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Forensic Event Analyses at the Turkish NDC

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During the year 2020, apart from the global pandemic, there have been several global incidents that were recorded by IMS stations. As Turkish NDC, we have selected three of these events to be analyzed. The first event is the fragmentation of a meteorite/bolide on 27 May 2020 that was observed by many cities over the Northeastern part of Turkey, the second event is the Fireworks factory explosion at the outskirts of Sakarya city of Turkey occurred on July, 3rd and the last event that was analyzed is the explosion of 2.7 kT Ammonium Nitrate at the harbor of Beirut, Lebanon on 4 August 2020. Since all of these events occurred on the surface or the atmosphere, several IMS infrasound stations detected the acoustic pressure changes over great distances. In addition to the IMS infrasound stations, local seismic stations in Turkey recorded the ground vibrations caused by the shock waves of these events. Therefore, we were able to make an event analysis using fusion of both technologies to test not only our NDC's capabilities but also the products and tools that were provided by CTBTO. Our final analysis results will be presented at SnT 2021.

Promotional text

This work just shows the mutual benefits between CTBTO and NDCs. Characterization of an interesting event can be achieved through data fusion. NDCs can access to various global data through IDC to conduct in-depth analyses.

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