

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 30 January 2017

Africa

Ethiopia and Eritrea volcano – GLIDE number: TBD

In Africa's Danakil/Afar Depression, three tectonic plates are separating causing active volcanoes to emerge. Erta Ale is the most active volcano near the Ethiopian and Eritrean border. On 21 January 2017, the NASA Earth Observatory acquired satellite imagery of two distinct lava flows recognized by shortwave infrared light. The map product is available for online viewing and to download as a JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=89544&eocn=home&eoci=nh>

Mozambique flood – GLIDE number: FL20170118MOZ

Torrential rains, from 01 to 18 January 2017, resulted in flooding in central and southern Mozambique. Precipitation levels reached over 650mm, which exceeded average precipitation levels of 209.3mm. UNITAR-UNOSAT published a WebMap, for Mozambique, that integrates Global Precipitation Measurement (GPM) data for 01 to 18 of January 2017, population data, and satellite-detected flood water data using satellite imagery acquired on 10 and 22 January 2017. The Webmap acts as a platform to view UNITAR-UNOSAT's five products relating to Mozambique's received rainfall. The map products are available to download as PDFs on the UNITAR-UNOSAT website.

Source: UNITAR-UNOSAT

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

Europe

Italy earthquake – GLIDE number: EMSR194*

On the morning of 18 January 2017, four earthquakes occurred in the centre of Italy affecting the region that suffered tremors in 2016—especially the southern parts of the Abruzzo region. The event occurred after heavy snowfall, which made it difficult for rescue services to reach affected areas. The Copernicus Emergency Management Service released a series of maps depicting damaged areas in Campotosto, Capitignano, Mascioni, and Aringo towns as of 21 January 2017, and Farindola town as of 26 January 2017. The analysis identified highly damaged buildings in Farindola, Mascioni, and Capitignano. Map products are available for download in TIFF, PDF, and JPEG formats on the

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Copernicus Emergency Management Service website. Accompanying zipped vector packages are also provided on the website.

Source: Copernicus Emergency Management Service

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR194>

Middle East

Iraq complex emergency – GLIDE number: CE20140613IRQ

UNITAR-UNOSAT published maps illustrating satellite-detected fires and environmental damage at and around Al Qayyarah, Iraq, and satellite-detected fires and smoke plumes at oil wells south of Mosul, and east of Baji, Iraq. UNITAR-UNOSAT identified fires that were detected on 23 December 2016 but appeared inactive as of 24 January 2017, as well as active fires detected on 24 January 2017. Detected with both radar and optical imagery, UNITAR-UNOSAT mapped a growing oil spill very close to a tributary of the Tigris River. It is possible that oil is spilling to the river. The spectral signature from thermal imagery also suggest that areas of the oil spill are on fire. Satellite imagery collected from 18 July 2016 to 24 January 2017 were analyzed. The map products are available to download as a PDF on the UNITAR-UNOSAT website.

Source: UNITAR-UNOSAT

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

Syria complex emergency – GLIDE number: CE20130604SYR

As a result of the continued conflict in Syria, UNITAR-UNOSAT published a map illustrating shelters in the area of the Hadalat crossing on the Syrian-Jordanian border. Using a satellite image collected on 24 January 2017, UNOSAT located 1,535 probable shelters. This is a 13% increase in shelters since the previous UNOSAT analysis, which used an image collected on 12 November 2016, and the first increase since July 2016. The map product is available to download as a PDF on the UNITAR-UNOSAT website.

Source: UNITAR-UNOSAT

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

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South America

Chile fire – GLIDE number: WF2016-000138CHL

On 20 January 2017, a state of emergency was declared in south-central Chile due to aggressive forest fires. The fires began in the summer during an intense dry season with temperatures reaching 40°C and strong winds. At a national level, 32 active wildfires were reported affecting the O'Higgins, Maule, and Biobío regions to the south of Chile's capital, Santiago. More than 300 people were evacuated and more than 130 houses were destroyed. DLR, SERTIT, and the NASA Earth Observatory recently published maps and satellite imagery related to the event. DLR published situation maps of fire hot spots in Chile using satellite imagery acquired on 26 January 2017 and specifically for Cauquenes province using satellite imagery acquired on 23 January 2017. DLR also published disaster extent maps for the Coronel Maule, Las Maquinas, Cerro Maule, and Las Pataguas affected areas using satellite imagery acquired on 25 and 26 January 2017. SERTIT published three wildfire extent maps for Cadillas, Perdigadero, Las Pataguas, Nilahue, and Barahona affected areas using satellite imagery acquired on 26 and 27 January 2017. The NASA Earth Observatory collected satellite imagery, acquired on 25 January 2017, of fires near the coast of Chile. Map products are available for download in various formats on their respective websites.

Sources: DLR, SERTIT, NASA Earth Observatory

Links: <https://www.zki.dlr.de/article/2846>

<http://sertit.u-strasbg.fr/RMS/action.php?id=7097343901>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=89523>

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.*