

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](#).

Rimmy Jim fault zone (Class A) No. 984

Last Review Date: 1997-01-09

Compiled in cooperation with the Arizona Geological Survey

citation for this record: Pearthree, P.A., compiler, 1997, Fault number 984, Rimmy Jim fault zone, 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 03:11 PM.

Synopsis	Two short, north northeast-trending, subdued grabens are formed on Mesozoic bedrock and lower Pleistocene basalt flows. The lower Pleistocene basalt flow is displaced less than 10 m. The gentle geomorphic expression of the scarps suggests that the fault has not ruptured during the late Quaternary.
Name comments	Mapped and grouped with many other faults in the Campbell Francis fault set by Menges and Pearthree (1983 #2073); separated and named by Pearthree and others (1996 #2153) because these faults have apparently not ruptured as recently as other "Campbell Francis" faults [959]. The geology of the area was mapped by Ulrich and Bailey (1987 #2156).

County(s) and State(s)	COCONINO COUNTY, ARIZONA
Physiographic province(s)	COLORADO PLATEAUS
Reliability of location	Good Compiled at 1:250,000 scale. <i>Comments:</i> Trace mapped at 1:50,000 scale; transferred to 1:250,000-scale topographic base map.
Geologic setting	These faults are located near the northern margin of the Pliocene-Quaternary San Francisco volcanic field, on the erosion surface cut on Paleozoic and Mesozoic rocks that slopes from the Colorado Plateau margin northeast to the Little Colorado River. The faults cut Mesozoic rocks and lower Pleistocene basalt flows.
Length (km)	8 km.
Average strike	N34°E
Sense of movement	Normal <i>Comments:</i> Predominantly normal movement is inferred from topographic relations.
Dip Direction	NW; SE
Paleoseismology studies	
Geomorphic expression	Subdued, less than 10-m-high scarps bound two grabens on a lower Pleistocene basalt flow surface. No alluvium is mapped in the bottoms of the troughs.
Age of faulted surficial deposits	Mesozoic, early Pleistocene
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> A lower Pleistocene basalt flow is faulted. Subtle scarps suggest that the faults have not ruptured during the late

	Quaternary, and they may not have ruptured during the middle Quaternary either.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> A low slip rate is inferred based on about 10 m of displacement of a lower Pleistocene basalt flow.
Date and Compiler(s)	1997 Philip A. Pearthree, Arizona Geological Survey
References	#2073 Menges, C.M., and Pearthree, P.A., 1983, Map of neotectonic (latest Pliocene-Quaternary) deformation in Arizona: Arizona Geological Survey Open-File Report 83-22, 48 p., scale 1:500,000. #2153 Pearthree, P.A., Vincent, K.R., Brazier, R., and Hendricks, D.M., 1996, Plio-Quaternary faulting and seismic hazard in the Flagstaff area, northern Arizona: Arizona Geological Survey Bulletin 200, 40 p., 2 pls. #2156 Ulrich, G.E., and Bailey, N.G., 1987, Geologic map of the SP Mountain part of the San Francisco volcanic field, north-central Arizona: U.S. Geological Survey Miscellaneous Field Studies Map MF-1956, 2 sheets, scale 1:50,000.

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