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Satellite mapping overview

As of 17 August 2015

Africa

Niger complex emergency – GLIDE number: TBD

The Diffa region of Niger is home to many refugees living outside of traditional camps. According to the UNHCR, limited social services and a precarious socio-economic situation in Niger have led to problems between host communities and refugees. In order to aid humanitarian efforts, REACH recently produced maps of infrastructure within villages situated in the Diffa region. Villages that were examined include Korillam, Kaoumaram, Gorodi, Blabrine, Tam, Malam Zeinamiri, Malam Boulamari, Gremadi, Cheri and Boutti. REACH identified clinics, schools, markets, stores, water fountains, wells, pumps, latrines, livestock vaccination centers and slaughterhouses. Information specific to various infrastructural features is also included in the maps. These map products are available for online viewing and download as PDFs on the REACH website.

Source: REACH

Link: http://www.reachresourcecentre.info/advanced-search?name_list%5B%5D=NE&field_document_type_tid%5B%5D=4

Asia

China smoke – GLIDE number: TBD

On 12 August 2015 two massive explosions occurred at the port of Tianjin in northeastern China. Due to its substantial size, the second of the two blasts was captured by a Japanese weather satellite. The NASA Earth Observatory acquired satellite imagery of smoke from the explosions on 13 August 2015 and produced two overview maps. In the first map, a large dark plume of smoke is visible off the east coast of China hovering over the Bohai Sea. The second map shows the progression of the smoke plume three hours later, at which time it had migrated southeast toward the Shangdong Peninsula. Many grey streaks were also visible in the sky on 13 August 2015 and are likely smoke plumes from wildfires burning in eastern China. Map products are 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=86410&eocn=home&eoci=nh

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Laos and Thailand floods – GLIDE number: TBD

Heavy monsoon rainfall has caused flooding in southeast Asia's Mekong River and its surrounding areas. Photographs of the Mekong River along the border of Laos and Thailand were taken by an astronaut aboard the International Space Station on 09 August 2015. The NASA Earth Observatory subsequently used these images to produce overview maps of flood waters situated approximately 60 kilometers northeast of Vientiane. In the maps, the Mekong River appears to be a red-brown color from uprooted sediments. It is surrounded by thousands of acres of flooded farmland, some of which are similarly colored due to runoff from the hills. Submerged fence lines in these agricultural areas are indicated as well. Map products are available for online viewing and download in JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: http://earthobservatory.nasa.gov/IOTD/view.php?id=86421&eocn=home&eoci=iotd_image

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. UNITAR-UNOSAT recently published maps of flood waters in the main affected areas of the Rakhine, Kayin, Mon, Sagaing and Bago states. Using satellite imagery acquired 06, 09, 10, 11, 12 and 16 August 2015, UNITAR-UNOSAT identified a total of approximately 660,600 hectares of flood affected land. Additionally, UNITAR-UNOSAT continues to update a GDACS live map and a satellite mapping and coordination system (SMCS) event page. The Copernicus Emergency Management Service has also released flood maps for the areas of Kaiklat, Bogale, Labutta, western Yangon, Hinthada, Pathein, Pathwe, Yegyi, Pyay, and Monyo. Live and static map products are available for online viewing or PDF download on the UNITAR-UNOSAT website, along with data in ESRI shapefile and geodatabase formats. 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

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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 in parts of the northern Sindh state. Analysis of satellite imagery acquired 11 August 2015 revealed approximately 350,000 hectares of flooding in the main affected areas of the state. Significant flooding occurred along the Indus River banks in the Ghotki, Sukkur, Shirakpur, Larkana and Khairpur districts. 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

Russia wildfires – GLIDE number: TBD

In late July and early August 2015, wildfires burned near the shoreline of Lake Baikal, the world's largest freshwater body. Lake Baikal is currently at its lowest level in more than 30 years and its waters are expected to continue dropping. As a result of lower water levels these past few months, peat reserves have dried and made the area more prone to wildfires this summer. The NASA Earth Observatory acquired satellite imagery over Lake Baikal on 08 August 2015 and produced an overview map. As of this date, numerous satellite detected wildfires were visible burning within the immediate vicinity of the lake and its surroundings. Expansive smoke plumes could also be seen covering the northern part of the lake and vast neighboring areas of land. By 12 August 2015, wildfires had reportedly burned through 1,400 square kilometers in all of Siberia. 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=86414&eocn=homef&eoci=nh

Europe

Macedonia floods – GLIDE number: EMSR129*

In early August 2015, northwest Macedonia experienced flash floods and landslides as a result of heavy rainfall and strong winds in the region. The city of Tetovo and its surrounding areas were the most significantly affected by this event. To aid civil protection authorities with field operations, the Copernicus Emergency Management Service published delineation and grading maps for the Tetovo, Shipkovitsa, Mala Recica and Poroj areas. Using satellite imagery from 06 and 07 August 2015,

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Copernicus identified 1,273 hectares of flooded land in Mala Recica, 7.9 hectares in Tetovo, 2.7 hectares in Poroj and 1 hectare in Shipkovitsa. Mudflow and landslides affected 12.7 hectares in Mala Recica, 8.9 hectares in Tetovo and .9 hectares in Shipkovitsa. 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/EMSR129

Spain wildfire – GLIDE number: EMSR132*
Due to dry and hot weather conditions during early August 2015, wildfires occurred in the Extremadura region of Spain. One fire began in the Cáceres municipality of Acebo and spread to the nearby municipalities of Perales del Puerto and Hoyos, posing a threat to the local populations. The Copernicus Emergency Management Service recently released grading and delineation maps of the situation in Acebo and Hoyos. Analysis of satellite imagery acquired 11 and 15 August 2015 revealed a total of approximately 8,213 hectares of burnt area in Acebo and 2,092 hectares in Hoyos. As of 15 August 2015, 313 inhabitants in Acebo and 79 residents in Hoyos were affected by the fire. 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/EMSR132

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:
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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.