

Verification of wave realaysis data using drifting buoys

*Yukiharu Hisaki¹

1. University of the Ryukyus

Drifting buoys can observe wave data in the open ocean far from land. The buoys can observe in the area of strong currents such as western boundary current. Significant wave heights observed by drifting buoys in the North Pacific area for 17 years are compared with ERA interim wave heights. The accuracy of ERA interim wave heights is good in total. The accuracy of ERA wave heights for surface current speeds estimated from the buoy position is evaluated. It is evident that the accuracy of ERA wave heights becomes poor as larger surface current speeds. The large overestimation and underestimation of ERA wave heights for larger surface current speeds can be seen in the Kuroshio extension area, where currents are variable by the mesoscale eddies. The large overestimation is not so frequent as underestimation in the Kuroshio area, where currents are less variable compared with the Kuroshio extension.

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