Seafloor Characterization of the U.S. Caribbean
2010 Field Season
March 18-April 6, 2010

Day 19: April 4, 2010

Ensign C. Mica Alex didn't ever imagine she would be driving ships for a living. As a geophysicist and seismologist by training, sitting in a cubicle working on scientific algorithms had sort-of become her norm. But after about 10 years looking at a wall everyday, Alex decided she needed a career with a bit more adventure. And so she turned to the NOAA Corps.

"I wanted to work with something I could see, and something that affects people in every day life on a more direct scale" Alex explains. "I am really interested in doing coastal ecology and working with Sanctuaries" she adds, "I want to be able to educate people on the ground – something that will have an impact."

So just how does learning to drive a ship have anything to do with working "on the ground" with coastal ecology? Alex is a commissioned officer in the NOAA Corps. Most, if not all Corps Officers spend the first two years of their training on a NOAA vessel. The Officer candidates go through an extensive and rigorous training to become eligible to drive ships – including four months of basic officer training (BOTC) at the Merchant Marine Academy in King's Point, New York, two years on a NOAA ship, and 2 – one month long training academies that are interspersed through the 2-year ship time. At minimum, this must include 365 days at sea. All of this training qualifies Corps officers to take their U.S. Coast Guard License exams. And apparently the exams are quite the undertaking – there are 10 of them (!!!). Once an Officer has passed his or her exams, they are certified with a Mate 500/1600 License, which means they qualify to work as Mate on any ship up to 1600 tons (the Nancy Foster is approximately 800 tons).

Ensign C. Mica Alex (left) is in the process of learning how to drive the NOAA Ship Nancy Foster (above)

So why go through all of this training if you don't have your heart set on driving ships?

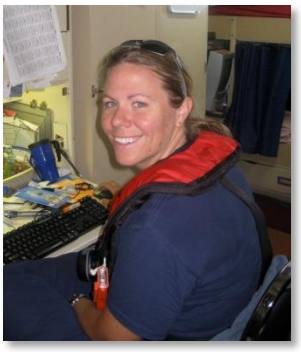
"I didn't join the Corps because I wanted to drive ships," Ensign Alex remarks. "The NOAA Corp opens the door for anyone with a Bachelor's degree in science to take their career to the next level. I can work as a scientist on land, in the sea, as a diver, or a pilot…the opportunities are endless" she continues.

After Officers finish their two-year ship time, most of them move on to multi-year land assignments. These assignments can vary, but range from working for NOAA regional offices and centers around the country doing science, to working in DC for politicals. So, for example, once Alex has completed her initial 2 years aboard the Foster, she can be placed in a position that allows her more exposure to coastal ecology issues and perhaps an opportunity to work with the Sanctuaries. But in the mean time, she's really enjoying her time on the ship.

"It's really, really cool," she says, "and very challenging." "I like learning how to steer the lines and make turns, all while you have to consider things like propulsion, and engineering. It gets really technical" Alex adds. She goes on to talk about the thrill of an always changing and dynamic working environment. She describes how at times, things are quiet on the ship, and how it can start to get a bit boring, and then within minutes it shifts to a high intensity bustle of activity where you have to be several steps ahead of the game to ensure that everything goes as it should.

Working with NOAA scientists aboard a ship requires a special skill set as well. Alex explains, "I've had to get extremely good at multi-tasking – there are constantly multiple screens to be read, radios going off, and weather conditions to contend with, all while you are trying to position the ship to allow the research activities to occur." She continues, "You really have to learn to think ahead because when you are in a reactive mode on a ship, that's never a good thing. It can be dangerous. You always have to be one step ahead of the game. Safety is our number one priority, but we do our best to get the scientists the data that they need."

The NOAA Corps consists of approximately 300 commissioned officers serving positions throughout the country, and is an integral part of NOAA and the Department of Commerce. Including Ensign Alex, there are five NOAA Corps Officers on board the Nancy Foster. Commanding Officer Rogers, Executive Officer LT Dan Simon, Operations Officer Abigail Higgins, and Navigation Officer Kevin Adams each also play a significant role in serving the mission of NOAA, and more specifically in ensuring the safe and successful research missions aboard the R/V Nancy Foster.



NOAA Corps Operations Officer Abigail Higgins hard at work. One of many responsibilities Higgins has is to act as a liaison between the scientists and the ships crew.

After being in the company of this group of Officers aboard the Foster, it is very evident that this is not a kick back, and cruise-the-seas for fun kind of job. These folks work extremely hard – and its not your typical 9am-5pm, Monday through Friday work week. Any time the ship is underway these folks are working. And, when they finish a long research mission and come in to port when a research mission is finished, and its not a weekend, they continue to work. Typically this group of Corps Officers are away from their home port about 8 months a year, living apart for extended periods of time from their families, friends, and with limited personal belongings. From a landlubber's perspective, it seems as though one sacrifices a lot for this job. And yet it is clear among this group, that they truly enjoy and are committed to being part of the NOAA Corps and on board the Nancy Foster.

"Sometimes when I am looking out while I am driving, and I see a pod of dolphins, or other wildlife, I think, wow, I'm getting paid for this!" Alex exclaims. "With this type of job, you have the opportunity to travel the world. The globe is the limit!"

Many thanks to all of the NOAA Corps Officers, and all of the rest of Nancy Foster crew for providing a safe, and successful research mission!

For more information about the NOAA Corps, please visit: http://www.noaacorps.noaa.gov/index.html

DID YOU KNOW ...

• Fishing impacts in coral reef areas, when ecologically unsustainable, has lead to the depletion of key functional fish species in many locations, with cascading impacts on coral reef ecosystems.

• Coral reefs are threatened by land-based sources of pollution that include sediment, nutrients, and other pollutants, originating from a variety of land-based activities, that are transported in surface waters, runoff, groundwater seepage, and atmospheric deposition into coastal waters. These pollutants can cause disease and death in sensitive coral species, disrupt critical ecosystem functions, cause changes in the structure and dynamics of the food chain, and impede coral growth, reproduction, and settlement of coral larvae.

• Climate change impacts threaten coral reef ecosystems by increasing ocean temperatures, storm activity, ocean acidification, and sea-level rise. These physical ocean changes lead to coral bleaching and diseases

• To learn more about coral reef ecosystems, visit http://coralreef.noaa.gov

For more information about NOAA's Center for Coastal Monitoring and Assessment Biogeography Branch visit, http://ccma.nos.noaa.gov/about/biogeography/welcome.html