

Collection of Romanian Infrasonic Observations from Ground Truth Sources

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Starting with 2009, three infrasound stations have been deployed on the Romanian territory by the National Institute for Earth Physics: (1) IPLOR (in central Romania), (2) BURARI (in northern Romania) – under co-operation with AFTAC (USA), and (3) I67RO temporary PTS portable array (in western Romania) as a two-year experiment (2016-2018), within a collaboration project with the Provisional Technical Secretariat. Data recorded with these stations are continuously processed and analysed at the Romanian National Data Centre by running a duo of infrasound detection-oriented software – DTK-GPMCC and DTK-DIVA – packaged into NDC in a box. A significant set of detected infrasound signals could be associated to ground truth events located by the International Data Centre (REB, LEB) and seismological centres (EMSC, ISC). Further details were obtained from the fireball database published by CNEOS/JPL. The main types of ground truth sources observed with Romanian infrasound arrays are bolides, earthquakes, chemical/accidental/military explosions, volcanic eruptions, and anthropogenic activity (mining, sonic booms). Collected information summarizes the ground truth source, Romanian infrasound stations detecting the event, predicted infrasound arrivals, associated infrasound detections, and detection plots related to the event, and is accessible via HTML interface. The geographical distribution of the ground truth events can be plotted with Google Earth software using a KML file containing the location of the events.

E-mail

daniela_ghica@yahoo.com

Promotional text

A collection of infrasound reference sources detected by Romanian infrasound network was compiled

Oral preference format

Primary author: Ms GHICA, Daniela (National Institute for Earth Physics (NIEP))

Co-authors: Mr POPOVICI, Radu Mihai (National Institute for Earth Physics (NIEP)); Dr IONESCU, Constantin (National Institute for Earth Physics (NIEP))

Presenter: Ms GHICA, Daniela (National Institute for Earth Physics (NIEP))

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