

# FEATURES OF THE INTERACTION OF INFRAGRAVITY AND WIND SEA WAVES

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The results of data analysis of a laser meter for hydrosphere pressure variations installed on the shelf of the Sea of Japan at a depth of 25 meters are presented. When processing the data, the main attention was paid to variations of hydrosphere pressure in the range of periods of infragravity and wind sea waves. Against the background of regular sea waves, solitary nonlinear hydrophysical disturbances of large amplitude occur with the main infragravity periods from 2.5 to 5.5 minutes. It was revealed that quasi-harmonic soliton-like single, double or triple formations, interacting with surface wind waves, form nonlinear hydrophysical disturbances of the type "potential pit", "one sister", "two sisters", "three sisters". When these disturbances appear, the maximum amplitude is observed for the harmonics of the infra-gravitational range, and before and after the appearance, the maximum is the harmonic of the gravitational range.

**Keywords:** infragravity waves, wind sea waves, laser meter of hydrosphere pressure variations, killer waves.

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