



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

Mission: Hydrography

Day 2: Wednesday, April 26, 2006

Weather Data from Bridge

Visibility: 5 nautical miles (nm)

Wind direction: 130 °

Wind speed: 12 kt

Sea level pressure: 1004.5 mb

Present weather: Drizzle, mostly cloudy

Temperature: °C~ 7.5dry/6.5wet

Science and Technology Log

During the morning I concentrated on the Electronics Department to see how this operation is run. This department covers a significantly large portion of the ship in several locations. The Chief Electronics Tech explained the functioning of the iridium and INMARSAT satellites. The iridium satellite is used for low speed communication such as the telephone and e-mail. This is primarily used at sea for hourly email transit except when launches are out. The iridium also has a tie-in for sensors such as wind speed and barometric pressure. The INMARSAT satellite is for high speed communication such as voice, faxes and two-way data transfer. The management of these satellites, the Automated Information System (AIS) and all other electronic/electrical systems for the ship are managed, coordinated and maintained by the Electronics Department.

The afternoon was spent on one of the launches to observe survey technician launch operations. During the training there was a demonstration of the use of several components of data acquisition and processing. Some of the data that is collected is sonar, boat voltage, vertical waterfall, bathymetric in 2-D view, position and orientation, heave, distance and altitude. All of this data is then processed and becomes the responsibility of the survey technician to combine the data into a single file, known as a concatenated file.

Personal Log

I appreciate the ability to view the hydrographic navigation charts in my room through INMARSAT. This allows me to know where we are while preparing for the day. Thanks to the Chief Electronics Tech for giving me the ship tracker web site for students and other interested persons.

Mrs. Armwood