

Shock waves associated with the Tonga eruption captured by Japanese AWSs on the Antarctic ice sheet

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A large-scale eruption occurred in Tonga around 4:10 (UT) on January 15, 2022. The effect was global, and tsunami damage and pressure fluctuations were recorded. An express delivery article was published in the AGU newsletter. Many reports were immediately made in Japan as well. This fluctuation in atmospheric pressure was also observed on AWS installed on the Antarctic ice bed, and the National Institute of Polar Research published a small article on SNS.

The effect of this eruption on the Earth's atmosphere was a rare phenomenon that occurred after modern observations were put in place. It is worth extracting and keeping records observed by various instruments scattered all over the world. In this presentation, we will introduce the analysis results of pressure fluctuations and other data observed by the AWSs.