

Recent Episode of Submarine Volcanic Activity in the South Sandwich Arc – Insights from International Monitoring System Hydrophone and T Phase Station Data

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We present a recent example for the civil and scientific application of International Monitoring System (IMS) hydroacoustic data. On 24 April 2022, IMS stations detected a cluster of impulsive, seismoacoustic events in the South Sandwich Arc, a volcanically active chain of remote islands and seamounts in the southern Atlantic Ocean. Preliminary results from automated and interactive analysis of hydrophone and T phase station data suggest that these events, which occurred over a period of less than two hours and which were preceded by at least two hour-long episodes of low level tremor, are likely volcanic in nature, and originated at or near one of several recently discovered seamounts offshore Candlemas and Saunders Island. Our findings are consistent with waveform data gathered by non-IMS stations as well as satellite observations and further highlight the potential of the IMS hydroacoustic network for detecting and studying submarine volcanic activity in some of the most remote regions on the planet.

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Promotional text

International Monitoring System hydroacoustic data help us to detect and study submarine volcanic activity in the South Sandwich Arc, one of the most remote regions on Earth.

Oral preference format

in-person

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