

Infrasound Records Associated with the Western of Yunnan Fireball on October 4, 2017

A bright fireball was reported at 12:07:05 UTC on October 4, 2017 at a height of 37 km above 28.1N, 99.4E near Shangri-La, the western of Yunnan of China. It had a TNT yield equivalent of 0.54 kilotons (kt). Infrasound signals were observed by I16 infrasound array that is part of the International Monitoring System (IMS) and Tengchong infrasound array located in the western of Yunnan of China. The PMCC method was used to estimate the wave parameters of two infrasound arrays, and the source location (99.28E, 27.99N) was determined by the back azimuth intersection, which only 17 kilometers away from NASA's location. According to the empirical formula of equivalent and period, the explosion equivalent is estimated to be about 0.2 kilotons.

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