Jump to Navigation

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.

Nyala Road fault (Class A) No. 1374

Last Review Date: 1998-06-30

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1374, Nyala Road fault, 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 02:14 PM.**

Synopsis	This distributed group of short, predominantly down-to-the-east normal faults is in Railroad Valley and bounds low hills west of the Quinn Canyon Range. Reconnaissance photogeologic mapping and limited analysis of scarp morphology are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name comments	Northern part of the fault corresponds to Nyala Road fault of Schell (1981 #2844) and southern part to the unnamed faults to south mapped by Schell (1981 #2844) and Dohrenwend and others (1991 #287). The fault zone is in southern Railroad Valley, west of the Quinn Range and mostly to the south of Nyala Road. **Fault ID:** Refers to fault 98 on Plate A6 of Schell (1981 #2844).
County(s) and State(s)	NYE COUNTY, NEVADA
Physiographic	

Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Location based on 1:250,000-scale maps of Schell (1981 #2844) and of Dohrenwend and others (1991 #287; 1996 #2846). Original mapping by Schell (1981 #2843; 1981 #2844) based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and field verification. Mapping by Dohrenwend and others (1991 #287; 1996 #2846) based on photogeologic analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs.
Geologic setting	This distributed group of short, predominantly down-to-the-east normal faults is in Railroad Valley and bounds low hills west of the Quinn Canyon Range.
Length (km)	19 km.
Average strike	N40°E
Sense of movement	Normal *Comments:* Schell (1981 #2844)
Dip Direction	NW; SE
Paleoseismology studies	
Geomorphic expression	The northern and southern part of the fault is characterized by by abrupt, well-defined fault scarps and less well-defined scarps within and juxtaposing Quaternary alluvium against bedrock, and by lineaments on Quaternary and Tertiary deposits (Dohrenwend and others, 1991 #287). Maximum scarp height of <0.3 m is reported by Schell (1981 #2844). The central part of the fault is characterized by fault scarps and lineaments on Quaternary deposits (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).

Age of faulted surficial deposits	Latest Pleistocene and/or Holocene (<30 k.y.) (Schell, 1981 #2844; Dohrenwend and others, 1991 #287) to Quaternary (Schell, 1981 #2843; Dohrenwend and others, 1991 #287).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) *Comments:* The timing of most recent event is not well constrained, and the two sources do not concur. Schell (1981 #2844) suggested a Holocene time based on scarp morphology and photogeologic analysis. Dohrenwend and others (1991 #287) suggested a possible late Quaternary time based on reconnaissance photogeologic analysis. We assign herein the most conservative age as suggested by reconnaissance photogeologic mapping of Dohrenwend and others (1991 #287).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 1 sheet, scale 1:250,000. #2846 Dohrenwend, J.C., Schell, B.A., Menges, C.M., Moring, B.C., and McKittrick, M.A., 1996, Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada, *in* Singer, D.A., ed., Analysis of Nevada's metal-bearing mineral resources: Nevada Bureau of Mines and Geology Open-File Report 96-2, 1 pl., scale 1:1,000,000. #2843 Schell, B.A., 1981, Faults and lineaments in the MX Sitting 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.