

Overview of North Korean nuclear tests based on data from modernized Slovak National Network of Seismic Stations

The Slovak National Network of Seismic Stations (NNSS) has been considerably modernized and enhanced during the years 2001 - 2004. At the present, the NNSS represents the principal and the most important infrastructure designated for monitoring of seismic activity on our territory. The primary function of the NNSS is to monitor and localize earthquakes with macroseismic effects on the territory of Slovakia. Besides, the seismic stations of NNSS are also capable of recording weaker local and regional earthquakes as well as teleseismic earthquakes and nuclear explosions. The NNSS fulfill its duties also within the framework of the technical cooperation between the Slovak Republic and CTBTO by providing seismological data to the Slovak Academy of Sciences (SAS), which has been designated as the Slovak National Data Centre (NDC) for CTBTO. Until today, the Democratic People's Republic of Korea (DPRK) has conducted six nuclear tests (in 2006, 2009, 2013, two in 2016, 2017). The ability of the NNSS to detect the seismic signal generated by the DPRK nuclear events and the estimates of locations and magnitudes of the events are presented. The results are compared to the International Data Centre estimations.

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