

**AUTOMATED INFORMATION TECHNOLOGY FOR IONOSPHERE MONITORING ON THE
LOW ORBIT NAVIGATION SATELLITE SIGNALS**

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In the frameworks of the research the procedure and the major algorithms for the receivers remote network control and automated ionosphere tomography data of LEO navigation and special satellites gathering and processing are represented. The proposed procedure was developed in consideration with the analysis of the system problems appearing in long period measurements of the ionosphere electron concentration vertical distribution in the frameworks of the experiments for ionosphere remote sensing in Russian Federation, USA and Europe. The principal distinction of the proposed procedure from the others is the possibility of receiving the ionosphere electron concentration vertical distribution in the near-real-time and remote control of the spatial distributed receiver network realization. The special software was developed for the proposed procedure and algorithms realization. The main functionality principles, structure and functional charts are represented in the research. The software complex is based on the principals for the "open-systems" creation and there are the special web – interface for user and system administrator. The software is capable to work under Windows or UNIX operation systems branches. The vertical distributions of the ionosphere electron concentration obtained with the developed software used in the frameworks of the ionosphere monitoring pilot project in Sakhalin Island in 2007 are represented in the research. The tomography reconstruction accuracy analysis based on data comparing with ionosonde located in Wakkanai was carried out. The good correspondence of the two kinds of data is shown.