

ID: P1.1-115 Type: E-poster

The influence of acoustic and internal gravity waves from atmospheric storms on the parameters of the upper atmosphere

Numerical modeling of the propagation of atmospheric waves before atmospheric storms in the Moscow region was performed. A three-dimensional version of the high resolution nonlinear numerical model AtmoSym was used for the simulation. Experimental observations from a network of four microbarographs located in the Moscow region were taken as a source of disturbances. Wave characteristics of disturbances in the upper atmosphere caused by the generation of acoustic and internal gravity waves from atmospheric storms was obtained. Numerical calculations showed the formation of local heating areas form in the upper layers of the atmosphere, which affects wave propagation.

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Session Classification: P1.1 The Atmosphere and its Dynamics

Track Classification: Theme 1. The Earth as a Complex System: T1.1 The Atmosphere and its Dynamics