

***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 11 May 2015

### Asia

#### **Nepal earthquake – GLIDE number: EQ-2015-000048-NPL**

On 25 April 2015, Nepal experienced a 7.9 magnitude earthquake which caused over eight thousand deaths as well as widespread damage and destruction. The International Charter on Space and Major Disasters was activated the same day by the Disaster Management Support (DMS) Programme Office, Indian Space Research Organisation (ISRO), and UNITAR-UNOSAT, the latter activated on behalf of UNICEF. In order to provide an ongoing record of satellite imagery analysis results over Nepal, UNITAR-UNOSAT continues to update the GDACS LIVE web map which combines multiple image analysis products from the United States National Geospatial-Intelligence Agency (NGA), the Copernicus Emergency Management Service, and UNITAR-UNOSAT. This tool is open to contributions from all entities deriving information from satellite imagery. Crowd-sourced UN-ASIGN field photos that have been georeferenced are also provided in near real time in the web map. Additionally, UNITAR-UNOSAT used satellite imagery acquired 29 April 2015 and 03 May 2015 to publish damage assessments of the Manbu, West Sundar Bazar, and Tuhure Pasal areas in the Western Region of Nepal. The Copernicus Emergency Management Service analyzed satellite imagery from 05 and 08 May 2015 and published new reference and delineation maps for Sirdibas, West Sirdibas, East Sirdibas, Gumda, East Gumda, and Barpak. The British Geological Survey, SERTIT, and the Russian Federal Space Agency's Research Center for Earth Operative Monitoring also produced new maps of damage, landslides, and rescue activities using recent satellite imagery. Based on satellite imagery acquired 30 April 2015, the NASA Earth Observatory released a landslide map as well for the Manaslu region of Nepal. The American Geophysical Union's (AGU) Blogosphere website hosts a blog which also monitors the landslide situation in Nepal and provides relevant geospatial data. All aforementioned map products are available for online viewing and download in various formats on their respective websites listed below.

Sources: International Charter on Space and Major Disasters, UNITAR-UNOSAT, Copernicus Emergency Management Service, SERTIT, NASA Earth Observatory, AGU, NGA, British Geological Survey, Research Center for Operative Monitoring

Links: <https://www.disasterscharter.org/web/guest/-/landslide-in-nep-2>

<https://unosatgis.cern.ch/live/EQ20150425NPL/>

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

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR125>

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<http://sertit.u-strasbg.fr/RMS/action.php?id=3020633801>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85838&eocn=home&eoci=nh>

<http://blogs.agu.org/landslideblog/2015/05/11/gorkha-earthquake-update/>

## Europe

### Italy phytosanitary emergency – GLIDE number: EMSR124\*

A phytosanitary emergency took hold over the Apulia region of Southern Italy in early April 2015. *Xylella fastidiosa* is a bacterium that causes disease in vegetation and has resulted in a rapid decline of olive trees in this part of Italy. The Copernicus Emergency Management Service created an internal activation for this event on 24 April 2015 in order to aid Civil Protection authorities with planning and logistics for field operations. Satellite imagery acquired 11 April 2015 and 04 May 2015 was used by Copernicus to produce delineation and monitoring maps of Avetrana, Campi di Mare, Casalabate, Cellino San Marco, Torchiariolo, Torre Colimena, San Donaci, San Pancrazio Salentino, San Pancrazio Salentino West, and San Pietro Vernotico. Copernicus identified a total of approximately 1,195 hectares of affected crop land, as well as 3,958 infected trees, bushes, and vineyards. Map products are available in TIFF, PDF, and JPEG formats as well as a downloadable zipped vector package on the Copernicus Emergency Management Service website. 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/EMSR124>

## South America

### Chile volcano – GLIDE number: VO-2015-000045-CHL

Located in the Los Lagos Region of Chile, the Calbuco Volcano erupted on 22 April 2015 for the first time in 42 years. The International Charter on Space and Major Disasters was activated by ONEMI on 23 April 2015 and project management was assumed by CONAE. A total of three volcanic eruptions occurred in late April 2015 and resulted in the emission of more than 210 million cubic meters of ash and rock. The NASA Earth Observatory acquired satellite imagery of this aftermath on 03 May 2015 and published a map illustrating ash in the atmosphere over Argentina. This ash was located roughly 100 kilometers southwest of Calbuco and had initially settled on the ground in Argentina, but was resuspended by low-level winds. The NASA Earth Observatory also collected 27 April 2015 satellite imagery over the recently active Villarrica volcano and created a map showing some airborne material from Calbuco there as well. Map products are available for online viewing and download in GeoTIFF and JPEG format on the NASA Earth Observatory website.

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Sources: International Charter on Space and Major Disasters, NASA Earth Observatory

Links: <https://www.disasterscharter.org/web/guest/activations/-/article/volcano-in-ch-20>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85834&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](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.*