

Theoretical and experimental investigation of the features of internal gravity waves in the shear flow driven ionosphere

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The linear mechanism of generation, intensification and further nonlinear dynamics of internal gravity waves (IGW) in stably stratified dissipative ionosphere with non-uniform zonal wind (shear flow) is studied. In the ionosphere with the shear flow, a wide range of wave disturbances are produced by the linear effects, when the nonlinear and turbulent ones are absent. Observation data of gravity waves are analysis is carried out. Spectral features, recurrent quantitative and qualitative characters of obtained signals are studied. Special properties of their dynamics are revealed.