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Infrasound from meteorological fronts and its possible generation mechanism.

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Infrasound radiated during periods of weather changes is an almost continuous background against which infrasound monitoring of explosions in the atmosphere is carried out. In this work the results of study of temporal variations of the characteristics of infrasound (amplitudes, coherences, grazing angles, azimuths and horizontal phase speeds) detected during a passage of warm and cold fronts through the networks of microbarometers in the cities Dubna and Moscow are presented. The significant differences observed in the characteristics of infrasound from warm and cold fronts are discussed. Such differences must be taken into account when detecting infrasound precursors of atmospheric storms. A possible aerodynamic mechanism for the generation of infrasound caused by the turbulent air flow around the geometric irregularities of the surface of meteorological front is proposed.

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Promotional text

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