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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.

Cedar Mountains (east side) faults (Class A) No. 2385

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: **Black, B.D., and Hecker, S., compilers, 1999, Fault number 2385, Cedar Mountains (east side) 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 02:59 PM.**

Synopsis	Poorly understood Quaternary(?) faults on the east side of the Cedar Mountains.
Name comments	**Fault ID:** Refers to fault number 7-9 of Hecker (1993 #642).
County(s) and State(s)	TOOELE COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	Poor Compiled at 1:250,000 scale. *Comments:* Fault traces from mapping of Barnhard and Dodge (1988 #429). Faults are also included on map in Arabasz and others (1989 #4515) and Geomatrix (1999 #4513).
Geologic setting	Short north-trending normal faults along the eastern side of the Cedar Mountains. The Cedar Mountains are the westernmost and lowest of three distinctive north-south mountain ranges in the Basin and Range west of the high central part of the Wasatch Range.
Length (km)	10 km.
Average strike	N6°E
Sense of movement	Normal
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	Barnhard and Dodge (1988 #429) identified photo lineaments that possibly represent fault scarps, but the lineaments were not field checked or investigated. The lineaments were not mapped as faults by Sack (1993 #4514), who shows Lake Bonneville shorelines in the area of the northern traces. Hood and Waddell (1968 #4516) inferred a fault along the eastern margin of the Cedar Mountains, south of the faults mapped by Barnhard and Dodge (1988 #429), and Geomatrix (1999 #4513) inferred a fault along the entire eastern front of the Cedar Mountains.
Age of faulted surficial deposits	Quaternary (?)
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Geomatrix Consultants, Inc. (1999 #4513) found no definitive evidence of post-Bonneville (<15 ka) displacement, but could not preclude the possibility of middle or late Pleistocene

	displacement.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* Poor geomorphic expression and lack of post-Bonneville (<15 ka) displacement indicate a low slip rate.
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#4515 Arabasz, W.J., Pechmann, J.C., and Brown, E.D., 1989, Evaluation of seismicity relevant to the proposed siting of a Superconducting Supercollider (SSC) in Tooele County, Utah: Utah Geological and Mineral Survey Miscellaneous Publication 89-1, p. 107. #429 Barnhard, T.P., and Dodge, R.L., 1988, Map of fault scarps formed on unconsolidated sediments, Tooele 1° x 2° quadrangle, northwestern Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-1990, 1 sheet, scale 1:250,000. #4513 Geomatrix Consultants, Inc., 1999, Fault evaluation study and seismic hazard assessment, Private Fuel Storage Facility, Skull Valley, Utah: Technical report to Stone and Webster Engineering Corporation, San Francisco, California, under Contract 4790, 118 p., scale 1:100,000. #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. #4516 Hood, J.W., and Waddell, K.M., 1968, Hydrologic reconnaissance of Skull Valley, Tooele County, Utah: Utah Department of Natural Resources Technical Publication No. 18, 57 p. #4514 Sack, D., 1993, Quaternary geologic map of Skull Valley, Tooele County, Utah: Utah Geological Survey Map 150, 16 p. pamphlet, scale 1:100,000.

Questions or comments?