

# 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](#).

## Markagunt Plateau faults (Class B) No. 2535

Last Review Date: 1999-12-31

### Compiled in cooperation with the Utah Geological Survey

*citation for this record:* Black, B.D., and Hecker, S., compilers, 1999, Fault number 2535, Markagunt Plateau 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 02:53 PM.

<b>Synopsis</b>	Poorly understood faults in bedrock of middle to late Pleistocene age on the Markagunt Plateau east of Parowan Valley. The origin of the faults are questionable, thus we consider them to be Class B structures.
<b>Name comments</b>	<b>Fault ID:</b> Refers to fault number 10-23 of Hecker (1993 #642).
<b>County(s) and State(s)</b>	IRON COUNTY, UTAH
<b>Physiographic province(s)</b>	COLORADO PLATEAUS

<b>Reliability of location</b>	Good Compiled at 1:250,000 scale.  <i>Comments:</i> Fault traces from 1:250,000-scale mapping of Anderson and Christenson (1989 #828).
<b>Geologic setting</b>	System of northeast-trending normal faults in the Markagunt Plateau. The plateau is in the Southern High Plateaus, a physiographic area capped by the most extensive expanse of extrusive igneous rocks in Utah. The area is divided into seven distinct plateaus, based on physiographic breaks produced by external bounding cliffs and internal alluvium-filled valleys following north-trending fault lines or narrow grabens.
<b>Length (km)</b>	57 km.
<b>Average strike</b>	N35°E
<b>Sense of movement</b>	Normal
<b>Dip Direction</b>	NW; SE
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	It is unclear whether the faults, which are all in volcanic bedrock, are seismogenic or whether they are the result of gravitational processes. The terrain appears generally unstable, and some of the mapped scarps may be the margins of landslides. Since the origin of the faults are questionable, we consider them to be Class B structures. The apparent time of formation of the bedrock scarps (based on photogeologic analysis) varies considerably, but some of the scarps may be as young as latest Pleistocene (10-30 ka).
<b>Age of faulted surficial deposits</b>	Volcanic bedrock of middle to late Pleistocene age.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	middle and late Quaternary (<750 ka)  <i>Comments:</i>

<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr
<b>Date and Compiler(s)</b>	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
<b>References</b>	#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.  #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.

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