

Seismic exploration of Bandai volcano using controlled explosions: Part 2. 3-D shallow velocity structure

Hamaguchi Hiroyuki The Research Group for Seismic Exploration of Bandai Volcano Using Controlled Explosions, # Teruo Yamawaki [1]

[1] Graduate School of Sci., Tohoku Univ

An extensive active seismic experiment was conducted at Bandai volcano to clarify the subsurface structure in the period of Sept. 29 to Oct. 3, 1997. The 3-D imaging revealed that a prominent high velocity body swelling vertically with horizontal extent less than 2 km, was located just beneath the Numano-Taira crater. Location of the high velocity body corresponds well with the edges of the past eruptive craters from which debris avalanches were emerged. The hypocenters of the earthquake swarm in the period of Aug.-Nov., 1988 were located just inside the intrusive body. These facts suggest that an intrusive body with high P-wave velocity beneath the Numano-Taira crater might work as the source of the past gigantic eruptions of Bandai volcano.