

July 6, 2019 Ridgecrest, California (M 7.1) 03:19:53 UTC / July 5 16:19:53 at epicenter **University of Kentucky Kentucky Seismic and Strong Motion Network**



The July 6, 2019 moment magnitude 7.1 earthquake between Ridgecrest and Searles Valley, California, occurred in a high-hazard region known as the Eastern California shear zone, on faults within the Airport Lake fault zone. The resultant seismic waves produced very high intensity (up to intensity IX) ground motions near the causal fault, resulting in damage to local structures. The event occurred 34 hours after a moment magnitude 6.4 earthquake, 11 km to the southwest.

Below Right: Recent earthquakes (black dots) in the area of the foreshock (M 6.4) and mainshock (M7.1) on an InSAR image showing deformation at the earth's surface from the earthquakes. The InSAR image and af-



tershocks suggest that at least two faults were involved: a longer one trending NW-SE, and another trending NE-SW, intersecting the longer one near the epicenter of the foreshock.





(323, 85, -164

(231, 74, -5)



Above: Mapped Quarternary faults (colored by age of most recent rupture), the Mw 7.1 epicenter (red star), and the modeled shaking intensities from this earthquake (surface project of modeled fault is thick, black line).

KSSMN Seismograms



This focal mechanism, derived from seismograms, indicates strike-slip faulting occurred. The aftershock distribution suggests rupture of a northwest-striking fault plane.

Slip (rupture) along Fault

