Unusual conditions of crustal movements in the central part of Kinki district preceding 1995 Hyogo-ken-nanbu earthquake.

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The crustal movement records obtained at plural observatories distributed in the central part of Kinki district showed that from the beginning of 1990 the contraction rate in the direction of north-south increased. The increment of contraction continued for about 2.6 years. After that, the contraction rate decreased and was kept approximately constant for about 2years. About 0.5 year before Hyogo-ken-nanbu earthquake, the strain rate in the direction of north-south turned to large extension. It was difficult to explain these strain rate change as the phenomenon accompanied by a pre-slip of the seismic fault. We considered that the unusual conditions of crustal movement may be caused by partial sticking of the Philippine-sea plate under the Kii-pen