# SCEDC

# (https://scedc.caltech.edu/index.html)

Southern California Earthquake Data Center (https://scedc.caltech.edu/index.html)

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## Earthquake Information

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#### San Jacinto Fault Zone

TYPE OF FAULTING: right-lateral strike-slip (../graphics/animations/right-lateral-animation.gif); minor right-reverse

LENGTH: 210 km, including Coyote Creek fault

NEARBY COMMUNITIES: Lytle Creek, San Bernardino, Loma Linda, San Jacinto, Hemet, Anza, Borrego Springs, Ocotillo

Wells

MOST RECENT SURFACE RUPTURE: within the last few centuries; April 9, 1968, Mw6.5 (borrego1968.html) on Coyote Creek segment

SLIP RATE: typically between 7 and 17 mm/yr

INTERVAL BETWEEN SURFACE RUPTURES: between 100 and 300 years, per segment

PROBABLE MAGNITUDES: M<sub>W</sub>6.5 - 7.5

### Coyote Creek Fault

TYPE OF FAULT: right-lateral strike-slip

(../graphics/animations/right-lateral-animation.gif)LENGTH: 80 km NEARBY COMMUNITIES: Borrego Springs, Borrego, Ocotillo Wells

MOST RECENT SURFACE RUPTURE: April 9, 1968, M<sub>W</sub>6.5 (borrego1968.html), on southern half; within the last few

centuries on northern half

SLIP RATE: between 2 and 6 mm/yr, possibly greater

INTERVAL BETWEEN SURFACE RUPTURES: 100 - 300 years

PROBABLE MAGNITUDES: M<sub>W</sub>6.5 - 7.5

#### Hot Springs and Buck Ridge Faults

TYPE OF FAULT: right-lateral strike-slip (../graphics/animations/right-lateral-animation.gif)

LENGTH: 75 km

NEARBY COMMUNITIES: Idyllwild, Mountain Center, Thomas Mountain, Anza

MOST RECENT SURFACE RUPTURE: Late Quaternary (glossary.html#quaternary); Holocene

(glossary.html#holocene) only at extreme northern end

OTHER NOTES: Probably the least active strands of the San Jacinto fault zone, though the southern Buck Ridge fault is associated with a zone of recent active seismicity.

As in other large fault zones, many of the individual fault strands in the San Jacinto fault zone have their own identities. At its extreme northern end, where the San Jacinto meets the San Andreas fault (sanandreas.html), this fault zone is made up of several parallel fault strands. The farthest east of these is called the Glen Helen fault; the farthest west is known as the Lytle Creek fault.

One of the larger and more active fault segments, the Casa Loma fault, runs from near Perris Reservoir to just north of Anza. Another large and active named segment is the Clark fault, which runs from near Hemet to just 15 km southwest of the shore of the Salton Sea. The 1954 San Jacinto earthquake (sanjacinto1954.html) probably occurred due to rupture on the Clark fault.

References (refs.html#sanjacinto)

These faults are featured on the following maps:

Mojave Fault Map (mojave.html) Southern Fault Map (southern.html) Los Angeles Fault Map (losangeles.html)





(http://www.seismolab.caltech.edu/)



(https://earthquake.usgs.gov/)



(https://www.usgs.gov/natural-hazards/earthquake-hazards/anss-advanced-national-

seismic-system)



(https://www.scec.org/)



(https://www.nehrp.gov/)

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