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# Enhancements to the CTBTO operational automatic infrasound processing system

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This paper discusses some of the enhancements to the current operational infrasound processing system at the International Data Centre (IDC) that are currently being investigated for infrasound data recorded by the International Monitoring System (IMS).

The first enhancement focuses on the determination of signal amplitudes with applications to a potential definition of a network magnitude for infrasound-only events. The infrasound reference database is used to compare wind and no-wind definitions of network magnitude with the goal of determining if such a definition may be useful in the future to aid network processing. Attention is also drawn to the potential effect spatial filters may have on the recorded waveform through the filter plane-wave response.

The second enhancement is the incorporation of station noise characterization in terms of the Power Spectral Density (PSD). This determines the noise field at each station for various times of day and as a function of season. A six month dataset has been generated since this work commenced and can be used to infer seasonal trends that may affect network detection capability.