Crustal vertical movements in southern Kanto; Combined analysis of the data by GPS and tide gauge

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In order to study the crustal vertical movements and their changes in the southern Kanto district, Japan, we have been carrying out GPS observations on the tide stations at Mera (south coast of Boso peninsula) and Okada (Izu-Oshima island), and the site in Tsukuba. Tidal analysis shows that the upheaval rate at Okada and subsidence rate at Mera have increased since 1990. This suggests that stress field in those area has changed since 1990. Relative movement between Mera and Okada estimated from tide data is about 5 - 11 mm/y (6.6mm/y in average) at present which is fairly close to 5.2 mm/y detected by GPS Observations.