

COMPARISON OF REB BULLETIN WITH LOCAL CATALOGUES COMPILED FOR THE KAZAKHSTAN TERRITORY

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As for the present time, two different organizations compile regional catalogues for the Kazakhstan territory, basing of data from two different regional seismological networks: one is the Centre for Acquisition and Processing of the Special Seismic Information of the Institute of Geophysical Research of the National Nuclear Centre of Kazakhstan, which also is a Kazakhstan National Data Centre (KazNDC) in a frame the CTBTO agreement, and the other is Institute of Seismology of the Ministry of the Science and Education of Kazakshtan (IS MSE).

Starting from January 2003, the compilation of Joint Seismological Bulletin was organized in KazNDC, where data from both networks (NNC RK and IS MSE) are used. In present paper the comparison of KazNDC bulletin, IS MSE catalogue and joint KazNDC – IS MSE bulletin with each other as well as their comparison with the REB bulletin for the Kazakhstan territory was made.

The comparison was accomplished basing on the following parameters: the level of minimal recorded magnitude M_{min} for the different regions of Kazakshtan, disagreements in the location coordinates of the same events.

The main conclusions are as follows. The KazNDC bulletin covers practically the whole Kazakhstan territory and includes the largest number of seismic events. The IS MSE catalogue provides data of high quality, however, it covers only small fraction of Kazakhstan territory, namely, the central part of the Northern Tian-Shan, neat Almaty city. The Joint KazNDC – OS MSE bulletin is the optimal one, as in sensitivity to seismic activity, as well as in the coverage of the Kazakhstan territory. No one event with a magnitude more than 3.9 was missed in the REB bulletin for the Kazakhstan territory. At the same time, according to the 2002 year bulletins, 29 events with magnitudes from 3.4 to 3.9 were absent in the REB bulletin. At average, the discrepancy in the event location coordinates between REB and Join KazNDC – IS MSE solutions is 30 kilometers.