

waves from marine storms – “voice of sea”

Some data on a high-frequency infrasound recorded within a range of 2–16 Hz (“voice of the sea”) in the water area of the Black Sea are given. Different parameters of the recorded infrasonic signal - the direction and phase velocity of arriving infrasonic waves, spectral composition, and coherence - have been studied. Wind and wave conditions in the water area of the Black Sea were studied in detail. The collision of two atmospheric vortices was observed a few hours before the first arrivals of infrasonic waves, and the collision of differently directed sea waves was observed during the recording of infrasound. The direction of the arrivals of infrasonic waves coincided with the direction between the zone of collision of sea waves and the point of infrasound recording. The assumption was made that, in order to explain the observed infrasonic waves, it is necessary to use the mechanism responsible for the emission of infrasound into the atmosphere by standing surface waves formed due to the nonlinear interaction of surface waves propagating in opposite directions and to take into account the frequency-filtering properties of both wind-velocity and temperature stratifications of the atmosphere itself along the path of infrasound propagation.

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