

***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.***

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## Satellite mapping overview

As of 18 March 2014

### South America

#### **Bolivia floods – GLIDE number: FL-2014-000008-BOL**

Since the end of January 2014, torrential rain in Bolivia has caused floods affecting up to 50,000 people, particularly in the central and northern departments of La Paz, Beni, and Pando. On 12 February 2014, the International Charter Space and Major Disasters was activated by the UNITAR Operational Satellite Applications Programme (UNOSAT) on behalf of UNOCHA. UNITAR/UNOSAT recently released two new flood maps for the cities of Trinidad and Riberalta, located in the department of Beni. Analysis by UNITAR/UNOSAT of satellite data from 13 February 2014 shows flooded areas mainly surrounding both cities rather than situated within them. Some local and secondary roads around the cities have been affected by the flood waters, and extent of urban flooding may have been underestimated due to special characteristics of the satellite imagery. Maps are available for online viewing at the International Charter Space and Major Disasters' and UNITAR/UNOSAT website. Additionally, the UNITAR/UNOSAT website provides product links to accompanying shapefiles and geodatabases in ESRI format. Note, all map products are described in the Spanish language.

Source: International Charter Space and Major Disasters, UNITAR/UNOSAT

Links:

[http://www.disasterscharter.org/web/charter/activation\\_details?p\\_r\\_p\\_1415474252\\_assetId=ACT-480](http://www.disasterscharter.org/web/charter/activation_details?p_r_p_1415474252_assetId=ACT-480)

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

### Europe

#### **Luxembourg landslide – GLIDE number: EMSR074\***

On 14 March 2014, Luxembourg's second largest town of Esch-sur-Alzette experienced a landslide in an industrial waste depository containing potentially hazardous material. In response to this event, the Copernicus Emergency Management Service has published overview and detailed reference maps of the area of interest for disaster response authorities using pre-event imagery acquired 30 September 2011 and 11 August 2012. One of Luxembourg's major highways as well as internet infrastructure have been affected by this event. The Copernicus Emergency Management Service will also produce a damage assessment map for this event in the future. Map products and data are

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available in JPEG, PDF and TIFF formats as well as a downloadable zipped vector package. 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/EMSR074>

## Africa

### **Central African Republic complex emergency – GLIDE number: OT-2013-000152-CAF**

Since the Central African Republic experienced an outbreak of violence in December 2013, the UNITAR Operational Satellite Applications Programme (UNOSAT) has been monitoring the evolution of this complex emergency. UNITAR/UNOSAT recently published two maps depicting destruction in Bouar, Nana Membere Province and Bossangoa, Ouham Province. Using satellite imagery acquired 22 January 2014 and 04 March 2014, UNITAR/UNOSAT identified a total of 506 destroyed structures in the town of Bouar and its surrounding areas. While 366 of these structures were destroyed as of 22 January 2014, an additional 140 were eradicated by 04 March 2014. UNITAR/UNOSAT analysis of satellite imagery from 05 December 2013, 22 January 2014, and 28 February 2014 revealed a total of 1,234 destroyed structures in the town of Bossangoa and its surrounding areas. Although the destruction observed in the 22 January 2014 (893 structures) and 28 February 2014 (114 structures) imagery is certain, that of 05 December 2013 (227 structures) is categorized as “probable” since no previous image was available for comparison. Blackened structural remains visible in the Bouar imagery and the Bossangoa imagery from 28 February 2014 indicate that some of the destruction may be attributed to fire. Maps products for this complex emergency are available for download as PDFs. Corresponding shapefiles and geodatabases in ESRI format can be accessed through UNITAR/UNOSAT’s product links.

Source: UNITAR/UNOSAT

Link: <http://www.unitar.org/unosat/maps/113>

## Middle East

### **Syria complex emergency – GLIDE number: CE20130604SYR\***

In the context of Syria’s humanitarian crisis, the UNITAR Operational Satellite Applications Programme (UNOSAT) recently produced a map of Kilis Refugee Camp in Kilis Province, Turkey. Using satellite imagery acquired 08 December 2013, UNITAR/UNOSAT identified 2,143 structures (IDP settlements and administrative buildings) on the camp grounds, situated along the border of Turkey and Syria. The total area of the camp measured to approximately 60 hectares. This map is available for download on UNITAR/UNOSAT’s website as a PDF.

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Source: UNITAR/UNOSAT

Link: <http://www.unitar.org/unosat/node/44/1953>

*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.*