Map showing world’s three major “belts” (major plate boundaries) where the majority of the world’s earthquakes occur.
Seismicity of North America

North American Plate

Pacific Plate

Figure Credit: USGS
Map Showing Seismicity in S. California

Figure Credit: USGS
Northern California Seismicity

• Seismicity relatively well understood

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Figure Credit: USGS
Pacific Northwest – Cascadia Subduction Zone
Idaho, Utah, Wyoming

- Recurring events along Wasatch
Central US Seismic Zones

Figure Credit: USGS
Reelfoot Rift

Figure Credit: USGS
Charlevoix Seismic Zone

Credit: Natural Resources Canada
Southeastern Seismicity

- TN relatively active
- 1886 event not explained
- magnetic signature from NC to GA similar to Charleston

Epicenters of earthquakes (M>0.0) in the southeastern U.S. from 1977 through 1999.

Figure Credit: VA Tech Seismological Observatory (VTSO)
Generalized US Seismic Hazard Map

Ground-shaking hazard from earthquakes

eqhazmaps.usgs.gov
USGS SEISMIC HAZARD MAP (PGA)


Peak Acceleration (%g) with 2% Probability of Exceedance in 50 Years
USGS Map, Oct. 2002rev

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Visual 3.12
USGS seismic hazard map for California and Nevada

Peak Acceleration (%g) with 2% Probability of Exceedance in 50 Years

site: NEHRP B-C boundary

Figure Credit: USGS