



**NOAA Teacher at Sea  
Jacquelyn Hams  
Onboard NOAA Ship RAINIER  
July 22-August 11 2006**

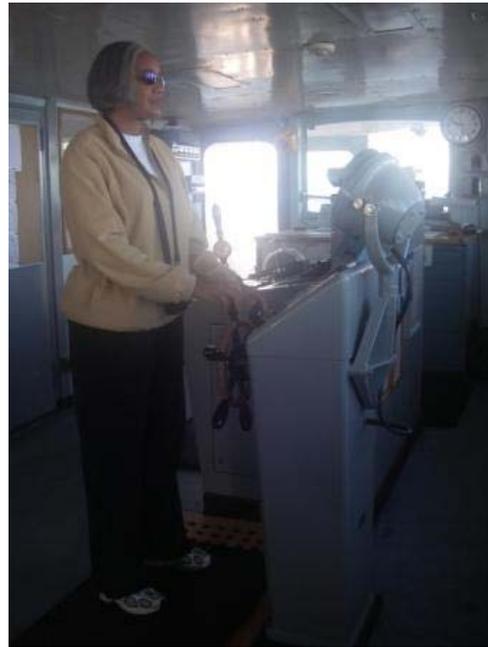
**July 27, 2006**

**Weather Data  
1100**

Weather: Partly cloudy  
Visibility: 10+ nm  
Wind direction: LT  
Wind speed: AIRS  
Sea wave height: 0 ft.  
Swell waves direction: 160  
Swell waves height: 1 ft  
Seawater T: 9.4 degrees C  
Sea level pressure: 1025.9 mb  
Temperature Dry bulb: 11.01 degrees C  
Temperature Wet bulb: 10.0 degrees C

**Science and Technology Log**

ENS Sam Greenaway, RAINIER's Navigation Officer and Kenneth Keys, RAINIER Deck Utilityman and Helmsman, gave me a lesson in navigation. I steered the ship for approximately two hours during which time I completed several turns. I learned that it is very important to steer the ship along the survey lines so that data quality is not distorted. A few of the navigation instruments used on the RAINIER are shown below.



**TAS Jacquelyn Hams at the helm  
of the NOAA Ship RAINIER**



**Rudder angle indicator**



**Gyrocompass repeater (top)  
and rudder angle order  
indicator (bottom)**



**Fathometer**  
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**Electronic Chart System display**

### **Personal Log**

We are passing many of the smaller islands that make up the Shumagins. The fog has lifted and the RAINIER is approaching Porpoise Harbor, the anchoring spot for the night. The Shumagin Islands are part of the Aleutian Islands Arc system and formed by volcanic activity. The islands provide a scenic backdrop of dramatic peaks and snow capped summits. We anchor at Porpoise Harbor off Nagai Island.



**Mitrofina Island**



**View from Porpoise Harbor**

**Lesson of the Day:** Navigation

**Terms of the Day:** Rudder, fathometer

**Bonus question:** What is a fathometer?

**Recommended reading:** The American Practical Navigator, Bowditch Publication #9