

physics perspective of the infrasonic monitoring

Infrasound monitoring plays a vital role in the detection of signals and determining the location and size of their source. There are several factors that affect infrasonic detections, namely the variations in atmospheric temperature and wind speed as well as the geographical location. The infrasound signals occur through a change in atmospheric pressure above the epicentre area and are spread across the atmosphere; the mechanism of generating the infrasound signal is related to the atmospheric pressure disturbances that occur around the epicentre, where air pressure is generated by the pumping resulting from an earthquake. The diversity of sources of an earthquake may result in a difference in the propagation of waves that can be distinguished in terms of duration and amplitude of the infrasound signal. The longer the duration of the earthquake compared with the relatively short duration of the explosion below ground, the amplitude of the explosion under the ground allows identifying the signal significantly and conducting successful detection depends on our understanding of acoustic propagation through an atmosphere at various times and locations. In this poster, we refer to North Korea's attempt to conduct nuclear test and means of delivery the matter which consists a threat to the treaty.

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