GH-EQ-ENOLA-002

Enola Swarm Area - Faulkner County, Arkansas

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2007

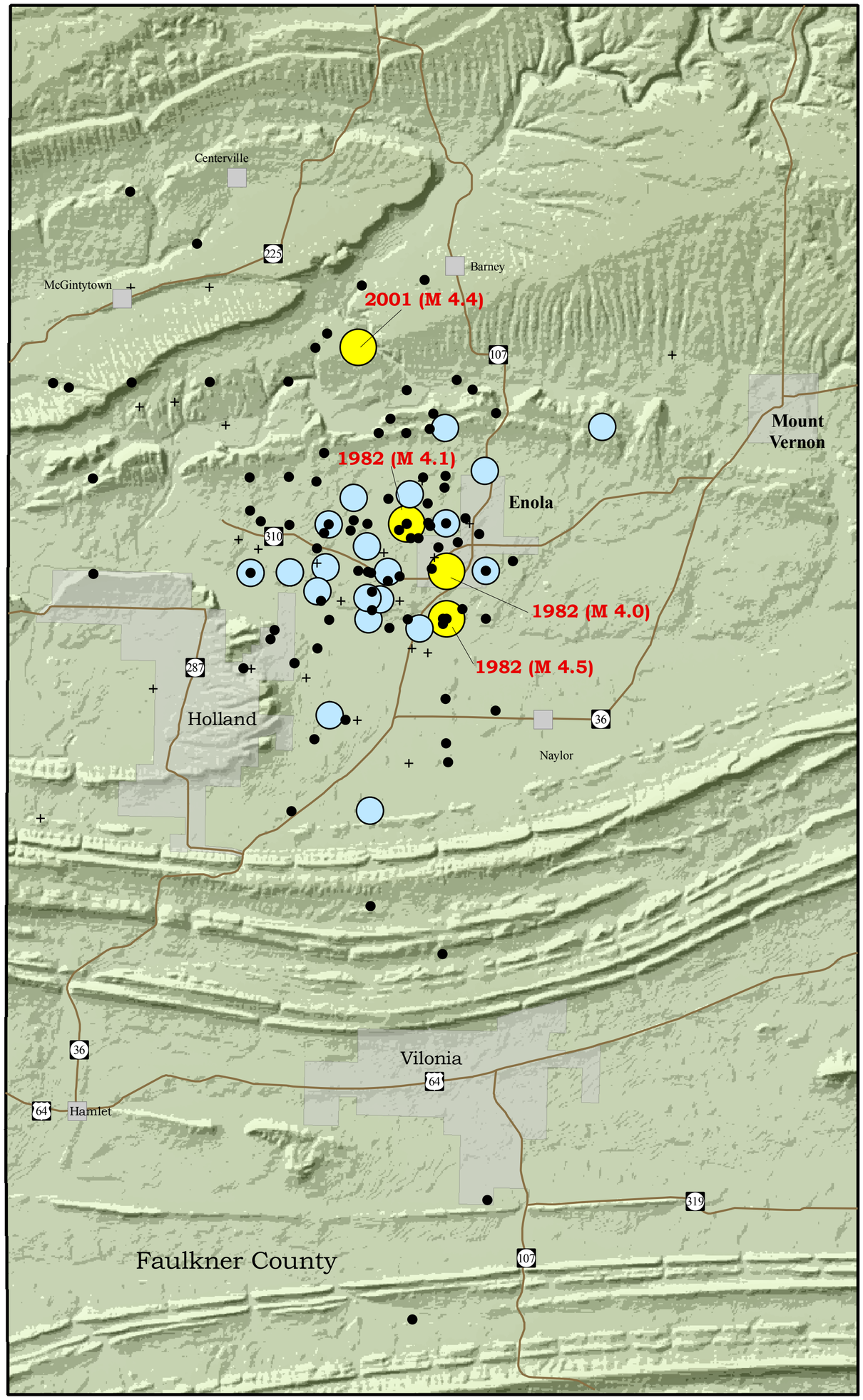
About the Map

This map represents a sampling of seismic events recorded near the town of Enola in central Arkansas. This seismically active area is known as the "Enola swarm area." The first seismic event recorded here was a 1.2 magnitude earthquake that occurred on January 12, 1982. Over 40,000 seismic events have occurred in the Enola swarm area since 1982, making it possibly the largest seismic swarm ever recorded in the central United States (Chiu et al., 1984). Most of the seismic events are microquakes, but numerous felt events have been experienced. During the first year of seismic activity, at least 93 earthquakes were felt in the Enola swarm area by at least one person.

A 4.5 magnitude earthquake was recorded on January 21, 1982, making it the largest seismic event in the Enola swarm area. Another notable seismic event was the 4.4 magnitude earthquake recorded on May 4, 2001. This event was followed by aftershocks greater than magnitude 2.0. The most recent seismic event was a 2.8 magnitude earthquake recorded on October 17, 2006.

Earthquakes associated with the Enola swarm have caused no structural damage, although there have been reports of broken china near epicentral areas. Research indicates that earthquakes occurring in the Enola swarm area are not associated with the New Madrid seismic zone of northeast Arkansas (McFarland, 2001).

The area covered by this map is shaded in blue and is located in Faulkner County, Arkansas. Faulkner County and is included within the New Madrid seismic zone (NMSZ) catastrophic planning area (shaded in pink) as designated by the Arkansas Department of Emergency Management (ADEM). The New Madrid seismic zone is shaded in purple.



Miles
1 0.5 0 1 2 3 4 5

Kilometers
1 0.5 0 1 2 3 4 5

Earthquake Magnitudes

- \+ 0.0 - 1.9
- ● 2.0 - 2.9
- 3.0 - 3.9
- 4.0 - 4.9

Symbols

- US Highways
- State Highways
- Incorporated Areas

Acknowledgments

We extend our appreciation to John David McFarland III for compiling the original earthquake database used to make this map and for sharing his knowledge of Arkansas Seismicity. We also thank Buddy Schweig, USGS and Center for Earthquake Research and Information (CERI) at the University of Memphis and Russell Wheeler for their advice regarding the earthquake database.

References

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The 5M DEM base used in the making of this map was acquired at the Spatial Analysis Laboratory, University of Arkansas, Monticello and some of the other Feature Class Data was acquired at the GeoStor online.

Revised: 08 December 2008