



Seismic field measurements in Kylylahti, Finland, in support of the further development of geophysical seismic techniques for CTBT On-site Inspections

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The Integrated Field Exercise of 2014 (IFE14) was a field event held in the Hashemite Kingdom of Jordan (with concurrent activities in Austria) during which the operational and technical capabilities of a Comprehensive Test Ban Treaty's (CTBT) on-site inspection (OSI) were tested in integrated manner. Many of the inspection techniques permitted by the CTBT were applied during IFE14 including a range of geophysical techniques, however, one of the techniques foreseen by the CTBT but not yet developed is resonance seismometry. During August and September 2016, seismic field measurements have been conducted in the region of Kylylahti, Finland, in support of the further development of geophysical seismic techniques for OSIs. 45 seismic stations were used to continuously acquire seismic signals. During that period, data from local, regional and teleseismic natural events and man-made events were acquired, including from a devastating earthquake in Italy and the nuclear explosion announced by the Democratic People's Republic of Korea on 9 September 2016. Also, data were acquired following the small-scale use of man-made chemical explosives in the area and of vibratory sources. This presentation will show examples from the data set and will discuss its use for the development of resonance seismometry for OSIs.