# The March 11, 1998 Crafton Hills Earthquake

**March 11, 1998:** A magnitude 4.5 earthquake in southern California at 4:18 a.m. PST Thursday morning March 11, 1998. It was located in the San Bernardino Valley, 4 west-southwest of the city of Redlands. It occurred at a depth of 14 km (9 miles) below the surface of the earth. As of 2 p.m. March 11, no aftershocks had been recorded to this earthquake. The earthquake was widely felt over southern California, as far away as Thousand Oaks. The strongest shaking recorded at a TriNet station in this earthquake was in Riverside, with a peak horizontal acceleration of 96 cm/s/s, or almost 10% the force of gravity (see ShakeMap)

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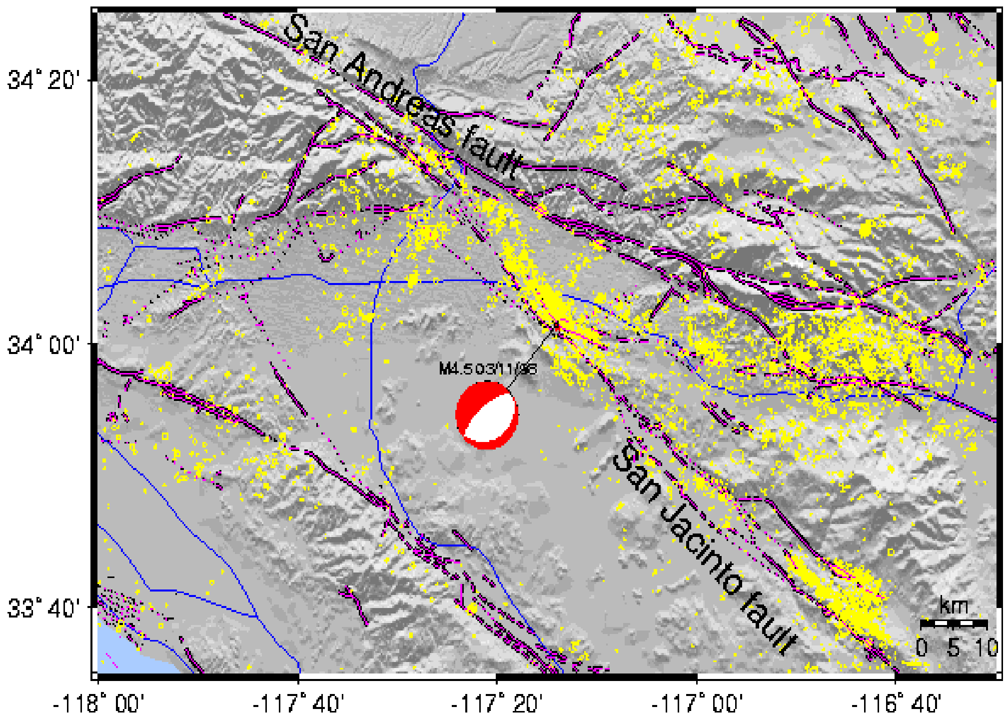
The earthquake was located near the intersection of the San Jacinto fault and the Crafton Hills fault . This is historically one of the sites of highest microseismicity in southern California (see map below). The previous largest earthquake in this region was a M4.8 at almost the same location and also at 15 km depth that occurred in October 1985 The focal mechanism of the earthquake (the red ball in the map) indicates the orientation of direction of the fault and in this instance, indicates a normal fault. The Crafton Hills is a normal fault, with a fault orientation consistent with the focal mechanism and thus could have been the causative fault for this earthquake. Because of the depth of the earthquake (14 km) compared to its size (a M4.5 occurs over a fault area of less than 1 km), any association with a fault seen at the Earth's surface must be tentative.

# Southern California Seismographic Network

Including Data from TriNet and TERRAscope

Caltech, US Geological Survey, SCEC, & CDMG

Seismicity 1981-1996




GMT Mar 11 13:01 Lucy Jones