



Regional Variations in Low Frequency Transport Variability of the Southern Ocean

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Using ocean bottom pressure data from the Gravity Recovery and Climate Experiment (GRACE) and the ECCO₂ state estimate, we estimate the variability of the low frequency zonal transport in the Southern Ocean. The interannual variations and trend estimates from calculated transport variability differ as the east-west averaging area and north-south boundaries change. We look at various study areas throughout the Southern Ocean, including west of the Drake Passage, in order to determine the regional variability and coherency within the Southern Ocean. We have observed a high coherency between the Southern Annular Mode (SAM) and interannual variability in the transport south of Australia, and further investigate how other regions respond to the SAM and zonally averaged Southern Hemisphere winds.