

Abstract View

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Geographic and Seasonal Distributions of Brunt–Väisälä Frequency and Rossby Radii in the North Pacific and North Atlantic

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ABSTRACT

Long-term mean temperature and salinity profiles, computed from an edited set of historical hydrographic data, have been used to calculate mean profiles of density and Brunt–Väisälä frequency by 5° squares for the North Atlantic and the North Pacific. With these stratification profiles the internal Rossby deformation radii are computed and displayed in map form alone, with the external Rossby radii. Seasonal variations are examined in a limited number of 5° squares selected to have an equal number of hydrographic observations for each of the four seasons. In most Brunt–Väisälä frequency profiles significant seasonal variations are limited to the upper 250 m; seasonal variations in internal Rossby radii are everywhere surprisingly small.

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