

Aseismic slips synchronized with earthquakes in northern Chiba Prefecture, Japan

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Episodes of intermittent uplift over periods of one month to a year have been observed by the Global Navigation Satellite System in the northeastern part of Chiba Prefecture, Kanto district, Japan. Uplift in the vicinity of Choshi in 2000 was accompanied by the earthquake near Choshi in June 2000 (M6.1). Uplift of the northeastern part of Chiba Prefecture in 2005 was accompanied by the earthquakes near Choshi in April 2005 (M6.1) and near Chiba-city in July 2005 (M6.0). Although our estimates of the source parameters for these uplifts were well explained by slips on the faults of these earthquakes, the amounts of slip we estimated for the uplifts were several times larger than we expected from the earthquakes. We attribute the extra slip to the above mentioned intermittent uplift events, which we suggest were caused by aseismic slips.

Keywords: Aseismic slip, Northern Chiba Prefecture, GNSS