

## 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 <u>interactive fault map</u>.

## unnamed faults of the Augusta Mountains (Class A) No. 1172

**Last Review Date: 2000-08-22** 

citation for this record: Lidke, D.J., compiler, 2000, Fault number 1172, unnamed faults of the Augusta Mountains, 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 02:17 PM.

Synopsis	These unnamed faults of the Augusta Mountains apparently are		
	expressed by relatively discontinuous, subdued features. These		
	faults are not known to have been recognized prior to		
	reconnaissance photogeologic mapping studies, which provided		
	the sole source of data for these faults. No detailed studies of		
	these faults have been conducted, and the nature of offsets along		
	these faults is relatively unknown.		
Name	Refers to faults mapped by Dohrenwend and others (1992 #283)		
comments	along and adjacent to the southern tip of the Augusta Mountains.		
	These unnamed faults include: (1) north-striking faults that form a		
	zone about 6 km in length and 3 km in width that straddle the		
	Churchill/Lander County line along the southeastern end of the		
	Augusta Mountains, and (2) a single northwest-striking fault that		

	is about 3 km in length and northwest of the north-striking zone along the southwestern flank of the Augusta Mountains.	
• • •	LANDER COUNTY, NEVADA CHURCHILL COUNTY, NEVADA	
Physiographic province(s)	BASIN AND RANGE	
Reliability of location		
	Comments: Location is from 1:250,000-scale map of Dohrenwend and others (1992 #283), which shows mapping based on photogeologic analysis of 1:58,000-nominal-scale, color-infrared photography transferred directly to 1:100,000-scale topographic maps enlarged to the scale of the photographs; these maps were then reduced and compiled at 1:250,000-scale.	
Geologic setting	These unnamed faults present along and near the southern end of the Augusta Mountains place bedrock against Pleistocene piedmont-slope deposits and form some piedmont scarps (Dohrenwend and others, 1992 #283). The presence of these faults along the flanks of the mountain range combined with the fact that these faults cut Pleistocene deposits, may suggest that these faults are related to Quaternary uplift of the mountains relative to the surrounding valley areas.	
Length (km)	13 km.	
Average strike	N0°E	
Sense of movement	Normal  Comments: Not specifically reported; normal sense of slip is inferred from the presence of these faults within the Basin and Range Province that is primarily an extensional tectonic province characterized by normal faults.	
Dip Direction	W; E  Comments: Not reported, but probably steep, based on dip measurements of other Quaternary faults in localities nearby and elsewhere in the Basin and Range Province.	
Paleoseismology		

studies	
Geomorphic expression	Faults are expressed principally by juxtaposition of bedrock against Pleistocene surficial deposits; the western faults of the north-striking fault zone also form west-facing scarps (Dohrenwend and others, 1992 #283).
surficial	Dohrenwend and others (1992 #283) assigned a late Pleistocene age to faulted, piedmont-slope deposits along faults of the western part of the north-striking fault zone.
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka)  Comments: Although the timing of the most recent prehistoric faulting event is not well constrained, Dohrenwend and others (1992 #283) suggested a late Pleistocene (10-130 ka) time based on faulted surficial deposits along faults of the western part of the north-striking fault zone.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr  Comments: Not reported; low slip rate selected based mainly on lack of continuity of these faults.
Date and Compiler(s)	2000 David J. Lidke, U.S. Geological Survey
References	#283 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1992, Reconnaissance photogeologic map of young faults in the Millett 1° by 2° quadrangle, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-2176, 1 sheet, scale 1:250,000.

## Questions or comments?

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