

News of the Profession

Magnitude 7.6 Earthquake Strikes El Salvador

El Salvador, Central America's smallest country, was hit by a magnitude 7.6 subduction zone earthquake on Saturday, January 13. Eight days after the event, the death toll was estimated at over 700, with 500 still missing and feared dead. More than 4,000 people have been injured, and approximately 70,000 homes have been destroyed. There were 15 aftershocks with magnitudes greater than 4 in the five days after the main shock, the largest measuring 5.7.

The epicenter was southwest of the capital city, San Salvador, about 35 km offshore underneath the Pacific Ocean at a depth of about 35 km. Shaking was felt across El Salvador, Guatemala, Nicaragua, and Honduras, and as far north as Mexico City. Guatemalan officials reported six fatalities due to the earthquake.

A national state of emergency was declared in El Salvador, which has a population of 6.2 million. The middle-class San Salvador suburb of Santa Tecla and the Pacific coast province of La Libertad were the hardest hit regions. Most structural damage occurred in small villages and towns, where adobe and unreinforced masonry are the typical construction materials. In the Las Colinas neighborhood in Santa Tecla, most of the damage was due to a landslide that covered about 300 homes with a flow of mud and debris. About 50,000 people were evacuated as aftershocks caused additional landslides in several areas.

In the city of San Salvador, one instrument indicated peak ground acceleration of 0.17g. Engineered structures there fared well. In mid-rise and high-rise buildings, some damage occurred to nonstructural walls that could not contend with structural movements.

The government of El Salvador is estimating the earthquake caused up to US\$1 billion in damage in a US\$6 billion-a-year economy. This is the worst earthquake to hit El Salvador since a 1986 event centered near San Salvador killed about 1,500 people and injured 8,000.

This report was compiled with help from information provided by Sergio Alcocer, Manuel Lopez, Conrad Paulson, and Roberto Quaas. A more complete report will be included in a future Newsletter.



Landslide in Santa Tecla.
(Photo from Reuters/El Diario de Hoy)

News of the Profession

FEMA Region 8 Seeks Program Specialist

The Federal Emergency Management Agency has announced a vacancy in Region VIII, Mitigation Division, Community Mitigation Programs Branch, for a Natural Hazards Program Specialist. The selected candidate will deal with government officials on the National Earthquake Hazards Reduction (EHR) Program; coordinate activities for the Federal Earthquake Response Preparedness Planning Program; conduct meetings on response preparedness requirements; review response plans of other government agencies; provide education on the requirements of the EHR Act and disaster-resistant practices; serve at disaster sites as needed. The application deadline is February 12, 2001. For the complete announcement (RVIII-00-140A), click on [Regional Positions](http://www.fema.gov/career/) at <http://www.fema.gov/career/>.

Announcements

New Map Shows Epicenters and Areas Damaged by $M \geq 5$ California Earthquakes since 1800

California Division of Mines and Geology Map Sheet 49 [MS 49] displays epicenters of known potentially damaging earthquakes [$M \geq 5$] since 1800 for California and a ~100 km zone bordering the state. An inset map shows the areas that were damaged by the larger earthquakes [$M \geq 5.5$]. The number of times various areas were damaged is indicated by different colors.

MS 49 identifies the 383 epicenters of $M \geq 5.5$ earthquakes by listing them in order of latitude and longitude, giving dates and magnitudes. It divides the 200-year history into three nearly equal time periods, one instrumental and two pre-instrumental. These are distinguished by red, blue, and green to show the changes in earthquake occurrence and identification with time. The epicenters and magnitudes in the two pre-instrumental periods are based predominantly on analysis and interpretation of felt effects and comparison with modern earthquakes.

The inset damage map shows the areas shaken at Modified Mercalli Intensity VII or greater, which is the threshold of damage to weak buildings. It also shows the number of times such damage has occurred. The epicenters are the points where fault rupture initiated; they are not necessarily the points of most intense shaking or damage. The Los Angeles area, the San Francisco Bay Area, and Eureka to Cape Mendocino were damaged at least six times since 1800.

To order the \$10 map, call 916/ 445-5716, or see www.consrv.ca.gov/dmg.