GEOPHYSICS

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THE ATMOSPHERE AT THE AGEOSTROPHIC STATE

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In article the analysis of the ageostrophic condition of the atmosphere caused by indignation of an isobaric surface is made. Expressions for projections of fluctuation of velocity are received from its geostrophic value. It is shown that the last are dependent on a geographical position and have periodic character. Superposition of geostrophic velocity and its fluctuation is the reason of movement of air masses on a sine trajectory in the horizontal plane. The analysis of motion characteristics of such driving is made. It is shown, on the equator of fluctuation of velocity of a wind are absent, but accept the maximal values on a pole.

Keywords: *ageostrophic state of atmosphere, outrage isobaric the surface, disturbance of the wind speed, geostrophic status, periodic dependence, kinematic characteristics of motion.*

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THE STUDY OF THE NATURE OF THE AGEOSTROPHIC wIND SPEED DEPENDENCE FROM TIME

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In article nature of dependence of an ageostrophic component of a wind from time is investigated. The equation for ageostrophic components of velocity of a wind as time functions, the representing non-uniform differential equation is received, and also the solution of this equation is found. The analysis of the received solution showed that dependence of an ageostrophic component of velocity of a wind on time has a harmonicity. It is shown that values of components of the homogeneous and non-uniform parts of equation, make harmonic oscillations in counter phases.

Keywords: *atmosphere, equation of motion, wind speed, geostrophic wind, ageostrophic component, payment depending.*

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