

Interactive comment on “Anomalies of zenith tropospheric delay following the M_w 7.8 Haida Gwaii earthquake” by Y. B. Yao et al.

Anonymous Referee #1

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The paper discusses that Zenith Tropospheric Delay in the GPS data recorded near the 2011 Haida Gwaii earthquake on October 28 near the Queens Charlotte Island may show some signal related the earthquake pre-, co-, and post-cursors.

Although, authors claim that there are some relation can be found between the ZTD data and the Haida Gwaii earthquake in the original an ZTD (Figure 2) and even more in the improved ZTD deflection method that authors newly proposed (Figures 3 and 4), I do not agree that we do see some clear ZTD signals associated with the earthquake. Authors further discuss the statistical significance of the ZTD variation on the day of the earthquake, by comparing with those of 2 days before and after the earthquake (Figure 6) and those of the same day of year in other years (Figure 7). Authors also claim that Weather Forecast models (ECMWF), which are given 4 times a day, are

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used to remove the ZTD change caused by the weather by interpolation and the non-meteorological effects in the ZTD variations (Figure 8) is detected. Again, I do not see any ZTD signal related with the earthquake clearly.

I cannot say that this paper is acceptable for publication, because observed data and the following analyses failed to show the conclusion "we provided a possible explanation for the observed phenomenon and also introduced a new valid differential method to detect ZTD anomalies".

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