

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](#).

unnamed fault near Lookout Butte (Class A) No. 1808

Last Review Date: 2002-12-10

citation for this record: Personius, S.F., compiler, 2002, Fault number 1808, unnamed fault near Lookout Butte, 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 02:24 PM.

Synopsis	This fault, and several others with similar trends to the south, is located on the eastern flank of Mount Mazama in south-central Oregon. This fault is thought to have been active in the past few million years, but is buried by pre-Mazama rhyodacite and dacite lava flows thought to have been emplaced about 400 ka.
Name comments	This unnamed fault is located near Lookout Butte, about 10 km east of Crater Lake in south-central Oregon (Bacon and others, 1997 #3516).
County(s) and State(s)	KLAMATH COUNTY, OREGON
Physiographic province(s)	CASCADE-SIERRA MOUNTAINS

Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault traces are from 1:100,000-scale mapping of Bacon and others (1997 #3516) and Weldon and others (2002 #5648).</p>
Geologic setting	<p>This fault, and several others with similar trends to the south, is located on the eastern flank of Mount Mazama. This fault is thought to have been active in the past few million years, but is buried by pre-Mazama rhyodacite and dacite lava flows thought to have been emplaced about 400 ka (Bacon and others, 1997 #3516). The fault is not shown on less detailed geologic maps of the region (Walker and MacLeod, 1991 #3646; Sherrod and Pickthorn, 1992 #3567).</p>
Length (km)	8 km.
Average strike	N19°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> This fault is mapped as a normal or high-angle fault by Bacon and others (1997 #3516).</p>
Dip Direction	SE
Paleoseismology studies	
Geomorphic expression	
Age of faulted surficial deposits	<p>This fault is thought to have been active in the past few million years, but is buried by pre-Mazama rhyodacite and dacite lava flows thought to have been emplaced about 400 ka (Bacon and others, 1997 #3516).</p>
Historic earthquake	
Most recent prehistoric deformation	<p>undifferentiated Quaternary (<1.6 Ma)</p> <p><i>Comments:</i> Bacon and others (1997 #3516) mapped this and several other faults with similar trends to the south as active in the past few million years, but buried by 400 ka lava flows. Weldon and others (2002 #5648) mapped this fault as active in the</p>

	Quaternary.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> Burial by 400 ka lava flows (Bacon and others, 1997 #3516) indicates low rates of long-term slip.
Date and Compiler(s)	2002 Stephen F. Personius, U.S. Geological Survey
References	<p>#3516 Bacon, C.R., Mastin, L.G., Scott, K.M., and Nathenson, M., 1997, Volcano and earthquake hazards in the Crater Lake region, Oregon: U.S. Geological Survey Open-File Report 97-487, 30 p., 1 pl., scale 1:100,000.</p> <p>#7794 Jenks, M.D., 2007, Geologic compilation map of part of the Upper Klamath Basin, Klamath County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report O-2007-05, 7 p., scale 1:100,000.</p> <p>#3567 Sherrod, D.R., and Pickthorn, L.B.G., 1992, Geologic map of the west half of the Klamath Falls 1° by 2° quadrangle, south-central Oregon: U.S. Geological Survey Miscellaneous Investigations Map I-2182, 1 sheet, scale 1:250,000.</p> <p>#3646 Walker, G.W., and MacLeod, N.S., 1991, Geologic map of Oregon: U.S. Geological Survey, Special Geologic Map, 2 sheets, scale 1:500,000.</p> <p>#5648 Weldon, R.J., Fletcher, D.K., Weldon, E.M., Scharer, K.M., and McCrory, P.A., 2002, An update of Quaternary faults of central and eastern Oregon: U.S. Geological Survey Open-File Report 02-301 (CD-ROM), 26 sheets, scale 1:100,000.</p>

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