



Using Ocean Bottom Pressure from GRACE to Understand Transport Variations of the Antarctic Circumpolar Current

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Little is known of the low frequency variability of barotropic transport in the Antarctic Circumpolar Current (ACC) outside of the Drake Passage, except from limited repeat hydrographic sections and model output. ACC transport can be measured directly by differencing bottom pressure (BP) data from the North and South sides of the current. Zlotnicki et al (2005) used bottom pressure measurements from the Gravity Recovery and Climate Experiment (GRACE) to compute zonal averages over the entire Pacific, and used BP far North of the core of the ACC. Here, we will reassess the study of Zlotnicki et al, by using the actual position of the ACC from 2003 to 2009 and smaller zonal boxes on either side of the core position. The ACC position will be determined using data from the Ocean Surface Current Analyses - Realtime (OSCAR) project. Preliminary results will be presented.