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Observations of freak waves in the coastal zone of Sakhalin

Konstantin Kuznetsov (1,2,3), Andrey Zaitsev (3,1), Kostenko Irina (3,1), Kurkin Andrey (1), Pelinovsky Efim (4,1)

(1) Nizhniy Novgorod State Technical University n.a. R.E. Alekseev, Nizhny Novgorod, Russia (aakurkin@gmail.com), (2) Institute of Marine Geology and Geophysics Far Eastern Branch of Russian Academy of Sciences, Yuzhno-sakhalinsk, Russia (konstantin.kouznetsov@gmail.com), (3) Special Research Bureau for Automation of Marine Researches Far Eastern Branch of Russian Academy of Sciences, Yuzhno-sakhalinsk, Russia (aizaytsev@mail.ru), (4) Institute of Applied Physics of the Russian Academy of Science, Nizhny Novgorod, Russia (pelinovsky@gmail.com)

Instrumental long-term observation of abnormally big waves (freak waves) on the Sakhalin shelf is presented. These measurements were made using bottom sensors measuring variations of bottom pressure induced by surface waves. More than four hundred waves satisfy to the criterion of abnormally large waves. The five waves have a height greater than the significant height in 2.6 times. These measurements allow developing a typical "portrait" of freak waves in the coastal zone of Sakhalin Island - a group of large waves like "three sisters." The various characteristics of the anomalous waves: slope, curvature, asymmetry, etc., are analysed with aim to find bet characteristics for prediction of the freak waves.

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