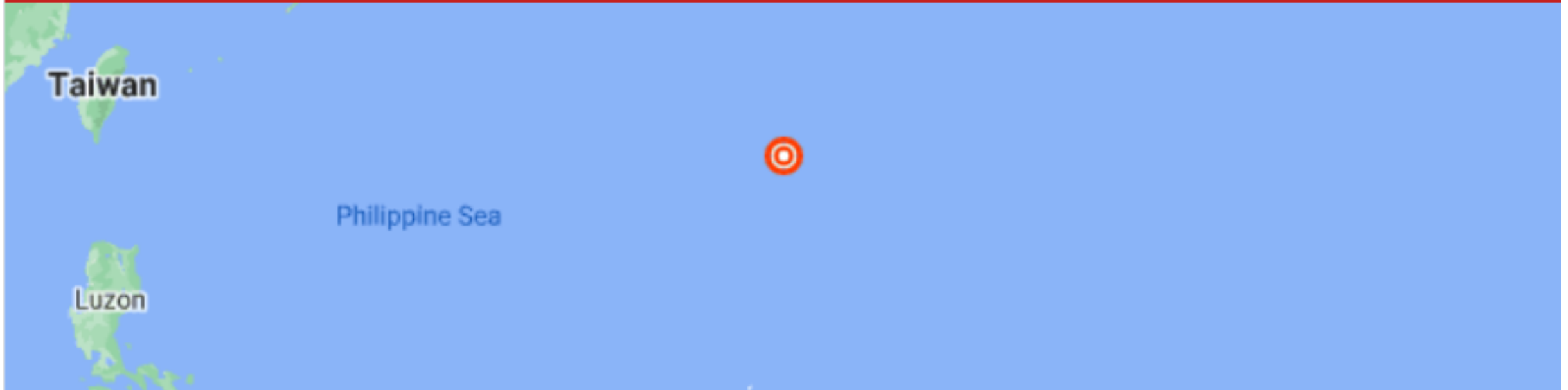


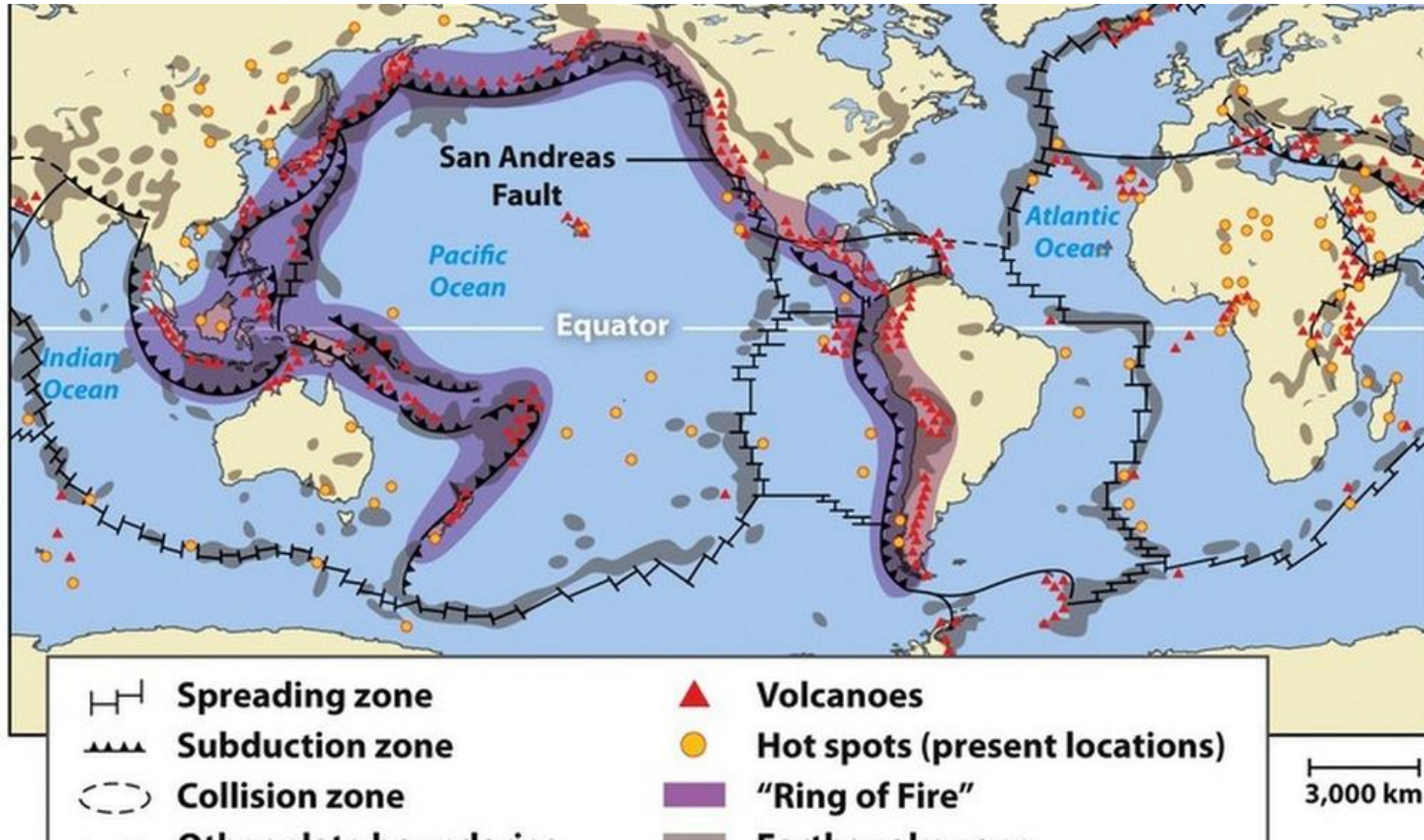
Magnitude 5.3 earthquake

441 miles from Dandan, Saipan, CNMI · Apr 16, 8:27 PM



Mini Lesson

Natural Hazards

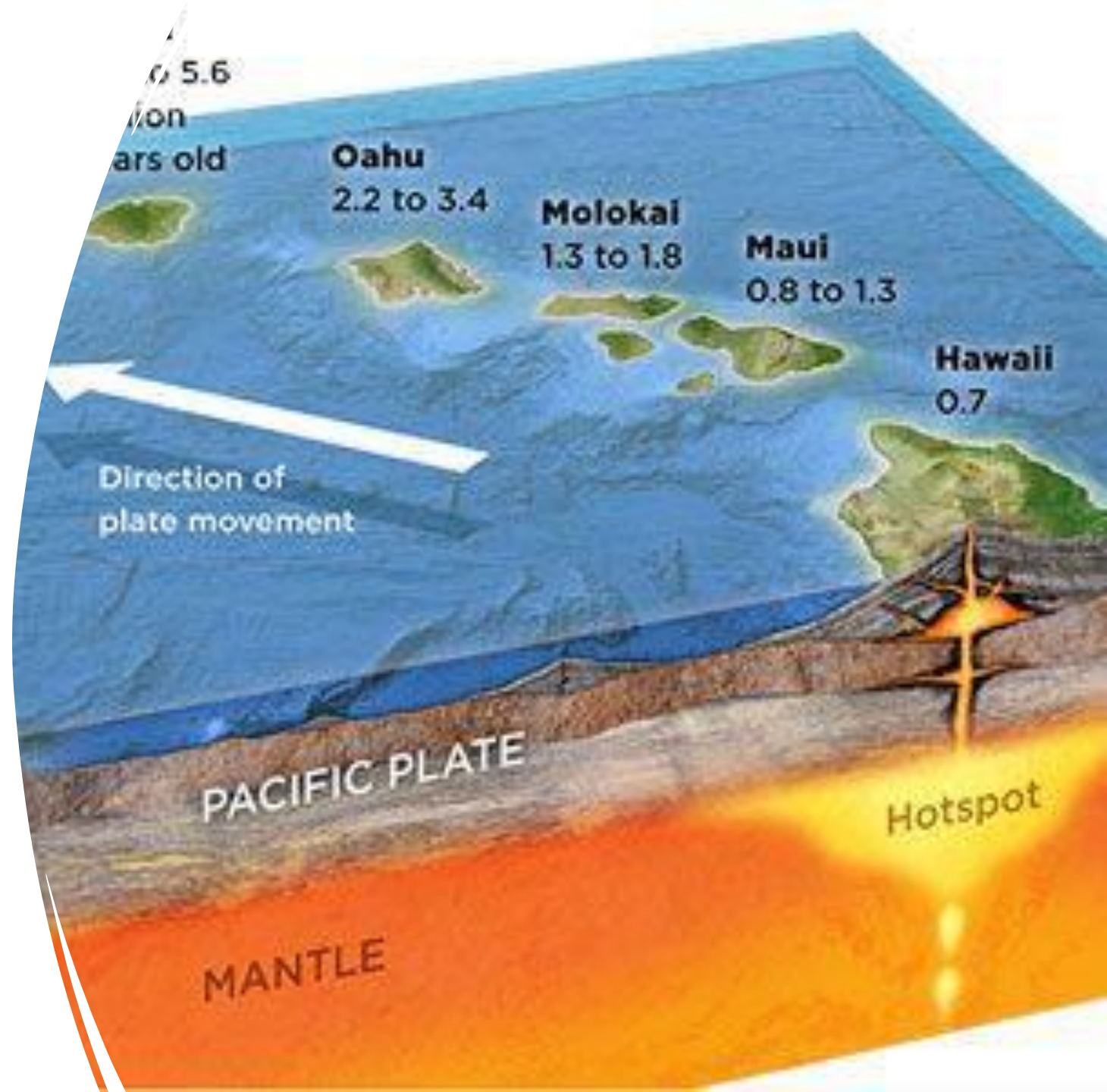


- Plotting earthquake and volcano locations will reveal that these two tectonic events most frequently occur at or near plate boundaries.

Plotting Earthquakes

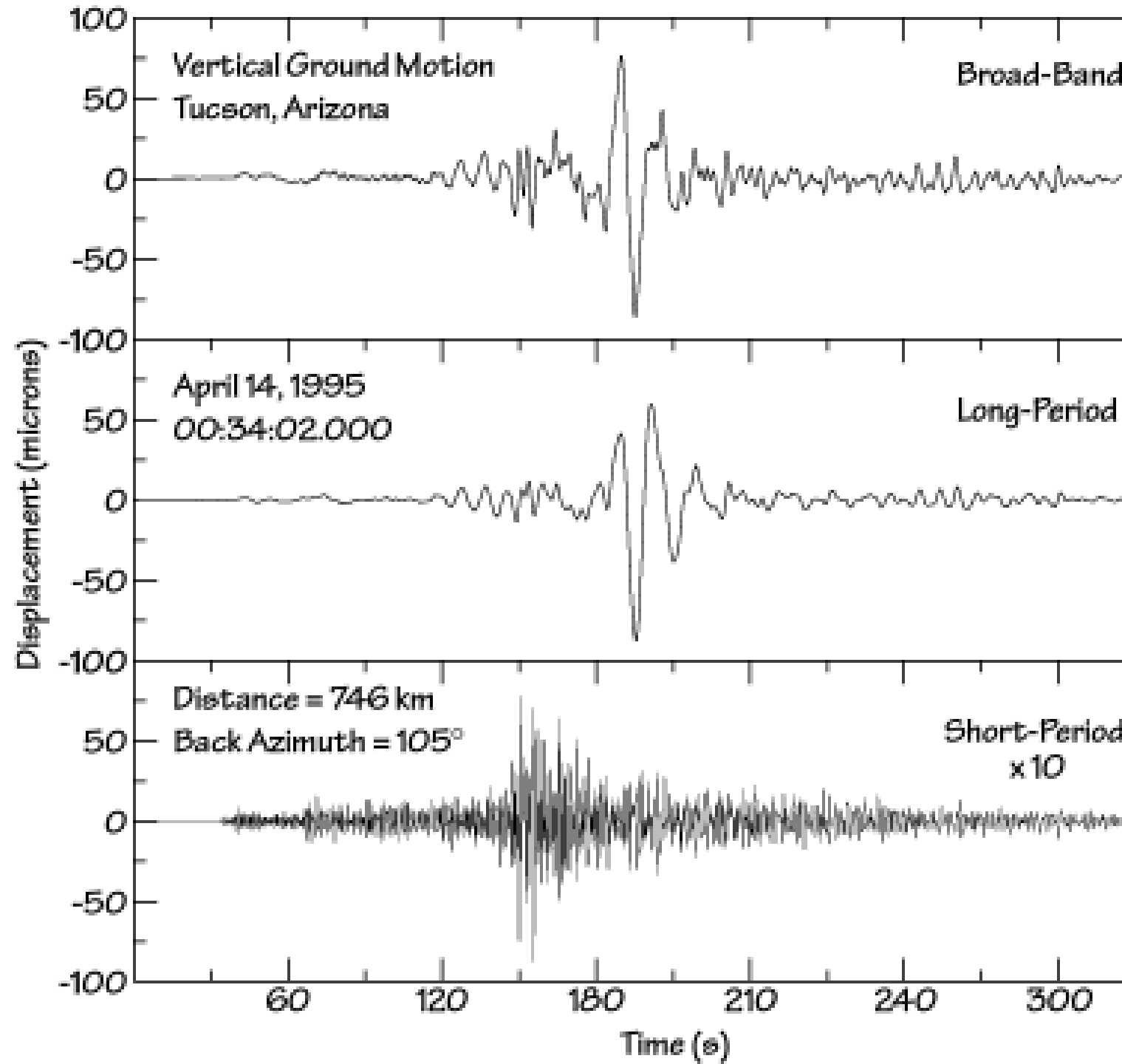
Hotspots

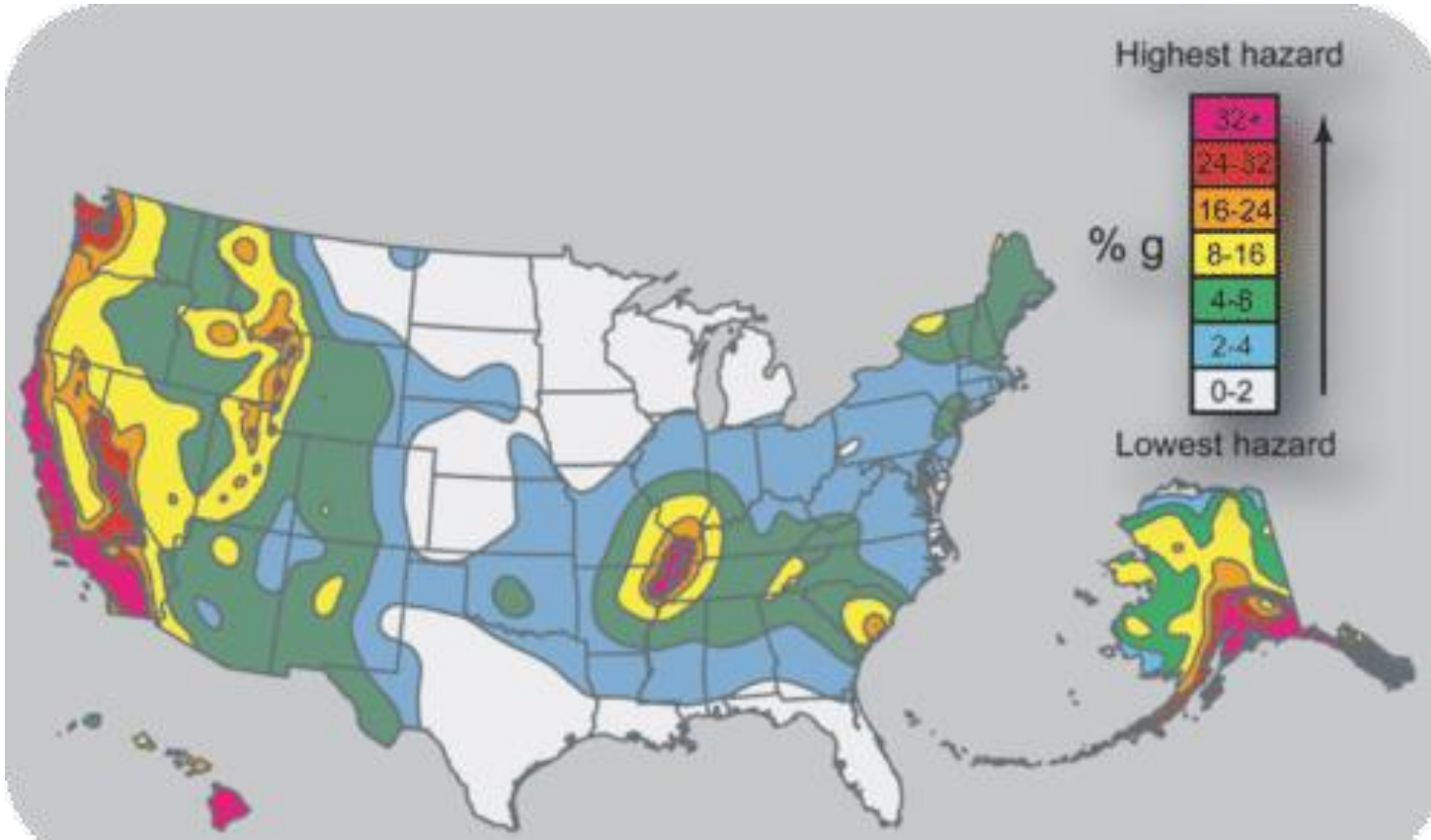
- Magma plumes that rise through the Earth's interior can form hotspots far away from plate boundaries where volcanoes form and earthquakes occurs (e.g. Hawaiian Islands, Galapagos Islands, Yellowstone Caldera, etc.).



Seismograms

- National and international organizations collect tectonic data from earthquakes and volcanoes via seismographic readings including measurements and tracking of locations, magnitudes, frequency, and damage.





- Scientists are not yet able to predict when earthquakes and volcanic eruptions will occur but that they can make predictions about where they are most likely going to happen.

Predicting Earthquakes

ANATOMY OF AN EARTHQUAKE

AN EARTHQUAKE IS THE SHAKING OF THE GROUND CAUSED BY SUDDEN MOTIONS ALONG FAULTS, OR FRACTURES IN THE EARTH'S CRUST

FAULT

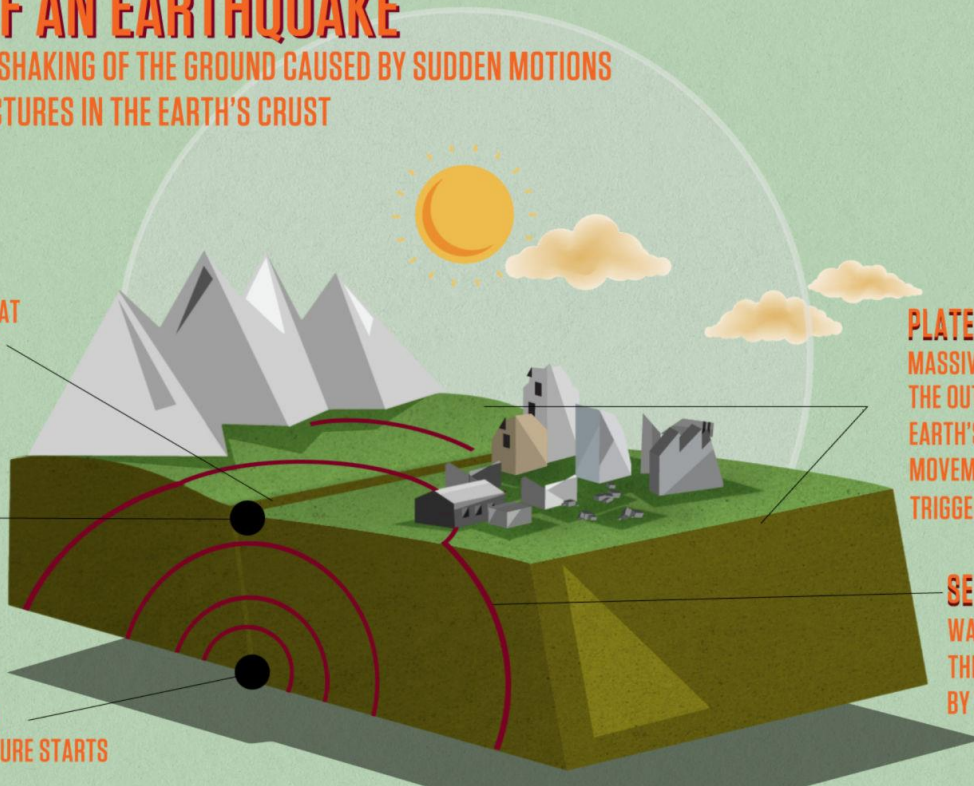
A FRACTURE IN THE ROCKS THAT MAKE UP THE EARTH'S CRUST

EPICENTER

THE POINT AT THE SURFACE OF THE EARTH DIRECTLY ABOVE THE FOCUS

FOCUS (HYPOCENTER)

THE POINT WITHIN THE EARTH WHERE AN EARTHQUAKE RUPTURE STARTS



PLATES

MASSIVE ROCKS THAT MAKE UP THE OUTER LAYER OF THE EARTH'S SURFACE, AND WHOSE MOVEMENT ALONG FAULTS TRIGGERS EARTHQUAKES

SEISMIC WAVES

WAVES THAT TRANSMIT THE ENERGY RELEASED BY AN EARTHQUAKE

- As humans build cities and civilizations, knowledge of natural hazards allows for intentional development.
- This knowledge allows developers to build buildings and prepare for likely events.
- Preparations can include both plans to minimize damage, as well as how to respond to the most likely types of damage that will occur.

Preparing for Earthquakes