

# Killer quake struck just below the surface

January 13 2010

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A body lies amid rubble in Port-au-Prince after the huge earthquake rocked the impoverished Caribbean nation. The quake that struck Haiti erupted just below the surface on a notorious fault where two plates of the Earth's crust jostle and grind, scientists said.

The quake that struck Haiti erupted just below the surface on a notorious fault where two plates of the Earth's crust jostle and grind, scientists said.

"It was a very shallow [earthquake](#), occurring at a depth of around 10 kilometers (6.2 miles)," seismologist Yann Kinger of the Institute of the Physics of the Globe (IPG) in Paris told AFP.

"Because the shock was so big and occurred at such a shallow depth, just below the city (of Port-au-Prince, the Haitian capital), the damage is bound to be very extensive," he said.

The US Geological Survey said on its website that the quake, which measured a very powerful 7.0 magnitude, occurred at 2153 GMT on Tuesday 15 kms (9.4 miles) southwest of Port-au-Prince at a depth of around 8.3 kms (5.2 miles).

The movement was horizontal, occurring on the northern rim of the Caribbean plate where it rubs with the North American plate, the experts said.

"This fault is well known, it had been mapped and researchers have been following it," said Kinger.

He added that the death toll in Haiti, the poorest nation in the western hemisphere, would most probably be amplified by shoddy buildings and poorly-equipped emergency services.

"The buildings are likely to be very flimsy and not necessary of a very high quality. In addition, first responders may not be as effective as they are in [Western Europe](#), for instance," he said.

Many of Haiti's oldest buildings, including the presidential palace, were destroyed in the [quake](#).

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