

# Immediate History of the 2003 Tokachi-Oki Earthquake Using Continuous GPS Networks

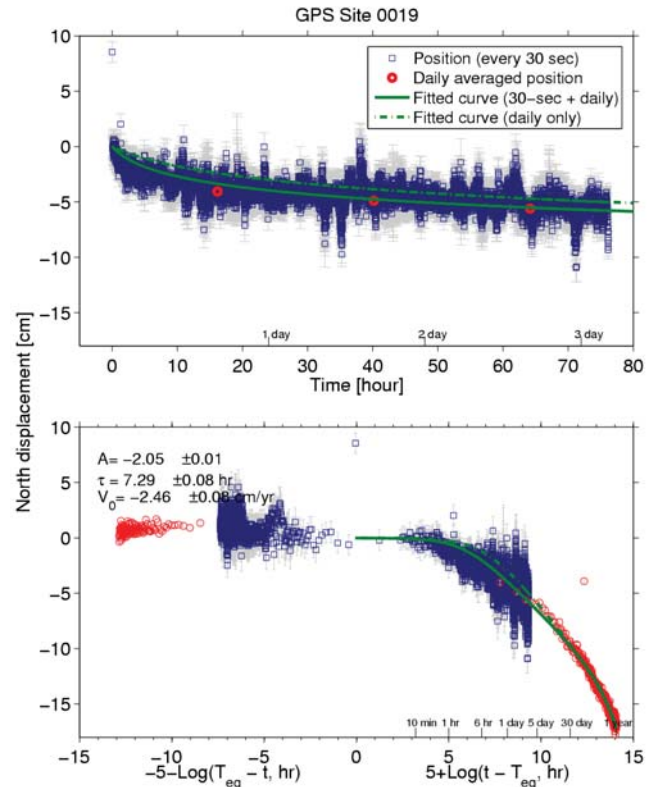
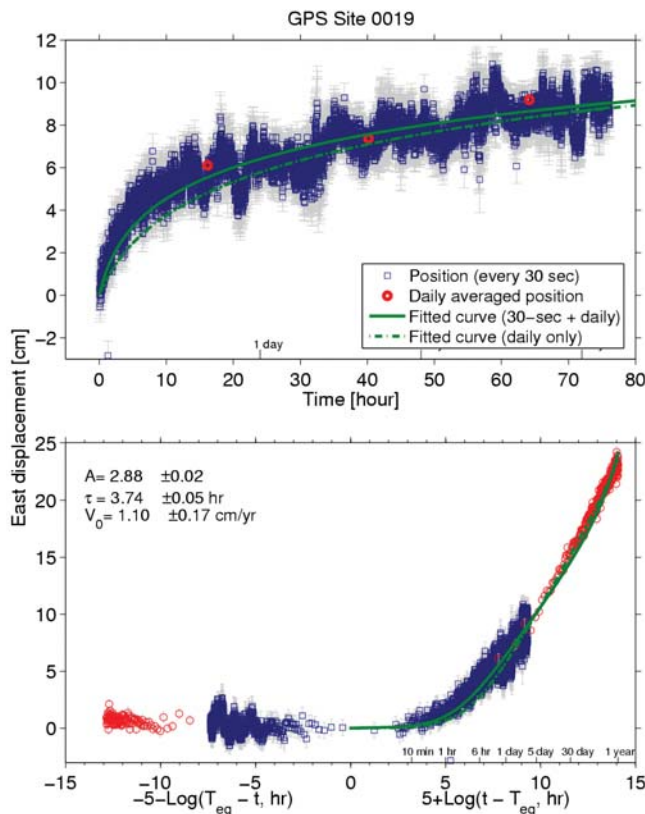
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Although 1-Hz GPS data are important, there are many geophysically interesting problems where receivers are using the more standard 30-second sampling rate. In this study we investigate postseismic deformation after the 2003 Tokachi-Oki earthquake using 30-second interval position estimation. Multiple filtering strategies were tested in order to maximize precision. We have obtained precise position estimates for four days after the M8.3 mainshock. The estimated positions are fit to a rate-state friction function considering long-term creep rate due to tectonic loading. These high-precision positioning estimation techniques contribute to our knowledge of fault response in the aftermath of great earthquakes.

**Figure 1.** East component of 30-second interval (blue) and daily (red) positions of site 0019 for one year. **Figure 2.** North component of 30-second interval (blue) and daily (red) positions of site 0019 for one year.



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