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## the Nuclear Explosions Waveform Repository: Integrating Data Contributions from National Institutions and Networks

The 'Waveforms From Nuclear Explosions (WFNE)' repository includes detailed information (origin, bulletin, other geophysical data) on all the 2,157 atmospheric, underground and underwater nuclear explosions detonated in the world between 1945 and 2017. Over 146,600 waveforms recorded at 343 stations in 78 countries are associated to 1,109 of the nuclear explosions, ranging from digitized analog recordings for the oldest explosions to recent IMS data, as well as their station/instrument information. Users can search, visualize and download data of interest for their research. The repository was developed and is maintained by Leidos under DTRA sponsorship. It was built as a trusted data set, starting from the previous data repository 'Nuclear Explosion Database (NEDB)'. Waveform data and geophysical information were added, as collected from many open sources, such as FDSN, EIDA, CTBTO PrepCom, ISC and legacy data sets of digital data or digitized analog recordings assembled by different institutions, after completeness and quality checks were performed. One of the latest additions is the large Blacknest British array data set. Data collection continues, other datasets are already identified and prepared to be merged in WFNE. Submission of digital/digitized data of nuclear sourced waveforms is requested from WFNE users and institutions willing to contribute.

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