



Decadal changes of the Intermediate, Deep and Bottom Water Mass Characteristics in the Atlantic Ocean

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The ocean plays a major role in climate variability and by-turn water mass receive their signature from atmospheric processes and are good indicators of changing in ones.

The main purpose of the present research is to analyze the variability of thermohaline characteristics of the intermediate, deep and bottom water mass in transatlantic and meridional transects in the Central and South Atlantic Ocean. The distinctive feature of this study is a comparative analysis of the recent oceanographic data from times of “Meteor” expeditions till 2000s derived from international programme CLIVAR and WOCE and Russian programme “Meridian-plus”.

The variability of the characteristics is usually based on results of the numerical modeling and is not connected with the real objects of the investigation (water mass). In the present work average characteristics of water mass were detected using repeating transect measurements in situ.

According to this approach it was possible to reveal the trends of thermohaline characteristics changes in the intermediate, deep and bottom water mass layers. Volume mean values were calculated for the whole water parcels as well as for its cores. Comparing the results of this work with the researches of the other authors [Arbic, Owens, 2001] also takes place in the study.

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