

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](#).

unnamed faults of the Medicine Range area (Class A) No. 1708

Last Review Date: 2001-01-02

citation for this record: Anderson, R.E., compiler, 2001, Fault number 1708, unnamed faults of the Medicine Range area, 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 02:26 PM.

Synopsis

These unnamed faults have diverse strikes and most are down to the west; they bound highlands along weakly defined topographic breaks and are presumably block-bounding structures. Some extend into bedrock highlands where they may be small-displacement intra-block faults. At least one fault appears to be down to the east. Also includes scattered north-, northeast-, and northwest-striking block-bounding faults in unnamed hills and in parts of the Medicine Range to the north. The timing of most faults is uncertain. However, on the basis of photogeologic reconnaissance, one short (<3 km) scarp is estimated to be formed on deposits or surfaces of early to middle Pleistocene age (0.13-1.5 Ma), another on early to middle and (or) late Pleistocene age (0.01-1.5 Ma) and another on questionably late Pleistocene age (10-130 ka). There are no detailed studies, and recurrence times and slip rate are unknown.

<p>Name comments</p>	<p>Schell (1981 #2843; 1981 #2844) referred to faults that extend into the southern part of the Elko 1?x2? sheet within and west of the Butte Mountains as the East Long Valley fault zone (his fault no. 68). Those faults are included with the Butte Mountains fault [1277] herein. It is uncertain whether Schell considered faults in the Medicine Range to the north of the Butte Mountains to be part of his East Long Valley fault zone. Nevertheless, as compiled herein, these unnamed faults include north-, northeast-, and northwest-striking faults that bounds small unnamed hills and parts of the Medicine Range; they continue north of High Bald Peaks to a point east of Medicine Springs. These diversely oriented faults were also mapped by Dohrenwend and others (1991 #286), although in detail the traces do not agree well with those of Schell (1981 #2843; 1981 #2844).</p> <p>Fault ID: Some of these unnamed faults may have been referred to as fault 68 by Schell (1981 2843; 1981 #2844).</p>
<p>County(s) and State(s)</p>	<p>ELKO COUNTY, NEVADA WHITE PINE COUNTY, NEVADA</p>
<p>Physiographic province(s)</p>	<p>BASIN AND RANGE</p>
<p>Reliability of location</p>	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Compiled from photogeologic reconnaissance mapping at 1:250,000 by Dohrenwend and others (1991 #286). Map was produced by analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to the scale of the photographs. Several closely spaced, short (> 1 km) lineaments mapped by Schell (1981 #2843) in the southern Medicine Range and south into Long Valley are not compiled.</p>
<p>Geologic setting</p>	<p>Most faults are down-to-the-west, bound highlands along weakly defined topographic breaks, and are presumably block-bounding structures. Some extend into bedrock highlands where they may be small-displacement intra-block faults.</p>
<p>Length (km)</p>	<p>28 km.</p>
<p>Average strike</p>	<p>N4°W</p>

Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Dohrenwend and others (1991 #286) classified most of the unnamed faults as geomorphically either well defined or weakly defined block-bounding structures juxtaposing bedrock against Quaternary sediment with short (< 3 km) scarps formed on Quaternary deposits or surfaces. No fault-specific description of geomorphic expression is reported.
Age of faulted surficial deposits	On the basis of reconnaissance photogeologic study, Dohrenwend and others (1991 #286) mapped one short (< 3 km) fault on early to middle Pleistocene (0.13-1.6 Ma) deposits, another on Pleistocene (10 ka-1.6 Ma) deposits, and another as questionably late Pleistocene (10-130 ka) deposits.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although Dohrenwend and others (1991 #286) mapped one short scarp as formed on deposits or erosion surfaces of questionable late Pleistocene (10-130 ka) age, the timing of most recent displacement on most of the faults is not known or has a broader age range.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> This category is the lowest slip rate assigned and is based on the similarity of these faults to other relatively inactive faults in the province.
Date and Compiler(s)	2001 R. Ernest Anderson, U.S. Geological Survey, Emeritus
References	#286 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Elko 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2179, 1 sheet, scale

1:250,000.

#2843 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume I: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 77 p.

#2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.

[Questions or comments?](#)

[Facebook](#) [Twitter](#) [Google](#) [Email](#)

[Hazards](#)

[Design](#) [Ground Motions](#) [Seismic Hazard Maps & Site-Specific Data](#) [Faults](#) [Scenarios](#)

[Earthquakes](#) [Hazards](#) [Data](#) [Education](#) [Monitoring](#) [Research](#)

[Home](#) [About Us](#) [Contacts](#) [Legal](#)