

Underground Nuclear Explosions on the North Korean Test Site According to the KNET Network Data

For practically 30 years of its existence, the KNET seismic network, located in Kyrgyzstan and Kazakhstan, registered on regional and teleseismic distances nuclear tests conducted at test sites: Nevada, Mururoa and Fangataufa, Lop Nor, Pokharan, Chagay and Punggye-ri. Currently, it includes 10 stations that transmit data in real time to the Institute of Seismology of the National Academy of Sciences of the Kyrgyz Republic and the Research Station of the Russian Academy of Sciences. KNET data is used by regional and international seismological centers for scientific research and different type of seismic bulletins compilation. Despite on the fact that the KNET stations were located on teleseismic distances from the North Korean nuclear test site Punggye-ri (in the range of 4300-4515 km), they registered 6 North Korean nuclear tests for 2006-2017. In the paper, a comparative analysis of the waveforms of the North Korean tests according to the KNET data is carried out, and the dynamic and kinematic parameters of the explosions are estimated.

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