Real-time Oil Spill Detection

In September-November ScanEx has performed tests with real-time water oil spills detection technique using RADARSAT-1 space images, along the northern coastline of the Caspian Sea.

The data reception and processing cycle includes the universal UniScan ground station and ScanEx SAR Processor and ScanEx Image Processor software. Data processing software products provide for manual and automatic detection of oil slicks on the sea surface.

Positive results were obtained after the technique testing for oil spills detection on the Caspian and White Seas. The average RADARSAT-1 data processing and oil detection time constituted 15-20 minutes.

RADARSAT-1 space images, received by the ScanEx Center, illustrate the ships spilling oil products into the Caspian Sea. Fines for such offends usually make up thousands of dollars and serve as a good example to captains and ship owners.

The technology of real-time oil spills detection on the water surface by radar data is widely used in Canada, USA and European countries for ecological control of the maritime economic zone condition. The time of data processing is a critical factor that ensures on-line detection of ships-offenders for further plane pursuit and claims against the offenders to the court. Sea surface contamination control in the economic zone of Canada and the USA is funded under the Integrated Satellite Tracking of Oil Pollution (ISTOP) governmental program.

MDA Geospatial Services company is the RADARSAT-1 satellite operator offering services in real-time oil spills monitoring in the water areas of Indonesia, Brazil, Mexico and the Mediterranean. Nowadays real-time monitoring technology using RADARSAT-1 images is available also in Russia. The ScanEx Center accepts requests for near real-time space radar imagery and oil spills detection on water surface.

Currently ScanEx is completing the ENVISAT-1 satellite radar data reception and analysis complex testing, which will allow improving the efficiency and reliability of satellite-based oil spills monitoring.

Source: ScanEx

https://www.gim-international.com/content/news/real-time-oil-spill-detection