



## **Investigation of character for limited-area ionospheric disturbances**

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GPS technique is very popular for investigation of ionosphere. High density of GPS permanent stations located over the world and easy accessible services distributing the free of charge data, give the opportunity for ionospheric map preparation and even research of simple phenomenon. In presented paper, the limited-area disturbances mean the changes in TEC value inside defined region and time. We can mark out night/day transition, trough, substorms. Based on vertical sounding and helio-geophysical information were selected and considered the disturbed areas. By using the orbits of GPS satellite we can choose that one, which the signal is approaching the station through the disturbed region of ionosphere.

The analysis of information given by TEC values for that special circumstances can characterize such disturbance. The examples of limited-area ionospheric disturbances are shown in paper.