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Regularities of Seismicity of Western and Central Uzbekistan

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Space-temporal distribution of seismic activities in Western and Central Uzbekistan is considered. Four groups of strong earthquakes in the regions were analyzed. The pattern of redistribution of the accumulated tectonic energy in the form of seismic activity in the regions is revealed. In a west-east direction, an increase in the depth of earthquakes is noted. Deviations from the regularity of grouping of strong earthquakes in the seismic regime of the region is found. Periods of seismic activity of the Western Tien-Shan in the Asian part of the Mediterranean-Asian seismic belt showed their regional and planetary synchronization. Late periods of seismic activity of Western Tien-Shan had been explained by low level magnitude M=5.3 of main shocks in the group. Study of the seismic regime of the region where the triple Gazli earthquakes of 1976 and 1984 occurred, M=7.0-7.3 were probably preceded by triggers. Natural triggers: active processes of cracking (large cracks up to 100 km in length) observed in 1965; small mud volcanoes "griffons"; the absence of significant earthquakes in the Gazli region more than 40 years. Technogenic triggers: a permanent 40-year operation of "Gazly" gas fields: two nuclear explosions of 1966, 1968, which occurred near the Gazly earthquakes of 1976, 1984 that have a tectonic nature.

Promotional text

In research about influence, nuclear explosions to seismic regime on Western and Central Uzbekistan noted.

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