# of Infrasound events listed in IDC Reviewed Event Bulletin

Until 2003 two waveform technologies, i.e. seismic and hydroacoustic were used to detect and locate events included in the International Data Centre (IDC) Reviewed Event Bulletin (REB). The first atmospheric event was published in the REB in 2003, however automatic processing required significant improvements to reduce the number of false events. In the beginning of 2010 the infrasound technology was reintroduced to the IDC operations and has contributed to both automatic and reviewed IDC bulletins.

The primary contribution of infrasound technology is to detect atmospheric events. These events may also be observed at seismic stations, which will significantly improve event location. Examples sources of REB events, which were detected by the International Monitoring System (IMS) infrasound network were fireballs (e.g. Bangkok fireball, 2015), volcanic eruptions (e.g. Calbuco, Chile 2015) and large surface explosions (e.g. Tjanjin, China 2015).

Query blasts (e.g. Zheleznogorsk) and large earthquakes (e.g. Italy 2016) belong to events primarily recorded at seismic stations of the IMS network but often detected at the infrasound stations. In case of earthquakes analysis of infrasound signals may help to estimate the area affected by ground vibration. Infrasound associations to query blast events may help to obtain better source location.

The role of IDC analysts is to verify and improve location of events detected by the automatic system and to add events which were missed in the automatic process. Open source materials may help to identify nature of some events. Well recorded examples may be added to the Reference Infrasound Event Database to help in analysis process. This presentation will provide examples of events generated by different sources which were included in the IDC bulletins.

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