

Space-borne possibilities - at the services of the region

The Fire Department and Civil Protection Service of the Volgograd administration started to install the X-band ground receiving station.

The information acquired at such station will enable to do natural resources monitoring, to conduct real-estate cadastre activities, to create and update topographic and thematic maps. The station opens a wide range of possibilities to prevent emergencies: detection of spots of large and medium-size fires, ice jams, as well as control of forest and arable lands damage caused by industrial complexes and pests. The received data will allow having a better picture of the atmospheric condition and preparing more precise forecasts of the crops yield.

Equipment installation is performed by specialists of ScanEx RDC (Moscow), where UniScan-24 ground station has been manufactured. Satellite data reception stations with 2.4 m antenna, produced by ScanEx, enable to do direct reception of image from Terra and Aqua (USA), SPOT-4 (France), IRS-P5/P6 (India), EROS-A/B (Israel) satellites. Later on this station can be easily upgraded to receive RADARSAT-1/2 (Canada) and ENVISAT (ESA) satellites radar data.

The acquired data will be used in regional geographic information system, in databases of spatial objects of the region territory and in geoportals.

Earth observation from space becomes popular worldwide. The most informative method to resolve Earth remote sensing tasks is the application and thematic analysis of images, acquired by the sensor equipment operating in different frequency bands installed onboard the satellites. A number of satellites, equipped with remote sensing devices (radars, scatterometers, radiometers and optical sensors) are put into orbit specifically to get different geophysical information, required to assess the environmental condition and to do natural resources studies.

Within the program of expanding the area of satellite-based monitoring of emergencies, the Russian Ministry of Emergencies has already put into operation UniScan ground receiving stations in two regional Emergency Centers - Siberian (Krasnoyarsk) and in Vologda. In addition, similar equipment has been installed in a number of Russian universities.

*Source: Volgograd Region administration portal
(http://www.volganet.ru/irj/avo.html?NavigationTarget=ROLES://portal_content/News/news_print_form&guid=/guid/e0d6e0b7-bf7d-2c10-48b1-c8bf21436423)*