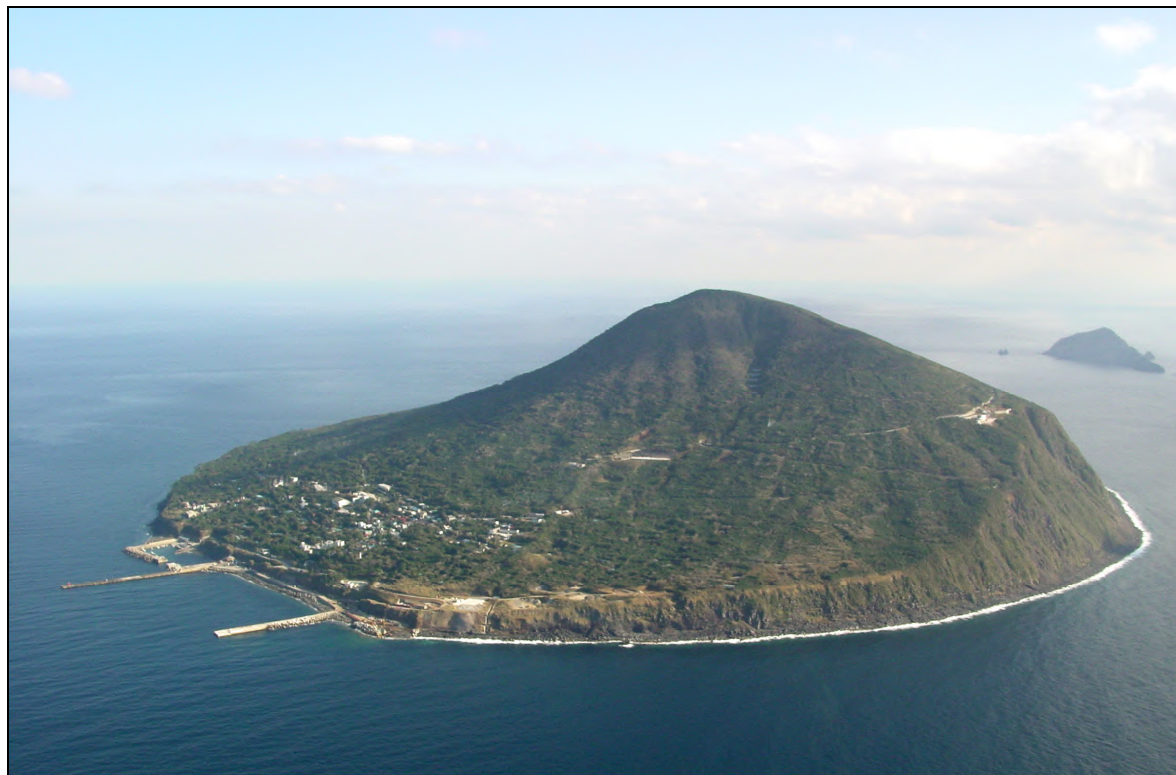
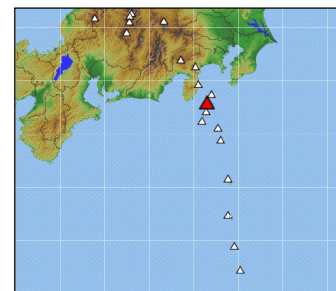


## 59. Toshima

Latitude: 34°31'13" N, Longitude: 139°16'45" E, Elevation: 508 m  
(Miyatsukayama) (Triangulation Point - Toshima)



Overview of Toshima taken from northwest side on October 30, 2002 by the Japan Meteorological Agency

### Summary

Toshima is a volcano island situated approximately 25 km south-southwest of Izu-Oshima. It has a diameter of approximately 2.5 km (approximately 5 km if one includes the submarine portion), and a relative height of approximately 600 m. It is a stratovolcano, composed mainly of layers of basalt "aa lava". The lava layers and cross-cutting dikes are clearly exposed in its sea cliffs. It is not known when Toshima began its eruptive activity. The most recent activity consisted of a lava flow from the Kajiana crater, located in the north of Miyatsukayama, towards the north-northwest, called the Kajiana crater lava flow, and the a lava flow from the Miana crater, located to the east of the Kajiana crater, 390 m above sea level, towards the northeast, called the Miana crater lava flow. The SiO<sub>2</sub> is between 49.4 and 55.1 wt %.

## Red Relief Image Map

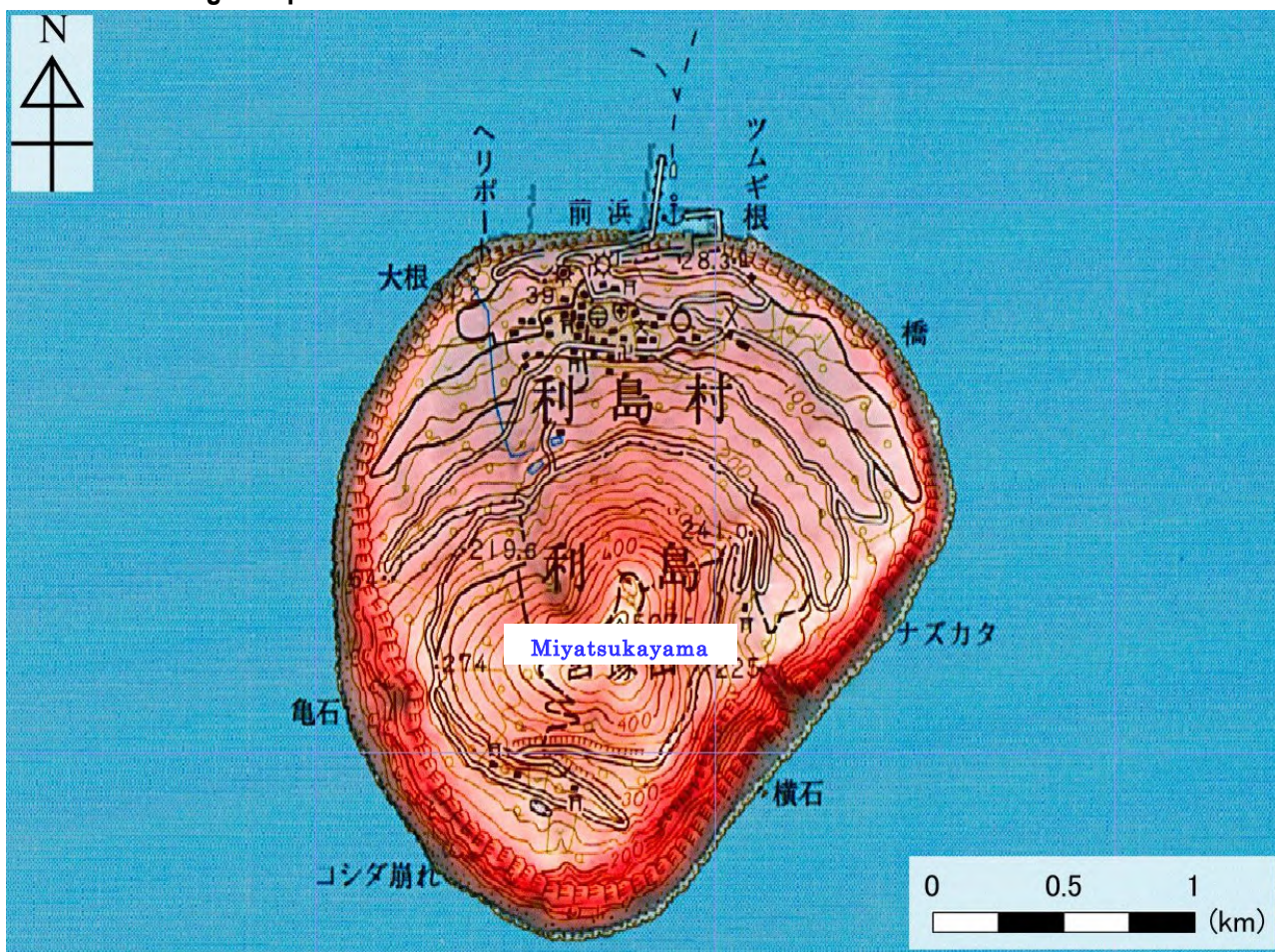


Figure 59-1 Topography of Toshima.

1:50,000 scale topographic map (Toshima) and digital map 50m grid (elevation) published by the Geospatial Information Authority of Japan were used.

## Chronology of Eruptions

### ▪ Volcanic Activity in the Past 10,000 Years

The lahar deposits covering the lava discharged from the Kajiana crater eruption date back approximately 8,000 years, and Jomon era artifacts which date back 4,000 years have been found at the top of the lava, so the lava is considered to have been emitted between 4,000 and 8,000 years ago (Isshiki, 1978).

Period	Area of Activity	Eruption Type	Main Phenomena / Volume of Magma
9.1←→4 ka	Kajiana crater	Magmatic eruption	Lava flow.

\* Volcanic periods, areas of activity, and eruption types taken from the Active Volcano Database of Japan, AIST (Kudo and Hoshizumi, 2006 ). All years are noted in Western date notation. "ka" within the table indicates "1000 years ago", with the year 2000 set as 0 ka.

A←→B: Eruption events taking place at some point between year A and year B

### ▪ Historical Activity

There are no historical records of eruptions.

### Recent Volcanic Activity

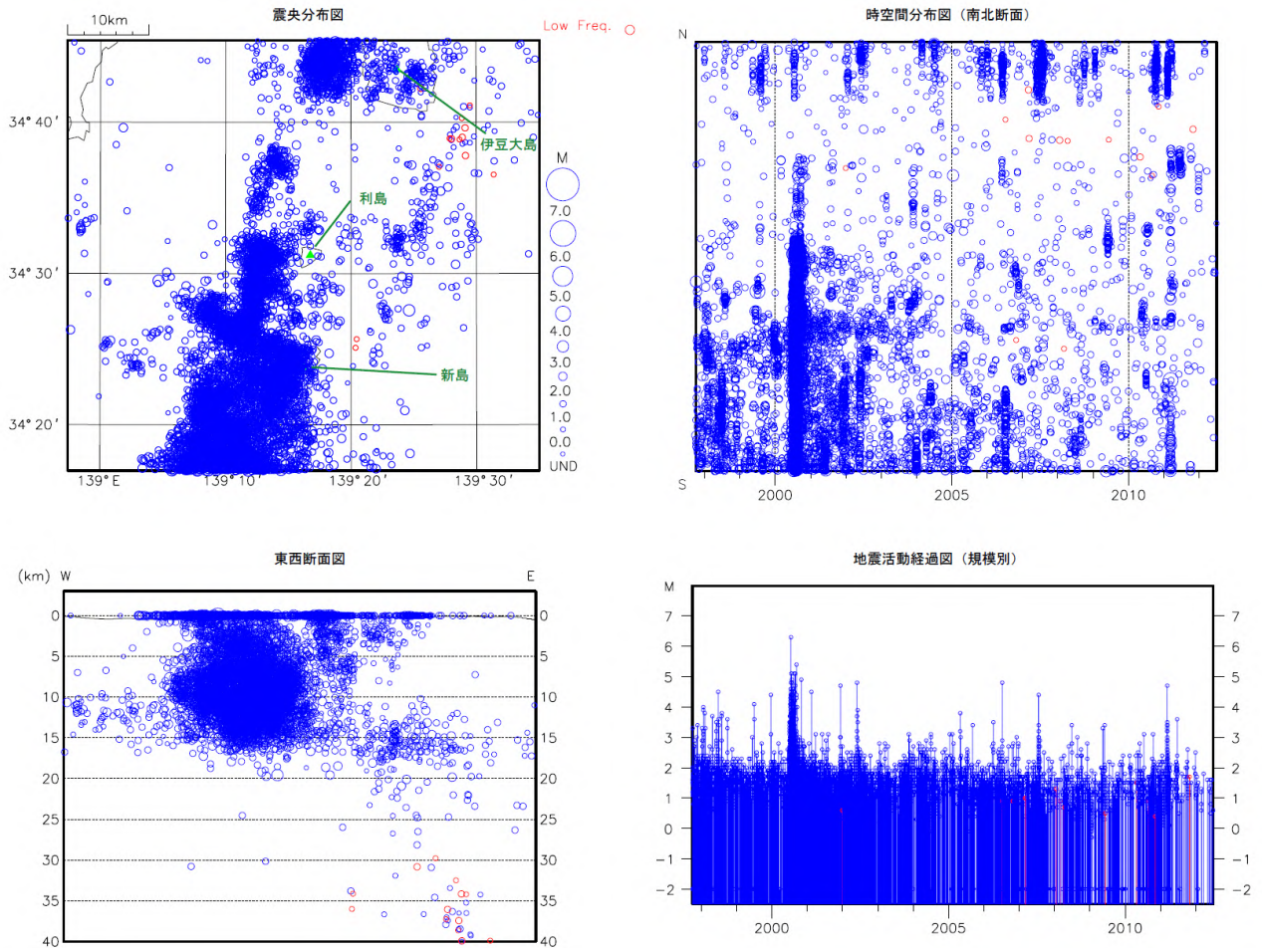


Figure 59-2 Activity of shallow VT earthquakes (blue circles) and deep low-frequency earthquakes (red circles) observed by a regional seismometer network (October 1, 1997, to June 30, 2012). Epicenter distribution (upper left), space-time plot (N-S cross-section) (upper right), E-W cross-section (lower left) and magnitude-time diagram (by scale) (lower right).

## Information on Disaster Prevention

### ① Hazard Map

None

## Social Circumstances

### ① Populations

- Island population: 319 (according to Tokyo statistics as of January 1, 2011)
- Residential area at the foot of the volcano, etc.: 0.7 km from Miyatsukayama.

### ② National Parks, Quasi-National Parks, Number of Climbers

- Fuji-Hakone-Izu National Park Toshima

Number of sightseers per year: Approximately 7,000 (according to 2010 Tokyo Oshima Branch Office Jurisdiction

Overview)

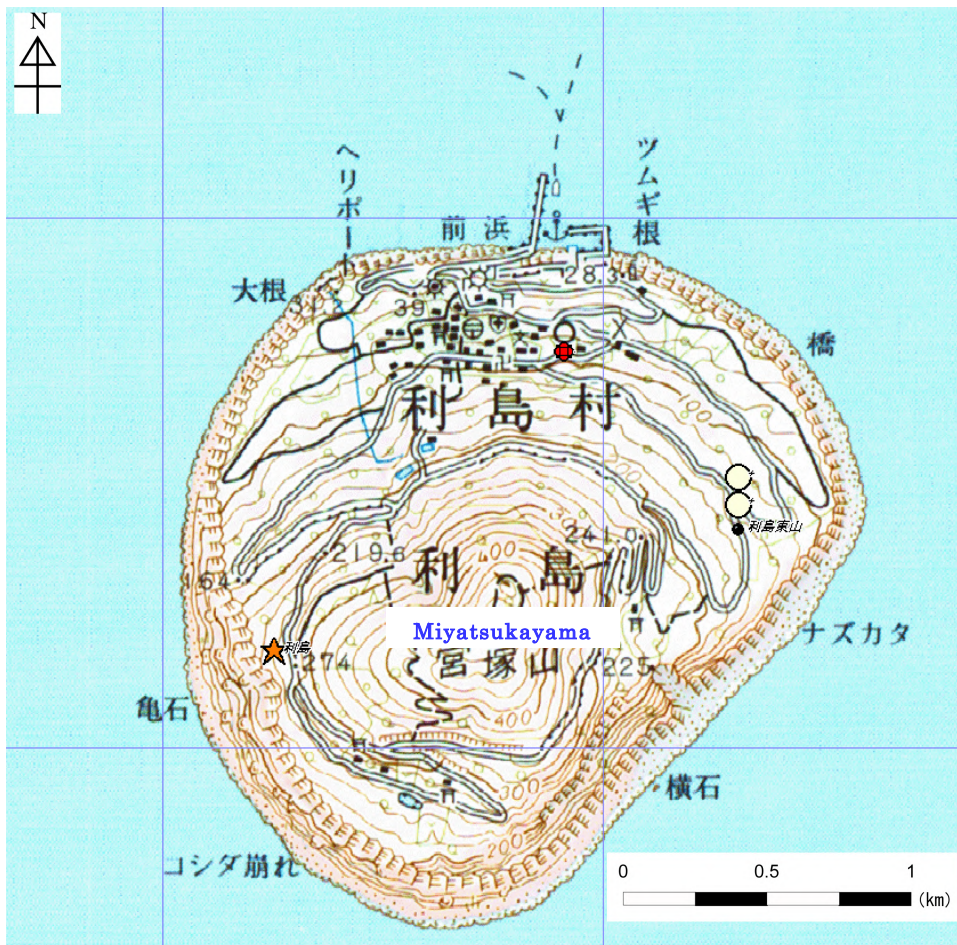
Number of mountain-climbers per year: Unknown

### ③ Facilities

None

### Monitoring Network

\* Monitoring sites with multiple observation instruments are indicated by small black dots, and other symbols indicate types of monitoring.



1:50,000 scale topographic map (Toshima) published by the Geospatial Information Authority of Japan was used.

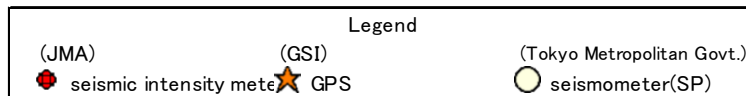


Figure 59-3 Monitoring network.

### Bibliography

Isshiki, N. (1978) Geology of the Toshima District.. Quadrangle Series, Scale 1:50,000, Geological Survey of Japan, 34p (in Japanese with English Abstract).

(Kawanabe, Y.)