Postseismic crustal deformation of the off-Miyagi earthquake of August 16th, 2005

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GEONET, the continuous GPS observation network of GSI detected a significant crustal deformation caused by the off-Miyagi earthquake (Mj=7.2) of August 16th, 2005. A small postseismic deformation was also observed after the earthquake. We estimated the inter plate slip distribution based on the two months of non-secular component of crustal deformation observed by the GEONET, and reported the result to the autumn meetings of SSJ and GSJ. Although the postseismic deformation became smaller in November, it activated again after the occurrence of an aftershock (Mj=6.6) on December 2nd, for a while. The after slip area estimated after this aftershock seemed to expand a little toward north of the source region of the mainshock. The postseismic deformation became small again at the point of February, 2006. However, it would be necessary to accumulate a few months of data to conclude whether the after slip event ends or not.

