

## Postseismic changes observed in Japan nationwide tiltmeter array

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National Research Institute for Earth Science and Disaster Prevention (NIED) has installed over 500 tiltmeter stations that cover most parts of Japan. The tiltmeter can detect smaller crustal deformations than those which can be done by GPS, so that this is expected to be a powerful tool for exploring the crustal deformations due to fault motions during earthquakes. We report the postseismic deformations detected by this tiltmeter array during its observation period.

One of the best case is the records following the October 6, 2000 West Tottori earthquake (Mw 6.7). It is shown that the GPS sites near the source area detect the postseismic surface displacements following the earthquake (Hashimoto et al., 2001). On the other hand, the tiltmeters which are located at least 80 km away from the epicenter detect tilt changes which obey logarithmic decay with time constant of about one day. Nearly the same signals are observed at several stations. These evidences strongly suggest that these tilt changes are due to the deformation at the source region, possibly afterslip.