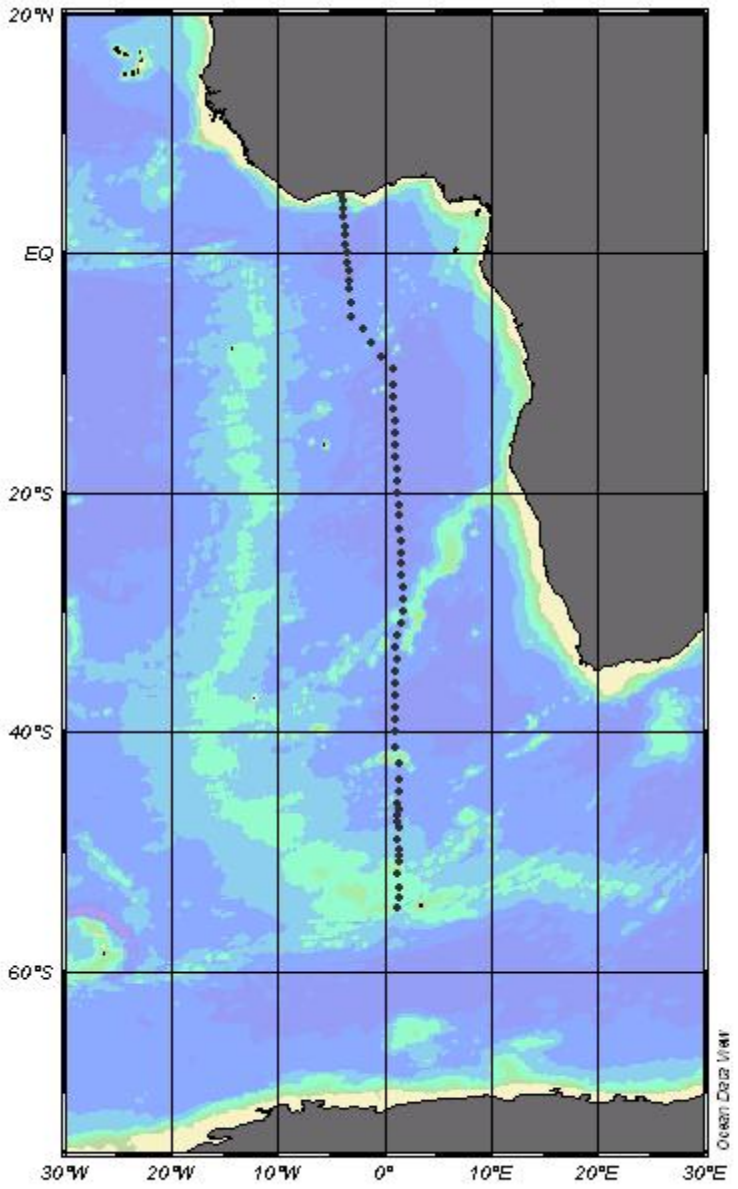
3/17/2010 – Week #1: Storms, Storms and More Storms

NOAA ship Ronald H Brown (RB) departed Cape Town, South Africa on March 8, 2010 to begin the CLIVAR (CLImate VARiability) A13.5 Repeat Hydrography section. This cruise will occupy a series of about 129 deep ocean stations in the South Atlantic Ocean from about 54 degrees South to about 5 degrees North, close to the prime meridian (see attached map). This section was previously occupied on an oceanographic expedition in 1984. We will be looking for long-term changes in a variety of ocean properties in the South Atlantic Ocean during this 26 year interval, including changes in ocean temperature and salinity, as well as changes in dissolved carbon dioxide, pH, chlorofluorocarbons, nutrients, oxygen, carbon isotopes, helium, tritium and dissolved organic carbon. We are also making measurements of surface and deep ocean currents as well as a variety of atmospheric measurements. Work on this cruise is supported primarily by NOAA and the US National Science Foundation. In addition to the crew of the Ron Brown, we have a group of 26 scientists and students on board from 12 institutions and 6 countries (France, Germany, Ghana, Japan, South Korea and the USA).

Since leaving Cape Town about a week ago and steaming southward towards the Antarctic Circumpolar Current, we have encountered what seems to be an endless series of storms, with high winds and near freezing temperatures. The closest points of land at present are the Antarctic Continent and Bouvet Island, which (according to Wikipedia) is the most remote island in the world. We began making a series of deep CTD (Conductivity, Temperature, Depth) casts about 3 days ago starting at 54 degrees South, lowering the CTD instrument on a cable (see attached photo) from the surface to the bottom of the ocean. The instrument also allows us to collect water samples at 24 different depths and bring the water back to the ship for chemical analysis. The work has been going well. We have completed 13 stations as of today. We are slowly moving northward towards warmer temperatures and smoother seas, stopping the ship every 30 miles to perform a 3 hour long CTD cast. The progress of RB along the cruise track can be monitored at the web site:

http://shiptracker.noaa.gov/ship.aspx?ship_code=RBSCSACQ&timeframe=cc&mapservice=st_nmao

We anticipate completing the cruise on April 18, 2010 with a port stop in Takoradi, Ghana. We will provide weekly updates as we progress with the research.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Ocean Data View