

**ENERGETIC CHARACTERISTICS OF TIDAL AND RESIDUAL LEVEL OSCILLATIONS IN THE
OKHOTSK SEA FROM SATELLITE ALTIMETRY DATA**

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A unified satellite altimetry database Topex/Poseidon (1993-2002, 2002-2005), Envisat (2002-2007) and Jason-1 (2002-2007) containing about 15000 spots was created for the Okhotsk Sea and adjacent areas. Amplitudes and phases of main tidal waves were calculated for each spot, and maps of tidal character and height were constructed. It is shown that diurnal waves dominate in the amphidromic areas of semidiurnal waves in Sakhalinsky Bay, near Yamskie Islands and eastern Sakhalin coastline. Tidal energy increases along the axis southwest – northeast and reaches maximal values in Shelikhov Bay. Root mean square amplitudes of residual series were considered as characteristics of non-tidal sea level oscillation. Areas with their highest values were considered as energetic ocean zones. They have been found near southeastern Kamchatka coast and on the Pacific Hokkaido shelf where mesoscale eddies are observed often. To a lesser extent it relates to the whole Kuril-Kamchatka deep trench (especially to its outside edge), as well as to western Hokkaido shelf and northern Okhotsk Sea shelf where seasonal changes of currents are significant. The map showing a relative portion of tides and residual oscillations in the total sea level energy has been constructed.