

**NOAA Ship Ronald H. Brown A16N Leg 2 Scientific Report 06**  
**John Bullister, Chief Scientist, Rolf Sonnerup, Co-Chief Scientist**

Thursday, September 26, 2013

We are currently at Station 126 (1°N; 25°W).

It has been a very productive week out here. After dealing earlier in the cruise with Hurricane Humberto, a lost rosette package and winch problems, the past seven days have gone very smoothly.

We are back to the routine of steaming to a station, completing the cast and moving on to the next station at intervals of about 7 hours. There have been no significant interruptions to this schedule for the past week.

At 3°N, we switched from a nominal station spacing of 30 nautical miles (nm) to 20 nm to get a more detailed view of the complex circulation patterns in the equatorial region. This means more frequent stations and more water samples for the measurement teams to analyze. The next several days will be a very busy time for us. We will continue the pattern of 20 nm station spacing until 3°S, when we will return to the 30 nm pattern.

We will likely cross the equator tomorrow (Thursday) about mid-day and complete both a CTD cast and 2 Trace Metal casts there. Because of the intensive sampling programs, we will delay any equator crossing ceremonies for several days until we complete the A16N section at about 6-S.

We are now crossing the mid-Atlantic Ridge (see attached figure), which is an underwater mountain chain that extends for thousands of miles along about the middle of the Atlantic Ocean. Station depths over this ridge have become shallower. Once we cross the ridge, depths will increase and we will see significantly different deep-water properties as we enter the Brazil Basin to the south.

The weather forecast is good for the next week. The only storm looming is that of a possible shutdown of the US Federal government at the end of the Fiscal Year (midnight on 30 September). We will still be at sea but should have completed almost all of the station work by that time.

Our target date for arrival in Natal, Brazil at this point is 3 October 2013.

