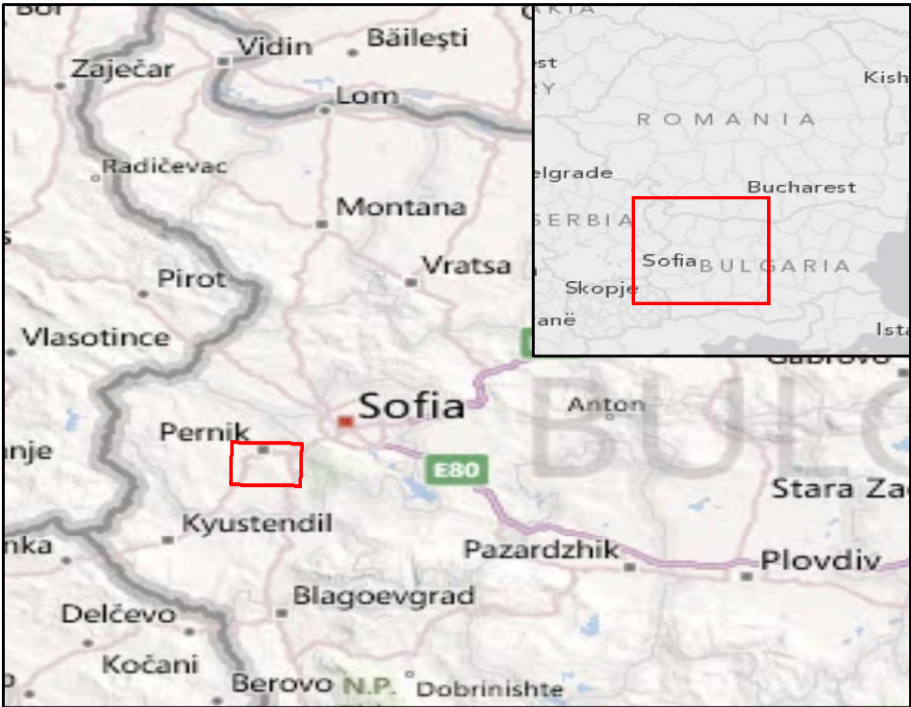


GLIDE number: EQ-2012-000086-BGR Activation ID: EMSR-005  
Product N.: 00Pernik, v1

## Pernik, BULGARIA Earthquake - 22/05/2012 Delineation Map - Overview

Production date: 31/05/2012



### Cartographic Information

1:30000 Full color ISO A1, medium resolution (200 dpi)

0 0.5 1 2 km

Map Coordinate System: WGS 1984 UTM Zone 34N  
Graticule: WGS 84 geographical coordinates

### Legend

- |                                |                       |
|--------------------------------|-----------------------|
| Area of interest               | Area not analyzed     |
| <b>Possible affected areas</b> | <b>Transportation</b> |
| Possible damaged area          | National Motorway     |
| Possible damaged building      | Primary Road          |
|                                | Secondary Road        |
|                                | Local Road            |
|                                | Railway               |
| <b>Point of interest</b>       | <b>Hydrology</b>      |
| Transportation                 | River                 |
| Industrial                     | Reservoir             |
| Institutional                  |                       |
| Educational                    |                       |
| Recreational                   |                       |
| Religious                      |                       |
| Stadium                        |                       |

### Map Information

A 5.8-magnitude earthquake jolted Bulgaria, striking not far from the capital, Sofia at 3 am on 22nd May 2012. The quake hit at a depth of 10 km, 24 km west of Sofia in the region of Pernik. The earthquake was felt in the whole territory of Bulgaria and the neighbouring countries. Several aftershocks with decreasing intensity between 4.2 and 3.5 were measured. (Source: [www.glideunber.net](http://www.glideunber.net))  
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

COSMO-SkyMed (acquired March 22nd and May 30th 2012, 5m resolution) ©e-GEOS 2012, provided under ESA GSC-DA DWH License  
OSM ©OpenStreetMap 2012, refined by e-GEOS  
EURODEM © EC (25 m posting)  
Base vector layers based on Openstreetmap and Wikimapia refined e-GEOS.  
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 possible affected areas around the city of Pernik, Bulgaria, based on analysis of both coherence and amplitude (Coherence Change Detection - CCD and Amplitude Change Detection - ACD) derived from SAR interferometric pair. Background image is a Multitemporal Coherence combination of pre and post event COSMO-SkyMed data.  
The spatial resolution of the original images is 3m, the image exploited for map production was processed at 10m resolution.  
The estimated geometric accuracy of this product is at least 15 m CE90 or better.  
The estimated thematic accuracy of this product is very low, due to native resolution of the images.  
Map produced on May 31st 2012 by e-GEOS under contract 257219 with the European Commission. All products are © of the European Commission.  
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