

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 03 October 2016

Asia

China tropical cyclone – GLIDE number: TC-2016-000104-TWN

Following tropical cyclones Meranti and Malakas, category 4 storm Megi struck Taiwan and southeast China in late September 2016. Tens of thousands of people were forced to evacuate as flood waters rose. The NASA Earth Observatory acquired 26 and 27 September 2016 satellite imagery of the latest tropical cyclone and produced overview maps. On 26 September 2016, Megi was visible hovering over the Pacific Ocean to the southeast of Taiwan. At this time, its maximum sustained winds reached 167 kilometers per hour. By 27 September 2016, the tropical cyclone could be seen engulfing Taiwan prior to making landfall over the island. As of 28 September 2016, Megi had drifted past Taiwan toward mainland China with maximum sustained winds of 130 kilometers per hour. Map products are available for online viewing or download in GeoTIFF and JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Links: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88820&eocn=home&eoci=nh>
<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88828&eocn=home&eoci=nh>

Indonesia floods – GLIDE number: FL-2016-000103-IDN

On 21 September 2016, torrential rainfall led to floods and landslides in Java Island, Indonesia. In response to this event, the International Charter on Space and Major Disasters was activated on 24 September 2016 by UNITAR-UNOSAT on behalf of UNOCHA. UNITAR-UNOSAT has since released a flood map and a preliminary report depicting the situation in parts of the Garut regency in Jawa Barat province. Using satellite imagery acquired 25 September 2016, UNITAR-UNOSAT identified approximately 4.5 square kilometers of potentially affected land, mainly in the Garut districts of Karangpawitan and Banyuresmi. Possible saturated soils were visible principally over agricultural areas. UNITAR-UNOSAT analysis of several more districts revealed a total of about 6.51 square kilometers of affected areas in the examined zones. These products are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase format for the flood map is also accessible on this website. This map may be viewed on the International Charter on Space and Major Disasters website as well.

Sources: UNITAR-UNOSAT, International Charter on Space and Major Disasters

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Links: <https://www.unitar.org/unosat/maps/IDN>

<https://www.disasterscharter.org/web/guest/-/flood-in-indones-1>

North America

United States floods – GLIDE number: TBD

In late September 2016, unseasonal flooding occurred in parts of the United States Midwest as a result of intense rainstorms. Between 10 to 20 centimeters of rain fell over several areas in northern Iowa, western Wisconsin, and southern Minnesota, according to the National Weather Service. Flooding in this area is more common in the spring and summer months. The NASA Earth Observatory captured 26 September 2016 satellite imagery of the floods in Iowa and created an overview map. As of this date, the Cedar and Wapsipinicon rivers were visibly enlarged and flooding could be seen within the vicinity of Palo city. Near Cedar Rapids, the water level of the Cedar River measured over 6 meters on 26 September 2016, and rose to approximately 6.7 meters the next day. The floods could reportedly impact corn and soybean crop harvests and processing. This map product is available for online viewing or download in GeoTIFF and JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88832&eocn=home&eoci=nh>

Oceania

Australia floods – GLIDE number: EMSR184*

Southeast Australia experienced heavy rainfall starting on 24 September 2016. Consequently, roughly 34,000 square kilometers of the Lachlan river catchment flooded and hundreds of residents were evacuated. The International Charter on Space and Major Disasters was activated on 26 September 2016 by Geoscience Australia. Both Geoscience Australia and the Copernicus Emergency Management Service have since produced maps of the floods. Based on satellite imagery acquired 27 and 29 September 2016, Geoscience Australia maps indicate flooding over areas near Condobolin and Forbes in New South Wales. The latest Copernicus Emergency Management Service analysis of satellite imagery from 02 October 2016 and 28, 29 and 30 September 2016 reveals a total flooded area of approximately 583.75 square kilometers. Additionally, 85 kilometers of impacted roads and 688 affected inhabitants were identified in the Jemalong Condobolin, Eubalong, Hillston FMP, Gooloogong Jemalong, Condobolin and Forbes areas. Map products are available for online viewing and download in various formats on the International Charter on Space and Major Disasters and Copernicus Emergency Management Service websites.

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Sources: International Charter on Space and Major Disasters, Copernicus Emergency Management Service

Links: <https://www.disasterscharter.org/web/guest/-/flood-in-austral-2>

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR184>

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.*