GDACS — GDACS is a cooperation framework between the United Nations, the European Commission and disaster managers worldwide to improve alerts, information exchange and coordination in the first phase after major sudden-onset disasters.

Global Disaster Alert and Coordination System

United Nations and the European Commission

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 February 2015

Africa

Mozambique and Malawi floods – GLIDE number: FL20150112MOZ

Mozambique and Malawi have received heavy rainfall since late December 2014. The International Charter for Space and Major Disasters was activated by the Malawi Department of Disaster Management Affairs on 08 January 2015. UNITAR-UNOSAT, the Copernicus Emergency Management Service, NASA Earth Observatory, and Dartmouth Flood Observatory continue to monitor the situation and recently released maps of the latest flooding. UNITAR-UNOSAT analysis of satellite imagery acquired 30 January 2015 revealed ongoing flooding within the Caia, Chemba, Mopeia, Mutarara and Morrumbala Districts of Mozambique as well as along the Shire River in southern Malawi. While flood waters receded by roughly 30,000 hectares between 21 and 30 January 2015, several areas along the Shire River remain affected. Using satellite imagery of Malawi acquired 27 January 2015, the Copernicus Emergency Management Service identified 57,174 hectares of flooded area in Blantyre and 3,402 hectares in Zomba. Approximately 6.4 hectares of residential settlements, 264 inhabitants, and 2.2 kilometers of roads and railways were affected by the floods in Blantyre. In Zomba it is estimated that 3,320 residents and 0.43 kilometers of local roads were impacted. Satellite imagery collected by the NASA Earth Observatory on 26 January 2015 also showed widespread flooding along the Shire River in Mozambique and Malawi. The Dartmouth Flood Observatory's analysis of recent satellite imagery confirms that flooding has continued in southern Malawi and northern Mozambique within the past 14 days. All aforementioned map products are available for download on their respective websites.

Sources: UNITAR-UNOSAT, Copernicus Emergency Management Service, NASA Earth Observatory, Dartmouth Flood Observatory, International Charter for Space and Major Disasters

Links: https://www.unitar.org/unosat/node/44/2156

http://emergency.copernicus.eu/mapping/list-of-components/EMSR116

http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85192&eocn=home&eoci=nh

http://floodobservatory.colorado.edu/Version3/2015Malawi4219.html

https://www.disasterscharter.org/web/guest/activations/-/article/flood-in-malawi

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Asia

Indian Ocean tropical cyclones – GLIDE number: TBD

In late January 2015, two tropical cyclones called Diamondra and Eunice formed in the Indian Ocean. The NASA Earth Observatory acquired satellite imagery of the cyclones on 28 January 2015 and subsequently produced a map. As of 28 January 2015, the cyclones were visible in the central Indian Ocean, moving in a southeast direction. At this time the cyclones were 1,500 kilometers apart, with maximum sustained winds of 160 and 100 kilometers per hour for Eunice and Diamondra respectively. By 30 January 2015 Diamondra had weakened, but Eunice gained strength and was classified as a Category 5 storm on the Saffir-Simpson Hurricane Wind Scale. Fortunately, tropical cyclone Eunice is not expected to make landfall. Map products illustrating the cyclones are 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=85187&eocn=home&eoci=nh

Europe

Greece floods – GLIDE number: EMSR117*

Torrential rainfall at the end of January 2015 caused flooding in western Greece. The Arachthos, Acheron, Kalamas and Louros Rivers overflowed and residents of villages located within the Arachthos River delta were evacuated. In response to this event, the Copernicus Emergency Management Service began producing situational maps for the Greek Directorate for Emergency Planning and Response. One reference map of Epirus Province was recently published and includes information about administrative boundaries, settlements, points of interest, transportation, industry, and hydrology. The estimated population within the area of interest consists of 2,381 inhabitants. Although analysis of this region's most recent satellite imagery has not yet been published, damage to local infrastructure such as roads, bridges, etc. has already been reported. This reference map is 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.

Source: Copernicus Emergency Management Service

Link: http://emergency.copernicus.eu/mapping/list-of-components/EMSR117

North America

United States blizzard – GLIDE number: TBD

New England experienced a historic blizzard in late January 2015. Parts of Massachusetts, Rhode Island, Connecticut, Maine, New Hampshire, and Long Island, New York received between 40 to 60 centimeters of snow on 27 January 2015. The NASA Earth Observatory published maps of the storm

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based upon satellite imagery of the region acquired 27 and 28 January 2015. In the early morning of 27 January 2015, the blizzard could be seen hovering over New England as well as parts of New York, New Jersey, and neighboring Canada. As of 28 January 2015 the blizzard had abated, however its snowy remnants visibly blanketed the northeast United States. These 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=85166&eocn=home&eoci=nh

http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85204&eocn=home&eoci=nh

Oceania

Australia bushfire – GLIDE number: TBD

A large bushfire occurred near the Western Australia town of Northcliffe on 01 February 2015. The NASA Earth Observatory collected a satellite image of the affected area taken on the same day. In a subsequent map product, the NASA Earth Observatory outlined hot spots where the satellite sensor detected hot surface temperatures typically associated with fire. Three hot spots were identified to the south of Northcliffe. Smoke plumes from the main bushfire were visible moving in a southwest direction towards the Indian Ocean. As of 02 February 2015, approximately 20,000 hectares of land had burned and inhabitants of Northcliffe were instructed to evacuate. 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=85215&eocn=home&eoci=nh

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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.