

This service summarizes current satellite mapping activities of interest to GDACS stakeholders. It is issued weekly and based on contributions from map-producing entities and GDACS partners.

Satellite mapping overview

As of 06 June 2016

Asia

Bangladesh tropical cyclone – GLIDE number: TC-2016-000052-BGD

Tropical cyclone Roanu made landfall over Bangladesh on 21 May 2016, causing floods and landslides across the coastal region. Hundreds of thousands of people were affected by Roanu and it is estimated that 80,000 buildings were damaged. On 25 May 2016, the International Charter on Space and Major Disasters was activated by ADRC on behalf of SPARRSO, and AIT assumed project management. The AIT Geoinformatics Center published a new map of the aftermath in the city of Chittagong using satellite imagery acquired 28 May 2016. Due to the storm surge, as of this date flood waters were notably detected surrounding the Karnaphuli and Murari Khal Rivers, as well as in agricultural areas and around the Shah Amanat International Airport. This map product is available for online viewing and download in JPEG format on the International Charter on Space and Major Disasters website.

Source: International Charter on Space and Major Disasters

Link: <https://www.disasterscharter.org/web/guest/-/cyclone-in-bangladesh>

Europe

Belgium floods – GLIDE number: EMSR167*

Several parts of Belgium have been affected by flooding and mudslides following days of intense rainfall in early June 2016. According to officials, the flooding is the worst that Belgium has seen in 50 years. The Copernicus Emergency Management Service made an internal activation for this event on 02 June 2016 and has released maps of the situation in Limburg Province. Using satellite imagery acquired 01 and 05 June 2016, the Copernicus Emergency Management Service identified roughly 682.85 square kilometers of flooded area and 170,219 affected inhabitants in the Hasselt, Neerpelt, Geel, and Lier areas. In addition to Limburg, flooding has impacted northern Antwerp, the west of Flanders, and Liege. Map products are available for download in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management website. Accompanying zipped vector packages are also provided on the website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR167>

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France floods – GLIDE number: EMSR165*

The worst flooding in decades occurred in central and northeastern France in late May and early June 2016. The Seine River in Paris reached its highest level in 34 years and up to a billion euros worth of estimated damage have resulted from the floods. The Copernicus Emergency Management Service created an internal activation on 01 June 2016. It has since produced a series of maps depicting the situation within the Loiret region of France using satellite imagery collected 1, 2, 3, 4, 5 and 6 June 2016 as well as 31 May 2016. The most recent analysis of this imagery revealed approximately 88.23 square kilometers of flooded area and 44,005 affected inhabitants in the Poissy, Mantes-la-Jolie, Dammarie-les-Lys, Nemours, Montargis, and Fontainebleau locations. As of 05 June 2016, some flood waters had receded gradually and thousands of evacuated residents started to return home. Map products are available for download in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management website. Accompanying zipped vector packages are also provided on the website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR165>

Germany floods – GLIDE number: EMSR166*

Heavy rainfall in the southern German region of Bavaria led to significant flooding in early June 2016 and a state of emergency was declared. The Copernicus Emergency Management Service initiated an internal activation on 02 June 2016 and has published several maps of flooding in lower Bavaria. Using satellite imagery acquired 03 June 2016, the Copernicus Emergency Management Service identified a total of approximately 73.47 square kilometers of flooded area, 7.7 kilometers of impacted roads, and 5,328 affected inhabitants in the Pfarrkirchen, Triftern, Simbach am Inn, and Julbach areas. Tann was also examined, however no affected areas or damage were detected there as of 03 June 2016. On 02 June 2016, Germany was preparing for additional storms in the western and southern parts of the country. Map products are available for download in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management website. Accompanying zipped vector packages are also provided on the website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR166>

North America

United States floods – GLIDE number: TBD

The state of Texas experienced record levels of flooding after days of heavy rainfall in late May 2016. In early June 2016, a state of emergency was declared by the Texas governor for 31 counties. The International Charter on Space and Major Disasters was activated on 31 May 2016 by the U.S. Geological Survey on behalf of Texas Emergency Management. The NASA Earth Observatory has since produced a map of the situation in southeastern Texas with 28 May 2016 satellite imagery. At

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this time extensive flooding was visible along the Brazos River to the west of Monaville. According to gauges near Richmond, on 02 June 2016 the Brazos River reached up to about 16.7 meters. Water levels are expected to remain high for as long as three weeks due to predictions for more storms and the release of water from upstream reservoirs. This map product is available for online viewing and download in GeoTIFF or JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88129&eocn=home&eoci=nh>

South Atlantic Ocean

Bristol Island volcanic eruption – GLIDE number: TBD

The Mount Sourabaya volcano is located on Bristol Island and began erupting in late April 2016 for the first time in 60 years. It continued to erupt into late May 2016. The NASA Earth Observatory captured 28 May 2016 satellite imagery of the ongoing eruption and produced an overview map. As of this date, a long plume of ash was visible emanating from the volcano and drifting in a northeast direction. According to the Buenos Aires Volcanic Ash Advisory Center, gas plumes with potential minor ash content continued to be emitted from 29 to 31 May 2016, reaching up to 1.5 kilometers high in altitude. Due to its remote location and the lack of landing sites on the uninhabited island typically covered in glacial ice and snow, the volcano is one of the least studied in the world. This map product is available for online viewing and download in JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88118&eocn=home&eoci=nh>

This summary is compiled by the GDACS mapping & satellite imagery coordination mechanism, operated by the UNITAR Operational Satellite Applications Programme (UNOSAT).

When referring to this summary, please credit: GDACS, UNITAR-UNOSAT.

For comments, questions and to submit information on satellite image derived products, please contact: maps@gdacs.org

Sources indicate satellite analysis production entities and imagery providers. The products referenced in this summary are based on remote satellite imagery and may not be validated in the field prior to release, in which case findings are based only on what is observed in the satellite imagery.

**Not an official GLIDE number, as event has no entry in GLIDE database, but used by GDACS for seamless information integration.*