



## **Contemporary Results of GPS Observations in Ismetpasa Creeping Region of North Anatolian Fault Zone (NAFZ), Turkey**

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The surface creep was discovered in 1969 by Ambrasseys in Ismetpasa region of NAFZ. In 1972, a six point-network was established by General Directorate of Mapping in Gerede-Ismetpasa. This region is relatively quiet segment of western NAF which is creeping along steadily. This network was surveyed by terrestrial techniques in 1972 and 1973. The Ismetpasa Network was re-measured in 1982 and in 1992 by the Geodesy Working Group of Istanbul Technical University.

Although the same network was observed in 2002 and 2007 by Zonguldak Karaelmas University applying GPS technique, with 1-hour site occupation, the characteristics of movement has not been detected implicitly. This type of movement still raises a question about the accumulation of tectonic movements in the region.

Geodesy Department of Kandilli Observatory and Earthquake Research Institute (KOERI) of Bogazici University has been re-surveyed the network by campaign-based static GPS surveying (10-hour site occupation) since 2005. The GPS velocities data coming from geodynamic GPS networks of the crustal deformation studies and the analysis of repeated geodetic observations give us significant information about the elastic deformation in this region.