

***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 5 September 2017

### Africa

#### **Niger Flood – UNOSAT number: FL20170828NER**

Torrential rains have caused severe floods in the capital of Niger, Niamey, and the surrounding areas. At least 44 casualties and hundreds of destroyed homes have been reported; some of the evacuated residents have taken shelter in schools. UNOSAT-UNITAR monitored the evolution of surface waters with Sentinel -1 imagery acquired on 14 and 26 August 2017 and detected an increase of 30%. Only in the city of Niamey 320 additional hectares of surface waters were detected on 26 August 2017.

Source: UNOSAT-UNITAR

Link: <http://www.unitar.org/unosat/node/44/2649>

#### **Uganda Flood – UNOSAT number: FL20170831UGA**

The northern part of Uganda, at the border with South Sudan, has been affected by floods in the past few weeks. In response, UNOSAT-UNITAR published the satellite-detected waters in Elegu Town, Amuru Distric, using Sentinel-1 imagery from 23 August 2017. In the District of Amuru approximately 75 hectares were identified as probably flooded.

Source: UNOSAT-UNITAR

Link: <http://www.unitar.org/unosat/node/44/2650>

### Americas

#### **Tropical Cyclone Caribbean– UNOSAT: TC20170902PRI**

Given the track of the tropical cyclone of category 3, IRMA-17, which is currently threatening several Caribbean islands in the Atlantic Ocean, UNOSAT-UNITAR released the forecasted path and wind speed zones of the event, together with a of population exposure. In the analysis, the total exposed population was 31.7 million people, from which 120km/h wind speed zones are forecasted to affect 427,000 people in 9 countries or territories. An update of the analysis is soon expected.

Source: UNOSAT-UNITAR

Link: <http://www.unitar.org/unosat/node/44/2654>

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### **United States Hurricane – Copernicus EMS number: EMSR229**

After the recent flooding event of hurricane, Harvey in the southern part of Texas, that has killed at least 45 people, Copernicus EMS delineated the water extent and monitored the situation with COSMO-SkyMed imagery. The firstly delineated areas were: Austin, San Antonio, Mathis, Houston, Lake Charles, Beaumont Orange, La Fayette; the firsts monitored areas were: Austin, Mathis, Beaumont Orange, Lake Charles, La Fayette; and the second monitored areas were: Mathis, Austin, La Fayette. Moreover, the earth observatory from NASA detected the waters extent in the areas of Houston and Corpus Christi with MODIS-Terra imagery and the soil moisture in the top 5 centimeters of the ground with SMAP imagery. The Dormuth Flood Observatory also detected the flood extent with NASA MODIS, ESA Sentinel 1, ASI Cosmo SkyMed, and Radarsat 2 data in the Houston area and the coastline.

Source: Copernicus EMS, NASA, Dormuth Flood Observatory

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR229>

<https://earthobservatory.nasa.gov/NaturalHazards/view.php?id=90873&eocn=home&eoci=nh>

<http://floodobservatory.colorado.edu/Events/2017USA4510/2017USA4510.html>

### **Europe**

#### **Flood Northern Ireland– Copernicus EMS number: EMSR231**

The North-western part of Northern Ireland has been affected by flash floods and river flooding in the recent weeks. In response, Copernicus EMS have delineated and monitored the water extent with Sentinel-1 data. The first delineated areas were: Inishowen east, Inishowen west and Ballybofey; the firstly monitored areas were: Inishowen east, Inishowen west and Ballybofey; and the second monitored areas were: Inishowen east and Ballybofey.

Source: Copernicus EMS

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR2231>

#### **Forest Fire Hungary – Copernicus EMS number: EMSR230**

Starting on 22 August, a forest fire in the north-western part of Spain has been affecting the province of Leon. Copernicus EMS have delineated the fire extent and identified most of the damage located on Cropland, Scrub and Woodland. The four assessed areas were: Encinedo with 666 burnt hectares, Santa Eulalia de Cabrera with 2,364 burnt hectares, Corporales with 127 burnt hectares and Truchillas with 1080 burnt hectares.

Source: Copernicus EMS

Link: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR230>

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*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.*