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Comparison of five DPRK tests using seismic data from IMS stations

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The seismic network of the International monitoring system of the Comprehensive nuclear-test-ban Treaty Organization detected seismic signals from five declared underground tests conducted by the DPRK in October 2006, May 2009, February 2013, January and September 2016. These data allow thorough cross comparison of relative amplitudes and frequency content of detected signals as well as event locations, magnitudes and source mechanisms obtained using standard methods adapted at the International Data Centre (IDC) and several techniques based on waveforms cross correlation, which are under development at the IDC. Seismic signals from the bigger events provide high quality waveform templates for detection of missed arrivals from smaller events at less sensitive IMS stations and possible aftershocks with magnitudes by two-to-three units lower than the DPRK events themselves.