

***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 19 January 2015

### Africa

#### **Somalia complex emergency – GLIDE number: CE20130710SOM**

At the request of the World Food Program, UNITAR-UNOSAT recently published four maps of Somali airports in support of the United Nations Humanitarian Air Service. Satellite imagery acquired 09 October 2014, 03 May 2014, 20 April 2014 and 16 December 2013 was used to illustrate airports in Mogadishu, Kismayo, Galcayo, and Baidoa. The Mogadishu Airport is located south of Mogadishu and the length of its airfield measures 3,250 meters. The Kismayo Airport is situated 10 kilometers west of Kismayo and its airfield is 3,782 meters long. Located 2 kilometers east of Galcayo's center, the length of the Galcayo's airfield is 3,038 meters. The Baidoa Airport is positioned 3 kilometers southwest of Baidoa and its airfield measures 2,743 meters. These map products are available for download as PDFs on the UNITAR-UNOSAT website.

Source: UNITAR-UNOSAT

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

#### **Southeast Africa floods – GLIDE number: FL20150112MOZ**

Southeast Africa has received heavy rainfall since late December 2014, resulting in floods within Mozambique, Zimbabwe, and Malawi. The International Charter for Space and Major Disasters was activated by the Department of Disaster Management Affairs of Malawi on 08 January 2015 and the DLR assumed project management. The DLR has since released three maps of flooding in Malawi, where 15 of the country's 28 districts have been affected. Satellite imagery acquired 10 and 13 January 2015 was used to detect flooding along the Shire River from the village of Mapalera in southern Malawi to Chire in northern Mozambique. The DLR estimates that 445 hectares of residential areas have been affected by floods in the Bangula area. UNITAR-UNOSAT published a map of satellite detected flood waters in the Maganka Da Costa, Namacurra and Mocuba Districts of Zambezia Province, Mozambique. Analysis of satellite imagery acquired 18 January 2015 revealed that flood waters had affected roughly 85,000 hectares of land between 11 and 18 January 2015. Inundated areas increased by approximately 800% from pre-flood areas, particularly in the coastal part of Mangaja Da Costa District. A total of 41 villages and 73,000 people are located within the flooded zone. In an effort to monitor the overall situation in southeast Africa, UNITAR-UNOSAT continues to produce maps of estimated rainfall accumulation. UNITAR-UNOSAT released maps depicting the estimated rainfall accumulation over Malawi, Mozambique and Tanzania. Precipitation data from the Tropical Rainfall Monitoring Mission (TRMM) was used to derive the total estimates, which range between zero and more than 450 millimeters. UNITAR-UNOSAT maps are available for

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download as PDFs on its website. DLR maps are accessible for online viewing and download in KMZ and JPEG formats on its website.

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

Links: <https://www.disasterscharter.org/web/guest/activations/-/article/flood-in-malawi>

<http://www.zki.dlr.de/article/2704>

<http://www.unitar.org/unosat/maps/MOZ>

### **South Sudan complex emergency – GLIDE number: TBD**

Due to violence within South Sudan in early 2014, more than 15,000 people fled their homes and sought refuge in the Upper Nile State. REACH, a joint initiative of ACTED, IMPACT Initiative, and UNITAR-UNOSAT, recently released several maps of facilities available to internally displaced persons (IDPs) in Melut and Malakal, Upper Nile State. Satellite imagery acquired 02 December 2014 and 20 November 2014 was incorporated into the maps. Facilities such as food distribution sites, humanitarian and community services, WASH resources, health facilities, etc. were identified. IDP sites in Melut that were mapped include Hai Soma as well as Delthoma 1 and 2. REACH also produced a reference map of Mingkaman, Awerial County, Lakes State as of 15 January 2015. Map products are available for download as PDFs on the REACH website and at the links below.

Source: REACH

Links:

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_melutpoc\\_15jan2015\\_a3\\_1.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_melutpoc_15jan2015_a3_1.pdf)

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_malakalpoc\\_12jan2015\\_a3\\_0.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_malakalpoc_12jan2015_a3_0.pdf)

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_melutdelthomai\\_15jan2015\\_a3\\_0.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_melutdelthomai_15jan2015_a3_0.pdf)

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_melutdelthomaii\\_15jan2015\\_a3.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_melutdelthomaii_15jan2015_a3.pdf)

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_meluthaisoma\\_15jan2015\\_a3.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_meluthaisoma_15jan2015_a3.pdf)

[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_ssd\\_map\\_awerialsite\\_14jan2015\\_a3\\_0.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_ssd_map_awerialsite_14jan2015_a3_0.pdf)

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## Asia

### **Japan volcano – GLIDE number: TBD**

Located on the Kyushu Island of Japan, Mount Aso's Naka-dake crater has generated small sporadic eruptions for decades. The NASA Earth Observatory acquired satellite imagery of one such eruption on 13 January 2015 and created two maps. The eruption is visible at different scales within the maps and a smoke plume emanating from the Naka-dake crater in a southerly direction over part of Takamori can be seen. An adverse effect of the eruption is its impact on tourism, which has declined by 20 to 30 percent. Map products are available for online viewing and 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=85090>

## Middle East

### **Middle East storm – GLIDE number: ST20150107PSE**

The Middle East experienced a powerful winter storm that began on 06 January 2015. Named "Huda" or "Zina", the storm affected parts of Lebanon, Syria, Jordan, Palestine, Egypt and Saudi Arabia. UNITAR-UNOSAT recently released two maps of the snow cover extent over the West Bank, Israel, Jordan, Lebanon and Syria. Analysis of satellite imagery acquired 12 and 13 January 2015 revealed extensive snow cover over part of Lebanon and Syria. Due to cloud cover present in the 12 January 2015 image, a large portion of the area of interest could not be analyzed. Nevertheless, a decrease in the snow cover extent was observed in areas of southern Lebanon and Syria from 12 to 13 January 2015. Map products are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in shapefile format can also be accessed on this website.

Source: UNITAR-UNOSAT

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

## North America

### **United States snow – GLIDE number: TBD**

The United States Midwest and Northeast experienced winter storms last week. The NASA Earth Observatory recently published two maps of the storms using satellite imagery acquired 10 and 13 January 2015. In both images, snow is visible covering the Great Lakes area, parts of southern Canada, and New England. These map products are available for online viewing and download in JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

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Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85079&eocn=home&eoci=nh>

## South America

### Chile wildfire – GLIDE number: TBD

Numerous wildfires occurred in Chile over the weekend of 10-11 January 2015. The NASA Earth Observatory captured some of these fires in satellite imagery collected on 12 January 2015. In a subsequent map product, the NASA Earth Observatory outlined hot spot areas where the satellite sensor detected hot surface temperatures typically associated with fire. Five hot spots were identified to the west of Talca in central Chile, where a large smoke plume was visible and moving in a northerly direction. A few other hotspots were identified to the south and west of Santiago. The large fire in central Chile was observed to still be burning as of 14 January 2015, however its size had decreased significantly. 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=85076&eocn=home&eoci=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](mailto: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.*