Quake similar to 2004 Indian Ocean temblor

Megathrust quakes occur where plates of Earth's crust grind and dive

By Alicia Chang

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LOS ANGELES - Scientists say the major earthquake that struck off the coast of Chile was a "megathrust" — similar to the 2004 Indian Ocean temblor that spawned a catastrophic tsunami.

Megathrust earthquakes occur in subduction zones where plates of the Earth's crust grind and dive. Saturday's jolt occurred when the Nazca plate dove beneath the South American plate, releasing tremendous energy.

The U.S. Geological Survey says 13 temblors of magnitude-7 or larger have hit coastal Chile since 1973.

The latest quake occurred about 140 miles north of the largest earthquake ever recorded. The magnitude-9.5 struck southern Chile in 1960, killing some 1,600 people and generating a tsunami that killed another 200 people in Japan, Hawaii and the Philippines.

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