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 26 January 2015

Africa

Madagascar floods – GLIDE number: TBD

Tropical storm Chedza made landfall over Madagascar on 16 January 2015 and has since affected 120,000 people. In response to widespread flooding, the International Charter for Space and Major Disasters was activated on 18 January 2015 by COGIC on behalf of Madagascar's National Risk and Catastrophe Management Office (BNGRC). The French National Center of Spatial Studies (CNES) assumed project management and SERTIT produced flood maps. Analysis of satellite imagery acquired 19 and 20 January 2015 revealed flood waters and potentially flooded areas in Manakara, Vangaindrano, and the western part of Anatananarivo. The NASA Earth Observatory also released a map of flood waters along Madagascar's Tsiribihina River using satellite imagery from 20 January 2015. Flood waters rich in sediment were visible stretching across the Tsiribihina River and into the Mozambique Channel. A few settlements affected by the flooding in this area included Belo Tsiribihina and Masoarivo. This map product is available for online viewing and download in JPEG format on the NASA Earth Observatory website. An image comparison tool is also provided to highlight the differences between the area on 20 January 2015 and 03 December 2014. SERTIT flood maps are available for online viewing and download in JPEG format on its website and the International Charter's website. Google Earth files and metadata can also be accessed on the SERTIT website.

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

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

http://sertit.u-strasbg.fr/RMS/action.php?id=3627348501

http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85113

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. In an effort to monitor the situation in southeast Africa, UNITAR-UNOSAT, the Copernicus Emergency Management Service, the NASA Earth Observatory, and the Flood Observatory recently produced flood maps. UNITAR-UNOSAT also published estimated rainfall accumulation maps. UNITAR-UNOSAT analysis of satellite imagery acquired 21 January 2015 revealed approximately 55,000 hectares of flood-affected land in the Caia, Chemba, Mopeia, Mutarara, and Morrumbala Districts of Mozambique, as well as more flooding along the Chire River in southern Malawi. The Copernicus Emergency Management Service collected 22

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.

January 2015 satellite imagery of southern Malawi and identified more limited flooding in the assessed areas, roughly 7,338 hectares of flooded land in Blantyre and 4,671 hectares in Zomba. The NASA Earth Observatory used satellite imagery from 17 January 2015 and observed flood waters along the Licungo and other rivers in coastal Mozambique. The Flood Observatory's analysis of satellite imagery revealed substantial flooding in southern Malawi and northern Mozambique within the past 14 days. Precipitation data from the Tropical Rainfall Monitoring Mission (TRMM) was used by UNITAR-UNOSAT to derive estimated rainfall accumulation over Malawi, northern Mozambique and Tanzania. Rainfall accumulation estimates ranged roughly between zero and 280 millimeters from 16 to 19 January 2015, and between zero and 140 millimeters from 19 to 22 January 2015. All aforementioned map products are available for download on their respective websites – UNITAR-UNOSAT, Copernicus Emergency Management Service, NASA Earth Observatory, and Flood Observatory.

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

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

http://www.unitar.org/unosat/maps/MOZ

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

http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=85145&eocn=home&eoci=nh

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

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. UNITAR-UNOSAT has monitored the progression of this situation and recently released updated maps of IDPs at the UNMISS Base in Bor, Jonglei State. Using satellite imagery from 15 January 2015, UNITAR-UNOSAT identified an occupied area of 7.21 hectares within the UNMISS Base. This represents an increase of approximately 0.67 hectares or roughly 10% of the total occupied area observed on 21 October 2014. While some shelters remain visible within the north-eastern corner of the UNMISS Base, the majority are situated within the southern extension of the Base. REACH also published a map illustrating the location of different facilities in this southern extension as of 23 January 2015. Facilities include health clinics, humanitarian services, WASH resources, meeting points, security structures, and more. Recently REACH also produced an updated map of similar camp facilities located in the Hai Soma IDP site of the Upper Nile State. All REACH and UNITAR-UNOSAT map products are available for download as PDFs on their respective websites.

Sources: UNITAR-UNOSAT, REACH

Links: http://www.unitar.org/unosat/maps/SSD

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.

---

http://www.reachresourcecentre.info/advanced-search?name_list%5B%5D=SS&field_document_type_tid%5B%5D=4

Middle East

Iraq complex emergency – GLIDE number: CE20140613IRQ

Ongoing violence in Iraq has caused significant structural damage to cities and IDP movement within the country. UNITAR-UNOSAT recently published damage assessments for the cities of Ramadi and Fallujah and REACH released updated maps of general infrastructure in several of Iraq's IDP locations. UNITAR-UNOSAT analysis of satellite imagery acquired 02 December 2014, 11 November 2014 and 06 July 2014 revealed a total of 208 damaged structures within Ramadi, of which 72 were destroyed, 33 severely damaged, and 103 moderately damaged. Using satellite imagery from 30 November 2014 and 17 May 2013, UNITAR-UNOSAT identified a total of 1,360 damaged structures in Fallujah. Approximately 931 of these were destroyed, 304 severely damaged, and 125 moderately damaged. REACH mapped the latest infrastructure for camps located in the Erbil, Duhok, Diyala, and Sulaymaniyah Governorates. These camps include Baharka, Harshm, Kabarto, Alwand, Al Yawa and Arbat, as well as a shelter in the Ainkawa Mall. General infrastructure consists of roads, quarters, schools, offices, health clinics, markets, water facilities, community and storage areas, etc. Links to download camp infrastructure maps are provided on the REACH website. UNITAR-UNOSAT map products are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in shapefile and ESRI geodatabase format can also be accessed through UNITAR-UNOSAT's product links.

Sources: UNITAR-UNOSAT, REACH

Links: http://www.unitar.org/unosat/maps/IRQ

http://www.reachresourcecentre.info/advanced-search?name_list%5B%5D=IQ&field_document_type_tid%5B%5D=4

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.*