FLOOD MONITORING SERVICE



Map of flood areas based on satellite data processing



Digital map of flooded areas in Australia (17.02.2009)

Areas of Application

Risk assessment and monitoring of emergencies, in particular, floods, including evaluation of moisture content in snow banks based on radar data; provision of information support for decision-making to public authorities and international organizations; flood mapping based on satellite data; maps integration into socioeconomic information; provision of information resource with automatic receipt of data from the UN-Spider to monitor flooding

Advantages

For the time being, there are no analogs. The product is notable for the following features: dynamic formation of system content; easy visualization of geospatial information and system operation; use of international standards for information exchange and supply. The service has been tested for solving problems of the UNO UN-SPIDER Regional Support Office using Sentinel-1 data and adapted for the European Space Agency

Specification

The flood mapping based on satellite radar data includes preprocessing (orthorectification and geo-referencing) and content processing (segmentation and further classification of images using Kohonen neural networks)

Stage of Development. Suggestions for Commercialization

IRL6, TRL7
The product is ready for use by end users; supporting services provided

IPR Protection

IPR1

Contact Information

Olena O. Nizhnichenko, Institute for Space Research of the NAS of Ukraine; +38 044 526 62 53, e-mail: elena@ikd.kiev.ua