

## **TACE: Transport variability in the equatorial Atlantic**

As part of the proposal “Role of the equatorial Atlantic for climate variability in Atlantic region” by P. Brandt, C. Böning, M. Latif, L. Stramma, F. Schott, Leibniz-Institut für Meereswissenschaften (IFM-GEOMAR) an der Universität Kiel, Germany

### **Objectives**

Main goal is the understanding of upper ocean circulation variability and its role in the heat balance of the eastern tropical Atlantic Ocean. Main issues of this part of the proposal are:

- Quantification of the zonal equatorial circulation and its intraseasonal to interannual variability as part of the subtropical cell and the meridional overturning
- Role of temperature and velocity anomalies for upwelling and sea surface temperature in the eastern equatorial Atlantic
- Equatorial wave dynamics and its role for Atlantic and Benguela Nino's

### **Measurement program**

The measurement program will consist of an array of 5 moorings at 23°W on the equator between 1°S and 1°N, repeated ship sections along 23°W, and a glider section along 23°W. It is planned to deploy the mooring array during the funded METEOR cruise M68/2 in June 2006. The moorings will consist of ADCPs for the upper layer flow and point velocity and CTD measurements at different depth down to about 1500m. An equatorial mooring at 23°W was already successfully deployed during 2002 (Provost et al. 2004) and redeployed in February 2004 (cooperation between LODYC, IFREMER, IFM-GEOMAR). Additionally, an equatorial mooring with similar instrumentation as the 23°W mooring was deployed by IFM-GEOMAR during August 2004 at 35°W. This mooring will be finally recovered in June 2006. It is not planned to redeploy this mooring. The mooring/glider proposal will be submitted to the German Bundesministerium für Bildung, Wissenschaft und Forschung (BMBF) in February 2005.

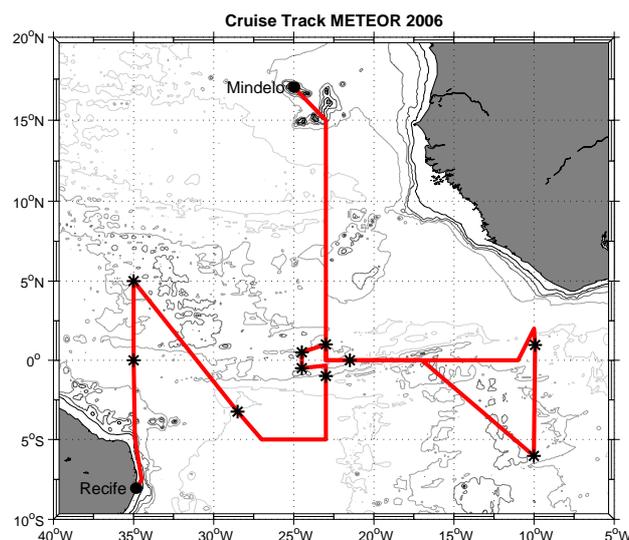


Fig.: Cruise track of METEOR M68/2 in June 2006. Stars represent mooring positions. Mooring at 35°W, 0°N and 5 moorings near 23°W, 0°N are current meter moorings, other moorings are sound source moorings for a RAFOS float project that will be completed in 2006.