

FIGURE CAPTIONS

Figure 1. Location Map, showing the 1857 mainshock fault rupture (thick line), locations of observations used in this study, and other locations mentioned in this paper (locations for San Benito and Sycamore Valley are from Agnew and Sieh, 1978). The approximate locations for three earthquakes (Feb 1853, Sept 1853, Jan 1855) mentioned in Topozada and Borchardt (1998) are denoted by dashed ellipses; the locations for the 1952 Bryson earthquake and the 1983 Coalinga earthquake (from Ellsworth, 1990) are denoted by diamonds.

Figure 2. Map of rms contours and magnitude contours for the “dawn” foreshock. Thin lines are faults; the thick line is the extent of the 1857 rupture; triangles are stations with intensity data (possible MMI values are indicated in Roman numerals); dotted contours are rms contours; the clear star is the location corresponding to the “intensity center”; the filled star is the location of the least rms value *among points on the SAF*; and the solid contours are magnitude contours. See text for details.

Figure 3. Map of rms contours and magnitude contours for the “sunrise” foreshock. Thin lines are faults; the thick line is the extent of the 1857 rupture; triangles are stations with intensity data (possible MMI values are indicated in Roman numerals); dotted contours are rms contours; the clear star is the location corresponding to the “intensity center”; the filled star is the location of the least rms value *among points on the SAF*; and the solid contours are magnitude contours. See text for details.

Figure 4. Map of rms contours and magnitude contours for the 09 January 1857, 11pm aftershock. Thin lines are faults; the thick line is the extent of the 1857 rupture; triangles are stations with intensity data (possible MMI values are indicated in Roman numerals); dotted contours are rms contours; the clear star is the location corresponding to the “intensity center”; and the solid contours are magnitude contours. See text for details.

Figure 5. Map of rms contours and magnitude contours for the 16 January 1857, afternoon aftershock. Thin lines are faults; the thick line is the extent of the 1857 rupture; triangles are stations with intensity data (possible MMI values are indicated in Roman numerals); dotted contours are rms contours; the clear star is the location corresponding to the “intensity center”; and the solid contours are magnitude contours. See text for details.

Figure 6. Map of rms contours and magnitude contours for the 16 April 1860 aftershock. Thin lines are faults; the thick line is the extent of the 1857 rupture; triangles are stations with intensity data (possible MMI values are indicated in Roman numerals); dotted contours are rms contours; the clear star is the location corresponding to the “intensity center”; the shaded (filled) star is the location of the least rms value *among points on the SAF*; the black (solidly filled) star is the location of the least rms value *among points on the Nacimiento Fault*; and the solid contours are magnitude contours. See text for details.

Figure 7. Summary Map, showing the best locations for the foreshocks and aftershocks plotted in Figures 2-6. The bars represent empirical strike-slip rupture lengths appropriate for the event’s magnitude, based on Wells and Coppersmith (1994), and are oriented according to the dominant local fault trend. The letters correspond as follows:

- A best location for the dawn foreshock, which is assumed to be on the SAF
- B best location for the sunrise foreshock, which is assumed to be on the SAF
- X best unconstrained location for the Jan. 9th aftershock
- X’ best location for the Jan. 9th aftershock, *when constrained to the SAF*
- Y best unconstrained location for the Jan. 16th aftershock
- Y’ best location for the Jan. 16th aftershock, *when constrained to the SAF*
- Z best unconstrained location for the Apr. 1860 aftershock
- Z’ best location for the Apr. 1860 aftershock, *when constrained to the SAF*

Coordinates and magnitudes for these points are given in Table 2.

This figure does not include the 16 December 1858 event in the San Bernardino region.