



**NOAA Teacher at Sea  
Jill Carpenter  
Onboard NOAA Ship DELAWARE II  
September 5 – 15, 2006**

**NOAA Teacher at Sea: Jill Carpenter**  
Onboard NOAA Ship DELAWARE II  
Mission: Herring Hydroacoustic Survey  
Day 2: Wednesday, September 6, 2006

**Weather Data from Bridge** (docked in Woods Hole for calibration and Advanced Fisheries Towed Vehicle testing—no weather data)

**Science and Technology Log:**

It has been a busy day aboard the DELAWARE II as we are preparing to get underway on Friday or Saturday. The uncertainty about our departure date is due to the set-up and system testing of the Advanced Fisheries Towed Vehicle (AFTV). The AFTV is a recently constructed submersible vehicle that is designed to use acoustical and optical sensors to verify sonar data and evaluate habitat. Because the AFTV has not previously been set up on the ship, performance tests may require more than one day. The ship will remain in Woods Hole until the AFTV system is ready.



**Chief Scientist Bill Michaels and Commanding Officer Richard Wingrove aboard the NOAA ship DELAWARE II.**

This morning, we began with a continued effort to calibrate the hydroacoustic systems using the copper sphere attached to the downriggers with fishing line. We were successful in placing the copper sphere in the hydroacoustic beam, but again had to postpone our efforts due to seaweed interference. We now plan on completing the calibrations in Cape Cod Bay.

The remainder of the morning and afternoon was spent helping to load and organize additional supplies on board. A lot of thought goes into securing items on the ship in order to prevent them from falling or rolling around when we are at sea. The more I see scientists and crewmembers securing equipment, the more concerned I become about maintaining my balance on board the ship. In the Northeast Fisheries Science Center's "Manual for First-time Sailors," the advice is to use your life preserver to



**This Advanced Fisheries Towed Vehicle (AFTV) is a recently constructed submersible vehicle that is designed to use acoustical and optical sensors to verify sonar data and evaluate habitat. TAS Jill Carpenter, was present for the initial test launch of the AFTV aboard the DELAWARE II.**

“wedge” yourself against your bunk rail to avoid being tossed around when sleeping. From the preparations I am witnessing aboard the ship, it looks like I will be taking this advice!

My work day finished with helping Research Fisheries Biologist Dr. Mike Jech secure computer equipment to the ship. We did this by using wood boards, screws and tape to attach equipment to immobile objects. I found it comical to tape down the computer keyboards. This ship may be pitching more than I expect!

I learned a bit of ship trivia that I found interesting. A ship’s foghorn is used to communicate many messages. The following are the meanings of some sound patterns of a ship’s foghorn:

- 1 prolonged blast = the ship is leaving the port
- 1 prolonged blast every 2 minutes = the ship is steaming (traveling) through fog
- 1 prolonged blast followed by 2 short blasts every 2 minutes = the ship is fishing in fog
- 5 short blasts = danger, get out of the way!
- 1 prolonged blast followed by 3 short blasts = the ship is leaving the dock in reverse



**Research Fisheries Biologist Dr. Mike Jech securing computer equipment to prepare for sailing on board the DELAWARE II.**



**TAS Jill Carpenter holding a damage control plug, which is used to plug a hole in the hull of a ship.**

### **Personal Log:**

It amazes me how much preparation and behind-the-scenes work goes into getting ready for a fisheries research trip. Everyone is hurrying around the ship, completing last-minute duties and running tests on electronic equipment. They have all been very friendly and patient with me; I am looking forward to getting to know and working with the entire crew of the DELAWARE II.

I spent the evening typing logs and adjusting the size of my digital pictures to fulfill space requirements on emails. I find it challenging and somewhat time consuming to “translate” all of the scientific explanations into language that is more friendly to a room of elementary school students (and to myself as well!). I am grateful



**Butterfly on NOAA pier, Woods Hole, MA**

to several members of the crew for their input and suggestions on the wording of certain complex concepts.

My evening ended with a walk into the village of Woods Hole. I find Woods Hole such an interesting and charming little town. Located on the southwest corner of Cape Cod, Woods Hole has developed into a world leader in marine and fisheries research. This scientific community is the home of the world renowned Marine Biological Laboratory (MBL), the Woods Hole Oceanographic Institution (WHOI), and the Northeast Fisheries Science Center (NEFSC), each contributing great advances to the field of marine science research.



**My stateroom, or bedroom,  
on board the DELAWARE II**

Don't worry, Hutchison Farm Elementary, I haven't forgotten about you! I am sure there is just as much hustle and bustle going on there during the first week of school! I am anxious to see each one of you; I know I can expect a very mature and intelligent group of fifth graders. Thanks so much for being on your best behavior for Mrs. Nelson!

I have been sleeping like a rock on board the ship. I am appreciating these restful nights now because I don't know if I can count on a peaceful night sleep once we are out to sea! The food is also very good, and I am becoming known for my big appetite. The chefs, Dennis and John, are excellent cooks. I look forward to each meal they serve. Looks like I won't be losing any weight!

### **Question of the Day:**

1. The NOAA scientists and crewmembers need to bring many materials on board with them when they go to sea. If they forget something, they will not be able to return to get it, and there are no stores in the middle of the ocean.
  - a. What would you bring to sea with you if you were going for a week?
  - b. What would you absolutely need to bring with you?
  - c. What if you could only bring 10 items? What would they be?
  - d. What if you were only able to bring 5 items? What would they be? Two items?