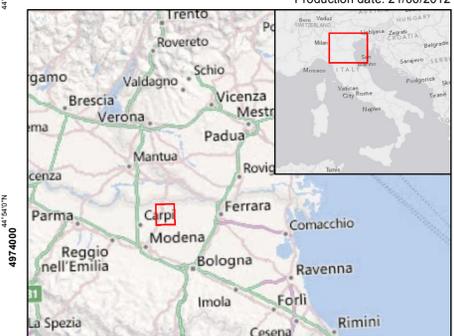


San Felice, Emilia Romagna, ITALY

Earthquake - 29/05/2012

Grading Map - Overview

Production date: 21/06/2012



Cartographic Information

1:30 000 Full color ISO A1, medium resolution (200 dpi)

0 0,5 1 2 km

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

- #### Legend
- Areas of interest
 - Transportation
 - Primary Road
 - Secondary Road
 - Local Road
 - Other
 - Railway
 - Crisis Information
 - Gathering of People
 - Affected Building
 - Building Blocks
 - Highly Affected
 - Moderately Affected
 - Not Affected
 - Points of Interest
 - Transportation
 - Medical
 - Institutional
 - Educational
 - Cemetery

Consequences within the AOI

Estimated AOI population	45530 inhabitants				
Moderately affected assets	298 Building blocks				
Highly affected assets	57 Building blocks				
	Moderately	Highly	Educational	Moderately	Highly
Residential	260	55	Medical	0	0
Industrial	37	1	Recreational	0	0
Commercial	0	0	Religious	1	0
Institutional	0	0	Transportation	0	0
Multi-Functional	0	0	Military	0	0
Other	0	0			

Map Information

An earthquake with a magnitude 5.8 killed at least 16 people in northern Italy on 29/05/2012, damaging buildings and leaving 14,000 people homeless in the Emilia Romagna region north of Bologna, one of Italy most agriculturally and industrially productive areas. The epicentre of the earthquake, which struck at depth of 9.6 km (6 miles), was less than 30 km (19 miles) from Modena, not far from where the magnitude 6 earthquake struck on 20th May (Source: Glide Number).

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

Background imagery: WorldView-02 © DigitalGlobe (0% cloudy, 0.5 m resolution, acquired on 30/05/2012)
 LandScan © UT BATTELLE, LLC. 2010 (approx. 1km resolution).
 Base vector layers based on Openstreetmap and Wikimapia refined by SIRS (nominal scale 1:500).
 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 has 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 buildings in the area of San Felice sul Panaro, ITALY, based on visual interpretation of post-event satellite imagery acquired on 30/05/2012 (WorldView-02, spatial resolution 0.5 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 5 m 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 0.5m resolution only damages to large structures could be detected.

Map produced on 21/06/2012 by SIRS under contract 257219 with the European Commission. All products are © of the European Commission.
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