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Seismic Monitoring Activities In Central Asia

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Central Asia is tectonically complicated with high seismic activity. Over the past 150 years four great earthquakes occurred with magnitudes exceeding 8. Seismic monitoring is one of the most important problems of the region, having both scientific and social significance. Since many years, NORSAR (Norway), the Institute of Geophysical Research (Kazakhstan), and the Institute of Seismology (Kyrgyzstan) are cooperating to solve this problem. A joint scientific program is focusing on capacity building in Central Asia, in relation to technical verification of compliance with the CTBT, as well as research on improved seismic monitoring. Under this cooperation, seismic stations and the National Data Centres (NDC) in Kyrgyzstan and Kazakhstan were upgraded and Central Asian seismologists were trained at the Training Centre, established at Kazakhstan's NDC. In 2018, joint work started on compiling a new seismic bulletin for Central Asia, based on data from 51 stations and 5 arrays. Observed magnitude and energy class discrepancies were studied with respect to systematic station and network effects. Aftershock sequences of 80 earthquakes with different magnitudes were analysed. The induced, anthropogenic and natural seismicity from different regions with mining activities in Kyrgyzstan and Kazakhstan as well as icequakes in the Tien Shan glaciers were analysed.

Promotional text

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