

Postseismic deformation of the 2004 Niigata-Chuetsu earthquake (M6.8) by a dense GPS observation

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To investigate the postseismic crustal deformation associated with the 2004 Niigata-Chuetsu earthquake (M6.8), we newly started GPS observation to fill the gap of the nationwide GPS network. Our GPS sites were mainly distributed in the focal region in where there was no permanent GPS site, and succeeded to catch the postseismic deformation. Coseismic displacements of several aftershocks were clearly detected because of immediate observation. We could estimate a fault model of an aftershock (M5.9) on November 8 occurred just beneath our GPS network. Moreover, clear postseismic deformation, which could be characterized by logarithmic decay function, was observed. This signal might suggest possible afterslip. Our results indicated that dense GPS observation could give important and interesting data to clarify the properties of shallow inland middle-size earthquakes. Acknowledgements : We are grateful to Takeshi Katagi at Kyushu Univ., Makiko Iwakuni at Univ. Tokyo, and Sayaka Uchiumi and Yasuko Shimizu at Tokai Univ. for data handling. We used RINEX GPS data of Geographical Survey Institute.