

# Chilean Earthquake Triggers Smaller Than Expected Tsunami

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(PhysOrg.com) -- While a huge earthquake off the coast of Chile triggered a tsunami that moved at the speed of a jet aircraft across the Pacific Ocean Feb. 27, the event was smaller scientists expected, said a University of Colorado at Boulder earthquake expert.

CU-Boulder geological sciences Professor Anne Sheehan said the magnitude 8.8 earthquake offshore of central Chile released more than 400 times the energy of the recent Haiti earthquake. "It was truly an enormous earthquake in terms of energy release, the largest in the world since the 2004 Sumatra earthquake and the fifth largest since 1900," said Sheehan.

Some experts forecasted the Chilean earthquake would produce 9-foot tall [tsunami waves](#) slamming places like Hawaii, Guam and American Samoa, eventually reaching as far as Australia, New Zealand and Japan, said Sheehan, also a fellow at the CU-Boulder's Cooperative Institute for Research in Environmental Sciences. Fortunately, the event produced smaller than expected waves as it rolled across the Pacific, she said.

Chile is along the "Ring of Fire" that stretches north from South America to the Aleutian Islands, then south through Japan, Indonesia and to New Zealand, said Sheehan. The [fault zone](#) of the Chilean [earthquake](#) was extremely long -- several hundred miles -- signaling the potential for further large earthquakes in the region.

"These large earthquakes in the [Southern Hemisphere](#) have the potential

to cause tsunamis all over the Pacific Rim," she said. "Fortunately, people have a much greater understanding of the phenomenon today. Before 2004, a lot of people didn't even know what a [tsunami](#) was," she said.

Sheehan said she believes that lessons learned by Chilean experts following a world-record setting magnitude 9.5 quake there in 1960, and subsequent quakes in the next several decades, resulted in stricter building codes, saving many lives. "The death toll is expected to be far smaller than in Haiti, an example showing that mitigation efforts really can be effective."

Provided by University of Colorado at Boulder

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