



NOAA Teacher at Sea
Jeff Lawrence
Onboard NOAA Ship RAINIER
May 22 – June 2, 2006

Mission: Hydrography

Day 2: Tuesday, May 23, 2006

Weather data from bridge:

Visibility: 5 nautical miles (nm)
Wind direction: 90 degrees
Wind Speed: 15 knots (kts)
Sea level pressure: 1001 millibars (mb)
Present weather: Partly cloudy
Temperature: 51 degrees dry/ 50 degrees wet

Science and Technology Log

I began today by getting aboard RA #8 for boat launch operations in the Wrangell Narrows at 0800. The crew went to check a tide gauge that had been placed on a pier in the narrows six weeks ago. A data logger was attached by assistant survey technician, Matt Boles, to a laptop computer and the data for the past two weeks was downloaded onto the laptop. The tide gauges give a more accurate representation of what the tide is doing in a certain area. Tide gauges are positioned throughout the narrows but may be miles apart. To get more precise data of the narrows, temporary gauges are used when the RAINIER is mapping areas where boating occurs. Also, a horizontal GPS position was measured from a known GPS location to make sure the tidewater data was correct and reliable.

At 0930 hours we returned to the RAINIER to pick up operations officer LT Ben Evans who showed ENS Laurel Jennings how to use the Trimble Backpack to map piers and dock areas in the narrows. The Trimble Backpack is a GPS system that is carried on the back of a person. As they walk the perimeter of an area, it downloads data onto a logger that then can be downloaded to a computer later for data analysis. This gives precise information to the cartographer to place the pier in the exact location that it needs to be on the map.

Upon returning to the RAINIER at 1530 hours we had several emergency drills including fire and abandon ship. The drills were interesting to watch as everyone went to their designated location for muster and directions on what to do next. A ship's personnel must always be prepared for an emergency. Your shipmates may be the only help you will receive in an emergency. Drills are conducted on a routine basis so that the crew stays sharp and ready in case of a real emergency. The crew of the NOAA ship RAINIER is well trained and prepared in the case they may have to use their training to get control of the ship in an emergency. Several members on board have specialized training that allow them to take the lead in case of a ship emergency.

Personal Log

Throughout the day I learned many new facets of global positioning and how it is used to make more accurate maps that can be used by boaters, ships, and people who live in the area. Collecting science data for NOAA maps is a slow, yet precise method that can take many weeks to get an accurate map that can be relied upon by mariners. The fire emergency and abandon ship drill was done with precision and professionalism. I am sure I am in good hands in case of an emergency aboard the RAINIER.

Question of the Day

The mapping of the characteristics of oceans, lakes, and rivers is known as_____.

Jeff Lawrence