



NOAA Teacher at Sea
Miriam Sutton
Onboard NOAA Ship NANCY FOSTER
June 17 - 22, 2005

Log 1

Day 1: Friday, June 17, 2005
Visibility: 10 nautical miles (nm)
Wind direction: 200°
Wind speed: 13kts
Sea wave height: 2-3'
Swell wave height: 1'
Sea water temperature: 15.6°C
Sea level pressure: 1005mb
Cloud cover: Partly cloudy

I am onboard NOAA's R/V NANCY FOSTER and am heading toward the Stellwagen Bank National Marine Sanctuary. This sanctuary is located off the east coast of New England between Cape Ann and Cape Cod, Massachusetts. I will be exploring this area with a group of NOAA and National Marine Sanctuary (NMS) scientists as they search for various anomalies located along the seafloor. "Anomaly" is the term used to describe artifacts or other materials that do not follow the normal pattern of the seafloor topography or geology. My Teacher at Sea assignment with the NANCY FOSTER will allow me to observe and assist the scientists using remote sensing equipment to detect these anomalies.

Today, we traveled from Woods Hole, MA through the Cape Cod Canal on our way to Stellwagen Bank where we began our search for seafloor anomalies. Transect lines are coordinates determined by the Chief Scientists, Matthew Lawrence, and are provided to the ship's captain for steering our course to the correct location. Two different remote sensing instruments were used in our first set of transect lines: the side scan sonar uses sound waves to record images along the seafloor and the magnetometer detects electromagnetic fields that might be emitted by the anomalies. As the plotted site is reached, the ship's engines are slowed and the "towfishes" are lowered off the stern of the boat using a cable and winch system. (See photos A, B, and C)



(Photo A - Towfish)



(Photo B - Magnetometer)



(Photo C - NMS Scientists at the winch)

The goal of our first search was to try and locate a NOAA data collector buoy and anchoring wheel that failed to surface when NOAA sent a radio signal for the buoy to release from its mooring. The buoy was used to collect data on cod fish that were tagged to determine their general range within the sanctuary. The data would let scientists know if these cod used the sanctuary as a habitat or if the fish were just passing through. After several passes, or transect lines, we were unable to locate any significant anomalies that might have indicated the location of the wheeled mooring and the buoy. The remote sensing equipment was brought to the surface and stored away for the night. Our ship is now heading closer toward shore to anchor overnight.