

Day 16-20: August 1-5, 2010

I am still surprised at how we just don't know the date or day anymore.

These past few days have been busy. James came down for a couple of days to celebrate Johnny's birthday and bought his brother his first tequila shot (the boat and the dock remain alcohol free). Sandy came down and reviewed work in our USM lab with me, celebrated Johnny's birthday and then of course celebrated our overdue anniversary. Matt went to Minnesota to take a quick break and have a family reunion- he will rejoin us in two weeks. Now, we are also joined by Ryan Duffy, a seniorish (term the student use to indicate the year they are technically in, but practically have longer to go). Ryan is a biology major and has worked with us for a little while now.

We have made remarkable progress on getting ready for the next leg of the voyage. Iain arrived and upgraded the radar and the weather station. This improved version will help with the tropical storm looming. John Atkinson arrived and, together with a guy named Nathan, significantly upgraded the air conditioning a key need for both us and then lab. All rooms are now ten degree cooler. Rick and Captain Bob repaired a number of things being ready and helping hands at all times.

My lab's IT guru, Chris Gianios arrived and first worked with me and the students to solidify our data collection and data entry protocols to fully coincide with the database he has set up and the mapping he is doing. He was quite pleased to see how well the students have done. Next, he worked on the bow-cam and mast-cams as they were able to record video but we had been unable to transfer it off of the unit. He solved the problem and established a protocol that should have use producing some interesting footage in the near future. Then, he worked with a scientist at NOAA to get our array software properly aligned and ready to go. From all he has been told, it should work now, but we will not know until we are near sperm whales.

We did not expect or intend to develop expertise in marine mammal acoustics, but with all of the time and energy we have put into learning this array, Chris and I have become intrigued by it and can see some interesting paths to research and engage both our students and local high school students in the work. I will certainly be pestering Roger about acoustics when he arrives on the boat.

With all of that done, it was time for Chris to head home, just as the new satcom arrived. For those of you who do not know- the satcom is a satellite dish that will give us the capacity for internet, email, videoconferencing and some phone. It arrived shortly before Chris's schedule departure time. Iain then gave Chris his best Scottish grin and asked him to stay just one more day. Chris recognizing the need and urgency quietly changed his flight and stayed on helping to first attach the unit to the boat and then setting up the communications hub. There are pictures on this effort on the Facebook page 'A Race to Save Our Oceans'.

Then we learned that the one more day fell on his wife Charlene's birthday. I guess it just runs in the Wise Lab that when a world crisis calls the celebrations are delayed. Chris did get us up and running and then returned home today to celebrate with Charlene.

So we thank Chris for staying and for getting us upgraded in so many ways. I think all of you can see why he is such an essential part of our team and success. But we also thank Charlene for being so supportive and understanding that this task was essential and could not have been done without Chris. Charlene - tanks for sharing him and happy birthday! and to all of you who have taken the time to remind me how exceptional a wife Sandy is- I assure you I know that and Chris too knows how lucky he is with Charlene. Don't worry I keep reminding him.

So we now have better radar, better weather reporting, and better air conditioning, an array that should be working, access to videos, solidified data protocols and a new functioning satcom. Oh yes, I am also pleased to report that in response to my inquiry, the Ocean Foundation has given us a grant for two months of airtime on the satcom that will give us internet, email and SKYPE capability, which we are thrilled and excited to have. Thanks to them again for the support and to the Campbell foundation for generously providing the satcom itself.

But the big news... the really big news is that Cathy has gotten the humpback whale cells and the fin whale cells to grow! The lab works! We have lost some flasks for a variety of unexpected reasons (severe heeling of the boat, unexpected power outages on sea and on shore power), but cells did grow from all of the whales, though sadly samples did not ultimately survive from all of the whales. But some did! They will be mailed back to Portland tomorrow to be expanded in our lab at USM and so testing can begin. She even got epithelial cells to grow for a while- something that we were not selecting for (that will be a focus later in the voyage). Epithelial cells are very finicky cells and no one has yet grown a whale epithelial cell line. Thus, as the lab was new, we were focused on the hardier fibroblast cells and then figured once the lab was optimized, we would move to more sensitive cell types. Consequently, we do not have the proper cell culture medium on board for epithelial cells. But, Cathy has now shown it can be done! So lots of pats on the back for Cathy for sticky it out through difficult weather, rough seas, technical snafus and hot hot temperatures in the lab (now fixed by the upgrade air conditioning).

See what I mean - a busy week!

We sail again tomorrow at 3:45 pm!

John

