

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](#).

Volcano Mountain faults (Class A) No. 2520

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 2520, Volcano Mountain 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 02:55 PM.

Synopsis	Poorly understood zone of middle to late Pleistocene faults between Volcano Mountain and the Hurricane fault [998] in southwestern Utah.
Name comments	Fault ID: Refers to fault number 10-5 in Hecker (1993 #642).
County(s) and State(s)	WASHINGTON COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Identified in Hamblin (1970 #4585; Hamblin, 1989 unpublished mapping) and recently mapped by Biek (1998 #4440). Fault traces from 1:250,000-scale mapping of Anderson and Christenson (1989 #828).</p>
Geologic setting	Zone of short north-trending normal faults that extend between Volcano Mountain and the Anderson Junction section of the Hurricane fault [998a].
Length (km)	3 km.
Average strike	N11°E
Sense of movement	Normal
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	The faults form scarps on middle Pleistocene basalts (Biek, 1998 #4440) that have retained much of their flow morphology.
Age of faulted surficial deposits	Middle to late Pleistocene basalts (Biek, 1998 #4440) that have an $^{40}\text{Ar}/^{39}\text{Ar}$ age of 353 ± 45 ka (Sanchez, 1995 #4586).
Historic earthquake	
Most recent prehistoric deformation	<p>middle and late Quaternary (<750 ka)</p> <p><i>Comments:</i> Based on middle Pleistocene basalt age and flow morphology.</p>
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	<p>1999</p> <p>Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey</p>

References

#828 Anderson, R.E., and Christenson, G.E., 1989, Quaternary faults, folds, and selected volcanic features in the Cedar City 1° x 2° quadrangle, Utah: Utah Geological and Mineral Survey Miscellaneous Publication 89-6, 29 p., 1 pl., scale 1:250,000.

#4440 Biek, R.F., 1998, Interim geologic map of the Hurricane quadrangle, Washington County, Utah: Utah Geological Survey Open-File Report 361, 169 p., 1 pl., scale 1:24,000.

#4585 Hamblin, W.K., 1970, Late Cenozoic basalt flows of the western Grand Canyon region, *in* Hamblin, W.K., and Best, M.G., eds., The western Grand Canyon district: Utah Geological Society, Guidebook to the Geology of Utah Number 23, p. 21-37.

#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.

#4586 Sanchez, A., 1995, Mafic volcanism in the Colorado Plateau/Basin-and-Range transition zone, Hurricane, Utah: Las Vegas, University of Nevada, unpublished M.S. thesis, 92 p., scale 1:52,000.

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