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# Sea Level and the Seasonal Fluctuations of the Equatorial Currents in the Western Pacific Ocean

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### ABSTRACT

The seasonal variations of the dynamic topography relative to 500 decibars in the western equatorial Pacific, using data from 6900 hydrographic stations, are compared with the seasonal fluctuations of sea level observed at eleven islands. It is shown that the changes in the meridional profile of sea level correlate with changes in the strength of the major ocean currents measured by their speed or by geostrophic transports. The strength of the North Equatorial Current and that of the Countercurrent vary synchronously, both being strong in fall and weak in spring. The South Equatorial Current varies exactly out of phase with the two Northern Hemisphere currents, but is apparently in phase with the Undercurrent. Investigation of the particular example indicates that large anomalies seem to behave in the same fashion as the seasonal fluctuations of these currents.

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