Ground deformation of Iwate volcano observed by a dense GPS network

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Significant ground deformations associated with seismic crisis were observed by a dense GPS network at Iwate volcano in 1998. The deformation in February-August shows the migration of an inflation source from a depth around 10km beneath the neighborhood of the summit to a shallower part near the west end of Western-Iwate volcanoes. A moderate earthquake of M6.1 took place about 10km to SW of the summit on September 3rd. The analysis of the coseismic deformation revealed its faulting motion of M0 9.8E+17Nm. Postseismic deformations observed after September 4th may be explained by a deflation source at a relatively deeper part and an opening crack at a shallower part, and these sources can be affected by the earthquake of M6.1.