



A counter current to the NBUC

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Current measurements of a moored array at 11°S near the western boundary together with results from a realistic eddy resolving (1/12°) general circulation model of the Atlantic Ocean are used to analyze the fluctuations of the NBUC at intermediate depths. The results of this study have shown that the direct pathway of the oxygen and nutrient rich intermediate water mass along the western boundary is intermitted at about 4-5°S. Barotropic instability occurs in this area and a NBUC recirculation cell is developed. The recirculated intermediate water mass then flows southward between 5-14°S. Between 10-14°S again barotropic instability develops within this offshore southward recirculating flow. Thereby EKE is generated and a signal of high variability appears at 11°S at intermediate depth outside the western boundary current regime.