



The modification of the electron density profile above a strong earthquake epicenter according to GPS data

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Nowadays the problem of the short-term forecast of earthquakes has achieved a new level of understanding. There have been revealed indisputable factors which show that the ionosphere anomalies observed during the preparation of seismic events contain the information allowing to detect and interpret them as earthquake precursors.

The partial decision of the forecast problem of earthquakes on ionospheric variations requires the processing of data received simultaneously from extended territories. Such requirements can be met only on the basis of ground-space system of ionosphere monitoring. The development of such system can be based on the use of navigating systems GPS and Glonass. These systems, despite the complexity of detecting ionospheric variations caused by seismic effects, can be adapted in the best way to the realization of the ionosphere monitoring.

The task of the earthquake forecast is confined to the following: it is necessary to find and to investigate such changes in the ionosphere which would allow to detect the essential development stages of the processes preparing the earthquake. To test the hypothesis about the modification of the ionospheric F2-layer in the epicenter area several days before the earthquake the data from the stations removed from seismic zone were processed. The analysis of the state of the ionosphere was carried out during 10 days. The variations of an electronic plasma maximum were received by radio transluence method on the GPS satellite, observable simultaneously from several sta-

tions.