

What causes a tsunami?

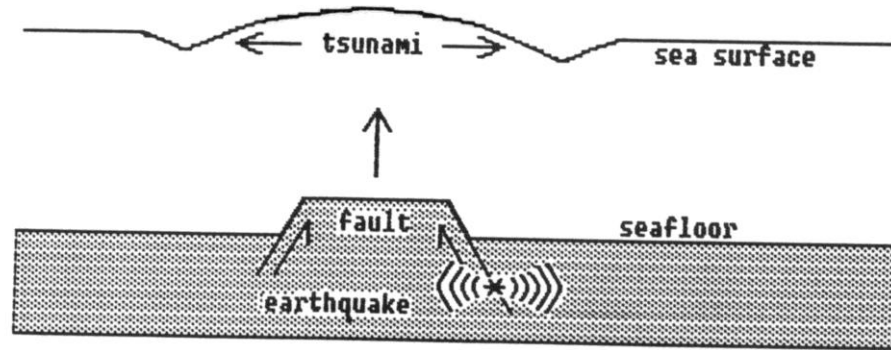


Figure 2.2 Graphic representation of faulting at the ocean floor, producing an earthquake and tsunami.

Earthquakes

9.5 Magnitude: Chile, 1960

9.2 Magnitude: Prince William Sound, Alaska, 1964

9.1 Magnitude: Sumatra, Indonesia, 2004

9.0 Magnitude: Sendai, Japan, 2011

Each earthquake produced a major tsunami. Threshold for tsunami ~7.0. Thrust-type movement more likely to produce tsunamis than slip-type.

A 3 to 9 mi size asteroid hit Yucatan 65Mya. Equivalent of a 12.3 quake!

This was almost 1000 times more powerful than greatest quake yet observed!

Alvarez's Theory says that this led to extinction of land-based dinosaurs who were living in a very warm Earth environment that had 12 times more CO₂.