

1.1-P12. Infrasound Magnitude Estimation

The International Data Centre (IDC) of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) has been routinely processing data from the infrasonic component of the International Monitoring System (IMS) for several years now. One aspect of processing that remains to be completed is an order of magnitude estimate of the source size. In this work we report on the inclusion of an infrasound magnitude estimate into IDC devlan processing. Three magnitude estimates are being determined. The first two are based on amplitude attenuation with distance, and assume either the LANL HE amplitude-range attenuation, or the refinements as determined by LePichon et al (2012) that include stratospheric ducting and the effects of absorption and geometric spreading . The third magnitude estimate is based on the period of the dominant acoustic return at maximum amplitude as developed by the U.S Air Force Technical Applications Centre (AFTAC). Results taken from both routine processing and for selected significant events will be presented for the three magnitude types.

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