GDACS
Global Disaster Alert and Coordination System

GDACS is a cooperation framework between the United Nations, the European Commission and disaster managers worldwide to improve alerts, information exchange and coordination in the first phase after major sudden-onset disasters.

United Nations and the European Commission

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 25 March 2014

Africa

South Sudan complex emergency – GLIDE number: OT-2014-000001-SSD

As a result of escalating violence in South Sudan during the month of December 2013, over 30,000 civilians sought refuge in United Nations facilities. In an effort to observe the progression of this situation, the UNITAR Operational Satellite Applications Programme (UNOSAT) recently produced a damage assessment for the City of Malakal in Upper Nile State, South Sudan. Using satellite imagery acquired 15 March 2014, UNITAR/UNOSAT identified a total of 10,082 damaged structures – 9,878 residential and related structures as well as 204 warehouse or commercial structures. This represents a substantial increase in the level of damage from UNITAR/UNOSAT's previous analysis which used satellite data from 18 January 2014 and located 573 destroyed structures in Malakal. As of 15 March 2014, the heaviest damage is visible in eastern and southern Malakal, though damage is present throughout the city. Active fires as well as fortifications and indications of military activity are also discernible. UNITAR/UNOSAT comparison with pre-conflict Malakal building data shows that 22% of the city has been destroyed. This damage assessment along with its corresponding shapefile and geodatabase in ESRI format are available on UNITAR/UNOSAT's website.

Source: UNITAR/UNOSAT

Link: http://www.unitar.org/unosat/maps/110

Somalia complex emergency – GLIDE number: CE20130710SO*

Mainly due to clan conflict, Somalia has experienced significant movement of IDPs. The UNITAR Operational Satellite Applications Programme (UNOSAT) recently released two maps depicting IDP shelter changes in the Somalian regional capitals of Baidoa and Kismayo. UNITAR/UNOSAT analysis of satellite imagery acquired 21 August 2013 and 08 February 2014 reveals an increase of IDP occupied areas in Baidoa by 0.48 hectares as a result of 20 new IDP sites and 14 expanded IDP sites. In comparison, satellite imagery of Kismayo from 11 August 2013 and 05 March 2014 indicates little change in most of the city's visible IDP sites. Nonetheless, about 26 new camps situated primarily on the outskirts of Kismayo were identified, bringing the total IDP camp area from 29.02 hectares on 11 August 2013 to 31.38 hectares by 05 March 2014. Maps products are available on UNITAR/UNOSAT's website for download as PDFs. Accompanying shapefiles and geodatabases in ESRI format can also be accessed through UNITAR/UNOSAT's product links.

Source: UNITAR/UNOSAT

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

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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 has since created an updated map of flood waters around the city of Trinidad in the department of Beni. Using satellite imagery from 18 March 2014, UNITAR/UNOSAT observed flood waters surrounding the city rather than within it. It is likely that the flood extent has been underestimated along built-up areas, given the special characteristics of the imagery used. The Dartmouth Flood Observatory (DFO) has also been monitoring this situation, most recently with satellite imagery acquired 21 March 2014. The DFO's map indicates that the department of Beni continues to experience the most significant major flooding (occurring every five years or more) and moderate flooding (occurring every 1.3 years or more). The UNITAR/UNOSAT map product is available on its website as a PDF. A corresponding shapefile and geodatabase in ESRI format can also be accessed on this site. The DFO map is accessible on its website as a PDF and GeoTIFF. Accompanying geospatial data is also available on the site in shapefile and KMZ formats.

Source: UNITAR/UNOSAT, Dartmouth Flood Observatory

Links: http://www.unitar.org/unosat/maps/BOL

http://floodobservatory.colorado.edu/RapidResponse/2014Bolivia4117/2014Bolivia.html

Asia

Southeast Asia fires – GLIDE number: TBD

Fire and smoke in Southeast Asia have affected the subtropical forests of Myanmar, China, Laos, Vietnam, and Thailand. Analysis of 18 March 2014 satellite imagery was conducted by the NASA Earth Observatory and reveals at least 850 fire detections. This figure may represent an underestimation since fire detection through clouds and smoke was not possible, nor was the detection of smaller fires resulting from land use burning. A map outlining each fire is available for online viewing and download as a JPEG on the NASA Earth Observatory website.

Source: NASA Earth Observatory
Link: http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=83365&eocn=home&eoci=nh

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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.