

Summary of Common Exercise (Waveform Portion) at the 6th East Asia Regional NDC Workshop 2018

Ten National Data Centers (NDCs) and CTBT PrepCom's International Data Center (IDC) exchanged their waveform analyses on six North Korea-declared nuclear tests at the sixth East Asia Regional NDC workshop (EARNW) held September 17-21, 2018, in Ulaanbaatar, Mongolia. Cross correlation technique is clearly becoming popular among the workshop participants for a variety of purposes including detection, location, and even for size estimation. Some relative location results presented at the workshop exhibit geometric patterns of five epicenters matching – at least qualitatively – fairly well with a cartoon-depicted pattern shown to the invited journalists who were present at North Korea-declared “Punggye dismantlement ceremony”, albeit the accuracy of North Korea LtG. Kang's poster itself is not verified yet. The latest event of September 3, 2017, which was the largest North Korea-declared nuclear test so far, prompted a couple of NDCs to re-investigate the procedure of seismic magnitude scaling relationships between teleseismic and regional phases. Two NDCs provided extensive lists of aftershocks following the 6th test, demonstrating the robustness of cross-correlation technique. As designed, the EARNWs have facilitated convenient discussions on cooperation, including the sharing of some non-IMS data on specific events discussed during Common Exercises, among the participating NDCs.

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Track Classification: Theme 2. Events and Nuclear Test Sites