



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

Log 16

Day 16: August 9, 2005
Time: 1600 hours
Latitude: 55° 57.82' N
Longitude: 158° 40.19' W
Visibility: 8 nm
Wind Direction: 175°
Wind Speed: 7 kts
Sea Wave Height: 0-1 feet
Sea Water Temperature: 12.8° C
Sea Level Pressure: 1026.6 mb
Cloud Cover: 8, Altostratus

Science and Technology Log

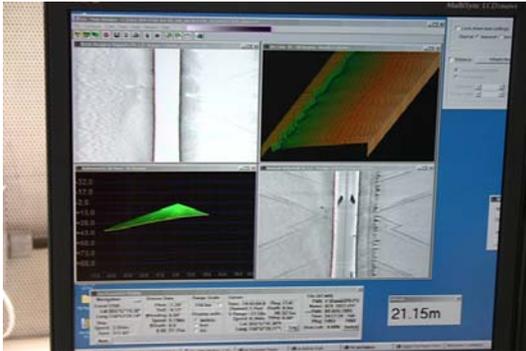
We wrapped up our mapping in the Mitrofanina Island area today. Only one launch went out for the entire day and I got assigned to it. We took off from Cushing Bay and headed out to nearby Brothers Island and Long Beach for sonar mapping of the bottom. A second launch went out for just a few hours and deployed SCUBA divers to chart the location of submerged rocks. In the meantime, the RAINIER took off to map deep water approaches several miles to the east of Mitrofanina Island and would pick us up at a rendezvous point in the late afternoon.

Ensign Nikki Samuelson served as our hydrographer in charge with Matt Boles' assistance. Steve Foye handled the RA 3 launch. Ensign Samuelson has been on the RAINIER for around a year and also serves as chief medical officer. She started out on the RAINIER by helping out the navigation officer and learning how to plot courses and determine the ship's location. She then gained experience in sonar mapping and now regularly goes out on the launches. Ensign Samuelson likely will work on remote controlled submersible vehicles for NOAA in Rhode Island when she gets her land assignment in a year. Above is a photo of Ensign Samuelson running RA 3's positioning computer.



For most of the day our launch of four people saw no signs of other humans. Two Dahl porpoises charged over to our launch to ride our bow wave, but took off when they realized we cruised too slowly to make a satisfactory wake. All day we saw the spray of Sei whales, but they kept their distance and only occasionally could we see a dorsal fin appear out of the water.

Technically, we had some challenges. In the morning, our CTD (conductivity, temperature and density) probe failed to work and we tried to fix it. We concluded the battery had worn out and we exchanged ours with the divers before they headed back to the RAINIER. We then lost the Coast Guard transmission signal that corrects our global positioning satellite (GPS). We scrambled to locate the GPS manuals, but found none



aboard. We tried several approaches with the radio receiver and finally corrected the problem.

I spent the day by helping on various tasks such as lowering the CTD probe, sitting on the bow to look for rocks, running the positioning computer and driving the boat. To the left is a picture of some of the electronics I got to use.

The water remained calm much of the day, but the sky turned gray and overcast. What a contrast to the previous two days when we could see the glaciers on Mount Veniaminof under clear, blue skies. However, the cloud cover did give Mitrofanina Bay a special beauty:



At 4:30 pm we spotted a tiny dot approach us from the east that turned out to be the RAINIER returning to pick us up. Once aboard, the RAINIER resumed course to continue sonar work in the deep waters east of Mitrofanina Island. Our plan is to continue this work until 11:00 pm and then to set course to our final destination of Homer, Alaska where I'll leave the ship on Saturday August 13. However, we'll make a few stops for "biological sampling" (fishing) on the way and a couple of hours in Kodiak to pick up fuel.

Personal Log

I felt melancholic today knowing our work in the Mitrofanina area had come to an end and that the RAINIER would start heading towards my final stop in Homer. I'll especially miss not seeing Sei whales almost every day and the great fishing off the fantail.

It didn't help that I had a fantastic evening and stayed up until 1:00 am last night. Four of us took a "short" fishing trip on the skiff to a nearby bay and each caught five large (8 pound range) salmon. Our foursome often caught two or more salmon at a time that tangled our lines as the struggling fish crossed each other. A fifth person on the skiff didn't fish, but continuously netted the salmon for us. Often we would have two salmon in queue while Ensign Nikki Samuelson struggled to get a third salmon out of the net and untangle the hook from the nylon fabric. At one point Carl Verplanck just reached into the water and flipped a hooked salmon into the skiff.

The real work began when we returned to the RAINIER at 9:30 pm. We cleaned, processed, and vacuum sealed over 80 pounds of edible fish meat. However, we also scrubbed all the fish scales off the fantail of the RAINIER. We used bristle brooms and detergent to "swab the decks" and then Greg King blasted the deck using the fire hose to rinse it off.

We had a fine evening of adventure to remember for a long time.

Question of the Day

Why do Dahl porpoises like to ride bow waves? Explain your answer.