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 08 June 2015

Asia

Japan volcano – GLIDE number: VO-2015-000061-JPN

Located on the southern Japanese Island of Kuchinoerabu, Mount Shindake volcano erupted on 29 May 2015. As a result of this occurrence, the island was evacuated and airlines were required to divert flights. The NASA Earth Observatory collected satellite imagery of the volcanic activity on 29 May 2015 and created a situational overview map. In the map, a large plume of ash and volcanic gas is visible moving away from Mount Shindake in a southeastern direction toward Yakushima Island. The plume reached an altitude of nine kilometers and obscured most of Kuchinoerabu Island. This map 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=85974&eocn=home&eoci=nh

Middle East

Yemen complex emergency – GLIDE number: CE20150402YEM

Ongoing conflict in Yemen has caused parts of the country to suffer from significant damage and destruction. UNITAR-UNOSAT recently published damage assessments for the city of Sana'a and Sana'a International Airport. Using satellite imagery acquired 15 May 2015, as well as 12 and 31 December 2014, UNITAR-UNOSAT identified a total of 440 affected structures in the city of Sana'a. Approximately 74 of these structures were destroyed, 106 severely damaged, and 260 moderately damaged. Additionally, 35 impact craters were found and a total of four medical facilities were identified within 100 meters of damaged and destroyed buildings. It is possible that these facilities also sustained some damage. Within the Sana'a International Airport area, a total of 70 affected structures and transportation vehicles were identified. Roughly 18 of these were destroyed, 32 severely damaged, and 20 moderately damaged. A total of 32 impact craters were also found and one medical facility was identified within 500 meters of impact craters. These damage assessments are available for download as PDFs on the UNITAR-UNOSAT website. Accompanying data in ESRI shapefile and geodatabase format are also provided.

Source: UNITAR-UNOSAT

Link: http://www.unitar.org/unosat/maps/YEM

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North America

Canada wildfires – GLIDE number: TBD

Northern Canada continued to experience multiple wildfires at the end of May 2015. The NASA Earth Observatory collected satellite imagery of these fires on 30 May 2015 and produced an overview map. The map shows the majority of wildfires were located in the Northwest Territories, though two large fires were also visible burning in British Columbia and Alberta. Wildfires in the Northwest Territories intensified substantially since the previous NASA collection of 28 May 2015 satellite imagery. Heavy smoke from these growing wildfires was visible, along with lighter smoke from earlier days. According to a 27 May 2015 report issued by Natural Resources Canada, both the seasonal fire occurrence and burned area across the country are currently above the ten-year average. This overview map 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=85972&eocn=home&eoci=nh

Mexico hurricane – GLIDE number: TBD

In early June 2015, hurricane Blanca developed off the coast of Mexico and was classified as a Category Four storm on the Saffir-Simpson scale. Blanca has been categorized as the earliest second hurricane on record for the eastern Pacific Ocean. The NASA Earth Observatory acquired satellite imagery of Blanca on 03 June 2015 and created an overview map. At this time, the large storm and its eye were visible hovering over the Pacific Ocean, to the west of the Mexican coastline. As of 08 June 2015, Blanca was downgraded to a tropical storm and made landfall over the southern Baja California Peninsula. 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=85983&eocn=home&eoci=nh

South America

Colombia landslide – GLIDE number: FL-2015-000056-COL

Heavy rainfall caused Colombia's Liboriana River to overflow and led to a devastating landslide on 18 May 2015 in the town of Salgar, Antioquia Department. UN OCHA requested the UNITAR-UNOSAT humanitarian rapid mapping service, which programed commercial imagery. In addition, the International Charter on Space and Major Disasters was activated on 20 May 2015 by the USGS on behalf of UNGRG and project management was assumed by the Brazilian National Risk and Disaster Management Center (CENAD). The CENAD recently released new maps of the landslide using satellite imagery acquired 23 May 2015, 08 and 19 July 2014. The origin of the landslide along with

landslide scars, debris flows, and the estimated affected area are detailed on one map. Another map compares an affected area in Salgar before and after the landslide. Four buildings and several streets covered by mud and debris were identified in the post-disaster imagery. UNITAR-UNOSAT also produced a map of the landslide with satellite imagery from 23 May 2015 and identified 48 destroyed homes in the Salgar area. These map products are available for online viewing and download in JPEG and PDF formats on the International Charter on Space and Major Disasters and UNITAR-UNOSAT websites.

Sources: International Charter on Space and Major Disasters, CENAD, UNITAR-UNOSAT

Link: https://www.disasterscharter.org/web/guest/-/other-in-colombia

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

French Guiana algae bloom – GLIDE number: EMSR126*

An algae bloom in the coastal area of French Guiana continues to cause significant concern due to its ecological and economic impacts. The Copernicus Emergency Management Service created an internal activation for this event on 20 May 2015 in order to aid France's Operational Center for the Interministerial Management of Crises (COGIC). Using satellite imagery collected 27, 29 and 31 May 2015, Copernicus identified 1,762 hectares of floating algae and 8,387 hectares of submerged algae off the coast of French Guiana. Further analysis of 03 and 07 June 2015 satellite imagery revealed 1,316 meters of affected beaches in Manahattes and 163 hectares of floating algae along the French Guiana coast, to the west of Cayenne. 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/EMSR126