

***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.***

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## Satellite mapping overview

As of 08 April 2014

### South America

#### **Brazil floods – GLIDE number: TBD**

In February of 2014, a state of emergency was declared in Brazil due to flooding from heavy rainfall in the country's northern regions. As of 19 March 2014, water levels rose to 19 meters above normal and forecasters predicted an ongoing rise until the end of the month. Subsequently, the International Charter Space and Major Disasters was activated by the Brazilian Disaster and Risk Management National Centre (CENAD) on 21 March 2014. The Brazilian National Institute for Space and Research (INPE) recently produced three new flood maps of Porto Velho and Mutum-Paraná in Rondônia, Brazil. Using satellite imagery from 25 March 2014, INPE identified two flooded areas along the Madeira River at Porto Velho, one located northeast of the Santo Antonio Hydroelectric Power Plant and another situated southwest of Porto Velho's Rua Renato Peres Medeiros. A comparison of Porto Velho satellite imagery from 24 and 29 March 2014 suggests that flooding worsened over time since two areas were inundated on the earlier date, whereas thirteen were flooded by the later date. Lastly, satellite imagery from 28 March 2014 only shows the tree tops of Mutum-Paraná as the remainder of the region appears to be inundated. Flood waters also cover substantial portions of the BR364 Highway. Map products are available for online viewing and download in JPEG format on the International Charter Space and Major Disasters' website.

Source: International Charter Space and Major Disasters

Link:

[http://www.disasterscharter.org/web/charter/activation\\_details?p\\_r\\_p\\_1415474252\\_assetId=ACT-483](http://www.disasterscharter.org/web/charter/activation_details?p_r_p_1415474252_assetId=ACT-483)

### Oceania

#### **Solomon Islands floods – Glide number: FL-2014-000045-SLB**

The Solomon Islands recently declared a state of emergency as a result of heavy rainfall that caused flash flooding, particularly within the capital city of Honiara. On 05 April 2014, the International Charter Space and Major Disasters was activated by the UNITAR Operational Satellite Applications Programme (UNOSAT) on behalf of UNOCHA. UNITAR/UNOSAT has since utilized precipitation data from the Tropical Rainfall Monitoring Mission (TRMM) to produce a map of estimated total rainfall accumulation from 02 to 05 April 2014 for the Solomon Islands. TRMM estimated rainfall ranges from zero to over 600 millimeters during this period, with the most significant precipitation

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occurring over the islands of Guadalcanal, Gatokai, southern Malaita, and southern Vangunu. Rainfall levels may, however, be underestimated for local areas, and cannot replace ground station measurements. This map product is available for download as a PDF on the UNITAR/UNOSAT website.

Source: International Charter Space and Major Disasters, UNITAR/UNOSAT

Links:

[http://www.disasterscharter.org/web/charter/activation\\_details?p\\_r\\_p\\_1415474252\\_assetId=ACT-485](http://www.disasterscharter.org/web/charter/activation_details?p_r_p_1415474252_assetId=ACT-485)

<http://www.unitar.org/unosat/node/44/1965>

### **Indonesia volcano – Glide number: TBD**

Mount Merapi, situated less than 40 kilometers north of Yogyakarta city in central Java, spewed volcanic gas, ash, and provoked minor earthquakes on 27 March 2014. The NASA Earth Observatory acquired a satellite image of this phenomenon and produced a map showing a plume from the volcano that rose to an estimated altitude of 9,800 meters before rapidly dissipating. This map product is available for online viewing and can be downloaded as a JPEG or bitmap on the NASA Earth Observatory website.

Source: NASA Earth Observatory

Link: <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=83442&eocn=home&eoci=nh>

## **Africa**

### **South Sudan complex emergency – Glide number: OT-2014-000001-SSD**

As a result of escalating violence in South Sudan during the month of December 2013, over 30,000 civilians sought refuge in United Nations facilities. In an effort to observe the progression of this situation, the Agency for Technical Cooperation and Development (ACTED) produced a map of camp areas in the United Nations Mission in South Sudan (UNMISS) base located in Bentiu, Unity State. Using satellite imagery from 06 January 2014 in the background, the map depicts camp zones along with their various assets and infrastructures. Two camp areas as well as one extension have been delineated and measure 65,375 m<sup>2</sup>, 33,224 m<sup>2</sup>, and 35,627 m<sup>2</sup> respectively. This map was created for humanitarian relief purposes and can be viewed online or downloaded as a PDF on the ReliefWeb site.

Source: Relief Web, Agency for Technical Cooperation and Development

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Link: <http://reliefweb.int/map/south-sudan/south-sudan-bentiu-pocs-area-unity-1-april-2014>

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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: [maps@gdacs.org](mailto: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.*