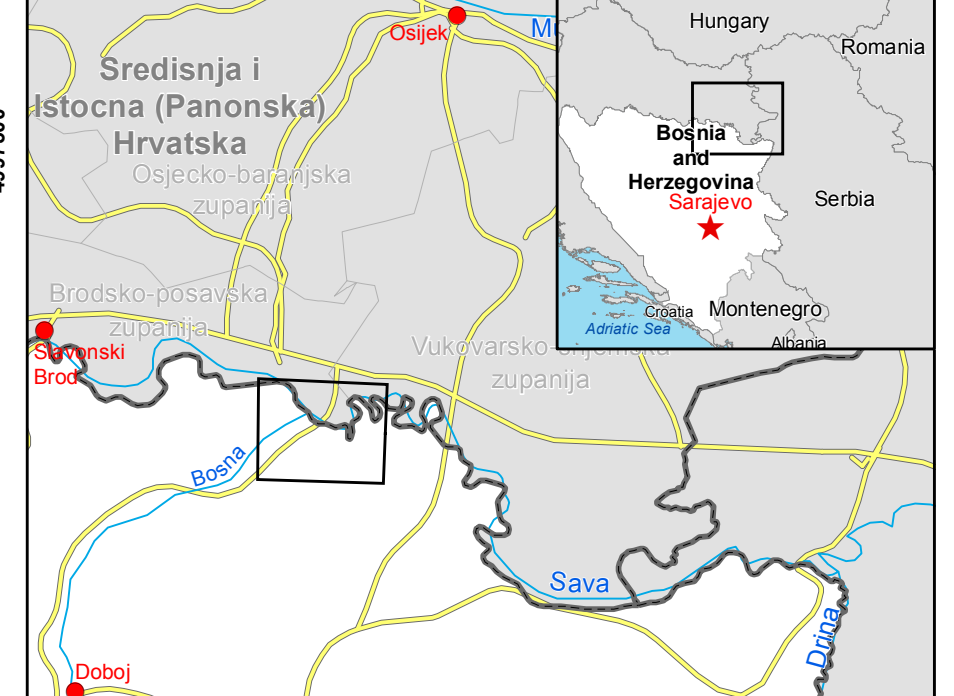


GLIDE number: FF-2014-000059-BIH      Activation ID: EMSR-087  
Product N.: 01DOBOJ, v1

# Doboj BOSNIA AND HERZEGOVINA Flood - 13/05/2014

Delineation Map - Detail 01 Monit. 02      Production date: 24/05/2014



## Cartographic Information

1:26000      Full color ISO A1, medium resolution (200 dpi)

0 0.25 0.5 1 km

Grid: WGS 1984 UTM Zone 34N map coordinate system  
Tick marks: WGS 84 geographical coordinate system

**Legend**

**Crisis Information**

- Flooded Area (23/05/2014 10:03 UTC)
- Old Flooded Area (22/05/2014 04:52 UTC)

**General Information**

- Area of Interest
- Sensor Footprint

**Administrative boundaries**

- International Boundary
- Region
- Municipality

**Point of Interest**

- Medical
- Religious

**Hydrology**

- River
- Canal

**Transportation**

- Bridge
- Primary Road
- Secondary Road
- Local Road
- Railway

**Settlements**

- Populated Place
- Residential
- Agricultural
- Cemetery
- Industrial
- Religious
- Urbanized Multi-functional

**Industry / Utilities**

- Quarry
- Processing Facility

| Consequences within the detailed AOI on 23/05/2014 on Bosnian territory |             |          |              |  |
|---|-------------|----------|--------------|--|
|   |             | Affected | Total in AOI |  |
| Flooded area  | ha          | 4835.6   |              |  |
| Estimated population  | inhabitants | 8448     | 42600        |  |
| Settlements   | ha          | 25.5     | 70.9         |  |
| Industrial  | ha          | 236.6    | 1193.1       |  |
| Residential   | ha          | 0.1      | 1.0          |  |
| Religious   | ha          | 0.4      | 35.1         |  |
| Urbanized Multi-functional  | ha          | 1.7      | 11.1         |  |
| Cemetery  | ha          | 0.1      | 0.1          |  |
| Utilities   | ha          | 3.8      | 9.1          |  |
| Quarry  | ha          | 0.1      | 1.8          |  |
| Processing Facility   | ha          | 0.8      | 20.9         |  |
| Transportation  | km          | 1.7      | 31.4         |  |
| Primary Road  | km          | 25.8     | 131.6        |  |
| Secondary Road  | km          | 0.2      | 19.6         |  |
| Local Road  | km          |          |              |  |
| Railway   | km          |          |              |  |

## Map Information

On 13 May 2014, heavy rainfalls and widespread flooding hit large parts of Bosnia and Herzegovina. Heavy rainfall continued to affect large parts, in particular the region of Doboj and Zenica. The core users of the maps are Disaster Response Authorities involved in operations.

## Data Sources

Inset maps based on: Administrative boundaries (JRC, 2013, GISCO 2010, © EuroGeographics), Hydrology, Transportation (Natural Earth, 2012, CCM River DB © EU-JRC 2007), Settlements (Geonames, 2013).

RapidEye © Blackbridge (acquired on 23/10/2013 10:48 UTC and 21/03/2014 10:49 UTC, GSD 6.5 m, 0% cloud coverage), all rights reserved.

RadarSat-2 © MDA (acquired on 22/05/2014 04:52 UTC, GSD 15 m).

Pleiades © Airbus Defence and Space 2014 (acquired on 23/05/2014 10:03 UTC, GSD 0.5 m) Ltd. All rights reserved.

Base vector layers based on OpenStreetMap © OpenStreetMap contributors, refined by GAF AG. Source information is included in vector data.

Population data: Landscan 2010 © UT BATTELLE, LLC.

Elevation data: SRTM (90 m posting). Height in meters above mean sea level.

All Data sources are complete and with no gaps.

## Dissemination/Publication

No restrictions on the publication of the mapping apply.

Delivery formats are GeoTIFF, GeoPDF, GeoJPEG and vectors (shapefile and KML formats).

## Framework

The products elaborated in the framework of current mapping in rush mode activation are realized to the best of our ability, within a very short time frame during a crisis, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original data sources. The products are compliant with GIO-EMS RUSH Product Portfolio specifications.

## Map Production

The present map shows basic topographic features such as transportation, hydrology and settlements in the area of Doboj (BOSNIA AND HERZEGOVINA). These basic topographic features are derived from public datasets, refined by means of visual interpretation of pre-event orthoimagery from RapidEye © Blackbridge (acquired on 23/10/2013 10:48 UTC, GSD 6.5 m, 0% cloud coverage).

Thematic layers, assessing the delineation of the event, have been derived from post-event images RadarSat-2 © MDA (acquired on 22/05/2014 04:52 UTC, GSD 15 m) Ltd, all rights reserved, Pleiades © Airbus Defence and Space 2014 (acquired on 23/05/2014 10:03 UTC, GSD 0.5 m) Ltd. All rights reserved.

All satellite images have been radiometrically enhanced and orthorectified with RPC approach (using SRTM elevation data).

The estimated geometric accuracy of this product is 45 m CE90 or better, from native positional accuracy of the background satellite image.

The estimated thematic accuracy of this product is 85% or better, as it is based on visual interpretation of recognizable items on high resolution optical imagery. Shadowed areas are zones of lower interpretation accuracy due to the poorer image radiometry.

Only the area enclosed by the Area of Interest has been analyzed within the Bosnian territory.

Map produced on 24/05/2014 by GAF AG under contract 257219 with the European Commission. All products are © of the European Commission.

Name of the release inspector (quality control): GAF AG (ODO).

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Map products available at <http://emergency.copernicus.eu/mapping/list-of-components/EMSR087>

Flood

- Civil Protection
- Response
- Delineation Map - Detail Monit. 02
- Planning

Pleiades © Airbus Defence and Space

13-05-2014