

Spreading of crustal deformation that followed after the 2000 seismic and volcanic activity of the Izu islands

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Remarkable crustal deformation was observed in a wide region accompanied with the 2000 seismic and volcanic activity of the Izu islands. We investigated how the deformation proceeded and extended by analyzing GEONET data. Followings are the results of the analyses.

1. Displacement in the east-west direction

Eastward movement occurred first in the southern Kanto region from the Boso Peninsula to the Izu Peninsula. Then, the area extended to the west gradually and reached to the Ise Bay - Tsuruga tectonic zone in 2001.

2. Displacement in the north-south direction

First, remarkable northward displacement occurred in the Izu Peninsula and southern Kanto. Then, from late 2000, southward displacement became noticeable on the western coastal region of Suruga Bay, and the movement seems to have reached to the Hokuriku district in 2001.

3. Linear strain in the east-west direction

First, extensional strain was observed around the Izu Peninsula, then the area extended to the Tokai region

4. Linear strain in the north-south direction

Extensional strain was produced in the region to the north of Suruga Bay.

5. Areal strain

Positive areal strain was generated on the western coastal region of Suruga Bay and the region extended gradually to the north to the Hokuriku district.

6. Maximum shear strain

Large maximum shear strain was produced in the region surrounding the Izu Peninsula. Extension of the region to the east is not clear.

7. Rotational field

Noticeable anti-clockwise rotational field was generated to the north of the Izu Peninsula and the region was extended gradually.