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Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the interactive fault map.

Central Spring Mountains faults (Class A) No. 1074

Last Review Date: 1998-04-23

citation for this record: **Anderson, R.E., compiler, 1998, Fault number 1074, Central Spring Mountains faults, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, https://earthquakes.usgs.gov/hazards/qfaults, accessed 12/14/2020 02:18 PM.**

Synopsis	The Central Spring Mountains faults consist of a group of diverse- oriented structures, each less than 15 km long, surrounding a topographically low part of the Spring Mountains structural block. The faults have been identified from inspection of aerial photos, and the Quaternary history is poorly understood.
Name comments	Name given by Piety (1995 #915) to a group of three diverse-oriented faults in the central Spring Mountains. **Fault ID:** Faults referred to as CSM by Piety (1995 #915).
County(s) and State(s)	CLARK COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE

Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Compiled at 1:100,000 from inspection of aerial photographs at about 1:60,000 and 1:80,000 (Reheis, 1992 #1604).
Geologic setting	The relationship between the three faults is not known. They are internal to the Spring Mountains structural block and are inferred to be normal faults (Reheis, 1992 #1604). The three faults include a NE-striking northwest fault, a NNW-striking northeast fault, and a N-striking southeast fault. These occur in a topographically low part of the Spring Mountains occupied by Wheeler Wash south of Wheeler Pass. The faults are characterized as significantly less extensive and marked by fault scarps that are substantially lower, shorter, and less continuous than typical range-front faults (Dohrenwend and others, 1991 #288).
Length (km)	16 km.
Average strike	N10°W
Sense of movement	Normal *Comments:* Traces of the northwest fault are shown as generally down to the northwest (Reheis, 1992 #1604). Traces of the northeast and southeast faults are portrayed as generally down to the west (Dohrenwend and others, 1991 #288; Reheis, 1992 #1604).
Dip Direction	W; SW; NW
Paleoseismology studies	
Geomorphic expression	The northwest fault is shown primarily as a topographic lineament along a range block or in bedrock (Reheis, 1992 #1604). The northeastern end of this fault is portrayed by her as weakly expressed lineaments or scarps on surfaces of Quaternary deposits. The northeast fault is shown as weakly expressed lineaments or scarps on surfaces of Quaternary deposits and as topographic lineaments along a linear front or in bedrock (Reheis, 1992 #1604). This fault is also shown as juxtaposing Quaternary alluvium against bedrock (Dohrenwend and others, 1991 #288). The southeast fault is portrayed as weakly expressed lineaments

	or scarps on surfaces of Quaternary deposits and as topographic lineaments along a linear front or in bedrock (Reheis, 1992 #1604).
Age of faulted surficial deposits	In general, the Central Spring Mountains faults are shown as displacing undivided Quaternary deposits (Dohrenwend and others, 1991 #288; Reheis, 1992 #1604). Dohrenwend and others (1991 #288) showed the southeast fault as scarps on depositional or erosional surfaces of early to middle and (or) late Pleistocene age (their Q1-2 surfaces with estimated ages between 10 ka and 1.5 Ma).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent event is not well constrained, a Quaternary time is suspected based on reconnaissance photogeologic mapping of Dohrenwend and others (1991 #288).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* No data are available on fault-scarp characteristics or timing of faulting; the long term slip rate may be much less than 0.2 mm/yr.
Date and Compiler(s)	1998 R. Ernest Anderson, U.S. Geological Survey, Emeritus
References	#288 Dohrenwend, J.C., Menges, C.M., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Las Vegas 1° by 2° quadrangle, Nevada, California, and Arizona: U.S. Geological Survey Miscellaneous Field Studies Map MF-2182, 1 sheet, scale 1:250,000. #915 Piety, L.A., 1995, Compilation of known and suspected Quaternary faults within 100 km of Yucca Mountain, Nevada and California: U.S. Geological Survey Open-File Report 94-112, 404 p., 2 pls., scale 1:250,000. #1604 Reheis, M.C., 1992, Aerial photographic interpretation of

	lineaments and faults in late Cenozoic deposits in the Cactus Flat and Pahute Mesa 1:100,000 quadrangles and the western parts of the Timpahute Range, Pahranagat Range, Indian Springs, and Las Vegas 1:100,000 quadrangles, Nevada: U.S. Geological Survey Open-File Report 92-193, 14 p., 3 pls., scale 1:100,000.