PROSPECTS OF GEOPHYSICAL MONITORING IN RUSSIA

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The current state and prospects analysis of the monitoring development of geophysical situation in the Russian Federation are presented. The notion of geophysical situation is associated with a connected set of information about the events, which occur on the Sun, near space and interplanetary space, which have an impact on the processes in the near-Earth space. The issues of control and prediction of flare and integrated solar activity, radiation situation in near-Earth space, condition of the magnetic field state, ionosphere and upper atmosphere are highlighted in the report. The prospects of the development of ground-based and space-based observational facilities are defined. The relevance of gaining a variety of heliogeophysical information into a unified geo-informational resource, providing an access to incoming and archived information, the development of the comparison and assessment technology of the environment inside the resource is noticed. The importance of information about the geomagnetic field and the necessity of the resumption the regular surveys of the magnetic field on the territory of Russia, which has been not done for more than 40 years, are highlighted in the report. The steady expansion of the responsibilities of geophysical monitoring is marked. Thus, the system for monitoring the radiation situation, which is connected with fluxes variations of galactic and solar cosmic rays at altitudes of Civil Aviation (8-14 km) is being created, in order to ensure radiation safety for passengers and crews of civil aviation and to assess possible radiation doses for given routes.
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