

DETERMINISTIC SEISMIC ZONING OF EASTERN CUBA

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A deterministic seismic zoning of Cuba is performed by modelling, with modal summation, the complete P-SV and SH waves fields generated by point-source earthquakes buried in flat layered anelastic media. The results of the computation, performed for periods greater than 1 second, are presented in two sets of maps of maximum displacement (dmax), maximum velocity (vmax) and design ground acceleration (DGA), obtained using two different criteria in the definition of the input magnitude: (1) values reported in the earthquake catalogue (Mobs) and (2) values determined from seismotectonic considerations (Mmax). A comparison with the results of a previous probabilistic seismic zoning is made to test the possibility of making intensity – ground motion conversion with the aid of log-linear regressions.