



CHARACTERISTICS OF MODERATE-SIZED EARTHQUAKES IN THE TELLEAN ATLAS CHAIN OF ALGERIA

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The Tellean Atlas chain of Algeria is a compression domain due to the movement of the African tectonic plate toward the Eurasian tectonic plate in the NW direction. The rate of motion is estimated at 2-3mm/yr. The deformation is accommodated by a series of multi segments active faults, mainly reverse faults that may be blind or not. examples of such faults have been widely studied during the major earthquakes of El-Asnam (1980, $M_s=7.3$) and Zemmouri ($M_w=6.8$, 2003).

In this work we analysis the seismotectonic characteristics of the moderate-sized earthquakes based both on the analysis of the seismicity catalogue and on the active tectonics investigations. We observe that such earthquakes are often produced by a single segment of the multi-segments geological structures having a seismic potential greater. On the other hand, such moderate-sized earthquakes are relatively frequent, about 1 earthquake every 2 years and sometimes, revealed unknown blind faults. Such moderate earthquake are often damaging because of their shallow character and their proximity to urban areas. Indeed, the attributed macroseismic intensity during such events is $I_0 = VII$ to $VIII$.

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