

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 18 May 2015

Asia

Guam, Northern Mariana Islands typhoon – GLIDE number: TBD

A strong typhoon named Dolphin traversed the Northern Mariana Islands and struck Guam with strong winds and torrential rain on 15 May 2015. The International Charter on Space and Major Disasters was activated that same day by the USGS on behalf of FEMI and project management was assumed by the Pacific Disaster Center. Although the typhoon was classified as a Category Five storm by 16 May 2015, Dolphin was downgraded to a Category One hurricane two days later. The NASA Earth Observatory collected satellite imagery of the typhoon on 18 May 2015 and produced an overview map. At the time, Dolphin could be seen moving near the Ogasawara (Bonin) Islands in the Pacific Ocean. Typhoon Dolphin is next expected to travel in close proximity to the island of Iwo Jima in Japan. The NASA Earth Observatory map product is available for online viewing and download in JPEG format on its website.

Source: International Charter on Space and Major Disasters, NASA Earth Observatory

Links: <https://www.disasterscharter.org/web/guest/-/cyclone-in-northern-mariana-islands>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85897&eocn=home&eoci=nh>

Nepal earthquake – GLIDE number: EQ-2015-000048-NPL

On 25 April 2015, Nepal experienced a 7.9 magnitude earthquake which caused over eight thousand deaths as well as widespread damage and destruction. The International Charter on Space and Major Disasters was activated the same day by the Disaster Management Support (DMS) Programme Office, Indian Space Research Organisation (ISRO), and UNITAR-UNOSAT, the latter activated on behalf of UNICEF. In order to provide an ongoing record of satellite imagery analysis results over Nepal, UNITAR-UNOSAT continues to update the GDACS LIVE web map which combines multiple image analysis products from the United States National Geospatial-Intelligence Agency (NGA), the Copernicus Emergency Management Service, and UNITAR-UNOSAT. This tool is open to contributions from all entities deriving information from satellite imagery. Crowd-sourced UN-ASIGN field photos that have been georeferenced are also provided in near real time in the web map. The Copernicus Emergency Management Service recently produced a series of reference, delineation, and grading maps using satellite imagery acquired in early May and late April 2015. Analyzed areas include Gorkha, Gumda, East Gumda, Sirdibas, West Sirdibas, East Sirdibas, Bharatpur, Pokhara, Damauli, Deurali, Barpak, Kundule, Kathmandu, Jagat, Lenkhnath, Betrawati, Hetauda, Sundarbazar, Chilime, Dhunche, and Bidur. All aforementioned map products are available for online viewing and download in various formats on their respective websites listed below.

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Sources: International Charter on Space and Major Disasters, UNITAR-UNOSAT, Copernicus Emergency Management Service, NGA

Links: <https://www.disasterscharter.org/web/guest/-/landslide-in-nep-2>

<https://unosatgis.cern.ch/live/EQ20150425NPL/>

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR125>

Europe

Italy phytosanitary emergency – GLIDE number: EMSR124*

A phytosanitary emergency took hold over the Apulia region of Southern Italy in early April 2015. *Xylella fastidiosa* is a bacterium that causes disease in vegetation and has resulted in a rapid decline of olive trees in this part of Italy. The Copernicus Emergency Management Service created an internal activation for this event on 24 April 2015 in order to aid Civil Protection authorities with planning and logistics for field operations. Satellite imagery acquired 04 May 2015 was used by Copernicus to produce two new delineation maps of Avetrana and Torchiarolo. As of 15 May 2015, 231 olive trees were eradicated and 1,081.5 hectares of crop land affected in Avetrana. In Torchiarolo, 213 trees were destroyed and 930.6 hectares of crop land affected by 18 May 2015. Map products are available in TIFF, PDF, and JPEG formats as well as a downloadable zipped vector package on the Copernicus Emergency Management Service website. Data can also be accessed in GeoTIFF, GeoPDF, GeoJPEG and vector (shapefile and KML) formats.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR124>

Middle East

Syria complex emergency – GLIDE number: CE20130604SYR

As a result of continuous violence in Syria, citizens continue to flee the country in search of refuge. UNITAR-UNOSAT recently published an updated map of the refugee situation in Jordan's Al Zaatari camp. Using satellite imagery acquired 26 April 2015, UNITAR-UNOSAT identified a total of 29,231 shelters as well as 1,966 infrastructure and support buildings within the 534.4 hectares of the camp. Between 11 November 2014 and 26 April 2015, a total of 2,676 shelters were closed or moved, and a total of 2,723 shelters were constructed. An approximate 0.04% decrease in the number of shelters occurred since the previous UNITAR-UNOSAT analysis of 11 November 2014 satellite imagery. This map product is available for download as a PDF on the UNITAR-UNOSAT website. An accompanying shapefile and geodatabase in ESRI format are also accessible.

Source: UNITAR-UNOSAT

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Link: <http://www.unitar.org/unosat/maps/SYR>

Yemen complex emergency – GLIDE number: CE20150402YEM

Ongoing conflict in Yemen has caused parts of the country to suffer from significant damage, destruction, and electrical blackout conditions. UNITAR-UNOSAT released a situation update and damage assessment for the city of Aden located in Aden Governorate, Yemen. Analysis of satellite imagery acquired 10 May 2015 revealed a total of 642 affected structures. Approximately 327 of these were destroyed, 153 severely damaged, and 162 moderately damaged. Significant damage was observed in the Masheek Peninsula, Aden International Airport, an industrial port area, as well as the Aden Police Office and Police Officer Club. Roughly 38 impact craters were found within the city, the majority of which were located in the vicinity of Aden International Airport. A total of 13 medical facilities were also identified within 100 meters of damaged and destroyed buildings, and it is possible that these facilities sustained some damage. Satellite imagery collected 12 May 2015 indicates that areas in Sana'a, south of Aden, Sadah, Ibb, and Damar experienced electrical blackout conditions during this time. Situation update and map products are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase format are also provided for the Aden damage assessment.

Source: UNITAR-UNOSAT

Link: <http://www.unitar.org/unosat/maps/YEM>

North America

United States storm – GLIDE number: TBD

In mid-May 2015, the eastern coast of the United States experienced the first storm of the hurricane season in the North Atlantic. The NASA Earth Observatory acquired a satellite image of the storm on 09 May 2015 and produced an overview map. In the map, the storm is visible hovering over the North Atlantic Ocean as well as the coastline of North Carolina and South Carolina. The city of Charleston, South Carolina can be seen engulfed by the storm while Savannah, Georgia lies just on its outskirts. 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=85864&eocn=home&eoci=nh>

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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.*