

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 24 August 2015

Asia

Myanmar floods – GLIDE number: FL-2015-000089-MMR

Torrential rainfall at the onset of the monsoon season caused severe flooding in several parts of Myanmar. The western regions of Chin, Magway, Sagaing and Rakhine were declared disaster zones by the government. In an effort to aid disaster response, UNITAR-UNOSAT has been working on this event since 13 July 2015 and triggered the International Charter on Space and Major Disasters on 05 August 2015 on behalf of the UNDP Myanmar. Analyses conducted by UNITAR-UNOSAT thus far have revealed a total of more than 895,300 hectares of flood affected land in parts of the Rakhine, Sagaing, Bago, Magway, Kayin and Mon States. Most recently, UNITAR-UNOSAT published a map of flood waters over areas of Kyauktaw, Ponnagyun, and Rathedaung townships in northern Rakhine State. Using satellite imagery acquired 17 August 2015, UNITAR-UNOSAT identified approximately 55,000 hectares of flood affected land. The Copernicus Emergency Management Service also released flood maps for the areas of Kaiklat, Bogale, Labutta, Pathwe, Yegy, Monyo, Pathein, Pyay, and western Yangon. Analysis of satellite imagery acquired 09, 11, 15 and 17 August 2015 revealed a total of 411,793 hectares of flood affected land. Live and static map products are available for online viewing and PDF download on the UNITAR-UNOSAT website, along with data in ESRI shapefile and geodatabase formats. Additionally, UNITAR-UNOSAT continues to update a GDACS live map and a satellite mapping and coordination system (SMCS) event page. Copernicus map products are available in TIFF, PDF, and JPEG formats on its website. Data can also be accessed there in shapefile and KML formats.

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

Links: <http://www.unitar.org/unosat/maps/MMR>

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

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR130>

Pakistan floods – GLIDE number: FL20150723PAK

Flash floods caused by heavy monsoon rainfall from mid to late July 2015 devastated northern and eastern Pakistan. UNITAR-UNOSAT recently published an overview map of flood waters near the city of Moro in Sindh Province, Pakistan. Analysis of satellite imagery acquired 11 August 2015 revealed a total of approximately 130,000 hectares of flood affected land in the districts of Naushahro Firoz, Jamshoro, Matiari and Nawab Shah. Flooded areas are in close proximity to Mohenjo Daro, a 5,000

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year old UNESCO world heritage site. Due to the special characteristics of satellite data used, it is likely that flood waters in highly vegetated areas along main river banks and within built-up areas were systematically underestimated. This map product is available for download as a PDF on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase formats are also provided. Additionally, a GDACS live map and an SMCS event page are accessible on the UNITAR-UNOSAT website.

Source: UNITAR-UNOSAT

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

Philippines typhoon – GLIDE number: TC-2015-000117-PHL

Twin typhoons Goni and Atsani developed over the western North Pacific Ocean during August 2015. The NASA Earth Observatory collected satellite imagery of the typhoons on 21 and 24 August 2015 and produced situational overview maps. As of 21 August 2015, typhoon Goni was visible passing over the island of Luzon in the northern Philippines and the southernmost tip of Taiwan. At this time Goni, which was classified as a Category 2 typhoon, had sustained winds of 175 kilometers per hour and was heading toward the Batanes and Babuyan islands. By 24 August 2015, Goni had already traversed the Philippines and moved to the southern Japanese islands. Now a Category 3 typhoon with maximum sustained winds of 204 kilometers per hour, Goni made landfall over Kumamoto prefecture on the island of Kyushu. To the east, Category 1 typhoon Atsani was visible hovering over the Pacific Ocean, just east of mainland Japan. Fortunately, Atsani stayed in the Pacific Ocean where it later weakened to a tropical storm. 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=86472&eocn=home&eoci=nh>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=86478&eocn=home&eoci=nh>

Europe

Spain wildfire – GLIDE number: EMSR131*

On 07 July 2015 a lightning strike caused a forest fire near the villages of Montán and Caudiel in Spain. The fire was extinguished by 20 July 2015 and had damaged more than 417 hectares of land close to the Natural Park of Sierra de Espada. In order to aid emergency response activities, the Copernicus Emergency Management Service recently released two maps of the aftermath in Montán. Using satellite imagery acquired 12 August 2015, Copernicus identified a total burned area of 426.3 hectares. Of this affected region, 271.4 hectares were destroyed, 110.7 highly affected, 38.1 moderately affected, and 6.1 possibly impacted. Inhabitants were not directly affected by the fire

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since it burned south and southeast of most residential areas in central Montán. The fire mainly caused damage and destruction to areas covered with scrub vegetation. Map products are available in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management Service website. Accompanying data in shapefile and KML formats are also accessible on this website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR131>

North America

United States wildfires – GLIDE number: WF-2015-000103-USA

As of 17 August 2015, summer wildfires in the western United States had burned through more than seven million acres of land. Although 73 percent of the affected area was located in remote Alaskan forests, wildfires have significantly impacted the Pacific Northwest as well. The NASA Earth Observatory acquired satellite imagery of fires burning in Idaho, Oregon and Washington on 13, 16, 18 and 19 August 2015. Subsequent overview maps show many hotspots detected with visible smoke plumes emanating from them. Two of the most destructive fires, the Canyon Creek Complex and Cornet-Windy Ridge wildfires of Oregon, were clearly visible as of 16 August 2015. By 17 August 2015, these fires had burned through 136,000 acres of land and destroyed 47 structures. The Okanogan Complex fire in Washington also caused extensive damage and destruction with 91,314 acres of land burned as of 20 August 2015. About 70 percent of the Cornet-Windy Ridge fire was under control on 20 August 2015, however, the Canyon Creek Complex and Okanogan Complex fires were less than 40 percent contained at this time. Map products are available for online viewing and 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=86431&eocn=home&eoci=nh>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=86458&eocn=home&eoci=nh>

South America

Argentina floods – GLIDE number: FL-2015-000110-ARG

Following a few days of unseasonal heavy rainfall, the Pampas region of Argentina experienced flooding that caused the Lujan, Areco and Arrecifes rivers to overflow. Subsequently, an evacuation was ordered for more than 11,000 inhabitants of Buenos Aires Province. In response to this event, the International Charter on Space and Major Disasters was activated on 12 August 2015 by SIFEM DNPC and project management was assumed by CONAE. Satellite imagery from 14, 15, 16 and 17

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August 2015 was used to create a series of flood maps. CONAE identified flood affected lands in cities, villages, roads and agricultural fields over parts of the Lujan River and its surrounding areas in Buenos Aires Province. Map products for this event are available for online viewing or 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/-/flood-in-argenti-2>

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@qdacs.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.*