



NOAA Teacher at Sea
Brett Hoyt
Onboard NOAA Ship RONALD H. BROWN
October 8 – October 28, 2006

NOAA Teacher at Sea: Brett Hoyt

NOAA Ship RONALD H. BROWN

Mission: Recovery of Stratus 6 mooring and deployment of Stratus 7 mooring
Recovery of SHOA tsunami warning buoy and deploy a fresh replacement
buoy

Tuesday, October 10, 2006

Weather Data from Bridge

Visibility: 12nm (nautical miles)

Wind direction: 240° True

Wind speed: 11 knots

Sea wave height: 2-3ft

Swell wave height: 4-5 feet

Sea level pressure: 1010 millibars

Sea temperature: 28.7 °C or about 84 ° F

Cloud type: cumulus, stratocumulus

The Cruise Mission

The overall mission of this cruise is to replace two moorings anchored off the northern coast of Chile. First we will retrieve the Stratus 6 buoy, which has been actively sending weather and ocean data for the past year. We then will deploy the Stratus 7 buoy approximately 800 miles from land. This mooring consists of a buoy that contains numerous meteorological sensors that collect data on relative humidity, barometric pressure, wind speed and direction, precipitation, short- and long-wave solar radiation, temperature, salinity, and velocity of the upper ocean and sea surface temperature. The buoy serves as an extremely accurate weather station, one of few such stations in the open ocean.

Secondly, we will replace a tsunami (a potentially dangerous large wave of water) warning buoy belonging to the Chilean Navy Hydrographic and Oceanographic Service. This buoy provides Chile with warning of approaching tsunamis.

The Teacher

Let me introduce myself—I'm Brett Hoyt, a NOAA Teacher at Sea. NOAA's Teacher at Sea program is open to all teachers K-16 who would like the opportunity to experience first hand working side by side with some of the planet's top scientists conducting cutting-edge research. If you would like to apply or just know more about the Teacher at Sea program go to: <http://www.teacheratsea.noaa.gov>. I will be bringing into your classroom the day-to-day happenings that are happening on board the NOAA research ship the RONALD H. BROWN. Please feel free to email me (hoytbk@gmail.com) with

any questions you might have about the program, the research, the scientists or any question in general about the ocean. I will try to answer as many as I can. In return, I will from time to time pose questions for you or your class to tackle. I will give hints as to where you might find the answer.

Questions of the Day

ElementaryK-6:

How much of the earth is covered by Water? How much is covered by Land?

Hint: <http://ga.water.usgs.gov/edu/mearth.html>

Middle school:

What chemical compound makes up water? Are the elements solid, liquid, or gas?

Hint: <http://ga.water.usgs.gov/edu/mwater.html>

High School: Why is the ocean blue? Are all oceans blue? Why or Why not?

Hint: <http://www.enchantedlearning.com/subjects/ocean/Blue.shtml>



**Mr. Hoyt on the RONALD H. BROWN leaving Panama
passing under The Bridge of the Americas**



Masked Boobie- these birds fly in front of the ship for hundreds of miles seeking fish. They will occasionally land on the ship to rest.

On my next posting I will be giving you a tour of some of the staff and equipment on board the ship.