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

Log 11

Day 11: August 4, 2005
Time: 1600 hours
Latitude: 55˚ 50.8'N
Longitude: 158˚50.0'W
Visibility: 10 nm
Wind Direction: light
Wind Speed: airs
Sea Wave Height: 0 feet
Sea Water Temperature: 12.2˚ C
Sea Level Pressure: 1011.5 mb
Cloud Cover: 2, stratocumulus, altocumulus

Science and Technology Log

Four launches left early today (7:00 am) and I got up to watch the deck crew lower them into the water. Two launches took off to finish up mapping in the Fish Ranch Bay area while the other launches went across to Mitrofania Island to map shoreline and submerged rocks on aerial photographs.

With our mapping work nearly completed in this area, the Commanding Officer moved the RAINIER to Sosbee Bay located on the south side of Mitrofania Island. The RAINIER traveled along the north side of Mitrofania and made a left turn to skirt the southwestern shore and Spitz Rock before a second left turn into Sosbee Bay. The move took approximately 2 hours.

Along the way, I saw at least two dozen Sei whales surface and blow spray in groups of up to four individuals. As we approached each group of whales, they would submerge and then reappear several hundred yards behind the ship. At one point the whales seemed to surround the RAINIER in a 270-degree arc:

In my earlier log entries, I mistakenly called these creatures fin whales and provided the wrong life history. Sei (pronounced “say”) whales live in all ocean waters of the world. They can reach up to 18 meters in length and have a small dorsal fin forming a 40 degree angle back with the body. The dorsal fin is located down about two thirds of their body length from the snout. A single ridge runs along on the top of their heads from the snout to the blow hole. Sei whales have black colored backs covered with oval scars that results in a shiny, metallic appearance. Lamprey bites cause the scars when the whales migrate into warmer waters.

Sei whales skim the water and remove tiny marine organisms called copepods for food with long, narrow plates (baleens) under their heads. These whales tend to feed close to the surface and leave large swirls on the surface as they move their tails. I saw many of these swirls next to the RAINIER after whales had submerged in front of us.

I spotted the Sei whales by first seeing a black snout appear followed by an inverted cone shaped spray about 2 to 3 meters high. A sleek long, shiny back then glides over the surface followed by the dorsal fin near the rear of the body. The back then gracefully disappears without the fluke (tail) breaking the surface. Once in a while the tail does appear as shown in the photo above.

After passing the whales, the ship practiced an emergency fire drill and we reported to our assigned stations. The RAINIER*’s* fire fighting crew donned bumper gear and oxygen tanks and pretended to put out a fire by spraying water from a pressurized hose over the side of the ship. Within 30 minutes of the fire drill, we had an abandoned ship drill. We grabbed our survival suits and hurried to our stations. During the drill an Ensign described how to deploy the life rafts by first tying off the canister (see photo below) and then yanking on a release cable. A sensor automatically opens the raft when it hits the water. A rope holds the raft to keep it from drifting a way, but each raft comes equipped with a sharp knife to cut the rope if the ship should sink into deep water:

The ship conducts the emergency drills at least once every two weeks to ensure we remain sharp on these important safety skills. In the event of a real emergency, we have no place to go except into cold water where one could survive for only a few minutes without protection. The RAINIER*'s* crew takes these drills seriously so we can solve problems (like putting out fires) and prevent the need to enter the water.

After the drills, the RAINIER slowly coasted into Sosbee Bay. We entered a new environment. An arc of steep cliffs rose out of the water and surrounded the bay. We distinctly recognized the shape of a caldera, former volcano that exploded long ago and left a large crater now filled with ocean water. Tonight, we will sleep on board the ship located inside the remains of a crater:

The Southwestern Alaskan Peninsula is part of the Pacific "ring of fire." A large tectonic plate located far beneath the surface of the Pacific Ocean slowly runs into the North American plate. The meeting of the plates causes earth quakes and friction creates large chambers of magma (molten rock) that can form large volcanoes when it reaches the surface of the earth. All around us, we have seen signs of past volcanic activity from the large shield volcano, Mount Veniaminof, to the north of Mitrofania to the small pieces of pumice found on the beaches. However, Sosbee Bay provided a sober reminder of the power and destructiveness of nature.

The rest of the day I spent reading and completing my documentation.

Personal Log

I had another busy day on the RAINIER learning about Sei whales and practicing my photography. Again, the galley crew fed us well and I'm need of some exercise. I'll go hit the small gym below deck tonight to work off some calories. On a ship I find it difficult to get sufficient exercise. If I ever get permanently assigned to a ship, I'll have to become disciplined in setting up an exercise routine.

Question of the Day

What is the "ring of fire" and where is it located?