

infrasound analysis of a large fireball in Zambia

At approximately 10:08 UTC on February 18th, 2019, a large atmospheric explosion originating over Zambia was detected at 8 infrasound arrays belonging to the International Monitoring System (IMS) of the Comprehensive Nuclear Test-ban Treaty Organization (CTBTO). This explosion, later associated with a bolide, was detected as far away as Alaska, at a range of more than 15,000 km. Here we show the infrasound analysis performed at the International Data Centre (IDC) of the CTBTO. We also show that the high altitude wind pattern produced favorable conditions for long-distance propagation of infrasound. This contributed to the excellent results seen here, including our calculated location being only 150km different from the location estimated by the NASA Center for Near Earth Observation Studies.

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