

F2-LAYER PARAMETERS AS A SOURCE OF INFORMATION ON TRENDS IN THERMOSPHERIC WINDS

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The information on long-term trends in thermospheric dynamics is still scarce and controversial. Some additional information on it could be revealed from the analysis of the data on long-term behavior of parameters of the ionospheric F2 layer. Earlier the author have shown that analyzing the ratio of nighttime and daytime values of foF2 one can conclude on changes in the zonal thermospheric winds at F2-layer heights. The analysis of the correlation coefficients between foF2(night) and foF2(day) leads to the conclusion on changes in the meridional component of thermospheric wind. The data on the F2-layer height hmF2 show that their scatter in the period after 1980 is much stronger than before 1980, the latter fact indicating stronger variability in the vertical drift velocity induced by varying horizontal winds. New examples of the use of foF2 and hmF2 data to conclude on long-term trends in the thermospheric winds are presented.

Ionosphere, thermosphere, long-term trends

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