

## Activity of Miyakejima volcano(4)-An outlook of the volcanic activity-

# Seismological and Volcanological Department,JMA and Miyakejima Weather Station,JMA Odai Masanobu

At Miyakejima volcano, huge amount of volcanic gas is still emitted from the summit crater. In this paper, the volcanic activity since 2001 is reported.

Although small collapses are still observed at the summit caldera wall, the growth of the caldera had almost stopped. No remarkable eruptions have taken places since 2001. White volcanic gas is continuously emitted from several pits in the southern part of the caldera and small eruptions with a little volcanic ash emission have been sometimes observed. Weak red glow was observed over the summit in December 2000 to January 2001 and in November to December 2001.

Seismic activity beneath the summit became lower in 2001. Volcanic tremors (low frequency earthquakes) are sometimes occurring. The magnitudes of the tremors are rather large (max:  $M=2.5$ ) and large tremors are accompanied by small infrasonic signals. When the volcanic tremors are frequently observed, small ash emissions are sometimes observed. In some cases, small ash emissions are observed simultaneously with the volcanic tremors.

According to the COSPEC measurement, the flux of  $SO_2$  has been decreased in the long run. However, the emission rate of  $SO_2$  is still very high, 10,000-20,000 ton/day.

The activity of the volcanic tremors became vigorous in mid March, mid-late May, late September, Early November 2001 and mid January 2002. After these volcanic tremor activities, momentary increases of the flux of  $SO_2$  were observed.

As mentioned above, the volcanic activity has not shown remarkable change since 2001. The flux of  $SO_2$  is decreasing at the rate of 1/3 per year, therefore, the volcanic activity seems to be weak. However, the  $SO_2$  concentration sometimes reaches to several ppm near the coast and the people in the lee area should take precautions against volcanic gas.

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