

Fault parameters of the M6.1 earthquake occurred in Iwate prefecture on September, 3, 1998, derived by GPS observation

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Significant coseismic deformation was observed associated with the M6.1 earthquake of Sep. 3, 1998, which took place at about 10 km SW of the summit of Iwate volcano. We estimated the fault parameters assuming a homogeneous dislocation on a rectangular fault using a geodetic inversion program. The observed and calculated displacements at each station are in agreement except for some stations. The fault parameters obtained in this study is consistent with those derived from the seismological analyses.

The surface deformations around Iwate volcano decreased in rate after the earthquake. However, from the deformation in one year period from Oct., 1998 we derived a pressure source at the western part of the volcano. This means that the magmatic activity still exist beneath the volcano.