

# Probability of powerful quake rises for N. Z. city

November 4 2011

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Scientists warned Friday of an increased probability that another powerful earthquake will hit the earthquake-stricken New Zealand city of Christchurch in the next year.

Christchurch, New Zealand's second largest city, is already facing a repair bill worth NZ\$20 billion (\$15.8 billion) after a 6.3-magnitude quake struck in February, killing 181 people and destroying much of the downtown area.

In a new report, government scientists said there was a 15 percent probability of a magnitude 6.0 to 6.4 quake in the next 12 months, up from 10 percent in September.

The chance of a 5.5-5.9 magnitude quake was put at 46 percent from 37 percent two months ago.

The announcement of increased probabilities comes only a month after the government's [earthquake monitoring](#) unit GNS Science said they were decreasing.

"Nothing has changed inside the earth to increase the risk of an earthquake, it's just that there is a change in the way the probabilities are calculated," said Kelvin Berryman, the natural hazards research manager.

He said the forecasting technique was changed to reflect a longer-term outlook now that the aftershock sequence is 13 months on from the

initial 7.0 quake that rocked the city and weakened its infrastructure.

"The [aftershocks](#) are behaving as expected. They are declining in frequency quite quickly.

"But now the possibility of triggered earthquakes at greater distances is becoming a prominent component of the total hazard, so that is being reflected in the more complex [forecast model](#)," Berryman said.

The February 22 quake, which struck at lunchtime when streets were packed, was the deadliest [earthquake](#) in New Zealand since a 7.8 magnitude quake in Hawke's Bay claimed 256 lives in 1931.

New Zealand sits on the so-called "Ring of Fire", the boundary of the Australian and Pacific [tectonic plates](#), and experiences up to 15,000 [tremors](#) a year.

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Citation: Probability of powerful quake rises for N. Z. city (2011, November 4) retrieved 18 April 2024 from <https://phys.org/news/2011-11-probability-powerful-quake-city.html>

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