



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

**Mission: Hydrography**

**Day 8: Monday, May 29, 2006**

**Weather data from bridge as of 0730 hours:**

Visibility: 10.0 miles

Wind direction: 290 deg. (WNW)

Wind Speed: calm

Sea level pressure: 1016

Present weather: scattered to mostly cloudy skies, calm winds

Temperature: 48 de. wet/dry 50 deg.

**Science and Technology Log**

Today I visited the plot room. It is always a busy place. After the data has come in from the launch boats which have run the lines they were assigned for that day, the data is then downloaded to computers for processing so that accurate navigation charts can be made. Nick Gianoutsos and Shawn Gonzales both showed me how they clean up the data so it can be processed to make charts of the bottom of the channels, narrows, and waterways used by navigators throughout Alaska. The final product must both be accurate and reliable so that ships can trust the charts they are reading and using to plot navigation points and travel safely through hazardous coastal areas.

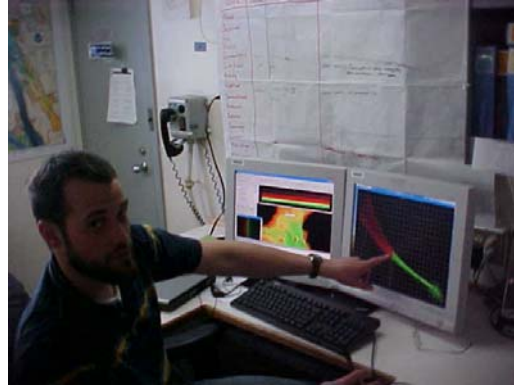
Wrangell Narrows is where the data has been being collected from for the past couple of weeks. Wrangell Narrows extends almost 21 miles from the Sumner Strait to the south up to Frederick Sound to the north, near Petersburg, Alaska. The channel is very narrow in places, with dangerous ledges and strong tidal currents, and can be a treacherous waterway for larger boats if not marked and navigated properly. Cruise ships, Alaska State Ferries, tugs and barges, freight boats, pleasure boats, and commercial fishing boats navigate the channel. Some of the cargo that travels through the Narrows includes: lumber products, fish products, petroleum products, provisions, and general cargo. There are no roads to Petersburg, so everything has to come by boat or plane. The narrows can be a busy place for traffic in this area of Alaska. All known dangers in the Narrows are charted and most are marked. The mean range of the tide is 13.4 feet and diurnal range is 15.7 feet at Petersburg.

\*Source: United States Coast Pilot 8: Pacific Coast Alaska 2005 (27<sup>th</sup> ed.). U.S. Dept. of Commerce, NOAA, NOS.

Members of the crew aboard the NOAA ship RAINIER are entering and analyzing data from the survey lines run from the launch boats during the day. This data will give an accurate indication of what lies below the water and also what lies above it.



**Laurel Jennings & Tonya Watson**

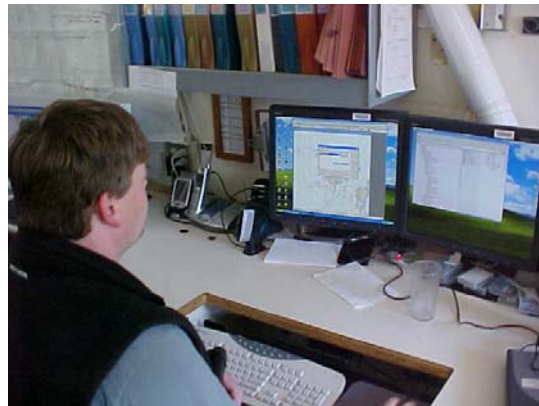


**Nick Gianoutsos**

**The crew aboard RAINIER keeps working, long after regular work hours are over. Crunching the numbers from a launch into useable data for charts for navigation.**



**Shawn Gonzales & Nick Gianoutsos**



**Chief Survey Technician: Jim Jacobson**

### **Personal Log**

Today I was privileged to see a part of Alaska, Biorka Island, which is northwest of where we were near Petersburg in the Wrangell Narrows. The change of scenery was exciting and nearby are hot springs which are very warm and relaxing according to some of the crew who spent time there after hours.

### **Question of the Day**

Using the information from log #4, which was Thursday's log, how long will it take a ship that travels at 15 knots per hour to transit 231 miles?

\*Source: United States Coast Pilot 8: Pacific Coast Alaska 2005 (27<sup>th</sup> ed.). U.S. Dept. of Commerce, NOAA, NOS.