

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 02 May 2016

Asia

Nepal fires – GLIDE number: TBD

While Nepal typically experiences an increase in fire activity during the dry month of April, this year's fires have been especially widespread. On 10 April 2016, a record number of fires were reported in the country and the Sindhuli district was the worst affected with 40 percent of its forest cover lost. As of 25 April 2016, wildfires had destroyed more than 50 community and national forests. The NASA Earth Observatory acquired 28 April 2016 satellite imagery over most of Nepal and created an overview map of the situation. On this day, smoke was visible covering a large portion of the country. Warm surface temperatures usually associated with fires were detected by the satellite sensor and outlined in red on the map. Many of these hotspots were found in western Nepal and over the border in parts of northern India. About 80 percent of forest fires in Nepal occur during the months of April and May, resulting in the burning of hundreds of hectares of forest and significant economic loss. In addition to threatening human settlements, the fires have a destructive impact on flora and fauna. 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=87957&eocn=home&eoci=nh>

Central America

Panama fires – GLIDE number: TBD

In early April 2016, forest fires began burning in the Darien Province of Panama. Despite initial containment efforts, the fires grew out of control in Darien National Park and continued to spread. In response to this event, the International Charter on Space and Major Disasters was activated on 17 April 2016 by the USGS on behalf of the Panama Ministry of Environment, and project management was assumed by Cathalac. Maps depicting fire hotspots and potentially burned areas have since been produced by Cathalac using satellite imagery acquired 14, 17, 18, 20, 21, 22 and 24 April 2016. Cathalac identified 4 fire hotspots on 14 April 2016 and 3 hotspots on 18 April 2016 in a 30 square kilometer area to the northeast of Alto Playona and south of Puerto Limon. Within and surrounding part of Darien National Park, at least 15 hotspots were found between 20 and 22 April 2016. The most affected areas were agricultural lands situated in the lower slopes of Tuira watershed. Vast areas of potential burn scars were also detected as of 17 April 2016, predominantly in agricultural parts of north and central Darien Province. Map products are available for online

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viewing and download in JPEG format on the International Charter on Space and Major Disasters website.

Source: International Charter on Space and Major Disasters

Link: <https://www.disasterscharter.org/web/guest/-/fire-in-panama>

Middle East

Syria complex emergency – GLIDE number: CE20130604SYR

As a result of continuous violence in Syria, the country has experienced significant damage and destruction, as well as population movement. UNITAR-UNOSAT released a damage assessment of the Arch of Triumph in Palmyra and a shelter density map for Rukban on the Syria-Jordan border. Analysis of 18 October 2015 satellite imagery revealed the complete destruction of the Arch of Triumph. In Rukban, a total of 6,104 probable shelters were identified using 24 April 2016 satellite imagery. Shelters were found in the open desert along and near the Jordanian side of the border, approximately 25 kilometers southwest of the Al Waleed border crossing. This represents an 81 percent increase in visible shelters compared with the previous UNITAR-UNOSAT analysis of 03 February 2016 satellite imagery. In early March 2016, according to the Jordanian Border Guard Forces more than 37,000 people were found around the border crossing points of Rukban and Hadalat. Map products are available for download as PDFs 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/SYR>

South America

Ecuador earthquake – GLIDE number: EQ-2016-000035-ECU

On 16 April 2016, a 7.8 magnitude earthquake struck near the town of Muisne on the western coast of Ecuador. Hundreds of aftershocks were reported and a state of emergency was declared in the coastal provinces of Guayas, Manabi, Santo Domingo, Los Rios, Esmeraldas, and Galapagos. The International Charter on Space and Major Disasters was activated on 17 April 2016 by UNITAR-UNOSAT on behalf of UN OCHA. UNITAR-UNOSAT recently published preliminary co-seismic landslide inventory maps produced by the British Geological Survey and two new damage assessments. Using satellite imagery acquired 19 and 20 April 2016, a total of 475 landslides were identified in Bahía de Caráquez, 31 in Crucita, 29 in Portoviejo, 18 in Muisne, and 2 in Chone. UNITAR-UNOSAT analysis of 19 April 2016 satellite imagery revealed a total of 437 potentially damaged structures in Portoviejo and 108 in Montecristi. The Copernicus Emergency Management Service also produced new maps of damage based on 19 and 25 April 2016 satellite imagery. A total

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of 10 structures and 55 inhabitants were affected in north Esmeraldas, as well as 85 structures and 430 residents in north and south Portoviejo. Map products and data are available for download in various formats on the International Charter on Space and Major Disasters, UNITAR-UNOSAT, and Copernicus Emergency Management websites.

Sources: International Charter on Space and Major Disasters, UNITAR-UNOSAT, Copernicus Emergency Management Service

Links: <https://www.disasterscharter.org/web/guest/-/earthquake-in-ecuador>

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

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR159>

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.*