

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 15 February 2016

Africa

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

Since an outbreak of violence occurred in South Sudan during December 2013, more than 2.25 million individuals have been internally displaced or fled to neighboring countries. UNITAR-UNOSAT continues to monitor the progression of this situation and recently released a map of satellite-detected shelters and other buildings at the Minkaman IDP site in the Awerial County of Lakes State, South Sudan. Using satellite imagery acquired 13 January 2016, UNITAR-UNOSAT identified a total of 17,216 structures. These structures include 713 administrative buildings, 1,538 improvised shelters, 490 permanent structures, 1,438 semi-permanent structures, and 13,037 tent shelters. Previous analysis from 12 February 2015 identified 12,960 shelters and thus the updated analysis indicates an increase of approximately 33.6% in the number of shelters. This map product is available for download as a PDF on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase format is also accessible on this website.

Source: UNITAR-UNOSAT

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

Asia

China earthquake – GLIDE number: EQ-2016-000012-TWN

On 06 February 2016, the southwest Taiwanese city of Tainan was struck by a 6.4 magnitude earthquake that killed 116 people. The International Charter on Space and Major Disasters was activated the same day by the Asia Disaster Reduction Center (ADRC) on behalf of National Applied Laboratories Taiwan (NARLabs), and project management was assumed by the Asian Institute of Technology (AIT). AIT and ROSCOSMOS produced maps of the earthquake's aftermath with satellite imagery from 07 February 2016. The AIT map illustrates possible land changes in a portion of south Tainan city following the earthquake. The map produced by ROSCOSMOS shows before and after imagery of the Weiguan Jinlong building located in the Yongkang district of Tainan. This was an apartment building that collapsed and was destroyed as a result of the earthquake. Unfortunately most of the fatalities and injuries experienced are attributable to this incident. Map products 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

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.

Link: <https://www.disasterscharter.org/web/guest/-/earthquake-in-taiwan-province-of-chi-1>

Laos cold spell – GLIDE number: EMSR153*

Laos experienced a cold spell in late January 2016 which affected the northern region with damaged crops and more than 4,000 livestock killed. In response to this event the Copernicus Emergency Management Service used satellite imagery acquired 09 and 10 February 2016, 17 January 2016, and 17 March 2015 to produce reference and grading maps for the Ban Lou, Ban Nong Khang, and Muang Khua areas. While reference maps illustrate exposed cropland, rice and coffee fields in each area, grading maps indicate that no damage was detected. Nonetheless, according to preliminary data it appears that snow in Laos blanketed over 400 hectares of crops as well as herbal plants, and impacted many fruit trees. Predictions suggest that thousands of hectares of crops, herbal plants, and fruit trees were adversely affected by the weather. Map products are available for download in TIFF, PDF, and JPEG formats on the Copernicus Emergency Management Service website. Accompanying zipped vectors packages are also provided on the website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR153>

North America

United States snowfall – GLIDE number: TBD

In early February 2016 the western and central United States received considerable snowfall. The NASA Earth Observatory acquired 07 and 10 February 2016 satellite imagery of snow cover in these regions and produced two overview maps. As of 07 February 2016, snow in the western part of the country covered more than half of the Sierra Nevada (54%), Great Basin (79%), and Central Rockies (93%) regions. According to the National Oceanic and Atmospheric Administration (NOAA), the contiguous United States experienced its seventh-largest snow cover extent on record in January 2016. On 10 February 2015 remaining snow from a winter storm earlier in the month was visible over most of Nebraska as well as parts of Iowa, South Dakota, Wyoming, Colorado, and Kansas. The storm left up to 50 centimeters of snow in parts of Nebraska and wind gusts were measured at up to 80 kilometers per hour. 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=87482&eocn=home&eoci=nh>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=87492&eocn=home&eoci=nh>

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.

Oceania

Australia bushfires – GLIDE number: TBD

An increase in bushfires burning in northwestern Tasmania was detected in mid-January 2016. In the weeks that followed, the fires had burned through tens of thousands of hectares including portions of the Tasmanian wilderness, a World Heritage Site. As of 15 February 2016, the Tasmanian Fire Service anticipated that it could be fighting the blazes in the upcoming months as well. The NASA Earth Observatory recently released a new overview map of the fires based on satellite imagery acquired 12 February 2016. As of this date, significant fire activity was visible in northwest Tasmania, as well as some in the southwest. Large plumes of smoke could be seen emanating from the fires and moving in a southwest direction. New research indicates that over the last five years the frequency of weekly bushfires in Australia has increased, especially during the summertime in the southern hemisphere. This map product is available for online viewing or download in JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=87517&eocon=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

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.*