



## **The radio translucence method as the means of detecting ionospheric foreshock**

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Process of earthquakes preparation occupies, as a rule, the significant period of time and consequently demands carrying out of long observations above the possible earthquake focus. The existing network of ground navigating stations allows carrying out such observations of an ionosphere state. It also enables to determine the ionospheric effects of earthquakes based on the analysis of an electron density of F2 layer.

Application of global navigating satellite systems together with methods of the decision of return radio translucence tasks allow to spend long and regular measurements, that enables to investigate the temporary and spatial regularities occurring in the Earth ionosphere. Received as a result of inversion of navigating measurements the high-altitude structures of electron concentration distribution can form a basis for studying such existential regularities of an ionosphere.

On the basis of the results of data processing received with use of navigating systems, it is proved, that above an epicenter of the future earthquake there is an infringement of an existential course of electron concentration of an ionosphere in F2 layer. Such modification of a structure is observed for some day (1-3) before forthcoming event.

It is shown, that on the basis of the analysis of existential structure of a electron concentration probably to predict a site of the future epicenter of earthquake.