

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 11 July 2016

Asia

China tropical cyclone – GLIDE number: TC-2016-000067-TWN

Tropical cyclone Nepartak first made landfall in southeast Taiwan on 08 July 2016, and subsequently drifted over the southeast coast of mainland China destroying 1,900 homes. The Copernicus Emergency Management Service and the NASA Earth Observatory published maps of the situation. Using satellite imagery acquired 08 July 2016, the Copernicus Emergency Management Service identified a total of approximately 11.8 square kilometers of flooded area in Chenggong and Yuli, Taiwan. The NASA Earth Observatory captured 06 and 07 July 2016 imagery of Nepartak. On 06 July 2016, Nepartak was visible hovering the Pacific Ocean and had grown from a tropical storm to a Category 5 cyclone. By 07 July 2016, Nepartak had moved closer to Taiwan, at which time maximum sustained winds were reported to be 210 kilometers per hour. By 09 July 2016 Nepartak had weakened to a tropical storm, and as of 11 July 2016 a blue alert for heavy rainfall across 14 provinces and regions was issued by the Chinese national meteorological center. Map products and data are available for download in various formats on the Copernicus Emergency Management Service and NASA Earth Observatory websites.

Sources: Copernicus Emergency Management Service, NASA Earth Observatory

Links: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR170>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88326&eocn=home&eoci=nh>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88331&eocn=home&eoci=nh>

Europe

Italy fires – GLIDE number: EMSR169*

Several fires broke out in Sicily on 16 June 2016, affecting towns, villages, and large forested areas. Homes and schools were temporarily evacuated and damage to private and public structures as well as infrastructure was reported. The Copernicus Emergency Management Service created an internal activation for this event on 23 June 2016 and has since produced several maps depicting the situation in different parts of Sicily. Analysis of 02 July 2016 and 25 June 2016 satellite imagery revealed a total of approximately 40.7 square kilometers of burned area and 1,695 affected inhabitants in Alcamo, Corleone, Milazzo, Palermo, Pantelleria, Piraino, Pollina, and Sciacca. Additionally, 85.9 kilometers of transportation, 0.2 square kilometers of settlements, and 37.3 square kilometers of land use were impacted by the fires in these locations. Map products are

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available for download in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management Service website. Accompanying zipped vector packages are also provided on this website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR169>

Middle East

Iraq complex emergency – GLIDE number: CE20140613IRQ

Ongoing conflict in Iraq has caused significant structural damage and destruction to some of the country's cities, towns, and villages. The city of Fallujah, located in Iraq's Al Anbar province, was overtaken by Iraqi forces during the month of June 2016. In an effort to document the aftermath within the city, UNITAR-UNOSAT recently released a damage assessment of Fallujah. Using satellite imagery acquired 28 and 29 June 2016, UNITAR-UNOSAT identified a total of 1,244 newly affected structures. Of these, 491 were destroyed, 300 severely damaged, and 453 moderately damaged. This represents a significant increase in damage and destruction compared with a previous UNITAR-UNOSAT analysis of 30 November 2014 imagery. The Fallujah damage assessment product is available for download as a PDF on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase format is also accessible on this website.

Source: UNITAR-UNOSAT

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

North America

United States blooms – GLIDE number: TBD

Significant algae and phytoplankton blooms occurred in the states of Florida and New Jersey in early July 2016. In Florida, the governor declared a state of emergency in two counties following the appearance of algae blooms in local waterways. The NASA Earth Observatory captured 02 and 06 July 2016 satellite imagery of these blooms and produced overview maps. An algae bloom in early May 2016 covered 85 square kilometers of Florida's Lake Okeechobee, and persisted into July 2016. As of 02 July 2016, the algae bloom was visible scattered across Lake Okeechobee. This bloom is likely a result of warm lake water and pollution from farm runoff. On 06 July 2016, a phytoplankton bloom could be seen off the coast of New Jersey in part of the Atlantic Ocean. This bloom may have been caused by summer wind-driven upwelling. While phytoplankton blooms are usually harmless and provide a crucial food source for marine life, algae blooms and their associated toxins perturb ecosystems and are problematic for human health when ingested. Map products are available for online viewing and download in JPEG format on the NASA Earth Observatory website.

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Source: NASA Earth Observatory

Links: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88311&eocn=home&eci=nh>
<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=88340&eocn=home&eci=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.*