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Relation between the ionosphere F2 region and stratosphere in different space weather conditions

L. Vanina-Dart

Space Research Institute, Earth remote sensing, Moscow, Russian Federation (vandart@seeingear.org, 7 495 9133040)

Our previous studies of the mechanism of stratosphere-ionosphere relations have shown that there is a dependence of the correlation coefficient r(h,fo) (between the stratospheric parameter h(100) - the altitude of isobaric surfaces 100GPa and the critical frequency of the ionosphere, foF2) on space weather parameters. This dependence exists during the period March-June at midnight and midday basically.

Before we analysed the dependence of r(h,fo) on geomagnetic and solar activity. We considered days with a wide range of the boundary values of Ap for 3 stations at middle latitudes in the 1980-2000. We discussed character of the dependence of r(h,fo) on geomagnetic activity.We demonstrated that the dependence is very complicated and depends on solar activity, time of the day, and latitude.

In this paper we try to specify how much this dependence (between parametres h(100) and foF2) more poorly in other time intervals.
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