



**NOAA Teacher at Sea  
Amy Pearson  
Onboard NOAA Ship DELAWARE II  
August 13-30, 2007**

**NOAA Teacher at Sea: Amy Pearson**  
NOAA Ship: DELAWARE II  
Mission: Ecosystems Monitoring Survey  
Date: Wednesday, August 22, 2007  
Location: North Atlantic

**Weather Data from the Bridge**

Time: 1000  
Air temp: 18.7  
Water temp: 17  
Wind direction: 75  
Wind speed: 15kts.  
Sea wave height. 2 ft.  
Visibility: 7 nm

**Science and Technology Log**

Woke to the sound of engines warming up. We were docked in Woods Hole having arrived at 6 p.m. on Tuesday to exchange scientists. Scientist Joe Kane who supervised my shift was departing and a new scientist, Betsy Broughton, was joining us. Yesterday, the crew and scientists were very excited for the chance to get on land. Many joined their families who live nearby. I met my husband for dinner at a location about half-way between here and my home. It was great seeing him. The DELAWARE II would be departing Woods Hole at 6 a.m. The water was very calm and the morning light just beautiful. Everyone seemed recharged for the final leg of our cruise. After an early morning walk, I got on the exercise bike for a while.



**Morning light in Woods Hole Harbor**

Today I had a tour of the engine room, a place I had observed engineers entering with earphones but hadn't seen. I followed Engineer Chris O'Keefe down a ladder into a very warm and noisy

engine room. It is huge and very clean. We first went into the office/control room where it was quiet and he showed me the many dials, switches, and screens that monitor the different systems of the ship. There is one engine, two generators for producing electricity, and another generator in the bow to run the bow thrusters and hydraulic winches. There is also a system for making fresh water from sea water, utilizing a heat exchanger. Cool salt water condenses the steam to form fresh water, which is then



**Martha's Vineyard Lighthouse being restored**

chlorinated. The ship has about 10 fuel tanks and can carry 70,000 gallons of fuel. There is also a machine shop below with tools and some space to work. I am very impressed with the organization of materials, cleanliness of the space and the size of the engine. There is a lot to keep track of down here, and it is well organized and clean.

As we left Woods Hole, we passed north of Martha's Vineyard and I noticed a light house with an orange ladder next to it. I recalled that a friend of mine, Marty Nally, was going to be restoring this lighthouse at

this time. Right is a photo of the lighthouse with the orange ladder, Marty must be nearby!

The CTD (conductivity, temperature, and depth) unit that we use can work for about 90 times before it needs a battery change. It is close to 60 stations and Jerry decided to change the batteries. He and Betsy (our new scientist on board) did this today during a calm moment.

My first plankton sample was done at around 9 p.m., and loaded with amphipods, tiny crustaceans that have little hook-like structures on their legs that make them very hard to remove from the nets. Our midnight sample was about the same. We were collecting at an area called Nantucket Shoals, east of Nantucket. It is



**Jerry Prezioso and Betsy Broughton changing CTD batteries**

shallow and has a hard bottom. I was surprised to get on deck to see at least 15 lights from fishing boats, fairly evenly spaced in a long line. I heard that we had to change our collection site a bit due to the position of all of these boats. I was quite tired and went to sleep at about 12:30 until 2:20 a.m. when I thought we would be at our next station. I discovered that it would not be happening on our shift and went to sleep. One thing about this ship, there is always noise, humming of some piece of equipment. Headphones are very helpful in blocking it out...whether there is music, a book on tape, or just no noise. It looks like tomorrow will be a much busier night, so I hope to stock up on some rest tonight!