolyn helped us scout out the stream, haha. Went to CBT in Tafuna to get metal pipe and rebar. Picked up John and Jameson at Xavier’s from their fishing trip. Fish and chicken dinner at Jamelyn’s and got science stuff from Hideyo

Friday July 10, 2015

Installed the PT on the streambank adjacent TCF after clearing it with the warden at the gate. Surveyed the stream channel and longitudinal. It started raining just as we finished so we tried to follow the stream and see if it was flowing. Found some good sampling locations in Malaimi and the other watershed above the Shoe Tree. Went to Manuia’s for sashimi dinner and dropped of John Fuzel at airport.

Saturday July 11, 2015

Went to Vatia to install PT. Spent some time checking out the streams above the village and Greg got some samples. The location near the road was tidally influenced but we found another location back a little bit, just below where the streams from the upper watersheds join together. Talked to Mele and her grandma, and then finally got it cleared with Alofa when she arrived home. The inverter/drill worked pretty well but I think I got the wrong masonry bits, had a backup bit in my old toolbox. Snorkeled a bit up by the Saddle Trail/Launch Ramp, then drove back and saw an amazing sunset over Pago Harbor. Made spaghetti and then Hideoy came over with a bunch of awesome food, oops. Just hung out at the house with Marsik, Hideyo, Kristine.

Sunday July 12, 2015

Relaxed at the house and packed up my stuff. Moved over to Jameson and Carolyn’s house in Coconut Point. Surfed Gas Stations with Jameson, Ian, Hideyo and Jeremy. Waves were super fun and pretty consistent, everyone got some good ones. My knee isn’t a hundred percent but I could still surf so I was happy. Dinner at Adam’s and watched JBay comp.

Monday July 13, 2015

Met with all the Village Mayors at the Office of Samoan Affairs in the morning, with Meagan Curtis and Sunia interns: Valentine’s sister Motu and Nadia to translate Samoan. It was quite an interesting experience. Greg made a short presentation of his work and answered a lot of questions. They said to notify their office and they would in turn notify each village mayor of when we would be in their village. We went to Vatia with Meagan and Nadia to install a staff gage at our PT, do the longitudinal survey and install a rain gauge. We met with Messenger, who is storing Meagan’s kayaks, and he said we could install the rain gauge on a grave in front of his house. Later on Tuesday his aunt? called us to say it needed to be moved from the grave. We left a PT that was previously in Nu’uuli, with Messenger to function as a barologger. It is in a small PVC housing and we told him to keep it in a safe place. Went to Bank of Hawaii to get cash for Allison for the car rental; met with her and gave her $1,000 cash from Greg. Went to our PT at Tafuna and checked it, looked good. Installed a staff gage on the bridge and did a survey to link it up with our survey of the PT. Finished right as it started pouring rain. Went food shopping at Foreskin’s and cooked up a nice spaghetti primavera. Watched JBay contest.

Tuesday July 14, 2015

Trent didn’t make last night’s flight so Greg and I met with Mia Comeros-Raynal, Jewel Potoae, and Chris Shuler at ASEPA. Not sure what we accomplished but we discussed upcoming data collection, data sharing etc. Went to Faga’alu to check on everything. Couldn’t communicate with OBS at LBJ but it’s still there. Retrieved OBS from DT but the Autosampler and the box are gone, the concrete and boulders were totally ripped apart. The OBS was still mostly attached but the wires were ripped from the datalogger, and the datalogger housing was ripped from its bolts on the pole. The brackets were still attached to the pole, which was bent into the stream. They cement/rip-rapped the gutter from the quarry to the DT stream crossing. PT gone from the DAM, cap was broken off. Battery and wires ripped out of turbidimeter metal box. Channel above dam was extensively reworked. Started editing QAPP for NFWF workshop. Kayaked Pala mangroves with Jameson and Chris in the evening.

Wednesday July 15, 2015

Worked on revising the QAPP for the pending NFWF workshop which I think will be conducted at the end of the month? Caught up on some emails. Looked over Trent’s revisions of the NOAA Tech Memo, which were minimal. I think my editing was pretty good?