

# Major Pacific earthquake prompts tsunami warning

March 20 2009

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An undersea volcano erupts near the Pacific Ocean island of Tonga on March 18. The US Pacific Tsunami Warning Centre issued a tsunami warning for Tonga, Niue, the Kermadec Islands, American Samoa and Fiji, but lifted it nearly two hours after the quake struck.

A major 7.9-magnitude earthquake has shaken the South Pacific nation of Tonga and sending people in low lying areas of Fiji fleeing for higher ground after a tsunami warning, according to officials.

The quake, which hit shortly after dawn, was centred 210 kilometres (130 miles) south-southeast of the Tongan capital Nuku'alofa, the United States Geological Survey (USGS) said.

A 5.3-magnitude aftershock was also recorded in the same region just

over two hours after the initial quake.

A resident of Nuku'alofa said there was no sign of significant damage or of a [tsunami](#) after the shallow quake, which struck at a depth of 10 kilometres (six miles).

Several earthquakes have been felt in Tonga recently and an [undersea volcano](#) has been erupting off the coast of the main island Tongatapu, although it was not considered to be a threat to people in the area.

The US [Pacific Tsunami Warning Centre](#) issued a tsunami warning for Tonga, Niue, the Kermadec Islands, American Samoa and Fiji, but lifted it nearly two hours after Friday's quake struck.

The centre said in its warning that a tsunami had been generated that could have been destructive along coastlines of the region near the [earthquake epicentre](#).

In Fiji, about 750 kilometres (470 miles) west of Tonga, the authorities warned people in coastal areas to move to higher ground while schools along the coast were closed and government workers sent home.

Many heeded the warning to evacuate to higher ground, but police complained others in the capital Suva gathered at sea walls looking for signs of an approaching tsunami.

The warning was lifted after there were no reports of any significant rise in sea levels.

The warning centre said only a minor rise of around four centimetres (1.5 inches) was recorded by sea level gauges in the South Pacific nation of Niue.

Nuku'alofa resident Mary Fonua said no significant damage was apparent after the quake, which lasted for about a minute.

"There was a lot of rattling and shaking. It went on for about 30 seconds and I went outside and the house was shaking for about another 30 seconds," she said. Electricity and phone services were not disrupted.

Caroline Holden, a seismologist with New Zealand's Institute of Geological and Nuclear Sciences, said it was surprising there had not been any significant damage in Tonga from the quake.

"I think the critical point in earthquakes is buildings, so where there are not many high rise buildings you don't expect much damage or injuries."

"But 200 kilometres is very close for that type of magnitude and that kind of shallow depth," she added.

She added a tsunami warning would be expected for such a large earthquake.

"With a magnitude of nearly eight and very shallow, you would send out a warning."

"You would not take any risks."

The quake occurred near fault lines in the Pacific "Ring of Fire" where continental plates in the earth's crust collide and earthquakes and volcanic activity are common.

An undersea earthquake off Sumatra, Indonesia, in December 2004 set off a tsunami that killed more than 220,000 people around the Indian Ocean.

In the South Pacific, at least 52 people were killed by a tsunami in the Solomon Islands in April 2007 after an 8.0 magnitude earthquake.

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