



NOAA Teacher at Sea
Scott Sperber
Onboard R/V *Kilo Moana*
July 9 – 17, 2009

NOAA Teacher at Sea: Scott Sperber

NOAA Ship *R/V Kilo Moana*

Mission: WHOTS-6 (Woods Hole and Hawaii Ocean Time Series)

Geographical Area: Central Pacific / North of O’ahu (22 40’N 157 58’W)

Date: July 10, 2009

Weather Data from the Bridge

Temperature: 23.83 C

Science and Technology Log

This morning will be when the WHOTS-6 buoy will be deployed. Via the A-frame on the aft deck, the buoy will be hoisted and placed into the water. This process is done after 40m of chain and MicroCats are lowered into the water. These serve as a keel for the buoy prior to attaching the balance of the chain instruments and then thousands of feet of line which is belayed out by tension and hand over hand from many volunteers, the 80 glass balls



The crew readying the glass balls for deployment



The WHOTS-6 Buoy. Note the instrumentation on top and the wide white fin.

that provide for floatation and then the massive anchor weights (air weight of 9300 lbs) to hold the whole thing down to a final depth of 4720m. Each individual section of chain with instrumentation has to be attached prior to releasing the buoy. Note the instrumentation on the top along with the large flat white “tail” to keep the buoy set with the wind.

Along with the oceanographic research and data collecting going on there is also atmospheric data being collected with the use of weather balloons. These helium filled balloons are to be launched every 4 hours

for the entire expedition. The balloons are filled to 500 psi (pounds per square inch) of helium, the tanks of which are on board, attached to a calibrated sonde (sensing) device which reads data, temperature, air pressure and humidity and transmits the data back to the ship. Under the careful and watchful eye of Ludovic Bariteau of CIRES and the University of Colorado, at 0730, I was able to successfully set up and launch the fourth balloon of the study. Thomas Dunn and Julie Kelly, also from the University of Hawaii research team aboard, were there to assist.



Preparing the weather balloon for launch

Personal Log

I got to launch a weather balloon. The thrills and new experiences never stop. I am very anxious to take my experiences and new knowledge back to school. I also had to practice putting on a survival suit during our safety drill. Will the fun never end?



Here I am launching a weather balloon!



Donning my survival suit

Words of the Day: acoustics; Doppler shift; calibrate, psi