

## Short-term Slow Slip Events Detected by the Strainmeters in the Tokai Region

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The Japan Meteorological Agency (JMA) has been watching the data of the strainmeters deployed in Tokai region in order to predict the Tokai Earthquake. The JMA detected strain changes due to a short-term slow slip event (SSE) in July 2005 in the Tokai region in the monitoring work. Low-frequency earthquakes (LFEs) occurred simultaneously with the short-term SSE. The JMA has located LFEs since 1999 in addition to normal earthquakes. The slip location of the SSE was estimated based on the observed strain changes, and it was found that the estimated location of slips accorded with the epicenter distribution of the LFEs.

We reviewed strainmeter data using the LFE activities as the index of possible strain changes due to SSEs. We recognized about sixty short-term SSEs since 1999 from the data of strainmeters. Clusters of LFEs are seen in the region (Figure 1). Seismic moments of those SSEs in each area were estimated. Cumulative seismic moments are shown in Figure 2. The seismic moment accumulation rate was high from 2003 to 2004 in the areas A and B, and it was high from 2003 to 2005 in the area C. These rate changes are considered to be related to the Tokai long-term SSE from 2001 to 2005.

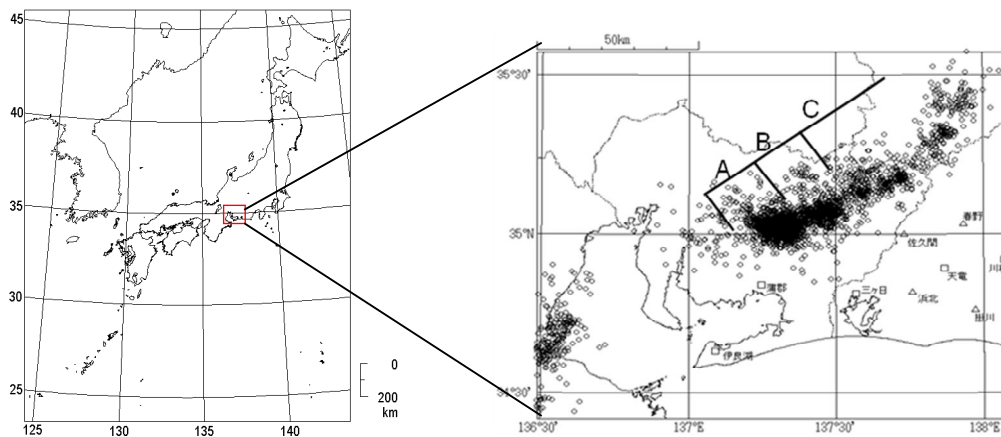


Figure 1 LFE distribution in Tokai area. Clusters of A, B, and C are recognized.

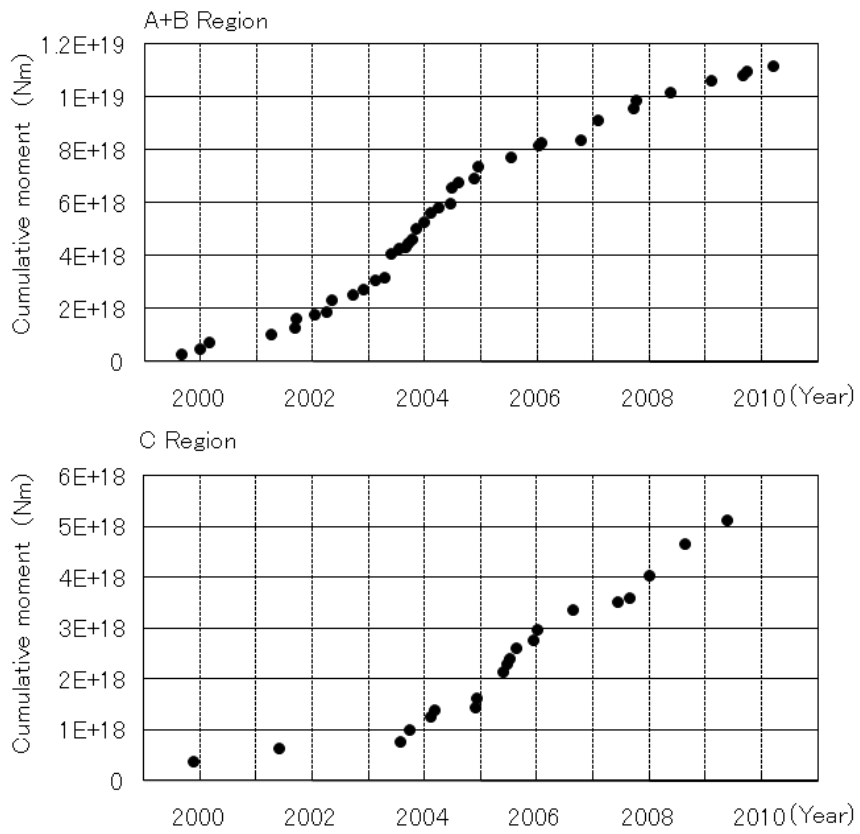


Figure 2 Cumulative seismic moment in the areas A and B (the upper), and that in the area C (the lower).