

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 Cactus Flat (Class A) No. 1091

Last Review Date: 1998-12-16

citation for this record: Anderson, R.E., compiler, 1998, Fault number 1091, unnamed faults of Cactus Flat, 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 02:19 PM.

Synopsis	The unnamed faults of Cactus Flat are marked by scattered, generally weakly expressed, discontinuous, short scarps and lineaments on Quaternary deposits, and they are distributed in an area about 35x10 km in Cactus Flat. They were mapped photogeologically as cutting Quaternary and Tertiary deposits and previously named the Cactus Flat-Mellan fault. However, , only the faults interpreted to cut Quaternary deposits are shown herein. They are poorly understood intrabasin features.
Name comments	These unnamed faults in Cactus Flat are expressed by generally north-striking, widely distributed, generally weakly expressed, short scarps and lineaments; they were mapped by Reheis (1992 #1604). These faults were referred to by Piety (1995 #915) as the Cactus Flat-Mellan fault, but that name is abandoned here

	<p>because there is no clear association of these widely distributed faults with the small town of Mellon, or with any topographic feature other than Cactus Flat. These faults are not shown on a photogeologic map (1:250,000 scale) of Quaternary faults by Dohrenwend and others (1992 #289). These faults are also not shown in geologic maps (Ekren and others, 1971 #1505; Cornwall, 1972 #1482). As shown by Reheis (1992 #1604), this north-striking zone of faults extends discontinuously from the north flank of the Gabbard Hills, northward across Cactus Flat to the piedmont slope of the southwest flank of the Kawich Range.</p> <p>Fault ID: Referred to as CFML by Piety (1995 #915).</p>
County(s) and State(s)	NYE COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location is from Reheis (1992 #1604) and based on photogeologic mapping on 1:60,000 and 1:80:000 scale aerial photographs compiled on a 100,000 scale topographic map.</p>
Geologic setting	These unnamed faults are distributed intrabasin structures of predominantly north strike and unknown association with any major structure.
Length (km)	32 km.
Average strike	N1°W
Sense of movement	<p>Normal</p> <p><i>Comments:</i> The north strike of these fault-related features and their occurrence in the east-west extended terrain of the Basin and Range Province might suggest that they are normal faults, but no data are available.</p>
Dip Direction	<p>Unknown</p> <p><i>Comments:</i> Reheis (1992 #1604) shows some of the fault traces as marked by east-facing scarps and some by west-facing scarps, suggesting nonuniform dip directions that might indicate the</p>

	presence of both east and west dipping faults and horst and graben structures within this wide zone of north-striking faults.
Paleoseismology studies	
Geomorphic expression	Faults are mostly marked by short (< 5 km), discontinuous, weakly expressed lineaments and scarps; sparse moderate- to well-expressed lineaments and scarps that do not exceed 1 km in length are also present.
Age of faulted surficial deposits	Quaternary. Reheis (1992 #1604) showed the faults as weakly to prominently expressed scarps and lineaments in Quaternary deposits.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Detailed mapping and subdivision of Quaternary deposits has not been done in this area; consequently, little is known about the age of the Quaternary deposits and surfaces that are affected by fault-related features of this fault zone.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> No age or stratigraphic data are available for the surficial deposits in Cactus Flat nor are scarp-height data available. In the absence of more definitive information, the late Quaternary characteristics of these faults (overall geomorphic expression, continuity of scarps, age of faulted deposits, etc.) suggest a low slip rate. Accordingly, the less than 0.2 mm/yr slip-rate category has been assigned to these faults.
Date and Compiler(s)	1998 R. Ernest Anderson, U.S. Geological Survey, Emeritus
References	#1482 Cornwall, H.R., 1972, Geology and mineral deposits of southern Nye County, Nevada: Nevada Bureau of Mines and Geology Bulletin 77, 49 p., 1 pl., scale 1:250,000. #289 Dohrenwend, J.C., Schell, B.A., McKittrick, M.A., and Moring, B.C., 1992, Reconnaissance photogeologic map of young

faults in the Goldfield 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2183, 1 sheet, scale 1:250,000.

#1505 Ekren, E.B., Anderson, R.E., Rogers, C.L., and Noble, D.C., 1971, Geology of the northern Nellis Air Force Base Bombing and Gunnery Range, Nye County, Nevada: U.S. Geological Survey Professional Paper 651, 91 p., 1 pl., scale 1:125,000.

#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, Pahrangat 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.

[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](#)