



On the flow of South Atlantic Water near the Caribbean Sea

K. Kirchner, M. Rhein

University of Bremen, Germany (kkirchner@uni-bremen.de / Phone: +49-421-218-4221)

The transport into the Caribbean Sea is composed of two components: the wind-driven regional circulation and the global meridional overturning. Studies from model results suggest, that the warm water MOC flow enters the Caribbean Sea basically south of Martinique, while the flow through the northern passages is of wind-driven North Atlantic gyre origin. The alternative route for South Atlantic origin water is across 16°N, later turning westward. In this presentation the South Atlantic water distribution and transports in the area will be discussed with data from four ship cruises, including new results from 2005. Together with ARGO float profiles, older CTD data and model results spatial and temporal changes are studied.