

Oddly, 4.4 quake isn't producing aftershocks

Gary Robbins, Orange County Register, 3-17-10

Southern Californians were awakened at 4:04 a.m. Tuesday by a magnitude 4.4 earthquake that's become something of an odd event because it is not generating significant aftershock activity, says the U.S. Geological Survey.

"It might be that the quake just broke one patch of the fault, and that's about all we'll get," says Bob Dollar, a seismologist at USGS. "That happens sometimes. But I would expect some aftershocks with a 4.4 quake. There's still a 5 percent probability that we'll have a larger event within a day, and a 10 percent probability of something in the 3.0 range within a week."

Tuesday's quake broke near the Pico Rivera Plaza Shopping Center, roughly five miles northeast of Downey, shaking much of Orange County. Dollar says the quake happened "in the vicinity of the Whittier and Puente Hills fault zones. This is a very complex area and the quake actually could have occurred on any of a half-dozen faults. We haven't identified which one yet." The quake began 11.2 miles deep, which is normal for Southern California.

On June 12, 1989, quakes measuring 4.8 and 4.5 occurred on the Whittier system, about six miles west of Tuesday's event, underscoring the active nature of that region.

Caltrans officials are inspecting area freeways, but there have been no substantiated reports of significant damage. The quake happened on blind-thrust system, in an area where the Whittier is strong enough to produce a 7.2 quake, seismologists say. There is a very small chance that the quake is a pre-shock to a larger event.

Earlier, Dollar said it appeared that Tuesday's quake was four miles south of the Whittier Narrows of October 1987, which measured about 5.9. That made the Whittier the leading suspect as the cause of the fault. But Dollar emphasized at 4:10 a.m. that scientists would likely change their comments when they had a bit of time to explore what happened, which is what occurred in this case.

Tuesday's quake happened near the intersection of Whittier Boulevard and the San Gabriel River (605) Freeway. Dollar says there was a 4.0 earthquake in almost the same spot as Tuesday's quake on Jan. 30, 1941.

USGS also says that within three hours of the quake, at least 271 people in Huntington and 219 in Fullerton had gone online to the agency's "Did you feel it?" site to report to report the shaking. . (See city-by-city list below.)

One of this blog's readers said in the Comments section, "Just moved back to OC from northwest Arkansas. Sure beats living in tornado alley and ice storms!"