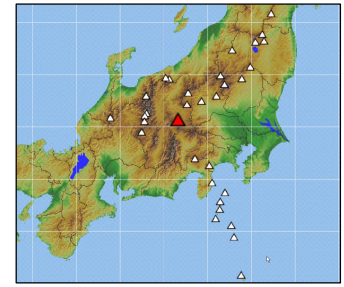


46. Yokodake

Latitude: 36°05'14" N, Longitude: 138°19'13" E, Elevation: 2,480 m
(Yokodake) (Elevation Point)



Overview of Yokodake -taken from summit of Tateshinayama on June 4, 2004. Courtesy of K.Nishiki.

Summary

Yokodake is a small volcano, composed of a thick lava flow and lava dome, measuring 4 km east-west and 2 km north-south. It is located at the northern edge of the Yatsugatake volcanic chain, in east central Nagano Prefecture. The volcano is divided into 10 units (Kawauchi, 1974), many of which are lava. The Hatchodaira lava (Y9), located on the south side of the volcanic edifice, has an extremely fresh topology, with almost no plant growth. The soil directly below the phreatic tephra considered to be the lower strata of the lava is estimated by radioactive dating to be between approximately 600 and 800 years old (Okuno, 1995), which indicates that an eruption caused the overflow of this lava. The SiO₂ content is between 60.2 and 66.2 wt %.

Red Relief Image Map

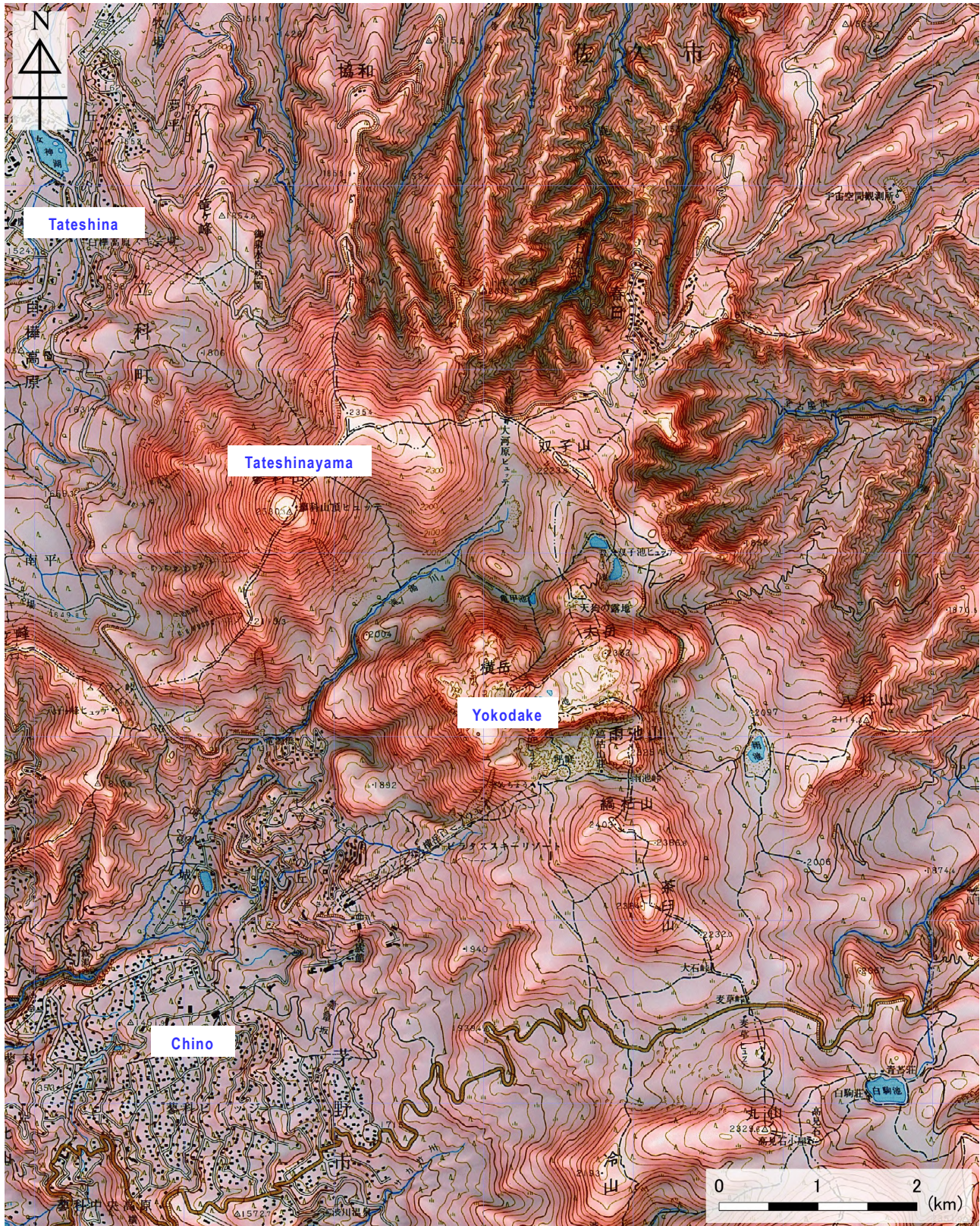


Figure 46-1 Topography of Yokodake.

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

Chronology of Eruptions

▪ Volcanic Activity in the Past 10,000 Years

Details regarding activity within the past 10,000 years are unknown, but the most recent air-fall pyroclastic material is considered to have been ejected approximately 800 years ago, and it is possible that the Hatchodaira lava came from this eruption (Okuno, 1995).

Period	Area of Activity	Eruption Type	Main Phenomena / Volume of Magma
2.4 ka<	Summit crater	Magmatic eruption	Tephra fall.
0.9←→0.7 ka	Yokodake southern flank crater	Magmatic eruption	NYK-1 / Hatchodaira lava eruption: Tephra fall, lava flow. Magma eruption volume = 0.003 km ³ DRE.

* 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

A<: Eruption event before year A.

Bibliography

▪ Historical Activity

There are no records of volcanic activity.

Recent Volcanic Activity

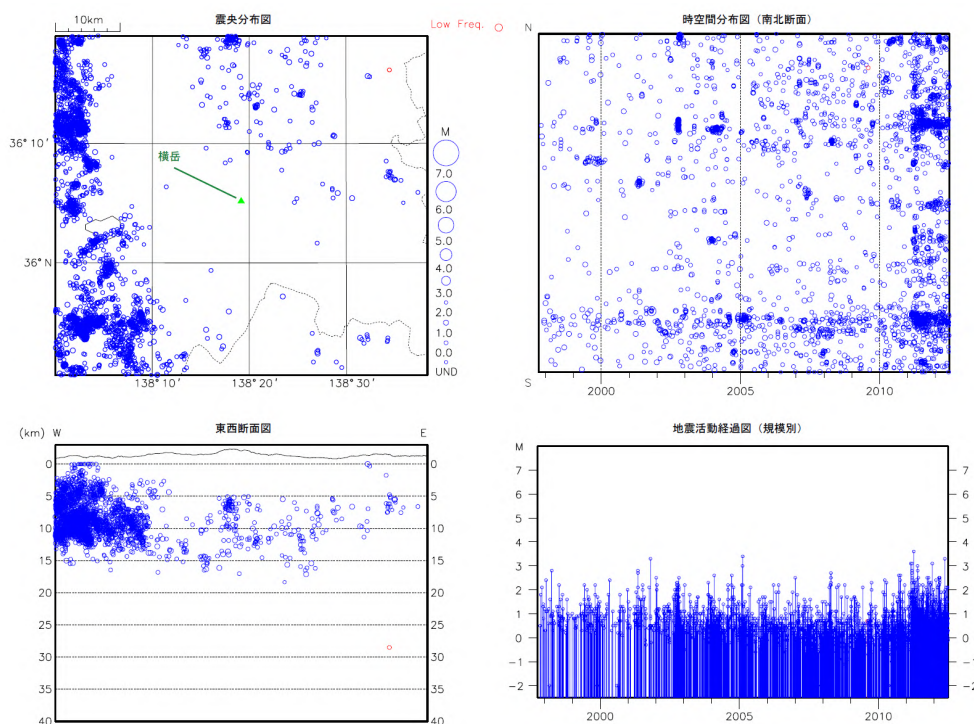


Figure 46-2 Activity of shallow VT earthquakes (blue circles) and deep low-frequency earthquakes (red circles) observed by a regional seismometer network (October 1, 1997, to June 30, 2012). Epicenter distribution (upper left), space-time plot (N-S cross-section) (upper right), E-W cross-section (lower left) and magnitude-time diagram (by scale) (lower right).

Information on Disaster Prevention

① Hazard Map

None

Social Circumstances

① Populations

- Chino City: 56,145
- Sakuho Town: 11,938

(as of October 1, 2011 (Heisei 23) - according to the results of Nagano Prefecture's monthly population movement survey)

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

- Yatsugatake-Chushin Kogen Quasi-National Park:

Number of sightseers per year: Chino City (1,333,100: Tateshima)

(according to 2010 sightseeing land usage statistical survey results: Nagano Prefecture - Sightseeing Planning Division)

Kita-Yatsugatake Ropeway users: 260,000 (Chino City: January to December, 2010)

③ Facilities

- Yatsugatake Museum

Monitoring Network

Wide Area

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



1:200,000 scale regional maps (Takayama, Iida, Nagano and Kofu) published by the Geospatial Information Authority of Japan were used.

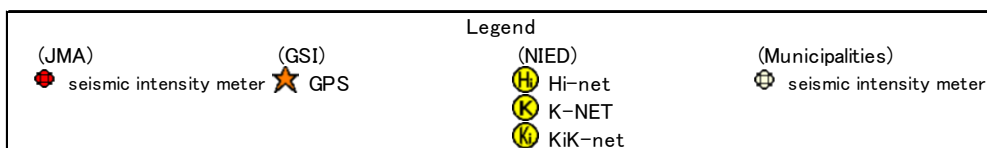


Figure 46-3 Regional monitoring network.

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(Oishi, M.)