

Large-Scale Crustal Deformation Event in the Southwestern Japan during the Period from July to October, 2000

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Many large scale crustal activities occurred in and around latter half of 2000; they are the eruption of Miyake-jima, the large-scale magma intrusion near Kozushima, the western Tottori earthquake, the Geiyo earthquake. The deformation field due to the dike formation near Kozushima island propagated to Boso peninsula, Izu peninsula and the Tokai district, etc. Furthermore, since the beginning of 2001, the anomalous crustal deformation are detected in the Tokai district, and it is suggested that the silent earthquake is occurring on the plate boundary beneath around Lake Hamana.

We also found that similar anomalous jump of deformation are not limited in Boso, Izu, Tokai and South Kanto, but widely spread in southwestern Japan

When we assume that the northeast Japan is fixed, we found some regions of the southwestern part of Japan moved to the east by a little less than 1cm. Although it is a very small quantity, there is coherency in the pattern of temporal change among the stations and it may be true crustal deformation

It is interesting to note that several stations close to the epicenter of 2000 western Tottori earthquake moved to the east during the period from July to October 2000 that is the same period of Kozushima dike activity and it was just before the western Tottori earthquake.