

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 16 March 2015

Africa

South Sudan complex emergency – GLIDE number: CE20131218SSD

As a result of instability in South Sudan's Bor region, multiple IDP camps were established on the west bank of the White Nile in Awerial County. UNITAR-UNOSAT has monitored the progression of this situation and recently released a map of IDP shelters and other buildings at the Minkaman IDP site in Awerial County, Lakes State, South Sudan. Using satellite imagery acquired 08 and 12 February 2015, UNITAR-UNOSAT identified a total of 12,349 shelters and 611 administrative buildings in the IDP site area. This represents a decrease of approximately 33% in the number of shelters since the previous UNITAR-UNOSAT analysis of satellite imagery from 24 November 2014. This map product is available for download as a PDF on the UNITAR-UNOSAT website. Accompanying data in shapefile and ESRI geodatabase format are also accessible through UNITAR-UNOSAT's product links.

Source: UNITAR-UNOSAT

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

Asia

Japan volcano – GLIDE number: TBD

Located on an island 1,000 kilometers south of Tokyo, the Nishinoshima volcano recently showed signs of activity. The NASA Earth Observatory acquired satellite imagery of the volcano on 01 March 2015 and produced an overview map. A large smoke plume was visible emanating from Nishinoshima and moved in a northerly direction. This map product is available for online viewing as well as download in GeoTIFF and JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85449&eocn=home&eoci=nh>

Oceania

Australia tropical cyclone – GLIDE number: TBD

Three tropical cyclones traveled near Australian coastlines in March 2015. The NASA Earth Observatory obtained satellite imagery of this phenomenon and produced overview maps. Imagery acquired 11 March 2015 shows the three storms situated adjacent to one another, just north of

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Australia. Satellite imagery from 13 March 2013 revealed the progression of one of the tropical cyclones – named Olwyn – which was classified as a Category Three storm at the time. Olwyn made landfall in Western Australia, close to the city of Carnarvon. Loss of power was the main consequence of Olwyn’s passing and the storm weakened as it moved further inland. Map products are available for online viewing and 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=85482&eocn=home&eoci=nh>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85495&eocn=home&eoci=nh>

Vanuatu tropical cyclone – GLIDE number: TC-2015-000023-VUT

On 14 March 2015 tropical cyclone Pam made landfall over the island nation of Vanuatu. Classified as a Category Five storm at the time, winds reached up to 300 kilometers per hour and caused widespread damage and destruction. Based on satellite imagery acquired 15 March 2015, UNITAR-UNOSAT published maps of potentially damaged areas in a portion of the town of Lenakel, the capital city of Port Vila, and the western coast of Tanna Island. UNITAR-UNOSAT identified several destroyed and severely damaged structures within part of Lenakel, approximately 3,900 damaged buildings in Port Vila, and roughly 1,200 damaged structures on the west coast of Tanna Island. The NASA Earth Observatory released a map of the tropical cyclone using satellite imagery from 13 March 2015. As of this date the storm was moving in a southwesterly direction and could be seen enveloping Vanuatu, with its eye situated just east of Ambrym Island. As of 16 March 2015, the storm had weakened significantly and was passing down the eastern coast of New Zealand. Maps of potential damage are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in shapefile and ESRI geodatabase format are also accessible through UNITAR-UNOSAT’s product links. The NASA Earth Observatory map can be viewed online or downloaded in JPEG format on its website.

Sources: UNITAR-UNOSAT, NASA Earth Observatory

Links: <https://www.unitar.org/unosat/maps/113>

<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85495&eocn=home&eoci=nh>

South America

Brazil floods – GLIDE number: TBD

Heavy rainfall in northern Brazil caused severe flooding in late February 2015. The International Charter for Space and Major Disasters was activated on 27 February 2015 by Brazil’s National Center for Disaster and Risk Management (CENAD). CENAD recently released a new map of flooding in Boca

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do Acre, Amazonas State, Brazil. Analysis of 09 March 2015 satellite imagery revealed extensive flooding in the region along the Rio Acre, Rio Purus, and Lago Novo. Based upon the aforementioned satellite imagery and data from a 2010 Brazilian Census, CENAD estimates that 11,160 people have been affected by the flooding in Boca do Acre. This map product is available for online viewing and download in JPEG format on the International Charter for Space and Major Disasters website.

Sources: International Charter for Space and Major Disasters, CENAD

Link: <https://www.disasterscharter.org/web/guest/activations/-/article/flood-in-braz-2>

Chile volcano – GLIDE number: TBD

Chile's Villarrica volcano erupted on 03 March 2015, prompting the evacuation of thousands of residents from its surrounding areas. The International Charter for Space and Major Disasters was activated the same day by Chile's National Emergency Office of the Interior Minister. Recently the NASA Earth Observatory obtained satellite imagery of the volcano on 05 March 2015 and produced an overview map. The eastern side of Villarrica appears to have been covered with a substantial amount of volcanic material from the eruption. As of 10 March 2015, the alert level for Villarrica was lowered and the exclusion zone decreased to three kilometers. This map product is available for online viewing as well as download in GeoTIFF and JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85465&eocn=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@qdacs.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.*