

Oklahoma rattled by shallow 5.1 magnitude earthquake

February 3 2024



Credit: Unsplash/CC0 Public Domain

A 5.1 magnitude earthquake shook an area near Oklahoma City late Friday, followed by smaller quakes during the next several hours, the U.S. Geological Survey reported.

No injuries were reported and damage appeared to be minimal, mostly items overturned or shaken from shelves inside homes, according to

Lincoln County Deputy Emergency Management Director Charlotte Brown.

"Nothing significant ... nothing other than lots of scared people," Brown said.

The earthquake struck at 11:24 p.m. and was centered 8 kilometers (5 miles) northwest of Prague, Oklahoma, about 57 miles (92 kilometers) east of Oklahoma City, the agency said.

Residents across the state from Lawton to Enid to Tulsa reported feeling the shaking to the U.S.G.S.

The initial earthquake was followed by at least eight smaller temblors through Saturday morning, ranging in strength from magnitude 2.5 to 3.4, according to the geological survey.

The earthquake was shallow—just 3 kilometers (1.8 miles) deep, according to the USGS—and temblors that hit close to the surface can make the shaking more intense.

At least six earthquakes, including two greater than magnitude 4, were recorded near another Oklahoma City suburb in January. In April, a magnitude 4 earthquake was among a series of six that struck the central Oklahoma town of Carney, about 40 miles (64 kilometers) northeast of Oklahoma City.

A 5.7 magnitude earthquake struck Prague in 2011, about 60 miles (97 kilometers) south of the state's strongest recorded earthquake site in Pawnee, which registered a magnitude 5.8 in 2016.

Thousands of earthquakes have been recorded in Oklahoma in recent years, many linked to the underground injection of wastewater from oil

and natural gas extraction, particularly in what is known as the Arbuckle formation that includes the area around Prague.

The epicenter of the Saturday earthquake was nearly the exact spot of the epicenter of the 2011 quake, according to Matt Skinner, spokesperson for the Oklahoma Corporation Commission, which regulates the oil and gas industry in the state.

"That was one of the early areas where action was taken" to limit the injection of wastewater, said Skinner.

"Disposal wells within 10 miles of the quake" must stop operating temporarily, Skinner said.

The corporation commission has directed several producers to close some injection wells and reduce the volumes in others as a result of the quakes.

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