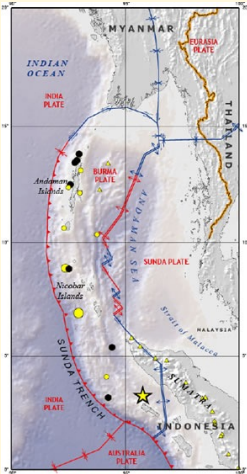
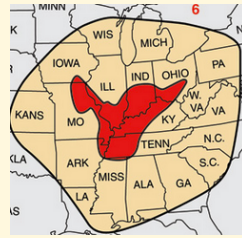


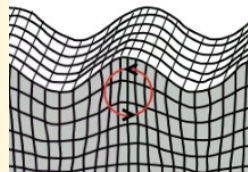
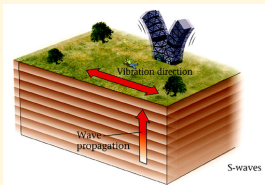
SIO15: Numbers AND TRIVIA - Part 4



10 min
duration of the 26 Dec 2004 Sumatra-Andaman earthquake. The longest duration of any recorded earthquake. It ruptured for 1600 km on the boundary between the Indian and Burma plates.



over 800,000
death toll from the 23 Jan 1556 Shaanxi, China earthquake (also the Jiajing Great earthquake), the deadliest reported quake in the world. The $M_w=8.0$ quake destroyed entire cities, diverted rivers, triggered landslides. Many people died in collapsing loess caves. Loess is a wind-blown sediment and builds fertile but highly erodible soil.



4
types of seismic waves: two types of body wave - P and S waves. Two types of surface waves - Love and Rayleigh waves. The shock from the S wave may be the first motion we feel, while the longer-lasting Rayleigh waves typically cause the damage.

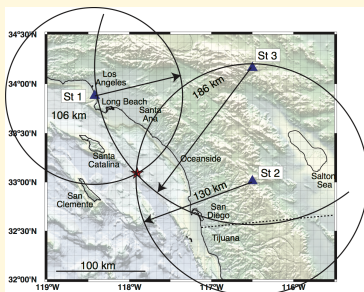
over 3,400,000
earthquakes occurring worldwide in a year. Most of them are too small to be felt by humans.

250,000
death toll from the 4th deadliest earthquake worldwide, and the deadliest outside of China. The Antioch earthquake occurred in late May 526 in the Byzantine Empire (now Turkey and Syria). The $M_w=7.0$ earthquake was followed by fire that destroyed most of the buildings left standing after the shaking. It is reported that the high death toll resulted from a large number of visitors to the city to celebrate Ascension Day.

1.3
earthquakes magnitude 8.0 or greater in a year

Induced Seismicity
earthquakes and tremors triggered by human action. This includes fracking, artificial reservoirs, wastewater injection, geothermal wells and nuclear underground explosions.

3
principal types of earthquakes: normal, reverse and strike-slip



3
the number of stations needed to locate (triangulate to) the epicenter of an earthquake. 4 stations are needed for the hypocenter.

3
angles to describe the orientation of movement on an earthquake fault: strike, dip, rake

