GEOINFORMATION SUPPORT FOR FORECASTING FLOOD ZONES IN THE SOUTH OF SAKHALIN

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Modern systems of hydrometeorological monitoring, for the most part, widely use WEB and GIS technology tools. Territorial fragmentation divisions of the World Meteorological Organization (WMO), Roshydromet, Russian Academy of Sciences and other services and departments interested in obtaining data requires creation of unified information environment for exchange of heterogeneous information. Formation field for geospatial data has become possible with the availability of industrial design platforms with high performance, supporting standard data exchange formats suitable of system for building projectoin. The purpose of the study is to develop requirements for geoinformation support of the system necessary for flood forecasting. Methods: GIS mapping, interpretation and analysis of remote sensing data of the Earth. When developing system for hydrological monitoring of rivers in the Southern Sakhalin, we used the experience of operating similar observational network in services of several European countries, as well as the geographically distributed GIS created by Roshydromet. Considering the vast experience of predecessors and requirements for geoinformation support necessary for predicting flood zones in the rivers of Southern Sakhalin have been developed. The initial data for creating the correct flood model are satellite images, large-scale topographic maps, digital terrain models, data from long-term hydrometeorological observations, and engineering surveys.

Keywords: geoinformation support, decoding of aerospace images, thematic mapping, topographic maps, digital elevation model, flood, flooding, catchment basin

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Received 30.10.2020