

# Recent quakes not likely to raise SoCal risk

Marjorie Hernandez, Ventura County Star, 3-1-10

While deadly temblors in Chile and Haiti are a reminder of the dangers that lie underground, seismologists and geological experts say the recent quakes do not necessarily signal more risks for seismically active areas such as Southern California.

There is some statistical evidence that earthquakes happen in succession. But Kate Hutton, a seismologist at the California Institute of Technology in Pasadena, said it is unlikely that an 8.8 magnitude earthquake such as the one in Chile would happen in Southern California.

“Southern California is not likely to get an earthquake as large as the Chile quake, but it could easily get a 7.0 quake like the Haiti quake,” Hutton said. “There is some statistical evidence that earthquakes do clump together somewhat. There is no generally accepted explanation of physically why this should happen over such large distances.”

According to John Parrish, chief of the California Geological Survey, the Chilean earthquake occurred off the coast of Concepcion when the Nazca plate was pulled underneath the South American plate, causing the two to rub together and form a fault about 20 miles deep, Parrish said.

When that happens, a “megaquake” — anything 7.5 magnitude or above — occurs, Parrish said.

Southern California does not have the same geological structure to produce such an earthquake, he said. The only area comparable is the Cascadia subduction zone, which stretches off the coast from Northern California to the Vancouver area. The last major quake in the Cascadia subduction zone occurred in 1700 when a 9.0-magnitude temblor caused a tsunami that reached Japan.

“It’s a very dangerous zone,” Parrish said. “We think quakes like that occur on average every 500 years, with about a 200-year margin of error. We are in that margin of error now.”

In California, geologists watch closely for any movement on the San Andreas Fault, which runs for about 900 miles through Baja to Northern California. Although the San Andreas is not large enough to create a megaquake, Parrish said, there is a 99 percent chance of a 6.7-magnitude quake or larger in the next 30 years along that fault.

While seismic activity worldwide seems to be on the rise, the number of earthquakes 7.0 or greater has remained fairly constant, according to U.S. Geological Survey officials.

The increase of seismic activity stems largely from a higher number of seismograph stations operating throughout the world, officials said. According to U.S. Geological Survey officials, there are more than 4,000 stations using advanced computers and satellites. In 1931, there were only 350 stations.

The quakes in Chile and Haiti also occurred in heavily populated areas, which bring more attention, Parrish said.

Living in earthquake country, however, California residents should always be prepared, experts said.

“You don’t have to be on high alert, but people should always be prepared for when it does occur,” Parrish said. “We need to work on building standards to make sure our buildings are resilient, and people should keep a three-day supply of food, water and prescription medicine on hand, because when it happens, it’s too late to prepare.”