

Depth, distance reduce impact of California quake

March 10 2014

One of the largest earthquakes to hit California in decades rattled the state's northern coast, but its depth and distance from shore reduced the impact on land, where there were no reports of injuries or damage, scientists and authorities said on Monday.

The magnitude-6.9 [quake](#) struck at 10:18 p.m. PDT Sunday and was centered 50 miles (80 kilometers) west of Eureka and about 10 miles (16 kilometers) beneath the Pacific seabed, according to the U.S. Geological Survey. By late Monday morning, it had already produced 20 aftershocks of magnitude-3.5 or larger, and more were expected over the coming days, said Keith Knudsen, deputy director of the USGS's Earthquake Science Center in Menlo Park, California.

Knudsen said there was also a 5 to 10 percent chance of a larger quake in the area in the next week.

Sunday's quake was felt widely across the region, but both fire and sheriff's officials in Humboldt County said they had no reports of any damage or injuries. Humboldt County includes most of the populated areas closest to the epicenter.

"Everybody felt it region-wide to the point that there was concern for damage," said Humboldt County Sheriff's Lt. Steve Knight. But other than triggering some home alarms, the county escaped unharmed, he said. "We're very grateful."

There was no tsunami danger for the region as well, according to the National Tsunami Warning Center.

More than 3,000 people reported on the USGS website that they felt the quake within hours of it striking, including some across the border in Oregon.

Amandip Heer, a manager at a 76 Gas Station and convenience store in Eureka, described the quake as a "vibration," but said nothing fell off the shelves at the store, and there was no other damage.

Earthquakes are very common in Eureka, a city of about 27,000 people about 270 miles (434 kilometers) northwest of San Francisco and 100 miles (161 kilometers) south of the Oregon state line. Nearby Arcata is home to about 17,000 people and Humboldt State University.

Since 1980, there have been 10 earthquakes greater than magnitude-6 in the area, Knudsen said. California has experienced at least seven earthquakes of magnitude-6.9 over the same period, according to the USGS.

Sunday's quake was far enough from shore to allow much of its energy to dissipate, Knudsen said.

An offshore earthquake of magnitude-7.2 about 30 miles southwest of Eureka in 1992 left 95 people injured and caused tens of millions of dollars in damage, according to the USGS. The earthquake was felt as far south as San Francisco.

It was followed by a magnitude-6.5 earthquake about 12 hours later and a [magnitude-6.7 earthquake](#) a few hours after that, both of which caused additional damage.

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