NOAA Teacher at Sea
Nancy McClintock
Onboard NASA Ship LIBERTY STAR
June 7 – 14, 2006

NOAA Teacher at Sea: Nancy McClintock
NASA Ship: M/V FREEDOM STAR
Mission: South Atlantic MPA's: Pre-closure evaluation of habitat and fish assemblages in five proposed no fishing zones
Day 5: Sunday, June 11, 2006

The sun begins its amazing show of lights as it sets on the shimmering water of the Atlantic Ocean signaling the conclusion of another wonderful day at sea.

Weather Data from Bridge – PM

Visibility: Good, 10 miles
Wind direction: S/W
Average wind speed: 14 knots
Wave height: 3-4'
Air temperature: 80°F
Sea temperature: 81.5 °F
Cloud cover: 35%
Barometric pressure: 1011 mb

Science and Technology Log

Stacey Harter and Marta Ribera, NOAA scientists, prepare one of two fish traps on board for deployment.

The FREEDOM STAR traveled through the night to the Georgia site and today's operations began at 0815. We completed a CTD, two fish traps, and three ROV dives. Once again, one fish trap came up empty and the other one contained 37 porgies that were measured, logged, and then released. Our focus is the grouper and only those are kept for biological study. Today's ROV dives reached depths of 225 – 334 feet. The ocean floor consists of sand, small rock outcrops, and a few small crevices. The ship is having difficulty staying on track because it is on the edge of the Gulf Stream. Several of the species observed are sea robin, arrow crab, saddle bass, red snapper, squid, flounder, rudderfish, eel, grunts, toadfish, and octopus. One large lionfish was seen. Due to the increased depth in the ocean floor, different species are observed. The camera array was not in operation today due

Nancy stands by with buoy line as other members of the NOAA team stand by for deployment of the fish trap. The fish trap is retrieved approximately two hours later.

to the strong currents that tend to flip over the cameras. Also, Captain Exell wanted to shorten the workday and start heading to Port Canaveral, approximately 200 miles.

Stacey Harter, NOAA scientist, removes the ear bone from a grouper as darkness sets in. The ear bone is similar to a tree ring and reveals age and growth rate of the fish.

Personal Log

This is the best day ever! I slept great, the weather is fantastic, and the food is very delicious. However, Captain Exell just informed the crew and scientists that the tropical depression is now Tropical Storm Alberto and will be in our area of operations by Tuesday night or Wednesday morning. We are definitely cutting short our cruise by two days and plan to be tied up at Port Canaveral by noon on Monday. Everyone is making the best of this news and is ready for a full day of work.

Patrick Downey, FREEDOM STAR cook, is preparing lunch on the barbeque. The barbeque was designed and built by the crew and is securely bolted to the deck.

Everything is going very smoothly and I feel that I really know what I am supposed to do when in the Lab or on the rear deck. Patrick cooked fresh fish for lunch and it was so good. The food is really great and there is always so much of it. We got into the ice cream bars this evening – yum!!

Be sure to read my interview with Patrick. Once again, my desk chair is rocking and rolling in synchronization with the ship. There are whitecaps on the ocean and there is a definite change in the weather. We are beginning to feel the first effects of Tropical Storm Alberto. I am a little uneasy, but know that the FREEDOM STAR is in the capable hands of the Captain. We may have a rough ride into the "house" (Port Canaveral), but I know we will arrive safely. Actually, this is very exciting because I have never been in a tropical storm. This is just one of the many things I will tell my students, friends, and family.

Tony Freeley, FREEDOM STAR Chief Engineer, explains to Nancy the operations of the two diesel engines while touring the engine room.

Until tomorrow…

Nancy

Question of the Day

Answer to yesterday's question:

One of the scientists said this afternoon that he felt, "Since oceans make up the majority of our planet, the only way to study our planet is to study the ocean." This is a thought-provoking question written to have you start thinking about this. There is no right or wrong answer.

Today's question:

How does the deep-sea water-pressure affect fish when they are caught and quickly brought to the surface?

Interview with Patrick Downey
Cook, M/V FREEDOM STAR

Patrick joined the Coast Guard as an FS 3 – Food Service Technician and has spent the last 5 ½ years with the FREEDOM STAR. He creates the menus, does all of the food shopping, and prepares all of the meals while at sea. Once a moth he prepares a food report and takes inventory of all food related items on the ship. When he goes shopping, it takes lot of shopping carts for all of the necessary items to feed the crew. He is constantly changing the menu and has to plan menus correlated to the weather conditions – even seasoned seamen are affected by the rough weather and high waves. When asked why he likes his job, Patrick replied," I love the ocean and I have always liked being on boats. Especially, I like traveling with the space program and working with the great crew of the FREEDOM STAR