Satellite maps of Haiti Earthquake

Satellite images of the Port-au-Prince districts, damaged as a result of the 12th January earthquake, are in free access. Maps have been prepared by SCANEX specialists based on the GeoEye-1 VHR data on behalf of the Emercom of Russia. Maps show destroyed and damaged buildings, the road net of the region and tent camps.

About the image: satellite images before (left) and after (right) the disaster. In the middle - a stadium, where camps of internally displaced persons (IDPs) have been set up. To the left: Google Maps data. To the right: GeoEye-1 image, January 13 (GEOEYE, 2010).

The highly-detailed EROS-B image (0,7 m) of the Haiti capital area, damaged as a result of the destructive earthquakes on 12th January was published for free access using the GeoMixer API software interface. The space image was acquired on 17th January by the order of SCANEX RDC placed to the ImageSat Int. (Israel) Operator on behalf of the Emercom Russia. The ScanEx Center specialists using the proprietary software ScanEx Image Processor conducted the processing and analysis of data. The image is provided by the international organisations UNOSAT and UNITAR.

According to new satellite imagery data (as compared to the Russian Resurs-DK1 image from January 15) the rescue camp, where the Russian Emercom team is set up, has greatly expanded due to the arrival of new rescue teams from different countries. The IL-76 cargo aircraft of Russian Emercom is located in front of the Port-au-Prince airport building. In addition, the area of the temporary tent camps for IDPs has significantly enlarged on the territory of the stadims and parks. At the seaport, damaged by the earthquake, the construction of the temporary quay for cargo unloading is ongoing (see image below).

World-leading RS Operators have demonstrated high operability in supplying impartial space images of the emergency area. Thus, for example, the American GeoEye-1 satellite delivered images of the disaster area on 13th January. Google posted this image for free access. Highly-detailed images of the impacted area have been provided in near real-time by such satellite system Operators as DigitalGlobe (USA), SpotImage (France), ImageSat Int. (Israel), as well as by the Russian Resurs-DK1 satellite operator - the Research Center for Earth Operative Monitoring of the Russian Federal Space Agency.

Over the past years we start to witness international efforts of the organisation and institutions of different countries in gathering satellite imagery and distribution of satellite data products. For example, the web-site of the international UNOSAT and the UNITAR UN Institute posted a series of satellite maps, enabling to analyse and estimate the scale and geography of destructions in the city of Port-au-Prince. To the first time, among the materials published, the maps created at SCANEX Center became available. Such a well-coordinated application of new satellite images for monitoring and control allows the organisations, involved in rescue operations, to make timely and reasoned decisions with due account for the actual situation. The first international campaign on taking satellite images of the emergency area was waged in 2004 after the disastrous tsunami in the Indian Ocean.

Nowadays, space images provide the most unbiased and up-to-date information about objects, processes and events and enable to perform a comprehensive monitoring of the territories, to assess consequences and to take decisions, minimizing the risks of emergencies. SCANEX Center will continue to monitor the earthquake aftermath using satellite images.