

Additional file 2: Expected infrasound time delays between sensor pairs.

Infrasound delay times between sensor pairs are calculated simply by considering the source-receiver distance differences. Figure S2.1 shows the delay of KITK to EBS. The contours are in 0.25-s intervals from -2 s (blue) to 2 s (yellow). The solid-line circle has a radius of 300 m, which is the radius of the pancake lava that grew by March 9, and the dashed-line circle has a radius of 400 m, which is the maximum crater radius of Shinmoe-dake. The origin is taken at the crater center (31.9116°N, 130.8823°E). Figure S2.2 shows the time delay of SMW to EBS, subtracted by the -5.09 s that is the propagation time delay from the crater center to the stations. The figure format is the same as Fig.S2.1. Note that KITK-EBS pair is sensitive to the east-west change of the source, while SMW-EBS pair has a weak sensitivity to the north-south movement of the source.

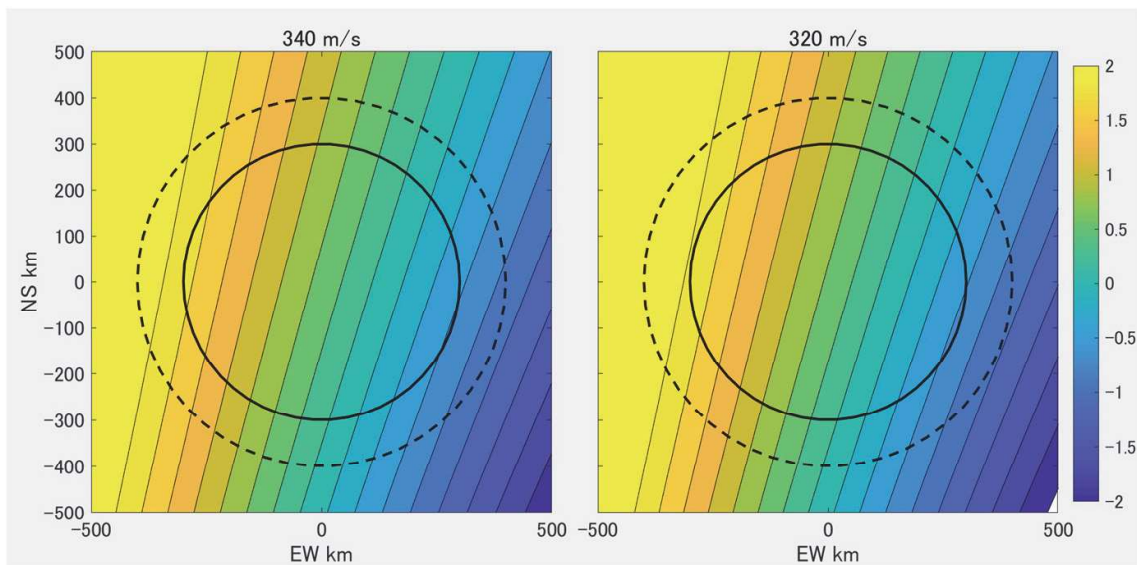


Figure S2.1: The relationship between the source location and the time delay of infrasound arrival at KITK relative to EBS.

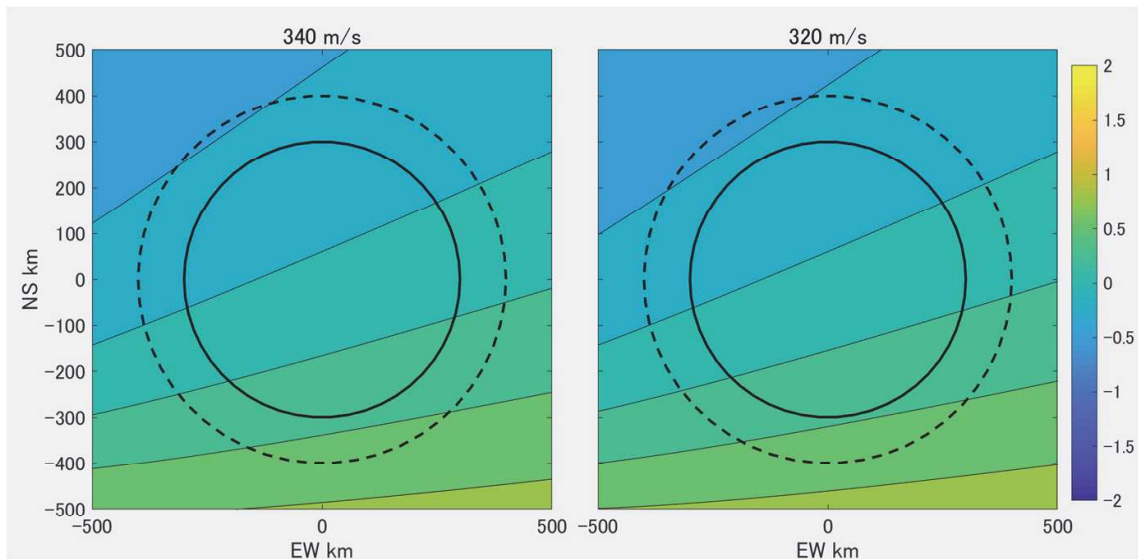


Figure S2.1: The relationship between the source location and the time delay of infrasound arrival at SMW relative to EBS. The values are the residual after subtracted by -5.09 s.