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Measurements of Turbulent Fluxes in Bass Strait

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ABSTRACT

Measurements of turbulent momentum, heat and moisture fluxes have been made in Bass Strait from a stable platform, at a height of approximately 5 m above water. Direct measurements of these fluxes are compared with estimates obtained from spectra of velocity, temperature and humidity fluctuations with the use of the inertial dissipation technique. Directly measured momentum and moisture flux values are in reasonable agreement with inertial dissipation values. The sensible heat flux obtained by the inertial dissipation technique is about twice as large as the directly measured heat flux. The dependence on wind speed of bulk transfer coefficients of momentum, heat and moisture and of variances of velocity and scalar fluctuations is discussed and compared with available data.

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