



**NOAA Teacher at Sea  
Linda Armwood  
Onboard NOAA Ship FAIRWEATHER  
April 25 – May 5, 2005**

**Mission: Hydrography**

Day 5: Saturday, April 29, 2006

**Weather Data from Bridge**

Visibility: 10 nautical miles (nm)

Wind direction: 200 °

Wind speed: 15 kt

Sea wave height: 1 ft.

Swell wave dir: 280

Swell wave height: 2-3 ft.

Seawater temp: 7.2

Sea level pressure: 1016.6mb

Present weather: Overcast

Temperature: °C~ 8.2dry/6.5wet

**Science and Technology Log**

My assignment today was to work with the benchmark descriptions and level run team.

The responsibility of the team is to accurately and completely describe the benchmarks.

The description must include the following items:

- directions for location
- exact location relative to other structures including the tide gauge
- sketch of location
- latitude and longitude
- above datum of tabulation in meters
- date of establishment/recovery
- photograph of benchmark
- statement that benchmark disk is flush in raised concrete

The team is also responsible for completing the level run assignment. The purpose of the level run is to level the primary benchmark to the staff stop. This procedure provides the elevation of the staff stop. In helping with the level run, I assisted the Tides Director in the recording of rod readings. These measurements are read in three parts: top thread, middle thread and bottom thread. Ideally, thread intervals should be equal. However, if the thread intervals are not equal, they must be within 2 to be an acceptable reading.

Many of our readings were acceptable upon the first recording. For the few readings that were not acceptable, the software in the I-Pod associated with the 3 stadia leveler would indicate as such. Readings were redone accordingly.

In addition to providing assistance to the Tides Director as a recorder, I participated in holding the rod at benchmark locations for level readings. The indication that the rod would be level is when the surveyor succeeds in moving the rod so that the bubble inside the gauge would sit on the center circle.

The tide staff observation was my third assignment for the day. The completion of these observations provides you with the elevation of your orifice to your staff stop. The tide gauge is located on the pier leg facing the benchmarks. The boat was placed in a vantage spot that enabled a survey tech and I to monitor and record the tide height every 6 minutes for three hours. This recorded data would later be compared to the data received by the tide gauge set-up on the pier.

### **Personal Log**

It was great to get out of the bitter, cold, sleeting weather conditions to the warmth of the ship. The food on the FAIRWEATHER is absolutely delectable!

### **Question of the Day**

#### ***Environmental Science and Geospatial Semester Students***

In which two months are the largest tidal ranges?

Mrs. Armwood