



Research of ageostrophic transport in the Atlantic Ocean using data of last Russian cruises

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Two Russian research vessels "Academic Ioffe" and "Academic Sergey Vavilov" are equipped with Acoustic Doppler Current Profilers (ADCP). We have the next models of these devices: RDI narrowband 75 kHz ("Academic Ioffe") and RDI narrowband 150 kHz ("Academic Sergey Vavilov"). During the long period there were no people who were engaged in measurement and data processing of ADCP in our Institute. In 2003-2004 I took part in three cruises on mentioned vessels and made this work. "Academic Ioffe" carried out two hydrographic sections in the Northern Atlantic corresponding A01E in WOCE classification. It happened in the summer of 2003-2004. "Academic Sergey Vavilov" carried out one cruise corresponding SR04 within November 2004. The raw data of the ADCP were processed by Firing's CODAS-3. The main result of my work is a comparison of ageostrophic water transports calculated by different methods. First method is the classical Ekman theory of drift circulation. I calculated drift currents using the data of the satellite microwave scatterometer SeaWinds. The second method means a finding of a difference between absolute and geostrophic transports. These two methods demonstrated quite good conformity.