GPS observations on and around Mt. Usu and Toya caldera (project-2006)-

Hitoshi, Y. Mori[1]; Atsuo Suzuki[2]; Hiromitsu Oshima[3]; Jun Oikawa[4]; Yosuke Aoki[5]; Masato Iguchi[6]; Takeshi Matsushima[7]

[1] Inst. Seismolgy and Volcanology, Graduate School of Science, Hokkaido Univ.; [2] Inst. Seismology and Volcanology, Hokkaido Univ.; [3] Usu Volcano Observatory, Hokkaido Univ.; [4] ERI, Univ. of Tokyo; [5] ERI, Univ. Tokyo; [6] SVO; [7] SEVO, Kyushu Univ.

Temporary GPS observations were carried out on and around Mt. Usu and Toya caldera region in November 2006. Twenty three stations including five permanent stations are operated. Nineteen stations were operated with less than two seconds sampling, but four stations are operated with six seconds sampling. The first observations at twenty stations were made in 2000. So, it was supposed that the deformation after the 2000 eruptive activity of Mt. Usu can be investigated.

The results show that there is shrinkage of whole body of Mt. Usu. The subsiding rates at the several points on the summit crater rim of Mt. Usu are not so different, but the rate at the west side is slightly larger than that at the east side.