Transmission Loss Maps for Regional Infrasound Propagation

A general method for producing a statistical model for infrasound signal transmission from a large sample of atmospheric specifications has been developed. Applying this method to historical archives of atmospheric specifications, statistical transmission loss maps are developed. These depend on season of the year. It is found that propagation characteristics divide the year into four seasons, winter, summer, autumnal equinox and vernal equinox. The separation into seasons depends on location, and the particular months in each season can vary slightly. The statistical sampling method and the obtained results for a few examples are shown and potential extensions of the method are discussed.

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Track Classification: Modelling & Network Performance