



NOAA Teacher at Sea
Christy Garvin
Onboard NOAA Ship RAINIER
June 1 - 8, 2005

Log 2

Day 2: Thursday, June 2, 2005
Latitude: 56 deg 59 min N
Longitude: 135 deg 17 min W
Visibility: 12 nautical miles
Wind Direction: 275 deg
Wind Speed: 10 kts
Sea Wave Height: 1-2 ft
Swell Wave Height: 0 ft (we are in a protected bay)
Sea Water Temperature: 54deg F
Sea Level Pressure: 1016 mb

Science and Technology Log

Each evening aboard the RAINIER a POD, or plan of the day, is posted to inform all hands of the work scheduled for the following day. The POD for today, Thursday, June 2, showed that work would officially begin at 0800. Two launches were to be deployed in order to run survey lines; I was assigned to launch RA4 working near Sitka and off Baranof Island.

Running survey lines is one of the most important tasks accomplished by the RAINIER. Since the ship's scientific mission is hydrography, or charting of the ocean floor, the running of these lines is a major part of accomplishing that task.

Before the launches can actually run survey lines, there is a lot of preparation that takes place behind the scenes in the plotting room. Here, each area to be surveyed is



subdivided into smaller plots and placed on survey sheets to make large areas more manageable. Then, a survey technician pulls existing nautical charts of the area and uses previously obtained depth information to determine where and how far apart to space the survey lines. In order to ensure 100% coverage of the ocean floor to the 8-meter mark, survey techs multiply the depth in fathoms (a fathom is 6 ft) by 5 to calculate the meters of line spacing. For example, if a launch is working in an area that is 7 fathoms

deep, then the amount of space between the survey lines in that area would be 35 meters apart. The closest any lines are drawn is 25 meters apart.

Once the distance between lines has been established, the survey tech draws the lines on a map of the area. Lines are drawn parallel near the shoreline since close lines are necessary to achieve 100% coverage. Further from the shore, lines can be drawn in any direction, but they are usually drawn parallel to each other for ease in running the lines. These maps are taken out on the launches and entered into a specialized computer program that helps the launch find and follow the survey lines that have been drawn.

Personal Log

One of my favorite activities today was having the chance to drive the launch during a man overboard drill. I'm sure the life preserver in the water (our man overboard) breathed a huge sigh of relief that it wasn't run over by the crazy coxswain (driver) at the helm.

Question of the day: What is a CTD?

Previous question of the day: What is hydrography and why is it necessary?

Answer: Hydrography is the charting of the ocean floor. It is necessary because many ships use the information on the charts to ensure safe passage through narrow or shallow channels. Many of the old charts contain data that is very old or that was obtained by unreliable methods. It is important that charts are updated so that ships are able to pass through these areas safely.



Until tomorrow,

Christy