

THE INTENSIVE PARTIAL RADIOREFLECTIONS OBSERVATION ON THE WIND FIELD LOCAL IRREGULARITY

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The investigation of the correlation analysis processed data of the partial radiorelections spaced receiving at observatory Tumanny (69.0°N, 35.7°E) revealed a presence of the vertical structure wind field irregularities with the scales about some kilometers. The correlation analysis allows determining transversal velocity vector on a temporal and spatial diffraction field distribution on the ground level. The analysis of the available altitude profiles of the meridional and zonal wind changes within from 78 to 93 km showed that the irregularities are generated under the change of a wind component sign. That is the moving of opposite flows on adjacent height forms the turbulence, which brings about the drop of the transversal wind components values.

The comparison of the velocity profiles with the ordinary wave amplitudes demonstrated a growth of the reflected wave intensity on the height of a wind velocity minimum. Furthermore, the matter of the partial radiorelections on the wind field irregularities is more interesting because another radar registered a strong radiorelections from the mesopause at the same time. So, the described fact supposes the relation of the summer anomalous radiorelections from the mesopause with the irregular vertical structure of the wind field.