

northwestern Anatolia and northern Aegean fault zones extension of 14 mm/yr in the direction N14°E and compression of 17 mm/yr in the direction N110° E occurs.

A vertical crustal thickening of the order of 0.3 mm/yr is observed in the compressional zone along the western and southern coastal zone, while a vertical crustal thinning of about 0.9 mm/yr is observed in the inner broad extensional Aegean area.

In the western part of the area and between the external compressional field and the internal extension field, a belt with an almost north-south orientation exists (eastern Albania-western mainland of Greece up to the western corner of Crete). This zone is dominated by an extension of 2 mm/yr in the direction N111°E. A vertical thinning of 0.2 mm/yr is also observed in this belt.

A CONTRIBUTION OF CORNELL'S CLASSICAL APPROACH TO SEISMIC HAZARD ANALYSIS OF VOLOS; CENTRAL GREECE

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The estimation of seismic hazard of an area is of primary importance in earthquake engineering. This analysis deals with the application of Cornell's model for the evaluation of the future seismic loading in the city of Volos, central Greece. The model is based on the combination of the main seismotectonic features of small seismic sources with the recurrence model of each source. Specifically, the assessment of seismic hazard at the site involves four stages.

(i) delineation of the potential seismic sources around the site of interest, (ii) determination of the recurrence model of earthquakes in each source, (iii) choice of the attenuation model and (iv) estimation of the contribution of all sources to the site.

The results of the analysis are in good correlation with the real (observed) values in the city. Specifically, the return period for acceleration 0.2g. is 24 years. A close inspection of the detailed numerical results reveals the level of the contribution of each source to the estimated hazard. Thus, source 1, south to the city of Volos, contributes about 70% of the total hazard.

The sensitivity of the model to a certain number of input parameters is further investigated, using alternative values and repeating the calculations.