

March 18, 2020

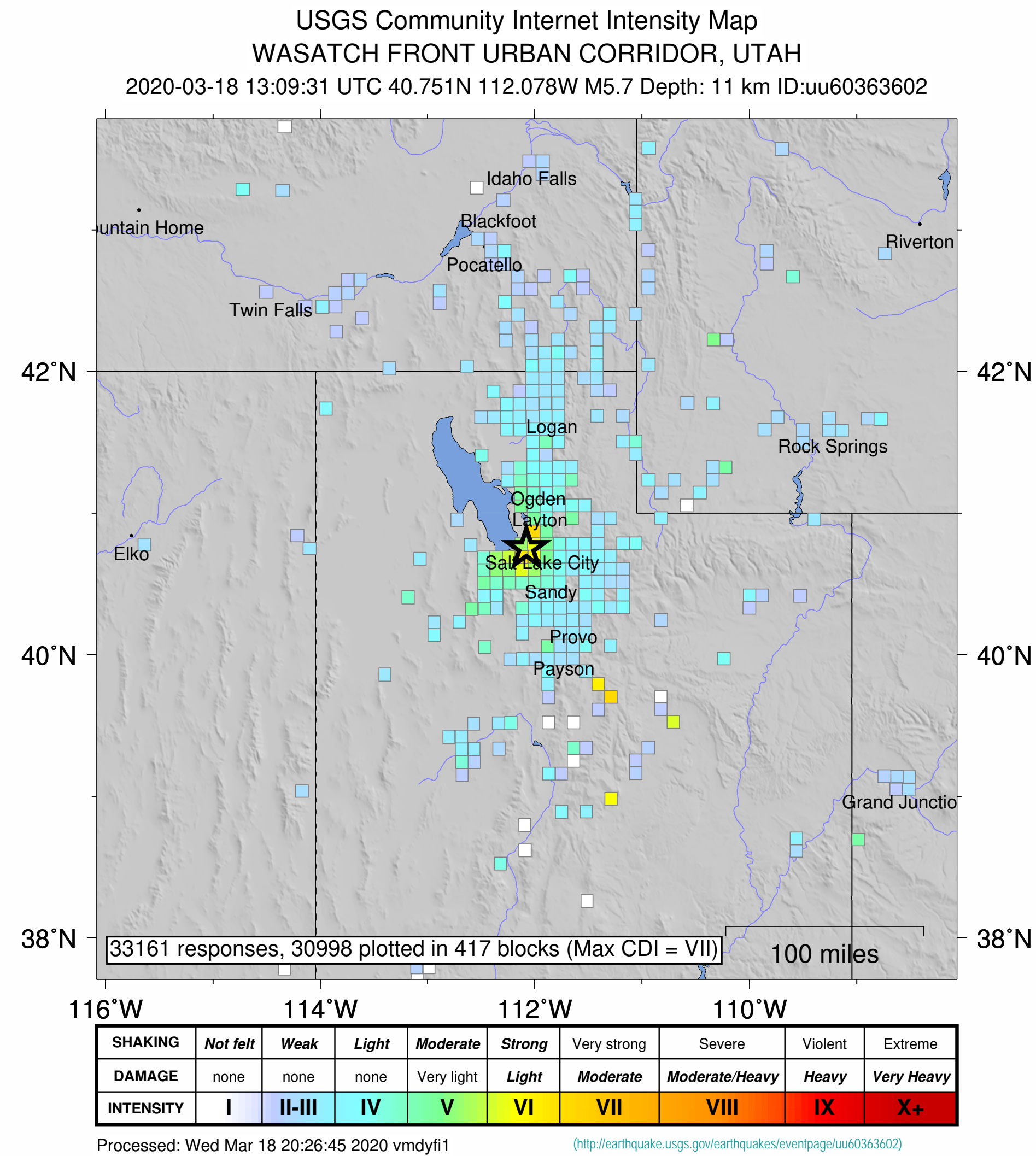
Magna, Utah (Mw 5.7)

13:09:31 UTC / March 18 07:09:31 at epicenter

University of Kentucky

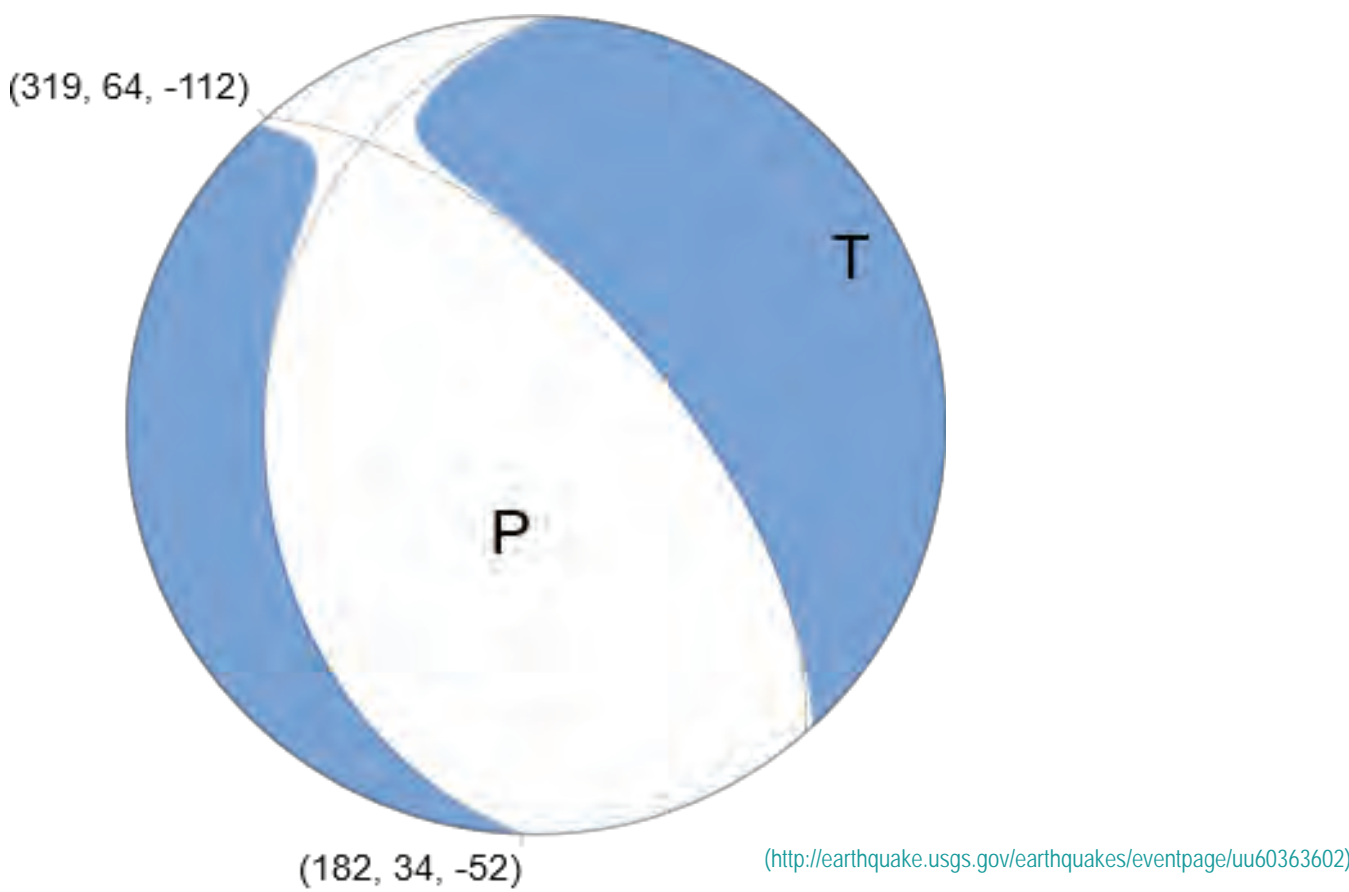
Kentucky Seismic and Strong Motion Network

The March 18, 2020 moment magnitude 5.7 earthquake near Magna, Utah, occurred in a relatively narrow zone of seismic activity known as the Intermountain Seismic Belt (ISB). This earthquake’s location—epicenter and focal depth—and extensional style of faulting suggest that it may have a relationship with the Wasatch fault system. Paleoseismic data and magnitude scaling relationships indicate that segments of the Wasatch fault can produce earthquakes of magnitudes up to 7.5. The largest, historical earthquake that occurred in the ISB was the 1959 M 7.5 Hebgen Lake, MT event.



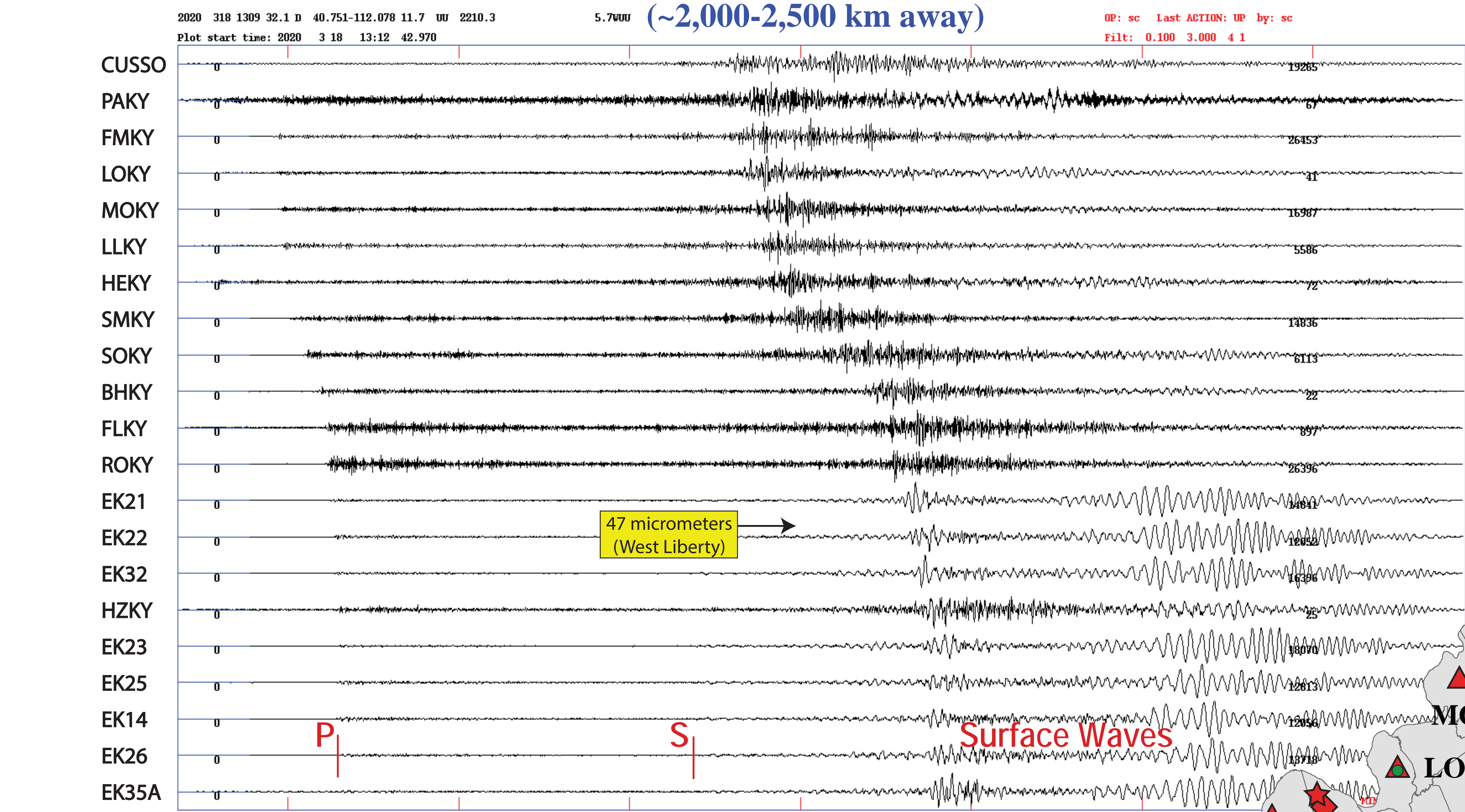
Left: Mapped Quarternary faults (colored by age of most recent rupture), the Mw 5.7 epicenter (red star), and aftershocks within seven hours of the mainshock.

USGS Source Mechanism



This focal mechanism, derived from seis-mograms, shows that predominantly nor-mal-slip faulting occurred of a west- or east northeast-dipping fault plane.

KSSMN Seismograms



“P” and “S” mark P- and S-wave arrival times, respectively, at monitoring station EK26 in Louisa, Ky. Peak surface-wave displacement recorded at EK22 (West Liberty, Ky.) is labeled. Some differences in waveform appear-ances are due to the different types of instruments operated by the KSSMN.

