GLIDE number: EQ-2012-000080-ITA

Activation ID: EMSR-004
Product N.: 01Finale, v4

Finale Emilia, Emilia Romagna, ITALY
Earthquake 29/05/2012
Grading Map - Overview

Production date: 21.06.2012

Cartographic Information

1:22.000 — Full color ISO A1, medium resolution (200 dpi)

0 0,375 0,75 1,5 km

N

Map Coordinate System: WGS 1984 UTM Zone 32N
Graticule: WGS 84 geographical coordinates

Legend

- Area of Interest
- **Crisis Information**
  - Gathering of People
  - Affected Building
- **Building Blocks**
  - Highly Affected
  - Moderately Affected
  - Not Affected
  - Not analyzed due to cloud haze
- **Transportation**
  - Primary Road
  - Secondary Road
  - Local Road
  - Bridge
- **Points of Interest**
  - Transportation
  - Institutional
  - Educational
  - Medical
  - Religious
  - Other

Consequences within the AOI				
estimated AOI population	23000 Inhabitants			
affected assets	1527 Building blocks			
	Residential	1247	Educational	1
	Industrial	93	Medical	0
	Commercial	4	Recreational	6
	Institutional	3	Religious	2
	Multi-Functional	5	Transportation	1
	Other	165	Military	0

Map Information

A strong earthquake has affected large parts of northern Italy, causing at least seven deaths and seriously damaging historic buildings such as churches, bell towers and a medieval castle. The 6.0-magnitude earthquake occurred just after 4:04 a.m. on 20/05/2012, about 35km (22 miles) north-northwest of Bologna (4 kilometers outside Camposanto), at a relatively shallow depth of 10 km. A series of strong aftershocks hit the area, the strongest measuring 5.1-magnitude (Source: BBC).

The core users of the map are Civil Protection authorities involved in operations in the field. The aim of the map production is to support the emergency response activities.

Data Sources

WorldView-2 © Digitalglobe provided under ESA GSC-DA DWH license (acquired on 25/05/2012, approx. 30% cloudy, 0.85m resolution).
Background imagery © 2012 Courtesy of AGEA (0% cloudy, 0.5m resolution, acquired in 2011).
LandScan © UT BATTELLE, LLC. 2010 (ca 1km resolution).
Base vector layers based on Openstreetmap and Wikimapia refined by GAF (nominal scale 1:5000).
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 for this rapid mapping have been 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 a delineation of the affected building in the area of Finale, ITALY, based on visual interpretation of post-event satellite imagery acquired on 25/05/2012 (WorldView-02, spatial resolution 0.85 m). Damage classes are assigned to building blocks according to the percentage of affected buildings versus the total number of buildings in the building block, specifically: not affected (0-5%), moderately affected (5-50%), highly affected (> 50%).
Post-event satellite images have been orthorectified using RPC model and SRTM elevation data.
The estimated geometric accuracy of this product is 5m CE90 or better, from native positional accuracy of the background orthoimage.
The estimated thematic accuracy of this product is 60% or better, as it is based on visual interpretation of recognizable items on very high resolution satellite imagery. Please note that due to the high off nadir angle, presence of haze and 0.85m resolution only damages to large structures could be detected.
Map produced on 21/06/2012 by GAF under contract 257219 with the European Commission. All products are © of the European Commission.
Name of the release inspector (quality control): GAF AG (ODO).
E-mail: rush@ems-gmes.eu

Earthquake
- Civil Protection
- Response
- Grading Map - Overview
- Support to Logistics
- Satellite Imagery © Digitalglobe
- 20-05-2012

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