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The Travel-Time Curve For The Region Of The East Tien Shan By The Records Of Historical Seismograms Of UNE From The Lop Nor Test Site Area

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We constructed travel-time curves for eastern Tien-Shan using historical seismograms of underground nuclear explosions from the Lop Nor test site in the Peoples Republic of China. We measured the arrival times of the main seismic phases on seismograms from 1969-1996 stored in the analog archives of Kazakhstan as well as digital stations from Kazakhstan and Kyrgyzstan. In total, more than 500 seismograms were processed. The data were used to construct travel-time curves for regional phases Pn, Pg, Sn, Sg, and LR at distances ranging from 700 to 2500 km. Individual travel-time curves were constructed for each event for which the nature of each wave group was précised; a joint averaged travel-time curve for east Tien-Shan using all events was also constructed. The construction of the travel-time curve is used for such tasks as precision of the main parameters of explosions at Lop Nor, improvement of location accuracy of seismic events sources from the east Tien-Shan region (including Lop Nor Test Site area), and other tasks.

The travel-time curve for the eastern Tien-Shan was compared to one in routine use for Central Kazakhstan that was calculated using regional chemical calibration and nuclear explosions conducted on the territory of Semipalatinsk Test Site.

Promotional text

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