

Infrasound Segment of the International Monitoring System

The infrasound network of the International Monitoring System (IMS) designed for the verification of the Comprehensive nuclear-Test-Ban Treaty includes 60 stations located around the world. Four of them are part of the Russian IMS segment: IS43 (Dubna), IS44 (Petropavlovsk-Kamchatskiy), IS45 (Ussuriysk), IS46 (Zalesovo). All Russian Infrasound IMS stations are certified and transmit data to the International Data Center (IDC), Vienna, Austria. Russian IMS stations play an important role in location and identification of events at the IDC. More than 50% of all infrasound detections included in REB in 2016-2017 are detections of Russian IMS stations. Within the last few years an upgrade of Russian infrasound IMS stations has been provided. It includes replacement of vaults, wind noise reducing systems, upgrade of communication and power supply systems. The objective of these activities is to make stations more reliable which allows to achieve the fulfilment of IMS data availability requirements and to improve station contribution to the network. We present the history of establishment and the current status of Russian infrasound IMS stations as well as description of their upgrades and examples of signals, recorded at these arrays and analysis of their detectability.

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