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 <u>interactive fault map</u>.

Escalante Desert (east side) faults (Class A) No. 2526

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 2526, Escalante Desert (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 02:53 PM.

| Synopsis | Poorly understood late Pleistocene to Holocene faults on the eastern side of the Escalante Desert. |
|------------------------------|--|
| Name comments | Fault ID: Refers to fault number 10-14 in Hecker (1993 #642). |
| County(s) and State(s) | IRON COUNTY, UTAH |
| Physiographic province(s) | BASIN AND RANGE |

| Reliability of | Good |
|---|---|
| location | Compiled at 1:250,000 scale. |
| | <i>Comments:</i> Mapped by Ertec Western, Inc. (Schell, 1981 #4598) and Anderson and Christenson (1989 #828). Fault traces from 1:250,000-scale mapping of Anderson and Christenson (1989 #828). |
| Geologic setting | Northeast-trending normal faults east of Table Butte in the eastern part of the Escalante Desert. The faults are in an area of southwestern Utah underlain by extensive extrusive Tertiary volcanic rocks. In the mountains, volcanic rocks have been eroded to expose pre-existing Paleozoic and Mesozoic topography. In places such as Escalante Desert, igneous rocks have been lowered by faulting and buried by lake sediments or alluvium. |
| Length (km) | 7 km. |
| Average strike | N23°E |
| Sense of movement | Normal |
| Dip Direction | W |
| Paleoseismology studies | |
| Geomorphic expression | Two northeast-trending west-dipping scarps are preserved on alluvium on the western flank of the Bald Hills. |
| Age of faulted surficial deposits | Late Pleistocene alluvium. |
| Historic earthquake | |
| Most recent | latest Quaternary (<15 ka) |
| prehistoric | Comments: Along the western manned fault scorp, only youngest |
| uerormation | stream deposits are not displaced. Anderson and Christenson (1989 #828) indicated a probable late Pleistocene time for faulting, whereas Ertec Western, Inc. (Schell, 1981 #4598) assigned a Holocene age to the faulted deposits. Scarps along the eastern fault are highly degraded and discontinuous and are only |

| | found on the oldest (middle to late Pleistocene) deposits. |
|-------------------------|--|
| Recurrence interval | |
| Slip-rate category | Less than 0.2 mm/yr |
| Date and Compiler(s) | 1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey |
| 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. |
| | #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. |
| | #4598 Schell, B.A., 1981, MX siting investigation, faults and lineaments in the MX siting region, Nevada and Utah: Long Beach, California, report no. E-TR-54 for U.S. Air Force, volume I, 77p.; volume II, variously paginated, scale 1:250,000. |

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