

T2.3-P12. JOINT EFFORTS OF KNDC AND LDEO ON PRESERVING THE ARCHIVES OF HISTORIC SEISMOGRAMS OF NUCLEAR EXPLOSIONS

Scientists in Kazakhstan have worked since 1998 to preserve archives of historic seismograms of nuclear explosions, going back to 1961, recorded by stations located on territory of the USSR. During 1998-2000 the work of data collection, scanning, and digitizing, was done by CSE IPE RAS, in close cooperation with Lamont-Doherty Observatory of Columbia University, USA (LDEO). During 2005-2011 this work, which mostly involved the processing of photographic recordings, moved to IGR RK, and was funded by Kazakhstan. Since 2012 the work has been partially supported by the Norwegian Seismic Center (NORSAR) and LDEO. LDEO has provided software that enables digitization to be expanded to pen-and-ink recordings, and has worked with IGR to obtain the amplitude-frequency responses of seismometers developed and installed at the USSR seismic stations, and to create a modern database of digital waveforms. Currently, the database of nuclear explosions contains 7000 records at regional and teleseismic distances. More than 10000 seismograms of nuclear explosions (in the atmosphere, under water, and underground) are kept in different archives in Central Asia and have been scanned with resolution 400-1200 DPI. The KNDC staff has given several training seminars on digitizing of analog historical seismograms for the specialists from Central Asia.

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