A try of origin identification estimated from 2 CTBTO stations detected infrasound signals excited by "The 2018 Hokkaido Eastern Iburi Earthquake"

*Mami Nogami¹, Takayuki Otsu¹, Takahiko Murayama¹, Masashi Motohashi¹, Makiko Iwakuni¹

1. Japan Weather Association

A big earthquake occurred at 18:07 5th September 2018 (UTC) at eastern Iburi, Hokkaido, Japan, which recorded maximum seismic intensity 7. Large quake was observed at all of Hokkaido, many large-scale landslides occurred in mountainous area near the origin.

Infrasound excited by mountains or something shaken a lot, I45RU and I30JP which are CTBTO stations detected signals of a wave group assumed to infrasound from the earthquake. The duration of groups are 15 min to 20min long, These analysis are not constant azimuth, but have a little dispersion.

The analysis of azimuth detected I45RU and I30JP are pointing to the origin in perspective, however azimuths in each short term are not constant. While considering analysis error, we assume the dispersion is the each infrasound signals excited in the place shaken a lot while seismic wave propagates in all directions. Therefore we tried an origin identification used the intersection search method derived from azimuths analyzed in 2 stations.

Keywords: Infrasound, Origin identification, Earthquake