

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 24 March 2015

Africa

South Sudan complex emergency – GLIDE number: CE20131218SSD

As a result of escalating violence in South Sudan during December 2013, over 30,000 civilians sought refuge in United Nations Facilities. REACH, a joint initiative of ACTED, IMPACT Initiative, and UNITAR-UNOSAT, recently released a map of assets and infrastructure for a Protection of Civilians (PoC) area in Juba and an address system map for part of a new PoC in Bor, South Sudan. In an effort to facilitate camp coordination and management, REACH used satellite imagery acquired 15 February 2015 to locate infrastructure, WASH sites, and other facilities such as classrooms, clinics, markets, etc. in the PoC number three area of Juba. Satellite imagery from 15 January 2015 was incorporated into another map of shelter identification numbers for two blocks of PoC area south of the UNMISS Base in Bor. Map products are available for online viewing and download as PDFs on the REACH website.

Source: REACH

Link: [http://www.reachresourcecentre.info/advanced-search?name_list\[\]=SS&field_document_type_tid\[\]=4](http://www.reachresourcecentre.info/advanced-search?name_list[]=SS&field_document_type_tid[]=4)

Oceania

Australia tropical cyclone – GLIDE number: TBD

Tropical cyclone Nathan formed on 10 March 2015 and has lingered around Australia for the past two weeks. The NASA Earth Observatory acquired imagery of the storm on 17 and 20 March 2015 and produced two maps. On 17 March 2015, Nathan approached Queensland from the Coral Sea. During the previous week, the tropical cyclone had already made landfall over this region and caused flooding in northeastern Queensland. By 20 March 2015, Nathan hovered over the Cape York Peninsula and made landfall near Cooktown. Its wind speed reached up to 95 kilometers per hour and it generated minimal damage. As of 23 March 2015, Nathan is expected to make landfall over the coast of Australia's Top End and produce heavy rainfall as well as damaging winds within the coming week. Map products are available for online viewing and download in JPEG format on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Links: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85560&eocn=home&eoci=nh>

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<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85511&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. In anticipation of storm, the International Charter for Space and Major Disasters was activated on 12 March 2015 by UNITAR-UNOSAT on behalf of UNOCHA. UNITAR-UNOSAT recently published maps of affected areas in different parts of the country. Using satellite imagery acquired 15, 16, 17, 18 and 19 March 2015, UNITAR-UNOSAT identified approximately 8,000 damaged buildings in Port Vila and southwest Efate Island, 3,000 on the west coast of Tanna Island, 625 in part of the east coast of Tanna Island, 415 on the southeast coast of Tanna Island, 3,700 in north Efate Island, as well as numerous zones of potential damage in south Efate Island and Ambae Island. UNITAR-UNOSAT also produced a live web map which displays data from its image analysis products and other sources. In addition to UNITAR-UNOSAT's work, Copernicus was activated on 17 March 2015 and analyzed satellite imagery from 15, 16 and 17 March 2015. The analysis revealed 653 affected settlements in northern Port Vila, 894 in southeast and southwest Port Vila, 138 in Erromango Upongkor, 41 in Erromango Ipota, 682 in Tanna Isangel, 737 in Tanna Sulphur, 85 around Tanna Airport, and zero in Aneityum Anelgauhat. Maps of potential damage are available on the UNITAR-UNOSAT website. Accompanying data in shapefile and ESRI geodatabase format are accessible through UNITAR-UNOSAT's product links. Map products of affected settlements are available in JPEG, PDF, and TIFF 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.

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

Links: <http://www.unitar.org/unosat/maps/VUT>

<https://unosatgis.cern.ch/live/TC20150313VUT/>

<https://www.disasterscharter.org/web/guest/-/cyclone-in-vanuatu>

<http://emergency.copernicus.eu/mapping/list-of-components/EMSR121>

South America

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 18 March 2015 and produced

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an overview map. Following a brief period of inactivity, ash fall and a smoke plume moving in a southeasterly direction were visible emanating from the volcano on 18 March 2015. Consequently, the alert for Villarrica was raised to orange, the second highest level. 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=85550&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:

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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.*