



Analysis of records from the M5.2 September 2016 Skopje earthquake

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ABSTRACT

On 11th of September 2016 at 13:10h UTC time a magnitude 5.2 earthquake occurred under Macedonia's capital Skopje. The earthquake was felt strongly in the city and throughout the country. More than 100 people were slightly injured, but no major structural damage was experienced. This earthquake was the strongest in the region since 1963 when a magnitude 6.1 event struck Skopje killing more than one thousand people.

The 2016 Skopje earthquakes were monitored by many local and regional seismic stations from which data were used to locate the hypocenter of the earthquakes and their magnitude. In this study three Strong Motion records were analysed.

Given the evaluation of the detailed macroseismic maps of the Skopje 1963 earthquake and the Skopje 2016 earthquake and the hypocenter depths of both, it may be assumed that their origins were on different parts of the tectonic blocks in the area. The results from the latest analysis support these findings and will be considered in further evaluation of the building codes.

KEYWORDS: Earthquake, seismic records, strong motion analysis

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