



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

NOAA Teacher at Sea: Mark Silverman
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 1: Wednesday, June 7, 2006



Nancy and Mark on the bridge of the NASA ship FREEDOM STAR ready to begin an awesome week as NOAA Teachers at Sea.

Weather Data from Bridge
Visibility: excellent - over 10 miles
Wind direction: ESE
Average wind speed: 9 knots
Harbor wave height: light chop
Air temperature: 75 °F at 1900 hrs.
Cloud cover: partly cloudy
Barometric pressure: 1014 millibars

Science and Technology Log

Upon arrival Tuesday, June 6, we loaded equipment onto the ship such as: Chevron fish traps, a four-camera video array, an ROV (Remotely Operated Vehicle), a Blue Spectra Line (1 cm diameter, rated to 27,000 lbs, cost \$2.00 foot), a Seabird 19+ CTD (Conductivity, Temperature, Depth), buoys, and bait. Next, we toured the ship, settled into our staterooms, were introduced to our survival suits, and received an informal technical briefing from Andy David, the Principal Investigator, from NOAA fisheries. We also were introduced to the rest of the NOAA scientists and the crew of the FREEDOM STAR.

Wednesday, June 07, 2006 was the official start of day 1 of our cruise. We met with the Captain of the FREEDOM STAR, Dave Fraine, who graciously gave us a tour of the bridge and an overview of ship operations, navigation, and piloting. At 1100 Capt. Fraine briefed the entire crew on safety regulations and drill procedures. We also had a fire drill and an MOB (Man Overboard) survival drill. Walter Exell, Chief Mate, relieved Capt. Fraine and is the captain for the rest our cruise. At 1600 the vessel shifted to Port Canaveral from Cape Canaveral Air Force Station to take on fuel in preparation for departure on June 8th at 0001.

Personal Log

It is a great honor to be selected as one of 30 NOAA Teachers at Sea and words can hardly describe the beginning of this awesome, fantastic adventure. Viewing the FREEDOM STAR for the first time, seeing the Kennedy Space Center from the water, and watching the manatees and alligators swim within a few feet of the ship are breathtaking. The equipment and technology to be used for this cruise is at a very high-level and it will be impressive to watch the videos and actively participate in the collection of scientific data. I survived my first fire drill (even though I put my life jacket on inside out) and passed the survival drill with success. I donned my Gumby (survival) suit with great ease—I just couldn't move very easily and had it zipped up to my nose because of my short stature. My first full day has been filled with excitement, wonderful memories, and the establishment of many great friendships. I am learning about ecosystems so totally different from those found in Missouri and look forward to sharing this information. I can hardly wait for tomorrow to come and begin the actual data collection!

Until tomorrow...

Nancy

Question of the Day

How many gallons of commercial diesel fuel does a NASA ship like the FREEDOM STAR (176 feet in length) hold?

Addendum: Glossary of Terms

- **MPA: Marine Protected Areas** are areas closed to all fishing, both commercial and recreational.
- **ROV: Remotely Operated Vehicles** robotic vehicles tethered to a crane that will be employed to search for spawning aggregations, determine habitat coverage, topography and composition, and detect new sites for inclusion into the sample site universe using video cameras, and data.
- **CTD: Conductivity, Temperature, and Depth**, utilized for physical oceanographic data acquisition. The CTD actually collects more data than its name implies such as light transmission, salinity, and dissolved O₂ (oxygen).
- **M/V: Motor Vessel**
- **NOAA: National Oceanic and Atmospheric Administration**
- **NASA: National Aeronautical and Space Administration**



NASA ship M/V
FREEDOM STAR
docked at the
Cape Canaveral
Air Force Station.