

## Infrasound technology developments

The IDC advances its methods and continuously improves its automatic system for the infrasound technology. The IDC focuses on enhancing the automatic system for the identification of valid signals and the optimization of the network detection threshold by identifying ways to refine signal characterization methodology and association criteria. An objective of this study is to reduce the number of associated infrasound arrivals that are rejected from the automatic bulletins when generating the reviewed event bulletins. A number of ongoing projects at the IDC will be presented, such as: - improving the detection accuracy at the station processing stage by replacing the infrasound signal detector DFX-PMCC (Detection and Feature eXtraction – Progressive Multi-Channel Correlation) and by evaluating the performances of detection software; - separating infrasound data from other waveform technologies at the automatic network processing stage for technology development and for preparing the implementation of next generation of waveform association algorithm. Infrasound rules in Global Association (GA) and NET-VISA implementation are explored to pursue a lower ratio of false alarms; - network capability estimations as a tool to monitor performances. The IDC identified a number of areas for improvement of its infrasound system, those will be shortly introduced.

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