

Volatile boundaries of Earth's tectonic plates

Around 500,000 detectable earthquakes occur each year, of which 100,000 can be felt, around 100 cause damage, but only 18 are greater than 7.0 magnitude. The majority of tremors and volcanic eruptions take place along the boundaries between the shifting tectonic plates which form the earth's crust

SIGNIFICANT 2010 QUAKES

1 Jan 11, Haiti: Magnitude: 7.0, depth: 13km, fatalities: 222,500

2 Feb 4, offshore California: Magnitude: 5.9, depth: 23.6km

3 Feb 18, China-Russia-N. Korea: Magnitude: 6.9, depth: 573.8km

4 Feb 26, Ryukyu Islands, Japan: Magnitude: 7.0, depth: 22km

5 Feb 27, Maule, Chile: Magnitude: 8.8, depth: 35km, fatalities: 800
Entire city of Concepcion moved at least 3 metres to west

6 Mar 5, offshore Bio-Bio, Chile: Magnitude: 6.6, depth: 35km

7 Mar 5, Sumatra, Indonesia: Magnitude: 6.5, depth: 22km

8 Mar 8, Turkey: Magnitude: 6.0, depth: 12km, fatalities: at least 51



Orange arrow: Direction of movement of tectonic plates

Normal/thrust faults: Plates shift vertically – either dropping down or thrust upwards

Strike-slip fault: Plates shift horizontally either side of vertical or near vertical fault

Convergence fault: One plate pushed under another as they move together

Divergence fault: Plates pull apart, forming rift valleys or mid-oceanic ridges

