

Geothermal Observations at Iwatesan, Hokkaido-komagatake, Niigata-yakeyama, Adatarayama by air-borne MSS

Motoo Ukawa [1], Hiroshi Ohkura [1], Satoshi Miyasaka [2], Katsuaki Akaike [3]

[1] NIED, [2] Reserch-Survey Div.Nakanihon Air Srvce Co.,ltd, [3] Reserch-Survey Div.Nakanihon Air Service Co.,ltd

Surface temperature of active volcanoes has been observed by the National Research Institute for Earth Science and Disaster Prevention by using an air-borne MSS (VAM-90A). In 1998, four volcanoes were targetted for the geothermal observation, Iwatesan, Hokkaido-komagatake, Niigata-yakeyama and Adatara-yama. We report the observed temperature distibutions for these volcanoes.

Suraface temperature of active volcanoes has been observed by the National Research Institute for Earth Science and Disaster Prevention by using an air-borne MSS(VAM-90A). In 1998 four volcanoes were targetted for the geothermal observation, Iwatesan, Hokkaido-komagatake, Niigata-yakeyama and Adatarayama. We report the results of these observations.

The surface temperature distibution of Iwatesan was observed twice, September 10 and November 11. The first observation was conducted 7days after the M6.1 earthquake southern flank of Iwatesan. The highest temperatures measured at geothermal areas in Iwatesan, Oojigokudani, Kurokurayama and Ubakurayama, are ranged in 40 to 46 C, suggesting no evidence of increase of volcanic activity after the M6.1 earthquake. The highest temperatures at the second observation are in the range from 31 to 36 C, and the differences between the first and the second observations are probably due to atomospheric temperature and intensity of sunlight.

The observation at Hokkaido-komagatake was conducted just 2days after the small eruption of October 25. High temperature spots were detected at the 1929 crater and along the fissure of the 1942 eruption and the 96 south crater. The highest temperatures at these high temperature spots are ranged in 45 to 76 C. The observation of Niigata-yakeyama in August 10 indicates highest temperature of 50 C on the eastern flank of the volcano. The high temperature is probably due to sunlight. The observation at Adatarayama in August 13 reveals high temperature area at Numanotaira, the summit crater area. The highest temperatures of the high temperature spots are ranged from 60 to 70 C.