



Earthquake Hazards Program

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Complete Report for Stonewall Mountain fault (Class A) No. 1088

[Brief Report](#) || [Partial Report](#)

citation for this record: Anderson, R. Ernest, compiler, 1998, Fault number 1088, Stonewall Mountain fault, in Quaternary fault and fold database of the United States. U.S. Geological Survey website, <http://earthquakes.usgs.gov/regional/qfaults>, accessed 05/20/2011 09:29 AM.

Synopsis The Stonewall Mountain fault consists mostly of several overlapping (en echelon) northeast-striking, slightly northward main traces. The westernmost, northeast-striking trace separates bedrock from alluvium along the structural boundary between the main precipitous uplifted Stonewall Mountain block on the south and the basin beneath Stonewall Flat on the north. This western trace bends to the southeast and appears to connect with northwest-striking scarps in Quaternary deposits along the southwest flank of Stonewall Mountain. The eastern part of the northeast-striking traces is moderately to weakly expressed as a cluster of lineaments or scarps in Quaternary deposits in the low-relief southeast part of Stonewall Flat. These eastern, northeast-striking features appear to connect with range-front faults and faults in Tertiary rocks near the range front that express the eastern part of the principally northeast-striking Stonewall Mountain fault. There are no stratigraphic subdivisions of deposits or scarp-height data to constrain slip rate or recurrence; however, the height of basal fault facets, now present along the northwest range front of Stonewall Mountain, were used to calculate estimates of slip rate for that part of the fault. Based on reconnaissance photogeologic studies, the youngest deposits cut by the fault are estimated to be late Pleistocene.

Name comments Name given by Piety (1995 #915) to a set of overlapping northeast-striking faults and fault-related features along the southeast margin of Stonewall Flat. These features were mapped by Dohrenwend and others (1992 #289), and Noller (1991 #1195), and Reheis (1992 #1604). Reheis and Noller (1991 #1195) also show northwest-striking scarps and lineaments on Quaternary deposits or surfaces, which appear to connect with the southwest end of more prominent northeast-striking features. de Polo (1998 #2845) included these northwest-striking features along the southwest end of the Stonewall Mountain fault and these northwest-striking features are also included here at the southwestern end of the Stonewall Mountain fault. Piety (1995 #915) shows these northwest-striking features isolated at the northwestern end of the Sarcobatus fault, but these features do not align with that fault, are isolated, and appear to connect with and be related to the Stonewall Mountain fault. Furthermore, the main strands of the Sarcobatus fault do not show evidence of Quaternary activity (Reheis and Noller, 1991 #1195; Dohrenwend and others, 1992 #289) and consequently the Sarcobatus fault is not shown in this compilation. The Stonewall Mountain fault extends northwestward along the southwest flank of Stonewall Mountain, bends to the northeast, and continues northeastward along and past the northwest flank of Stonewall Mountain to about 2 km northeast of Civet Canyon, in the eastern margin of Stonewall Flat.

Fault ID Comments: