

Ferrara, Emilia Romagna, ITALY

Earthquake - 20/05/2012

Delineation Map - Detail

Production date: 26/05/2012



Cartographic Information

1:6000 Full color ISO A1, medium resolution (200 dpi)

0 0.125 0.25 0.5 km

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

Legend

Area of Interest	Religious	Primary Route
Buildings Affected	Institutional	Secondary Route
Buildings Not Affected	Educational	Local Route
	Medical	Other
		Railway

Consequences within AOI

Affected population: 21230 Inhabitants (estimated)

Affected assets: 5 Buildings

Residential	2	Educational	0
Industrial	0	Medical	0
Commercial	0	Recreational	0
Institutional	1	Religious	2
Multi-Functional	0	Transportation	0
Other	0	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 Comasanto), 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

Airborne imagery © 2012 Courtesy of Blom CGR (Acquired 23/05/2012, 0% cloudy, 0.07m resolution)
Background imagery © 2011 Courtesy of AGEA (0% cloudy, 0.5m resolution).
LandScan © UT BATTELLE, LLC, 2010 (ca 1km resolution)
Base vector layers based on Openstreetmap and Wikimapia refined by e-GEOS (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, optimizing 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 Ferrara, ITALY, based on visual interpretation of post-event aerial imagery acquired on 23/05/2012 (spatial resolution 0.07 m, courtesy of Blom CGR). Post-event aerial images have been rectified using GCPs collected on the 2011 aerial orthomosaic (resolution 0.5 m) courtesy of AGEA. The estimated geometric accuracy of this product is 5m CE90 or better, from native positional accuracy of the background orthomosaic.
The estimated thematic accuracy of this product is 85% or better, as it is based on visual interpretation of recognizable items on very high resolution aerial imagery.
Map produced on 26/05/2012 by e-GEOS 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

