



**NOAA Teacher at Sea
Philip J. Hertzog
Onboard NOAA Ship RAINIER
July 24 - August 13, 2005**

Log 1

Day 1: Monday, July 25, 2005
Time: 20:00
Latitude: 57 ° 57.01'N
Longitude: 153° 48.03'W
Visibility: 10 nm (nautical miles)
Wind Direction: 127°
Wind Speed: 12 kts
Sea Wave Height: 1-2 feet
Sea Water Temperature: 12.8° C
Sea Level Pressure: 1009.5 mb
Cloud Cover: 8

Introduction

Welcome to my Teacher at Sea Log. Over the next three weeks, I will document my experiences on board the NOAA Vessel RAINIER as part of the Teacher at Sea (TAS) program. NOAA established the TAS program about 15 years ago as a means to educate the public about its mission through the use of classroom teachers. Over 400 teachers have participated in the TAS program and have used their NOAA experience to bring marine research and mapping into the classroom for thousands of students.

I currently teach 7th Grade Science to students at Hunt Middle School located in Tacoma, Washington. Hunt Middle School is located about a mile and a half from Puget Sound and many of our students play in parks next to estuarine waters. I hope to use my experience with NOAA to enhance my classroom curriculum and to provide other teachers in my school district with enhancements to our adopted program.

I have taught for six years and prior to that I worked for government in the field of natural resources management. Some of my work included hazardous waste cleanup in the aquatic environment and near shore aquatic habitat mapping.

Science and Technology Log

Today we begin our journey from Kodiak, Alaska to Mitrofanía Island on board the NOAA vessel RAINIER. Kodiak is an island located in southwestern Alaska about 250 miles by air plane from Anchorage. Mitrofanía Island is located along the southwestern



Alaskan peninsula about half way between Kodiak and Dutch Harbor. Our trip will take a day and a half to reach Mitrofanina.

The RAINIER is a hydrographic ship that measures 231 feet long and displaces 1800 tons of water. Hydrography is the science of using sonar and other complicated devices to bounce sound waves off the bottom of the ocean that can be used to identify hazards (like rocks) that could sink passing ships. The information gathered by the RAINIER is used to update maps of the ocean bottoms and coastlines. Ships' captains call these special maps charts. The charts help keep ships safe and away from shallow waters, lurking rocks and jagged coastlines.

The waters around Mitrofanina are remote and have not been mapped in years. Fisherman, large ships and the Alaska State Ferry use these waters and pass the island on occasion. Our job will be to gather information to update the charts for the waters around Mitrofanina Island to help increase the safety of passing ships.

I spent the morning watching the ships' crew prepare the RAINIER for its three-week journey. The crew made repairs on small cracks, moved mooring lines and loaded supplies onto the ship. Two trucks full of food drove up to the ship and I helped carry boxes of milk, fruit and vegetables up the gangway and into the narrow passages of the ship for storage.

Prior to our 2:00 pm departure, the ship's safety officer gathered me and other new members of the crew for safety training. Working and living on a ship can be exciting, but one needs to be extremely careful to avoid accidents and learn how to live with 49 other people. I spent most of today attending safety classes.

My first class was to learn how to stay afloat in water that is 56 ° F. The answer is simple, wear a life vest! However, the answer isn't really that simple. I got issued 4 different types of life vests. If I work inside a small boat, I get to wear a vest that blows up with a carbon dioxide cartridge. If I work outside on the deck of a small boat or handle lines at the pier, I have to wear a "Mustang" float jacket that doesn't need to be blown up. If I have to abandon ship, I must put on a survival suit that consists of thick foam and covers my body entirely. The survival suit makes a person look like the cartoon character "Gumby" and hence gets the nickname "Gumby Suit." To make matters more interesting, I am also issued a standard life vest that most people are familiar with. I am now ready to float for any occasion, formal or informal!

After my floatation class, I learned where to go in the event of an emergency on the ship. We have three main types of emergencies: fire/general emergency, man overboard, and abandon ship. For each type, I am assigned a different station to report to and given specific duties. For example, I will serve as a look out in the event someone should fall off the ship and if we need to abandon our vessel I need to bring extra blankets for the life raft. Each type of emergency has its own signal on the ship's whistle. Three long blasts means a person fell overboard, six short blasts followed by a long one means we

need to abandon ship, and a continuous ringing means fire. Everybody on board the RAINIER is well trained and given a job to do during an emergency.

After the emergency training, we got to watch the RAINIER “film festival” in the ship’s Wardroom, which is like a lounge on land. The “film festival” consisted of a series of three safety videos on how to use an air respirator, avoid hazardous materials and general safety on board a ship. I then finished the day by taking two more safety classes through the ship’s computer that also gave me a test. Luckily I passed the tests and now feel ready to go forward in safety.

Though it may seem like a lot of time, all of the training is important and will help me to save myself and help others around me in the event of an emergency. Students should be aware that learning doesn’t stop when you graduate from school, but continues for a lifetime as one meets new challenges and experiences.

Personal Log

Despite a full day of safety training, I managed to spend several hours on the flying bridge to watch the Alaskan scenery pass by as we made our way out of Port. The flying bridge is the deck above the Captain’s bridge and is the highest point on the ship. You can look out from the flying bridge in all directions and see for miles.

We passed through a narrow passage between Kodiak and Afognak Island where the mountains rose out of the water as the RAINIER carefully made its way with a series of turns and maneuvers. At one point, we passed 10 sea otters floating by the ship on their backs that looked at us and seemed to wonder what we were up to. We constantly saw puffins vigorously flapping their wings in a struggle to avoid hitting the ship. Often the fat puffins could not take flight, but always avoided our ship at the last minute

A real highlight of today was seeing several Minke whales blow spray and surface gracefully near the ship. You first spot a spray of water at the surface followed by a sleek, dark back arching over the water that finishes with the appearance of a small fin that then disappears below the surface.

Question of the Day

How is safety training on the RAINIER like safety training at school? How is it different?