

2011-2020: A Decade of Observations at IS42, Azores, Portugal

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IS42 was certified on December 2010 and is one of the infrasound stations of the International Monitoring System (IMS) of the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). The station is installed on Graciosa Island (Azores archipelago, Portugal), in the North Atlantic Ocean. The layout of eight array components together with its geographical position allows the detection of a wide range of infrasound signals produced by variety of local, regional, and far-field sources. After a first study where we aimed to compile major near- and far-field detections of explosive volcanic activity, we present a first compilation of the IS42 infrasonic detections from 2011 to 2020 that is currently under progress. This first catalogue project aims to locate, characterize and categorize coherent infrasound sources, and distinguish them from environmental noise and other events of interest such as volcanoes explosions, earthquakes, bolides, microbaroms or anthropogenic sources. We also present the detections obtained from events listed in the Standard Event Lists and in the Reviewed Event Bulletin of the International Data Center for the same time.

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Promotional text

This catalogue improves the understanding of coherent infrasound sources recorded at IS42 and distinguishes them from the coherent background noise affecting the station, improving the analysis and classification of important events such nuclear explosions or volcanic activity.

Oral preference format

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