

## Seismic reflection structure of Izu-Oshima volcano, processings and interpretations of 1999 seismic experiment data.

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Seismic reflection profile in Izu-Oshima volcano will be presented. Seismic reflection profile is processed from 1999 seismic experiment in Izu-Oshima. The experiment included six shots and 254 mobile stations, and controlled seismic data were obtained in Izu-Oshima island. N-S reflection profile along the line between the shots S1 at the north end and S2 at the south end of the island is presented and its interpretation with other geophysical data will be discussed. Processings were carried out under following processings; First break mute, the grouping processing, the band-pass filtering with 4-12Hz, the gain recovery, predictive deconvolution, static correction, NMO correction, and depth conversion. The pass band of the filter was choosed in order to reject ocean tremor of around 0.5Hz. The NMO velocity was derived from the velocity structure in Onizawa et al.(2002).

There are three significant swarms of reflection events in the profile. The first swarm A is located at 5km b. s. l. beneath the summit caldera. The next swarm B is located at north outside of the summit caldera on 5km b. s. l., while there are weaker reflections in south outside of the summit crater. The third swarm C is located just beneath the summit caldera at 11km b. s. l.. The swarm A may suggest some magma supply system, such as one of magma pockets. The swarm B will be discussed a with inflation and deflation movement observed on Apr. 2004-Aug. 2008 and Aug 2006-Mar 2004. The swarm C may correspond to the scatterer swarm presented by Mikada(1997).