

## Detected infrasound signals in Isumi, Japan - the Eruption at Asama Volcano -

# Nobuo Arai[1]; Takahiko Murayama[2]; Mami Nogami[2]; Makiko Iwakuni[2]; Motohiro Honma[2]; Toyomi Sakamoto[2]; Takayuki Otsu[2]

[1] Solution Department, Japan Weather Association; [2] JWA

The infrasound observation system is installed in Isumi, Chiba-prefecture (approximately 60 km SE of Tokyo) as a component of the International Monitoring System for CTBT's verification scheme. It is an array observation site and is comprised of six elements. It had been deployed on November 2004.

Until now, some interesting infrasound signals were observed. The infrasound signals generated by the volcanic explosions of Minamidake, Sakura-jima might be the typical examples. When the large explosions occurred on 12th of June 2006 and 2nd of January 2007 at the Sakura-jima, the specific infrasound signal was observed at Isumi, respectively. Each signal's onset-time and its back-azimuth were coincided with each event location and its occurrence time. These results were reported at Japan Geoscience Union Meeting in 2007. However, it is not always to have detected infrasound signals when large explosion had occurred. Detection capability of the signals depends mainly on wind condition in observation site because strong wind generate large noise

Mt. Asama started to erupt at 01:51 on 2nd of February 2009 (JST). Flickers were monitored with a camera deployed by the Ministry of Land, Infrastructure and Transport from 02:01, and the peak of the volcanic activity might have been around 02:08. The distance between Mt. Asama and the observation site is approximately 200 km. Travel time of infrasound waves was estimated approximately ten minutes. The observation system started to detect some infrasound wave-trains which came from the direction of Mt. Asama at 02:10, and their amplitude had increased around 02:17, which might be coincided with the volcanic activities.

In this presentation, some remarkable infrasound signals are introduced and discussed.