

Sea surface height and its variation in the northwestern Pacific and the Kuroshio route derived from ERS-2 altimeter

Minoru Sasaki[1], Atsushi Yamamoto[2]

[1] Hydrographic Department, Maritime Safety Agency, [2] Maritime Safety Academy

The sea surface height in the northwestern Pacific is shown by using ERS-2 altimeter data (35 day repeat cycle) obtained from European Space Agency and the relation between the height in the region and geoid is discussed. The variations of the sea surface height in 10 cycles in almost all the duration of 1997 are obtained and the movements of Kuroshio route and its extension are derived from its variation for each duration of cycle.

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The Kuroshio routes in the southern and eastern region from Japan derived from subtraction of the height of each cycle from 10 cycle average height are something noisy and they include insufficient consistency. However the height difference between subsequent cycles gives good separation and rather clear route of Kuroshio. Some of these results well coincide with the route given by the Quick Bulletin of Ocean Condition (KAIYOU-SOKUHOU) published by the Hydrographic Department of Japan.

A west-going cold eddy (solitary Rossby wave) is also well detected on a line of 30 degree of latitude.