

Quake's location, strength shook predictions

Scripps Howard News Service

Even earthquake scientists were shocked Tuesday at both the location and severity of the late afternoon temblor that rocked Northern California.

The quake collapsed part of the San Francisco Bay Bridge, demolished freeways, caved in buildings and caused a World Series game to be suspended. Game 3 was to have been played in Candlestick Park.

The quake, centered near the beach resort town of Santa Cruz, and measuring 6.9 on the Richter Scale,

occurred on a part of the famed San Andreas Fault where small quakes are common, but no one had expected a large one.

And this one was large. It is the most severe shock Californians have felt since 1980 when a quake measuring 7.0 struck near Eureka.

As seismograph images of the quake and its aftershocks poured out of computers at the California Institute of Technology, geologist Kate Hutton noted that the shock was approximately the same severity as the one that struck Soviet Armenia last year.

"It's not far off in intensity," Dr. Hutton reported. "Hopefully our construction is better."

The California quake lasted approximately 15 seconds and was followed by a sharp aftershock.

Both Caltech and the U.S. Geological Survey had been studying swarms of quakes in the general area, but had not expected a large one to strike along the San Andreas in Northern California.

Most geologists had expected the next major action along the San Andreas to come in Southern California, somewhere north of Los Angeles,

rather than near San Francisco.

"We can be pretty sure the southern section of the San Andreas will be the site of the next great earthquake in California," predicted Caltech scientist Kerry Sieh last year.

And the Tuesday quake, listed at 6.9 by the National Earthquake Center in Golden, Colo., was not a "giant," by geologists' definition.

"What people talk about as 'The Big One' would be a magnitude 8," said Dr. Hutton.

But earthquake scientists had warned for years that a somewhat smaller quake on either the San

Andreas or any number of the smaller faults that lace all of California could be far more damaging than a "Big One" in a remote area.

One reason scientists gave for those forecasts of disaster was that cities like Los Angeles and San Francisco contain many unreinforced brick buildings dating from before 1933, when a major quake in the Long Beach area spurred changes in building codes.

Those forecasts came true Tuesday, when scores of brick buildings in the Tenderloin and south of Market areas of San Francisco fell in.

Brick buildings often collapse in earthquakes because they have no flexibility when hit by waves motions in the ground that invariably accompany earthquakes.

Most modern housing in California is wood frame with stucco facades, while large buildings contain large amounts of structural steel, allowing them to sway in quakes without breaking.

By the time damage is toted up, it will likely be far less widespread than in the similar-sized quakes in Armenia and in Mexico City in 1985.

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