Office of the State Geologist
Scott Ausbrooks, Director and State Geologist

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White County Seismicity Map

About the Map

This map illustrates the location and magnitude of reported earthquakes that have occurred in White County, Arkansas from 1965 to 2024. The data source for the earthquakes depicted on this map is derived from the Office of the State Geologist (OSG) earthquake catalog. The catalog has been compiled from various sources and publications and includes date, time, latitude, longitude, magnitude or intensity and depth information. Some event records may contain incomplete data due to their date and/or source. The OSG earthquake catalog is dynamic and continually updated as event parameters are modified, new events are added, and occasionally, events are deleted. The seismic areas/zones, illustrated on this map are derived from various geologic sources and publications on file at the OSG. Depicted seismic areas/zones, are for illustration purposes only and may not represent all the seismically active features within a given location or relate to the origin of the earthquakes depicted on this map.

References

Advanced National Seismic System (ANSS) earthquake database web page: URL: http://earthquake.usgs.gov/monitoring /anss/

Center for Earthquake Research and Information (CERI) - New Madrid Earthquake Catalog: URL: http://folkworm.ceri.memphis.edu/catalogs/html/cat_nm.html

National Center for Earthquake Engineering Research (NCEER) – earthquake catalog for the central and eastern United States, 1627-1985. URL: http://folkworm.ceri.memphis.edu/catalogs/html/cat_nceer.html

St. Louis University (SLU) Earthquake Center web page: URL: http://www.eas.slu.edu/eqc/

Tennessee Earthquake Information Center (TEIC) – succeeded by University of Memphis Center for Earthquake Research and Information (CERI) – taken from CERI New Madrid Earthquake Catalog. URL: http://www.ceri.memphis.edu/seismic/catalogs/cat_nm.html

United States Geological Survey USGS) Earthquake Notification Service (ENS).

The 1M Multidirectional Hillshade or Digital Slope Model base used in the making of this map was created by the Office of the State Geologist (OSG) using the 1meter Lidar data acquired from the United States Geological Survey (USGS).

ROSE BUD EARTHQUAKE CLUSTER AREA

NORTHERN WHITE COUNTY CLUSTER AREA

SEARCY EARTHQUAKE CLUSTER

2010 (M3.2)

2010 (M3.3)

Hichory Flat
Pangburn
Letona
Rose Bud
My Lake
Lake Barnett
Searcy
Kensett
Higginson
Garner
McRae
Beebe
Judsonia
Bald Knob
Bald Knob Lake
Russell
Bradford
West Point
Georgetown
Griffithville
Big Hurricane Lake

Cypress Creek
Fourteenmile Creek
Little Red River
Tennile Creek
Brier Creek
Big Creek
Little Creek
Panther Creek
Stevens Creek
Glaise Creek
Bayou Des Arc
Cane Creek
Bull Creek
Little Bull Creek
Little Cypress Creek

157 87 305 124 16 310 258 367 167 13 64 323 385 320 267 31 5 36 11 321

White County (shaded in blue) is located inside the New Madrid seismic zone (NMSZ) catastrophic planning area (shaded in pink), as designated by the Arkansas Department of Emergency Management (ADEM) and also partially in the Rose Bud and Searcy Earthquake Cluster Areas (red box). The NMSZ is shaded in purple.

Symbols

- Multi-Lane US Highways
- US Highways
- State Highways
- Incorporated Areas
- Water
- Seismic Areas Zone

Earthquake Magnitudes

- 0.0 - 1.9
- 2.0 - 2.9
- 3.0 - 3.9

Disclaimer

Although this map was compiled from digital data that was successfully processed on a computer system using ESRI Pro 3.x software at the Office of the State Geologist (OSG), no warranty, expressed or implied, is made by the OSG regarding the unity of the data on any other system, nor shall the act of distribution constitute any such warranty. The OSG does not guarantee this map or digital data to be free of errors or assume liability for interpretations from this map or digital data, or decisions based thereon.

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Office of the State Geologist (OSG).

Scale

2 1 0 2 4 6 8 10 Miles

2 1 0 2 4 6 8 10 Kilometers

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2013

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01 April 2025	1 : 75,000	Jerry W. Clark	