

# **Supplementary Materials:**

## **A geodetic matched-filter search for slow slip with application to the Mexico subduction zone**

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The supplementary materials contain 27 figures in this file plus an attached file named final\_events.txt. This file contains all the estimated parameters (location, date, duration and magnitude) for the 28 slow slip events analysed in this study.

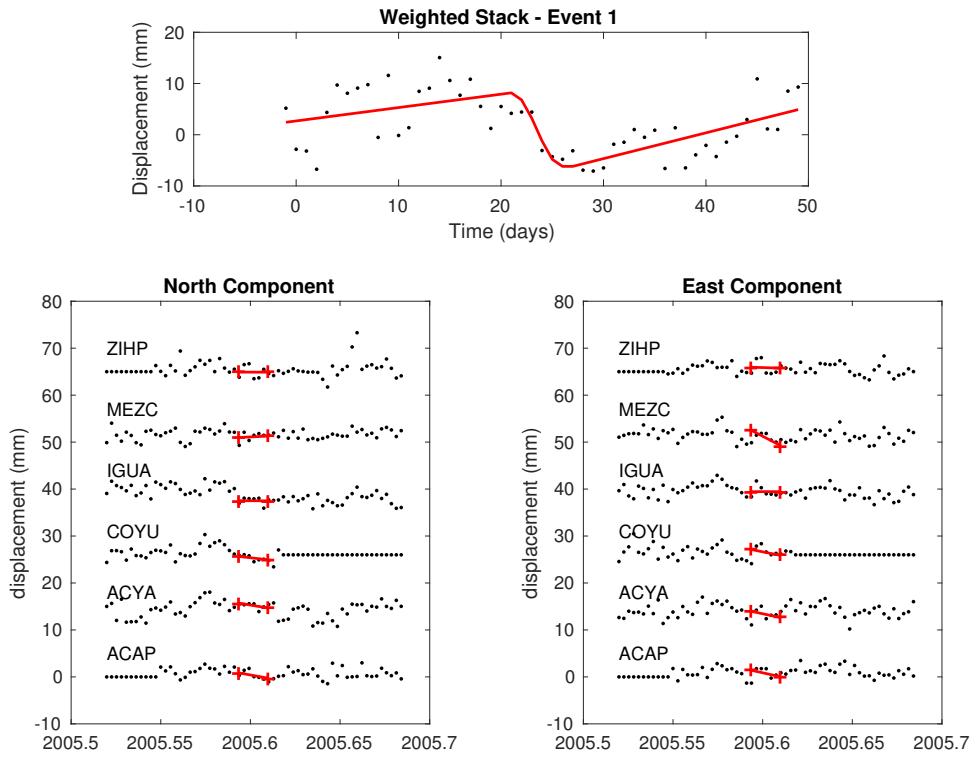


Figure S1: Model of the slow slip for the event 1. Top: black dots show the wighted stack of the of the GPS time series in displacement. The red line show the model of the stack, used to estimate the  $M_w$  and duration of the events. Bottom: North and East GPS time series used to do the analysis of event 1, centered on the detection time. The red lines indicate the static displacement at each station due to the slow slip that we have modelede.

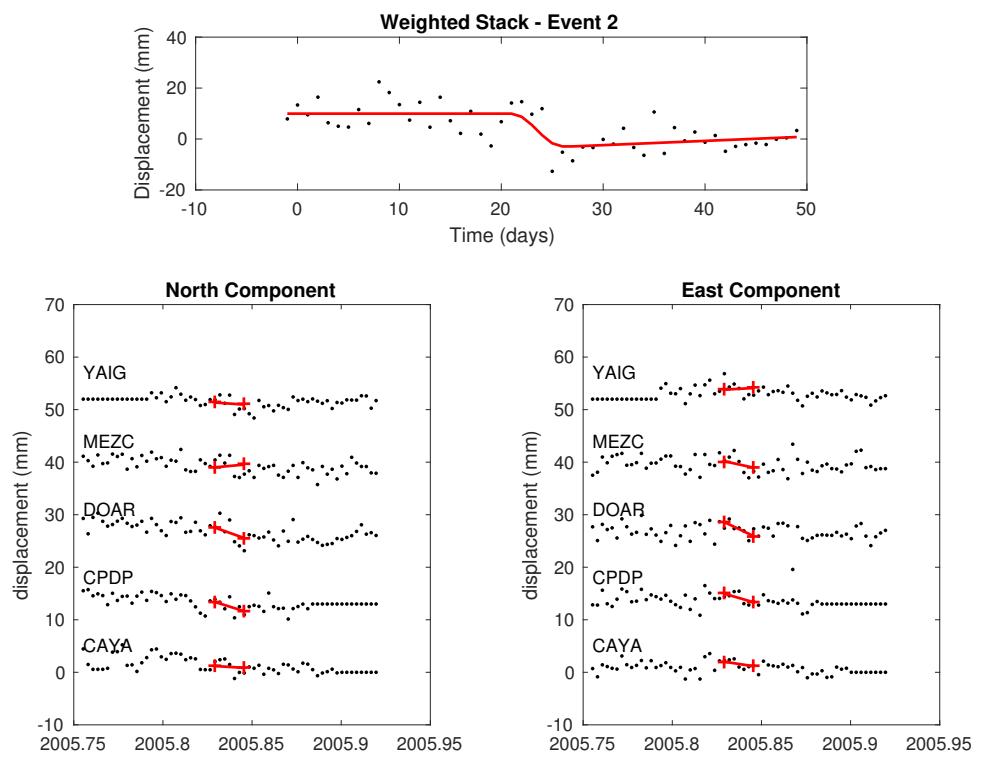


Figure S2: Same as Fig. S1, but for event 2.

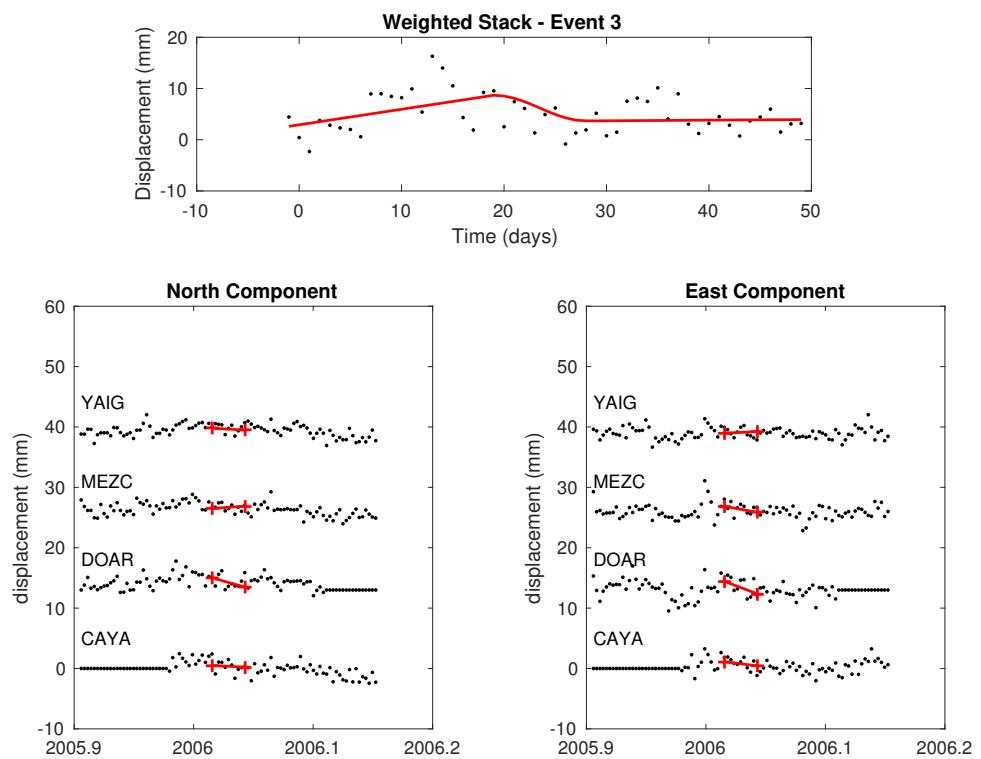


Figure S3: Same as Fig. S1, but for event 3.

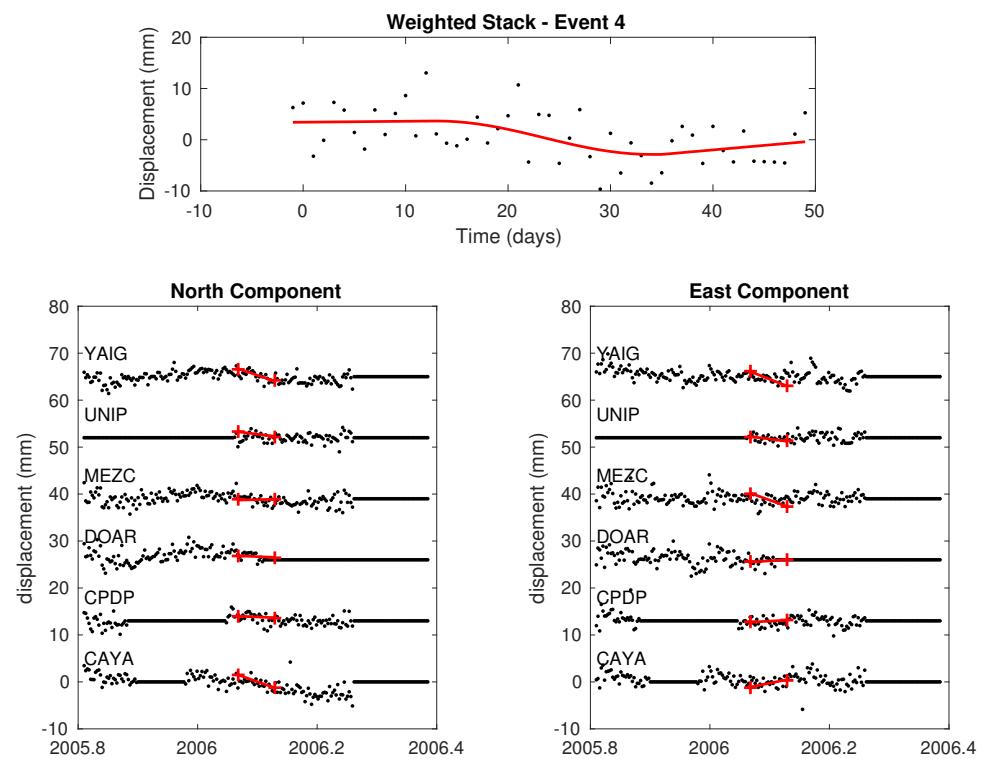


Figure S4: Same as Fig. S1, but for event 4.

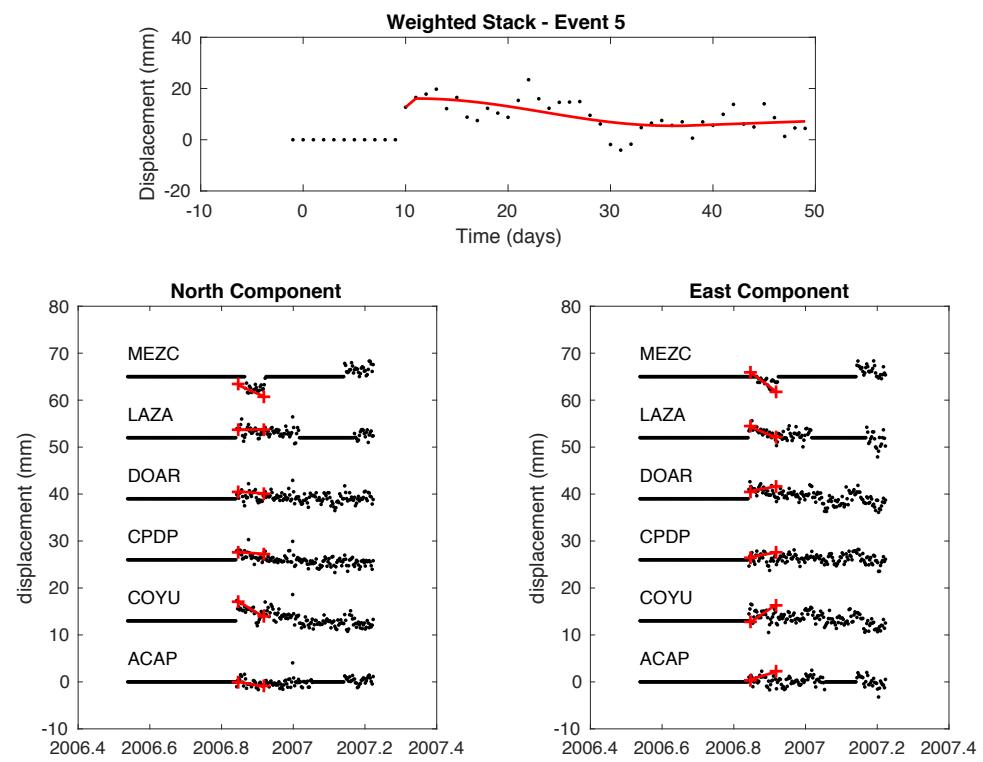


Figure S5: Same as Fig. S1, but for event 5.

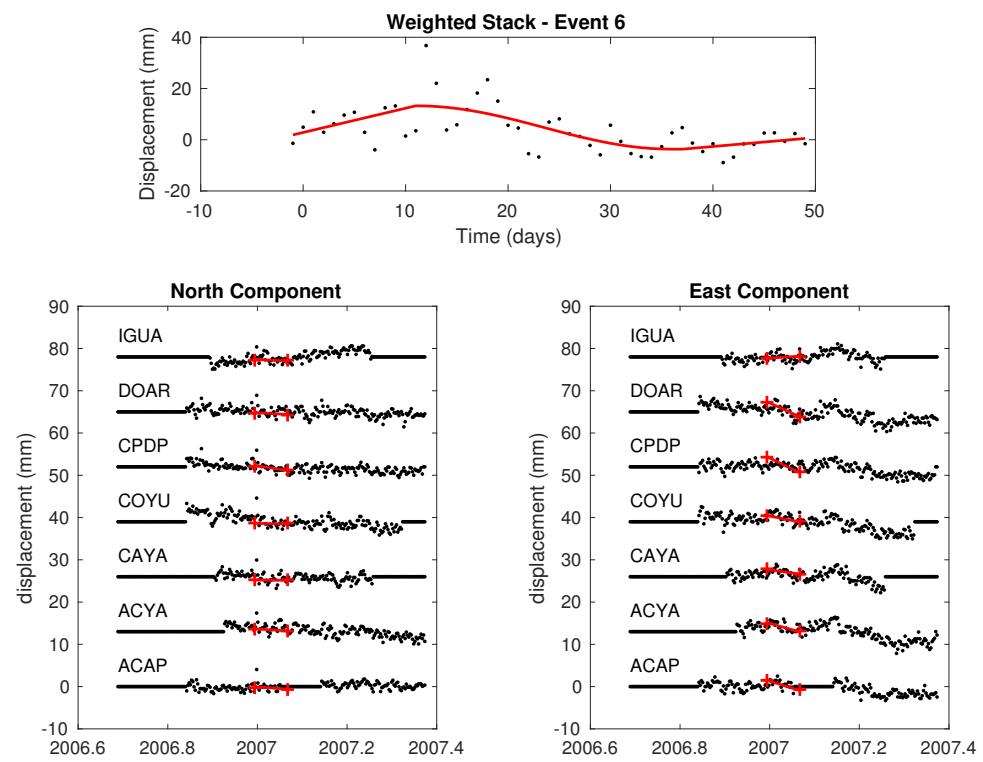


Figure S6: Same as Fig. S1, but for event 6.

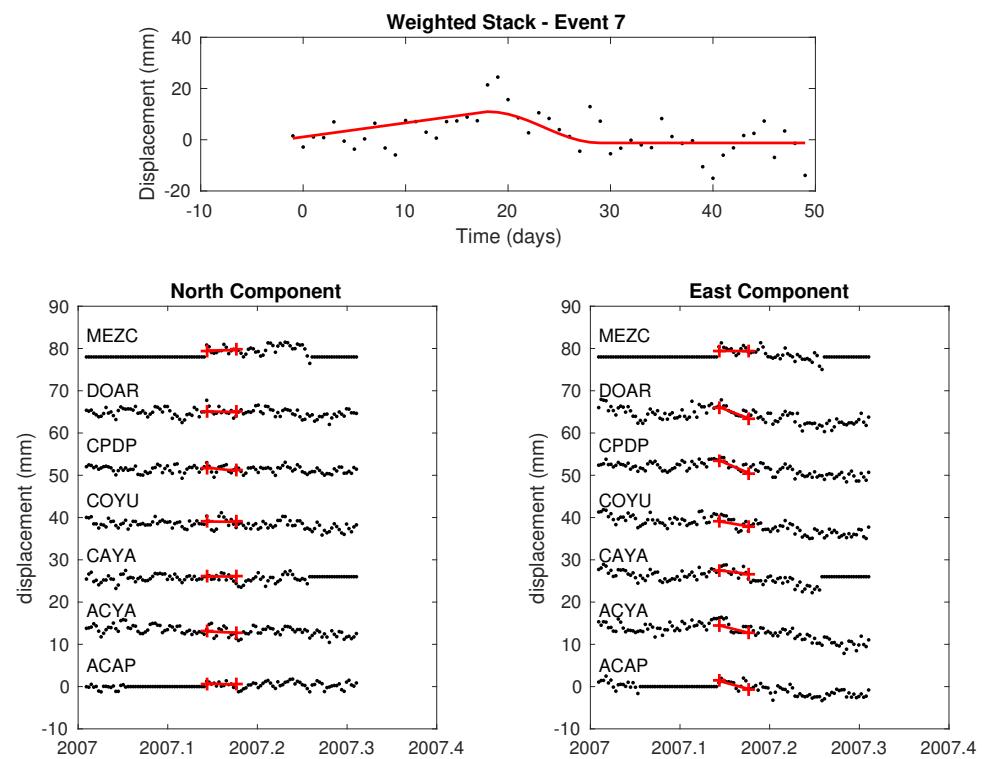


Figure S7: Same as Fig. S1, but for event 7.

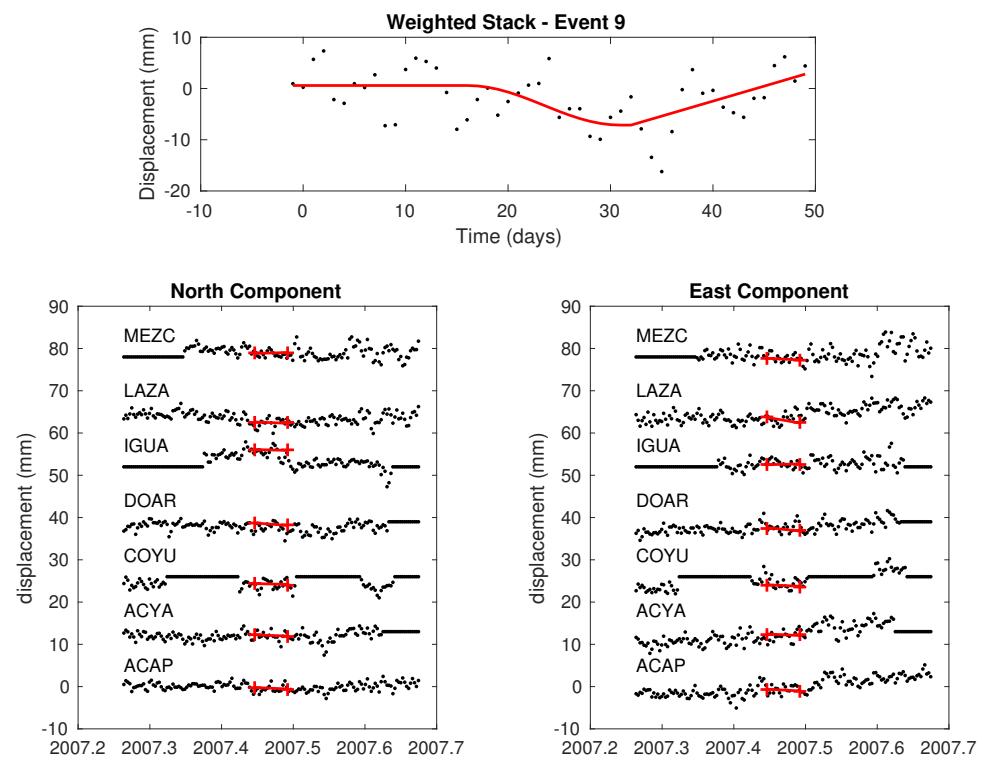


Figure S8: Same as Fig. S1, but for event 9.

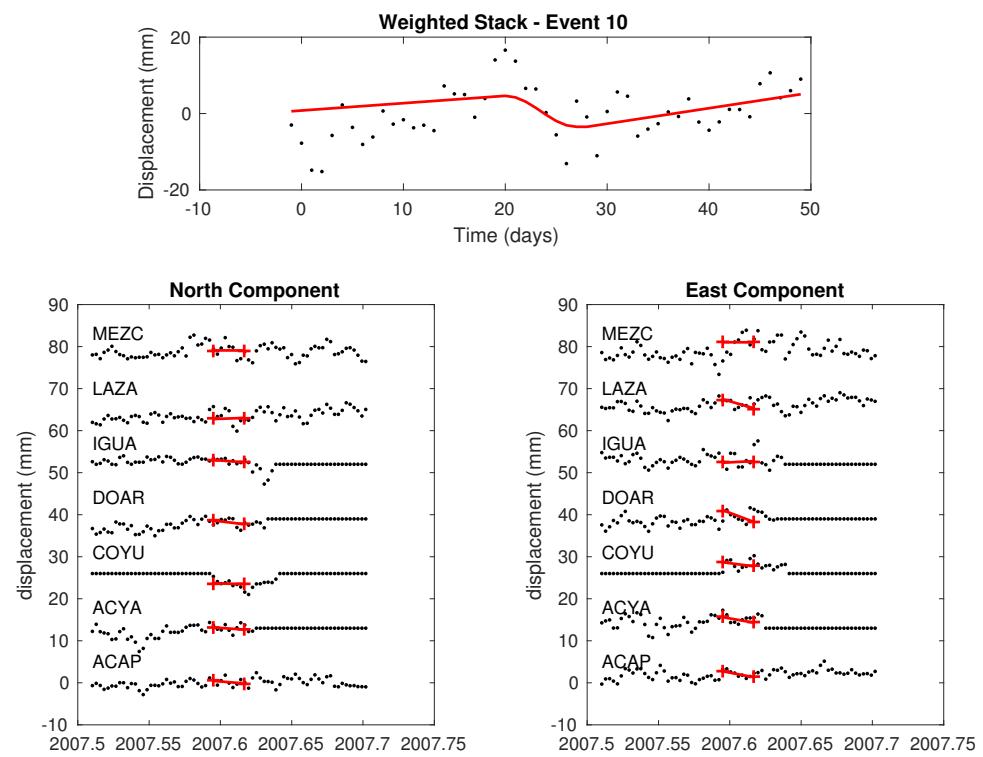


Figure S9: Same as Fig. S1, but for event 10.

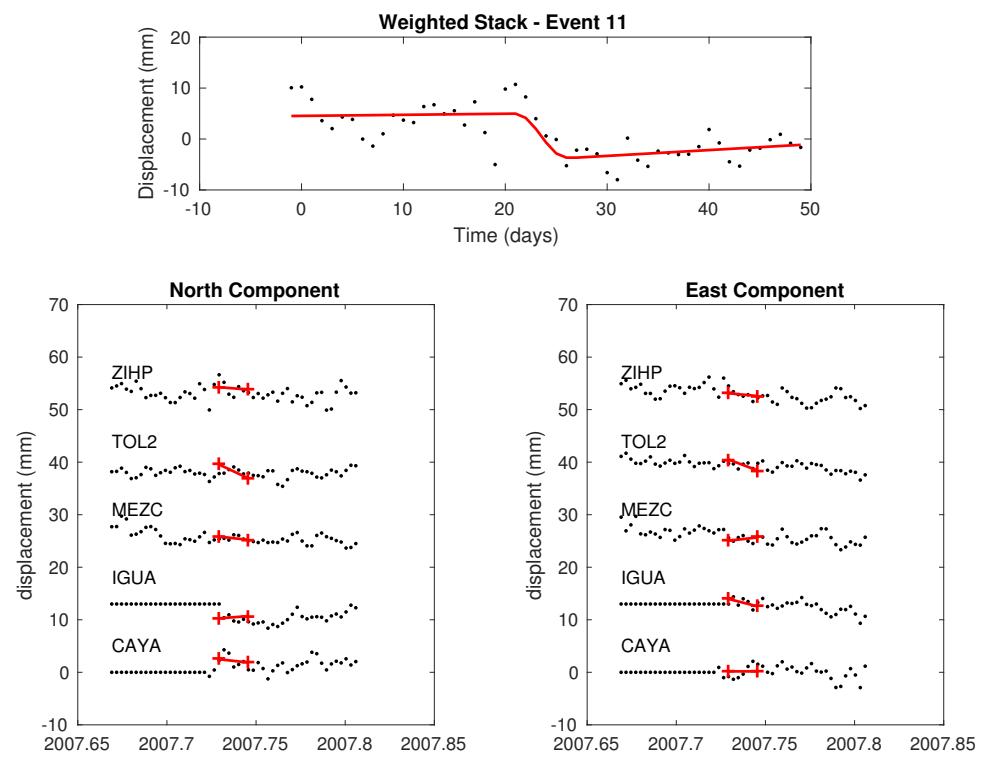


Figure S10: Same as Fig. S1, but for event 11.

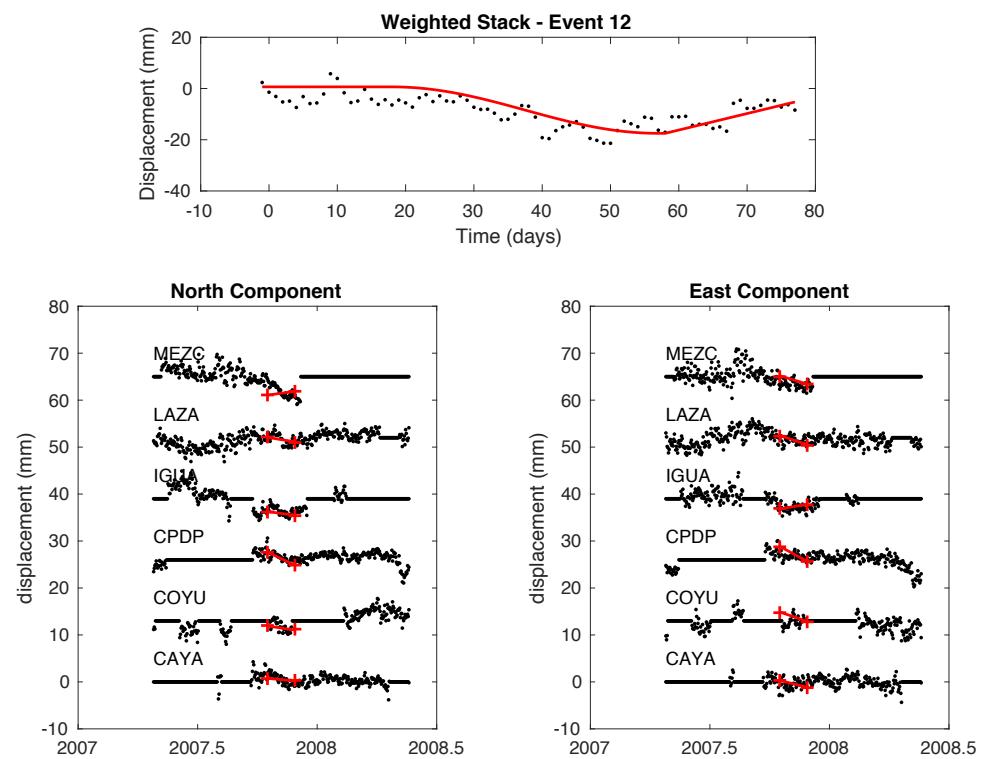


Figure S11: Same as Fig. S1, but for event 12.

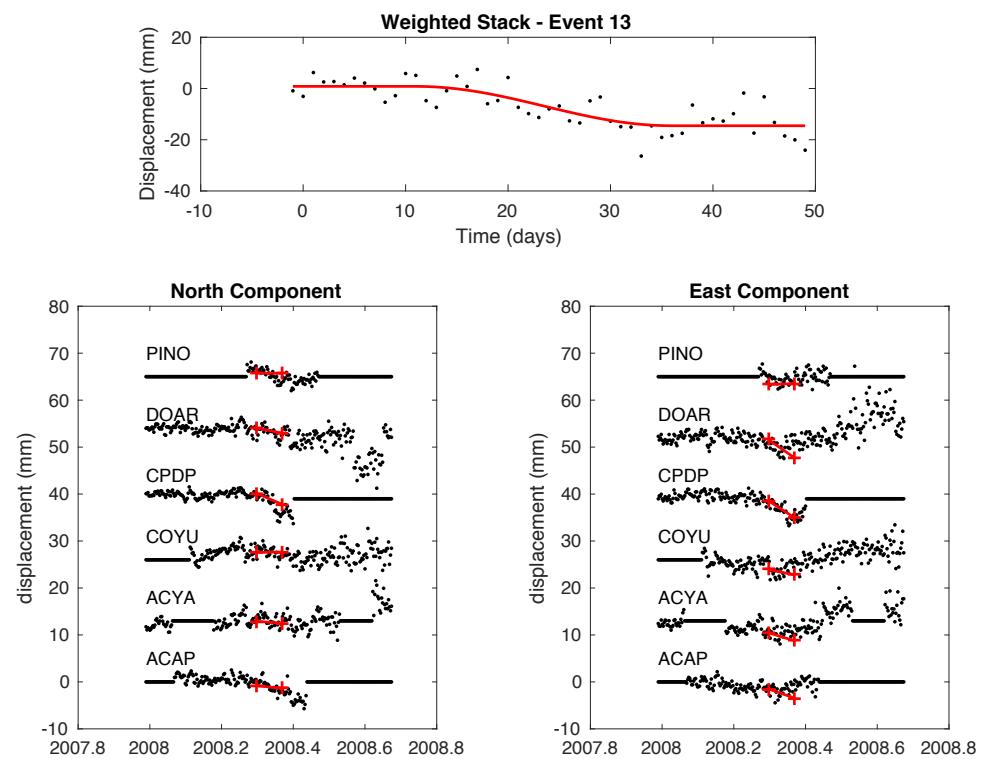


Figure S12: Same as Fig. S1, but for event 13.

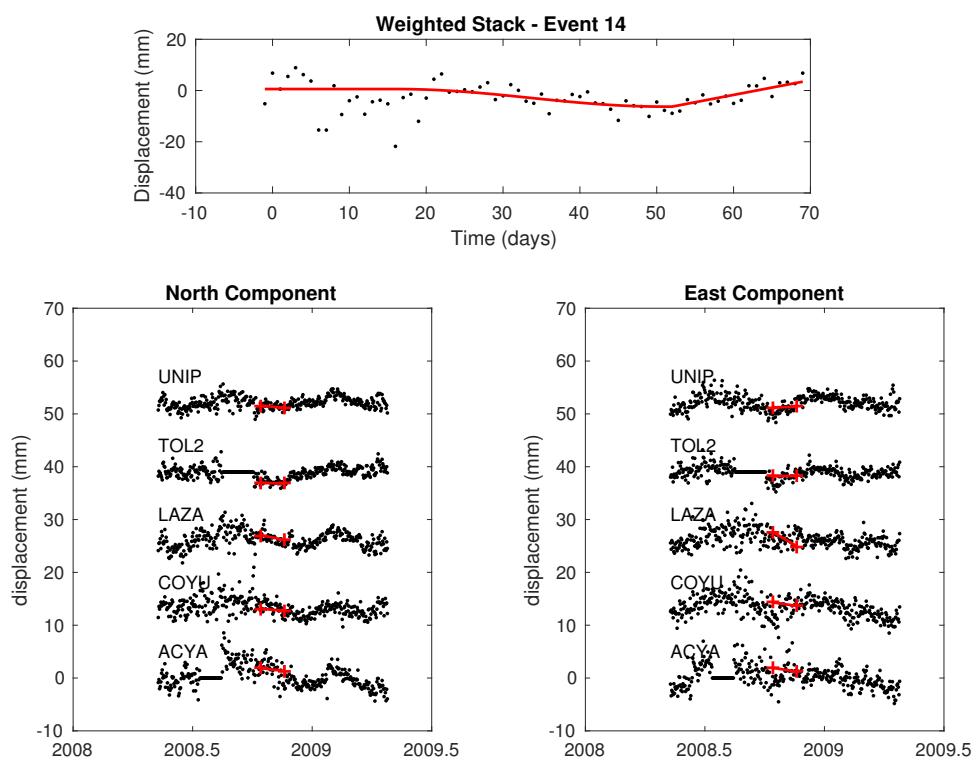


Figure S13: Same as Fig. S1, but for event 14.

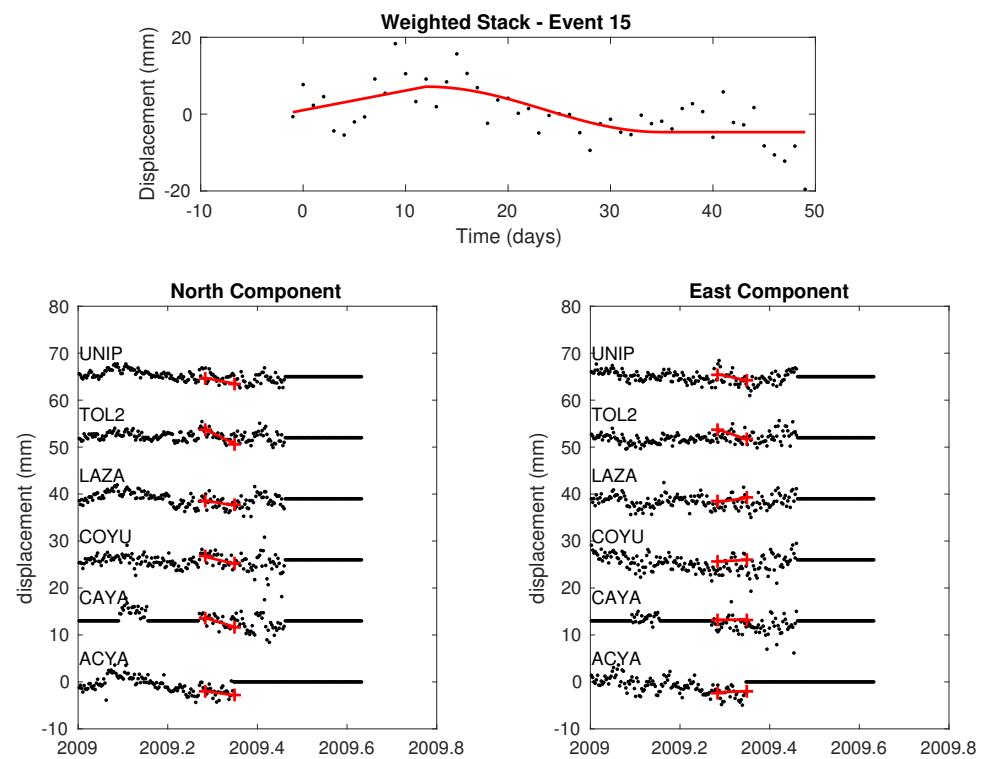


Figure S14: Same as Fig. S1, but for event 15.

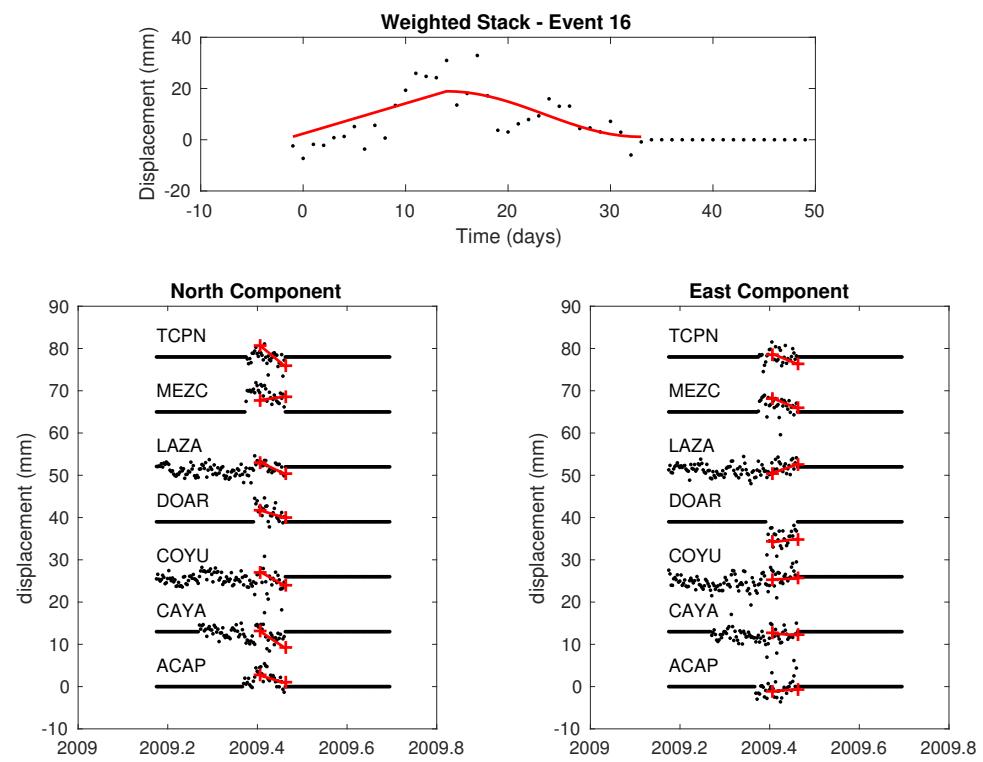


Figure S15: Same as Fig. S1, but for event 16.

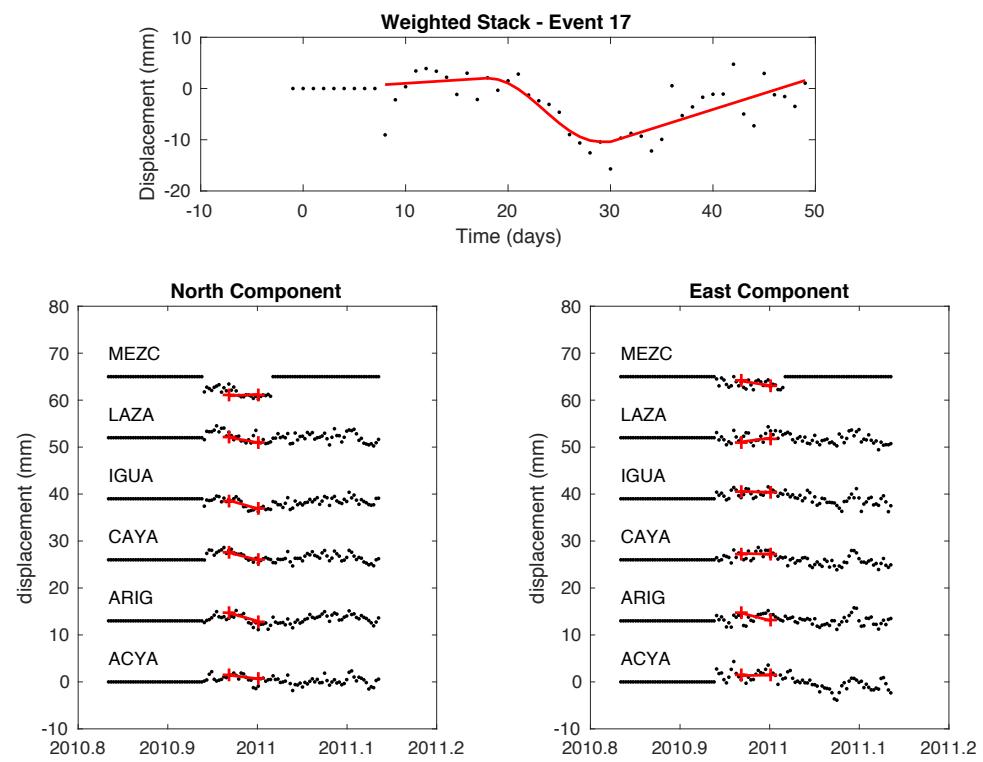


Figure S16: Same as Fig. S1, but for event 17.

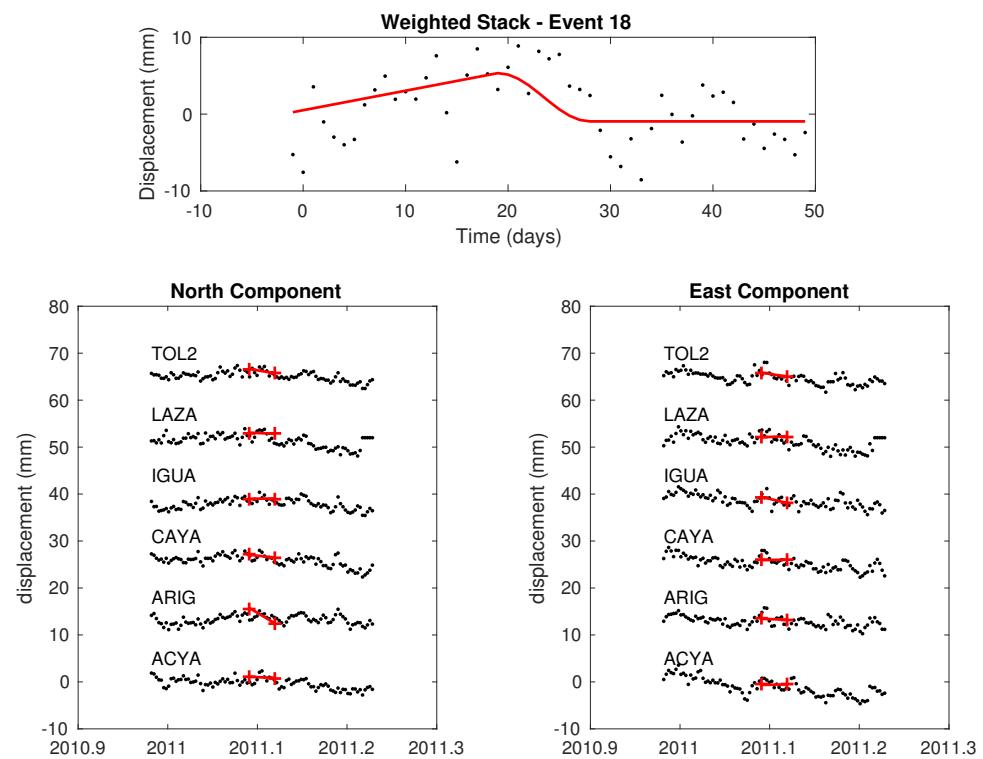


Figure S17: Same as Fig. S1, but for event 18.

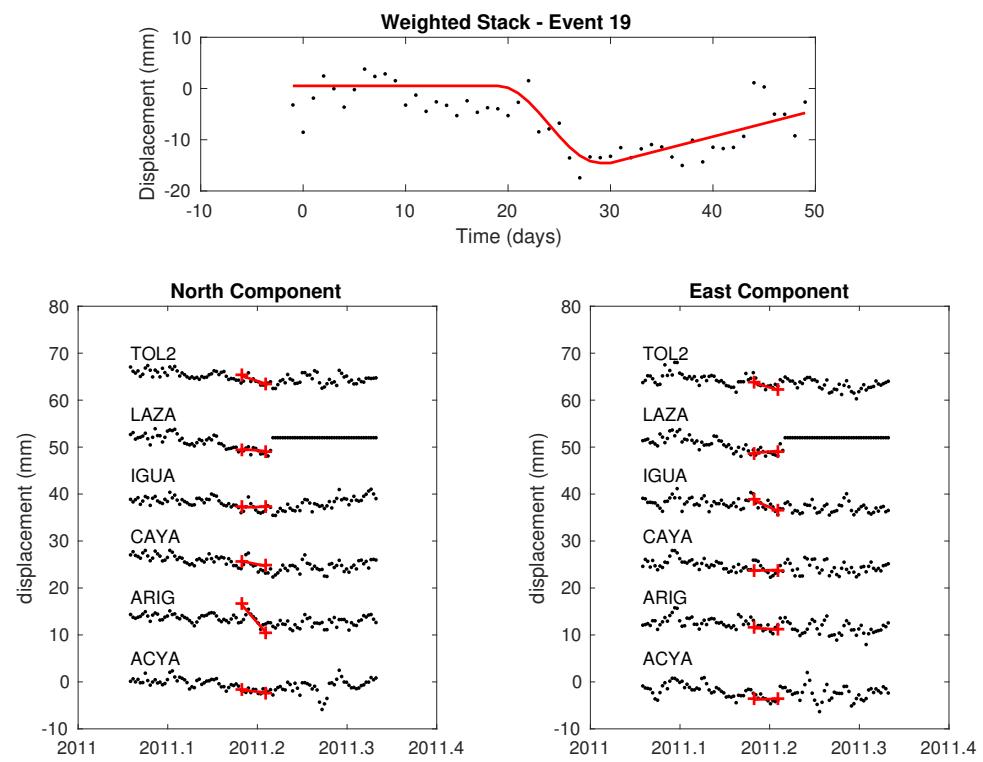


Figure S18: Same as Fig. S1, but for event 19.

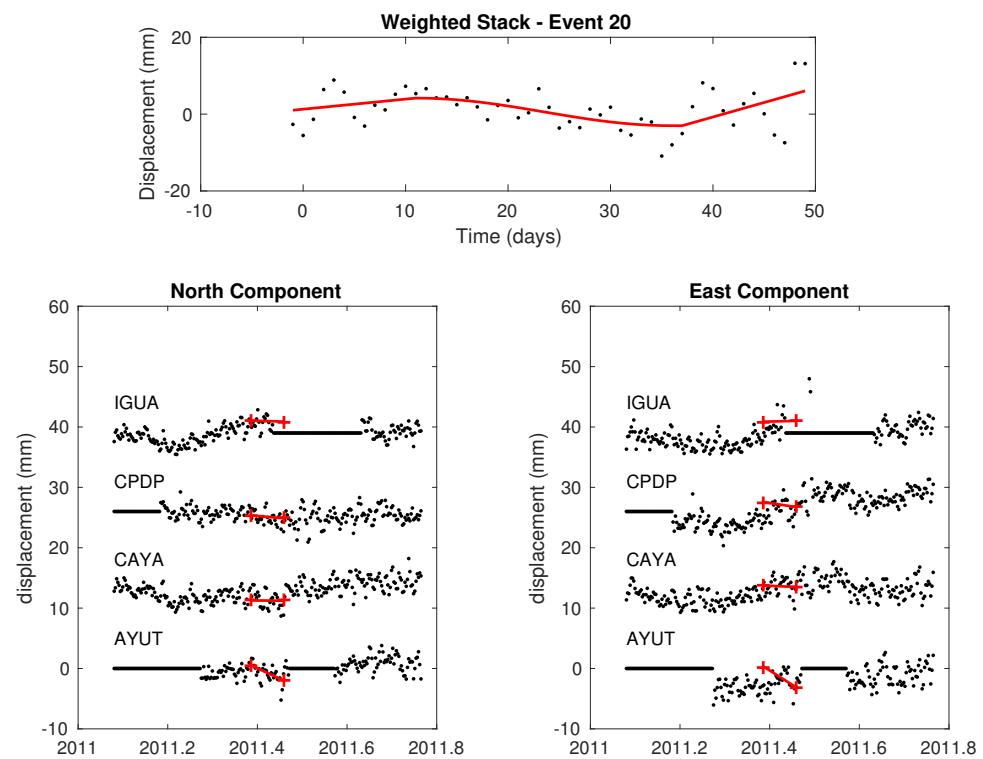


Figure S19: Same as Fig. S1, but for event 20.

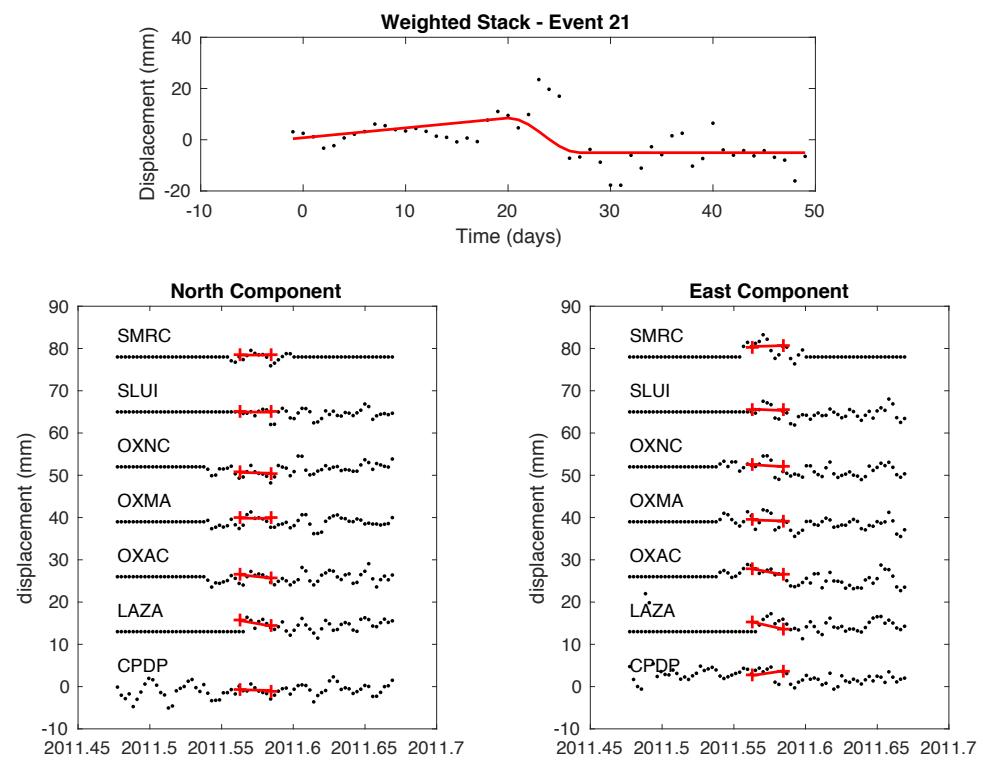


Figure S20: Same as Fig. S1, but for event 21.

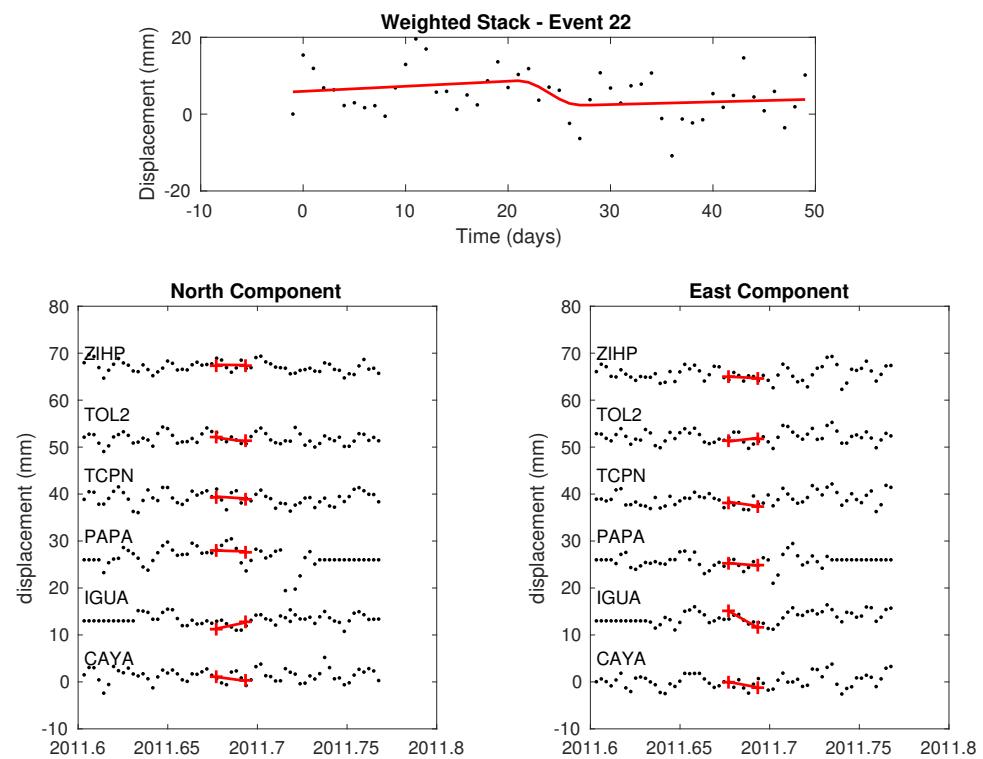


Figure S21: Same as Fig. S1, but for event 22.

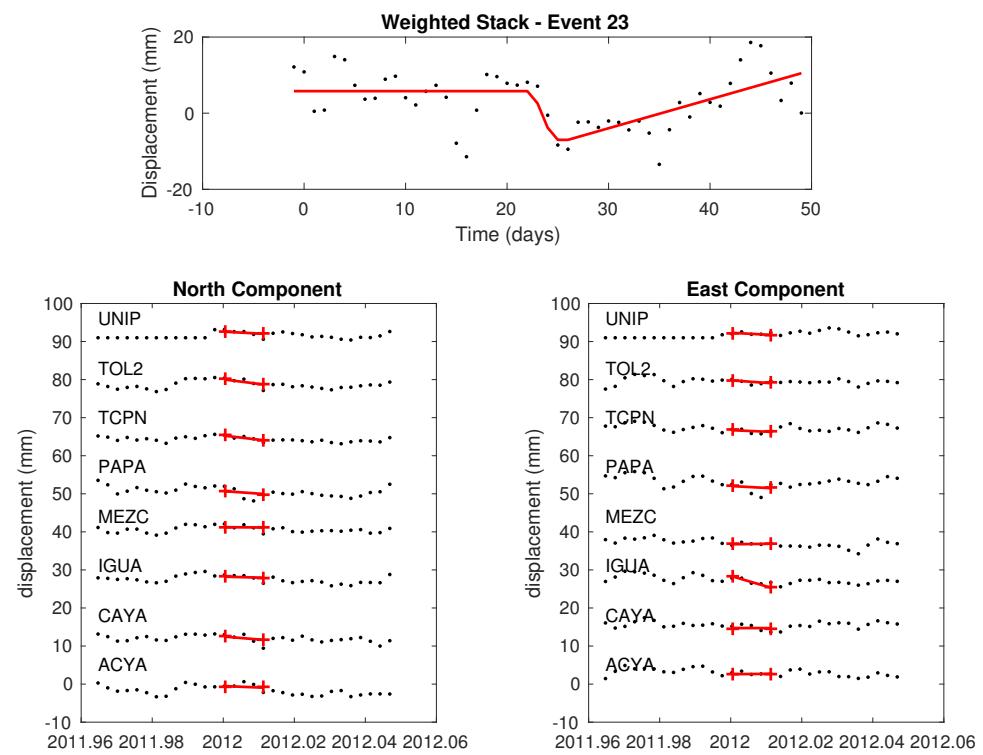


Figure S22: Same as Fig. S1, but for event 23.

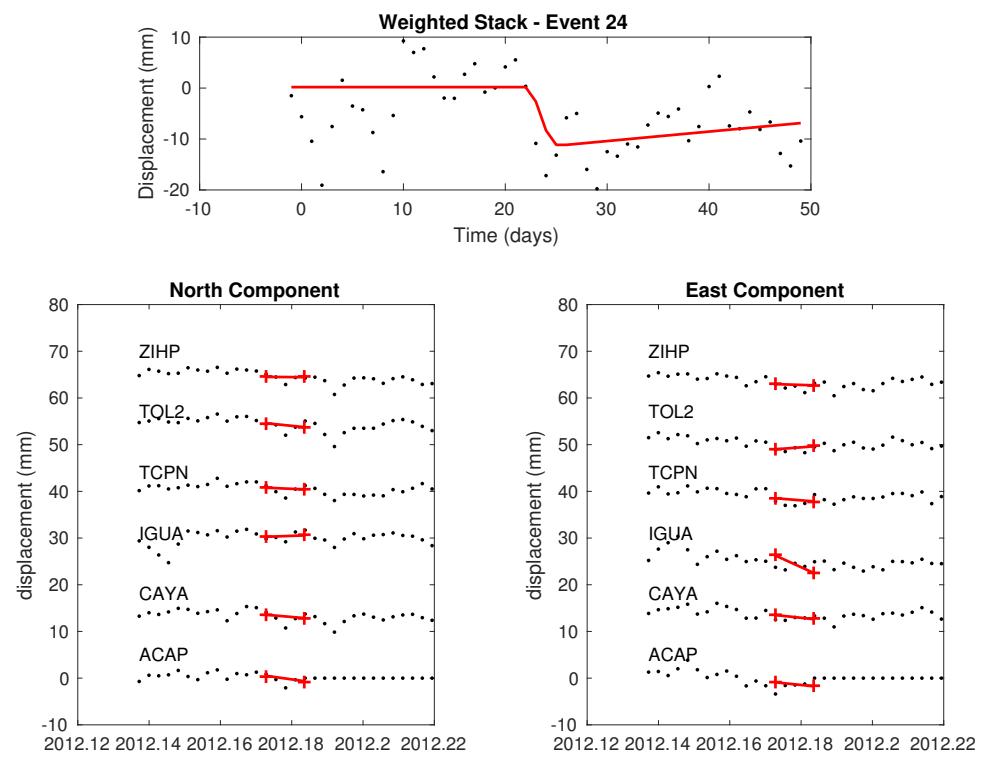


Figure S23: Same as Fig. S1, but for event 24.

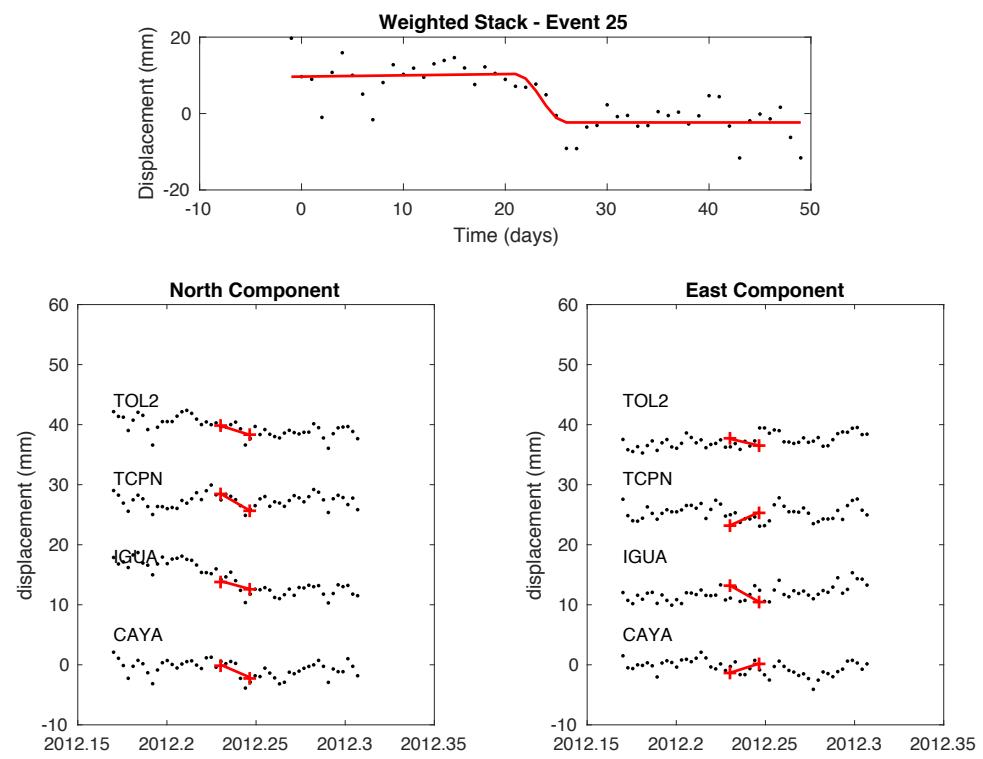


Figure S24: Same as Fig. S1, but for event 25.

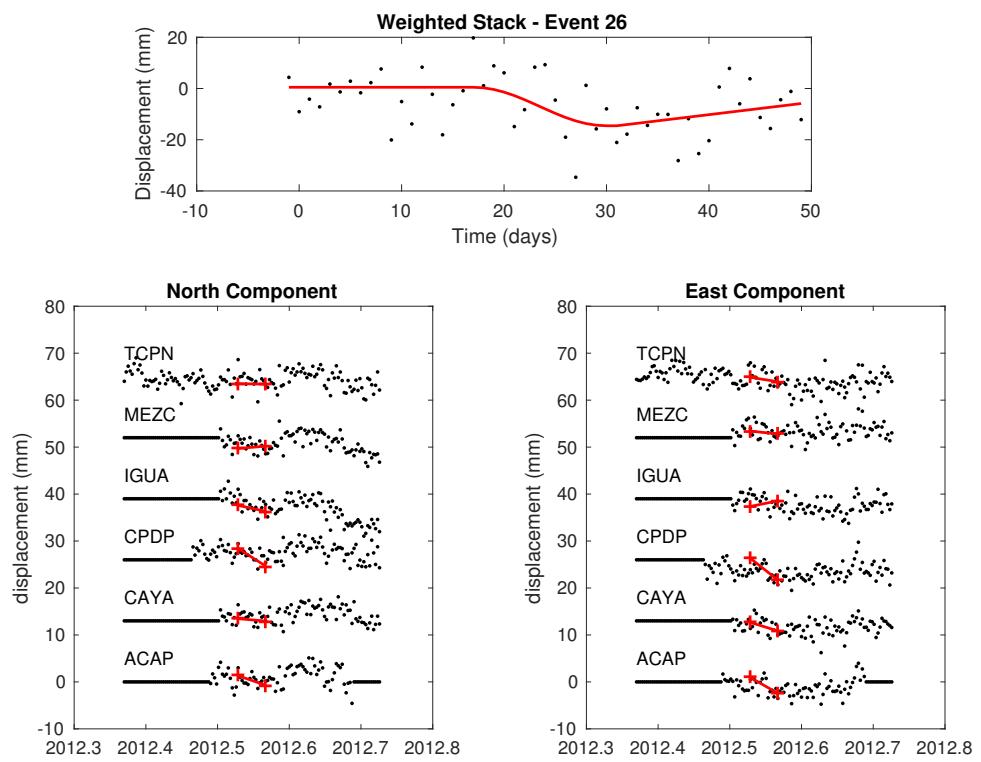


Figure S25: Same as Fig. S1, but for event 26.

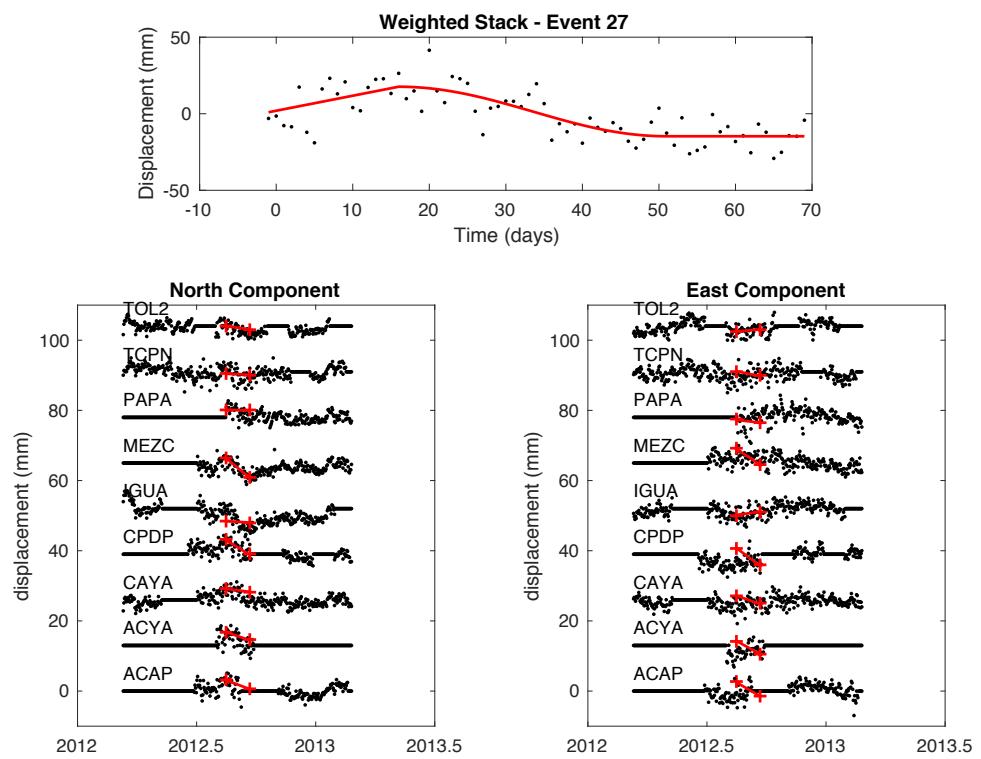


Figure S26: Same as Fig. S1, but for event 27.

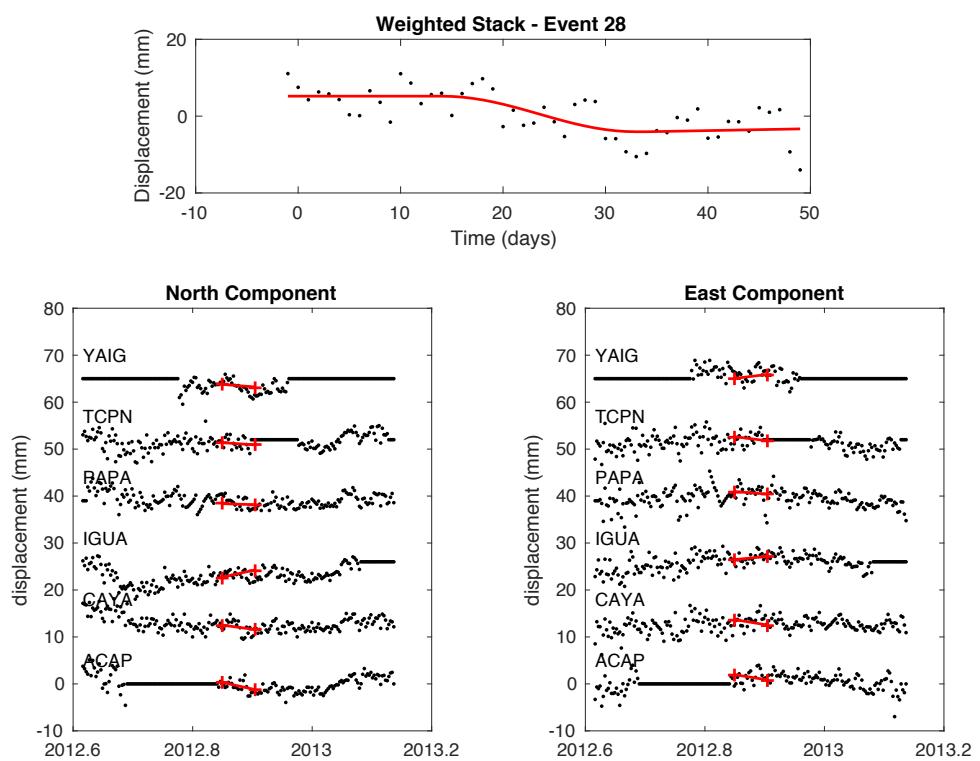


Figure S27: Same as Fig. S1, but for event 28.