

Tsunami alert spreads across Pacific Ocean

Mar 11, 05:46GMT: 8.9 magnitude earthquake strikes north-east Japan

Tsunami warnings

Russia, Taiwan, Philippines
Indonesia, Papua New Guinea, Australia, New Zealand, Fiji, Mexico, Guatemala, El Salvador, Costa Rica, Nicaragua, Panama, Honduras, Chile, Ecuador, Colombia, Peru

Tsunami travel times

Wave size: Up to 7.3m

1 3 hours

2 6 hours

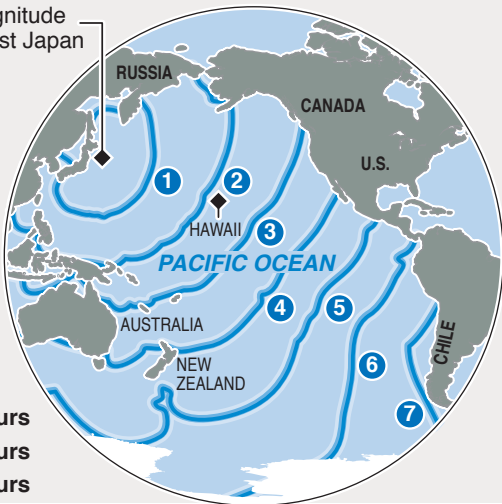
3 9 hours

4 12 hours

5 15 hours

6 18 hours

7 21 hours

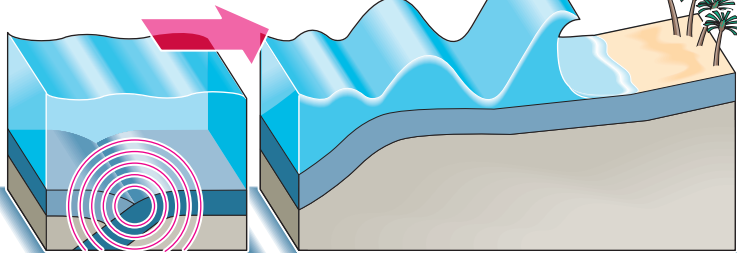


From sea to shore – the massive power of a tsunami

Quake beneath sea floor displaces water that reaches surface as 0.5m-high waves

Decreasing depth slows speed but increases height of waves

Wave tops pile up before crashing on shore



Deep water: Wave length up to 160km, speed up to 800km/h

Shallow water: Wave speed around 48km/h, height can reach 30m or more