

Infrasound observations of atmospheric disturbances due to a sequence of 2018 explosive volcano eruptions in Japan.

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In this opportunity, we describe our quantitative approach for investigating the potential atmospheric effects caused by a sequence of Japanese volcano eruptions in 2018. We used data from a number of infrasound sensors located on Shikoku Island, Japan, to detect the long wave traveling air disturbances likely to have been caused by the explosive eruptions of the volcano. We then identified certain characteristic signatures of the disturbances in individual infrasound pressure records. Based on their arrival times, we have found that the overall propagation speed of the disturbances is in the range of standard sound propagation in the atmospheric boundary layer.

Keywords: Infrasound, propagation speed, irregular array processing