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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.

Crater Bench faults (Class A) No. 2433

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: **Black, B.D., Hylland, M.D., and Hecker, S., compilers, 1999, Fault number 2433, Crater Bench 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 02:56 PM.**

Synopsis	Poorly understood faults near Crater Bench possibly related to the Drum Mountains fault zone [2432].
Name comments	**Fault ID:** Refers to fault number 8-4 of Hecker (1993 #642).
County(s) and State(s)	JUAB COUNTY, UTAH MILLARD COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Good

location	Compiled at 1:24,000 scale. *Comments:* Mapped or discussed by Ertec Western, Inc. (Schell, 1981 #2844), Galyardt and Rush (1981 #4541), Oviatt and others (1994 #4542), and Hintze and Davis (in preparation #4539). Fault traces from mapping of Galyard and Rush (1981 #4541).
Geologic setting	Several northeast-trending subparallel and en-echelon normal faults near Crater Bench in the Sevier Desert in west-central Utah. The faults are in a wide zone northeast of the Drum Mountains fault zone [2432]. Crater Bench mainly exposes Quaternary basalt that are locally mantled by deposits of Pleistocene Lake Bonneville.
Length (km)	16 km.
Average strike	N21°E
Sense of movement	Normal
Dip Direction	W *Comments:* Mostly west, some short east-dipping faults
Paleoseismology studies	
Geomorphic expression	Scarps as much as 7 m high are formed on 900 ka basalts. Mapping by Galyardt and Rush (1981 #4541) shows some of the faults are partly covered by lacustrine deposits.
Age of faulted surficial deposits	Early Quaternary basalt.
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* The faults appear to be related to the Drum Mountains fault zone [2432]; faults within the basalts are known only to post-date 900 ka, but their continuation and alignment with faults in post-Bonneville deposits implies post-Bonneville movement.

Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Michael D. Hylland, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#4541 Galyardt, G.L., and Rush, F.E., 1981, Geologic map of the Crater Springs Known Geothermal Area and Vicinity, Juab and Millard Counties, Utah: U.S. Geological Survey Miscellaneous Investigations Map I-1297, scale 1:24,000. #642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000. #4542 Oviatt, C.G., Sack, D., and Felger, T.J., 1994, Quaternary geologic map of the Old River Bed and vicinity, Millard, Juab, and Tooele Counties, Utah: Utah Geological Survey Map 161, 24 p. pamphlet, scale 1:62,500.