

The magma migration by precise hypocenter distribution.

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From June 26, 2000, an intensive earthquake swarm started under the Miyake-jima Island. This swarm was closely related to the eruption of the Miyake-jima Island, probably dominated by the underground magmatic activity. The swarm spread toward northwestern ocean region. To understand both the spatial and temporal changes, we conducted a series of OBS observations. Combining the OBS data with those of the island stations, precise earthquake locations were determined. The epicenter distribution obtained strongly indicates a NW-ES lineament. Deeper events are forming a very thin plane, while shallower ones show much thicker distribution. These distribution patterns will provide important constraints on the physical mechanism of to understand of the magma migration.