



## **Meteotsunamis as recorded on the coast of Kuril Islands**

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Meteotsunamis are the atmospherically induced destructive ocean waves in the tsunami frequency band. Usually they are caused by fast-moving atmospheric disturbances such as thunderstorms or squalls. These atmospheric disturbances are often observed in the area of Kuril Islands, so meteotsunamis can be dangerous in this region. In 2008, the Institute of Marine Geology and Geophysics, Far East Branch, Russian Academy of Sciences (IMGG), deployed a network of bottom pressure gauges in the area of the South Kuril Islands to measure long waves of the tsunami frequency range. In late 2009, a network of telemetric tsunami recorders of the Tsunami Warning Service (TWS) of Roshydromet was installed on the Far East coast of Russia. A couple of anomalous sea level oscillations, similar in their characteristics to tsunami waves, were recorded in the area of Kuril Islands (January 23-24, 2009, March 16, 2010, August 3-4, 2010, October 15-16, 2011). The last event we studied most carefully because it constitutes a real danger (the trough-to-crest wave heights reached 80 cm in the bays Malokuril'skaya, Krabovaya and Yuzhno-Kuril'skaya) and was recorded by several bottom pressure gauges. In addition, the digital atmospheric pressure records with time discrete of 1 minute were obtained on the Shikotan, Kunashir and Iturup islands. We analyzed the sea level and atmospheric pressure records using the methods of statistical and spectral analysis. Local topography resonant effects were the main reason of well-expressed peaks in power spectra in different areas: especially with a period of 19 min (Malokuril'skaya Bay) and 29 min (Krabovaya Inlet).