

GPS Monitoring around Tokai Region (Third Report)

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A slow slip event was detected by GEONET (GPS Earth Observation Network) data since 2000 in the Tokai region where a large earthquake was expected to occur in near future. We started about two times denser GPS observation network in the area since 2003 to monitor more detailed crustal movements.

New network data was obtained between January 2004 and July 2006, and we processed it with GEONET data using GAMIT software ver. 10.21 by referring 17 IGS stations. We tried some different types of triangulation nets in order to calculate strain distribution and to check effects of the types for the triangulation shapes.

An anomalous strain was detected near the border of Shizuoka City and Kawane-honmachi. One of the anomalous data was found to be an effect of a landslide near the GPS station.

We compared the two strain distribution results, one is obtained from GEONET only, and the other is from the new GPS network including GEONET. The difference was significant and the new GPS network shows more detailed crustal motions.