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Wind Extreme Waves In The Coastal Zone Of Sakhalin Island

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In this work will be presented observations of abnormally large waves at the cape Svobodny on the southeast coast of the Sakhalin Island for the period: November 2011 - May 2012.These data were obtained with the bottom station at a depth of 16 m. Data from the bottom pressure sensors were converted to water level fluctuations using linear theory with the nonhydrostatic amendments. Empirical distribution of observed wave heights close to Rayleigh distribution describes the Gaussian excitement, but small differences are present especially in extremely large waves toward a slightly higher probability of their occurrence than predicted by Rayleigh statistics. During 70 days observation of waves in the absence of ice cover were registered 200 waves getting under criterion of freak waves. Solved the problem of restore tht profile of waves from wave record, that was received in one point. to estimate the geometric characteristics of excitement. This allowed assessing geometric characteristics of waves, such as the steepness parameter and curvature of the waves. The study was partially supported by The Ministry of education and science of Russian Federation, project 14.B37.21.0642. Authors acknowledge as well RFBR grant 12-05-33046, scholarships for young scientists of the President of Russian Federation 1763.2013.5, 1935.2012.5.