

# 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](#).

## Bunk Robinson Peak fault zone (Class A) No. 927

Last Review Date: 2016-01-26

### Compiled in cooperation with the Arizona Geological Survey

*citation for this record:* Pearthree, P.A., and Jochems, A.P., compilers, 2016, Fault number 927, Bunk Robinson Peak 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 03:13 PM.

<b>Synopsis</b>	This is an approximately 15-km-long set of four north- to northwest-trending faults on the eastern side of the San Bernardino Valley in southeasternmost Arizona. Upper Pliocene basalt flows are displaced 20–150 m. Because there is no definitive evidence of middle to late Quaternary faulting, activity of these faults may have been associated with the basaltic eruptions in the late Pliocene or early Quaternary.
<b>Name comments</b>	Mapped by Cooper (1959 #3472), Drewes (1980 #3462), and Hayes (1982 #2115); remapped and named by Machette and

	others (1986 #1033); most recently mapped, in part, by Skotnicki (2002 #7328).
<b>County(s) and State(s)</b>	COCHISE COUNTY, ARIZONA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of location</b>	Good Compiled at 1:24,000 scale.  <i>Comments:</i> Originally compiled at 1:250,000-scale by Machette and others (1986 #1033). Current compilation after 1:62,500-scale map of Hayes (1982 #2115), 1:250,000-scale map of Machette and others (1986 #1033), and 1:24,000-scale map of Skotnicki (2002 #7328), coupled with accurate placement using photogrammetric methods.
<b>Geologic setting</b>	These four faults are located along the eastern margin of the San Bernardino Valley near the edge of and slightly within the southern Peloncillo Mountains. The longest fault, which also has the most displacement, is near or just west of the mountain front. The other three faults are on the western fringe of the mountains. The Pliocene-Quaternary San Bernardino volcanic field, with eruptions ranging in age from about 3 Ma to 270 ka, covers much of the valley.
<b>Length (km)</b>	13 km.
<b>Average strike</b>	N6°W
<b>Sense of movement</b>	Normal  <i>Comments:</i> Inferred from regional geology; fault movement may have been associated with extension and eruption of basalt flows.
<b>Dip Direction</b>	E; W
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	Faulting is expressed as large (20- to 150-m-high), embayed, rather gentle scarps formed on upper Pliocene (3 Ma) basalt flows.
<b>Age of faulted</b>	

<b>surficial deposits</b>	Late Pliocene
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma)  <i>Comments:</i> Faulting may have accompanied or closely followed eruption of upper Pliocene basalt flows (Machette and others, 1986 #1033).
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr  <i>Comments:</i> These faults may have been quite active in late Pliocene to early Quaternary time, but there is no definitive evidence of middle to late Quaternary activity. Thus, their slip rate is probably less than 0.2 mm/yr.
<b>Date and Compiler(s)</b>	2016 Philip A. Pearthree, Arizona Geological Survey Andrew P. Jochems, New Mexico Bureau of Geology & Mineral Resources
<b>References</b>	#3472 Cooper, J.R., 1959, Reconnaissance geologic map of southeastern Cochise County, Arizona: U.S. Geological Survey Mineral Investigations Field Studies Map MF-213, scale 1:125,000.  #3462 Drewes, H., 1980, Tectonic map of southeastern Arizona: U.S. Geological Survey Miscellaneous Investigations Map I-1109, scale 1:125,000.  #2115 Hayes, P.T., 1982, Geologic map of the Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Coronado National Forest, New Mexico and Arizona: U.S. Geological Survey Miscellaneous Field Studies Map MF-1425-A, 1 sheet, scale 1:62,500.  #1033 Machette, M.N., Personius, S.F., Menges, C.M., and Pearthree, P.A., 1986, Map showing Quaternary and Pliocene faults in the Silver City 1° x 2° quadrangle and the Douglas 1° x 2° quadrangle, southeastern Arizona and southwestern New Mexico: U.S. Geological Survey Miscellaneous Field Studies

Map MF-1465-C, 12 p. pamphlet, 1 sheet, scale 1:250,000.

#7328 Skotnicki, S.J., 2002, Geologic map of the southern Peloncillo Mountains; Skeleton Canyon, Guadalupe Spring, and Guadalupe Canyon 7.5" quadrangles, Cochise County, Arizona, and Hidalgo County, New Mexico: Arizona Geological Survey Digital Geologic Map 25, scale 1:24,000.

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