



# Make a commitment to being “Earthquake Prepared”

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The New Madrid Seismic Zone (NMSZ) in Missouri's Bootheel region, is the nation's most active seismic zone east of the Rocky Mountains. More than 200 small earthquakes occur in the zone each year. In 1811 and 1812, the NMSZ produced a series of earthquakes estimated at magnitude 7.0 or greater. One of the largest earthquakes in history was centered in the town of New Madrid on Feb. 7, 1812. Scientists believe it would have registered greater than magnitude 7.5. Nearly 200 years of population growth in the region, which includes metropolitan areas such as St. Louis and Memphis, means that a repeat of the 1812 earthquake could cause considerably more damage. While geological evidence indicates large earthquakes such as those of 1811-1812 are rare, more frequent, moderate earthquakes also can be catastrophic.

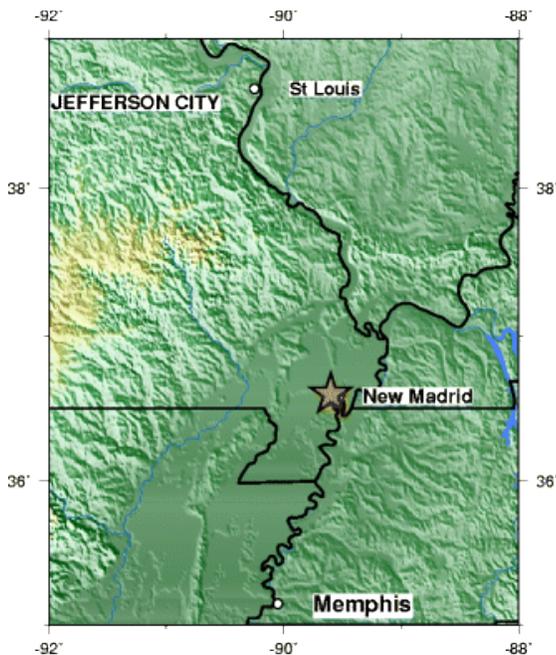
In the back of our minds most of us are aware of the risk that earthquakes pose. When we get a good rattler like the 5.2 and 4.5 earthquakes that occurred in Illinois in

April 2008 - strong enough to shake pictures off the walls and wake sleeping children - it serves as a brief but strong physical reminder of the importance of being prepared. For a few weeks after an earthquake of more significant magnitude, media reports remind us that had it been “The Big One,” the damage could have been much more extensive. Many people sit at the dinner table with their spouses talking about the things they should be doing to get prepared - anchoring bookcases and televisions, packing an emergency kit and making plans for communicating with other family members but they never quite get around to doing it.

“With the increased focus on earthquakes that will accompany the upcoming 200th anniversary for the 1811-1812 event, this would be a good time to commit to preparing your home and business for a potentially damaging earthquake,” said Joe Gillman, state geologist and director of the Division of Geology and Land Survey. Gillman also serves as coordinator for the Association of Central United States Earthquake Consortium State Geologists.

Fortunately the Missouri Department of Natural Resources’ Division of Geology and Land Survey is always in preparation mode. This division, along with the State Emergency Management Agency, the Missouri Seismic Safety Commission and others will partner in February to provide critical information to Missourians about earthquakes in the NMSZ. During Missouri’s annual Earthquake Awareness Month, the department participates in a number of public activities by providing scientific data about the NMSZ, mapping for risk assessment and potential earthquake risk for citizens, as well as providing geologic information about the basics of earthquakes. Several events have already been announced:

- Friday, Feb. 5: Earthquakes Mean Business Seminar



New Madrid, Missouri

Continued next page: “Earthquake”



## “Earthquake”: from previous

- 9 a.m. at St. Louis University
- Saturday, Feb. 6: St. Louis AEG Earthquake Awareness Day at the Science Center in St. Louis 9 a.m. - 3 p.m.
- Monday, Feb. 15: Central United States Earthquake Consortium (CUSEC) EQ Mitigation for Homeowners Class in Piedmont 1-3 p.m.
- Saturday, Feb. 20: "Hidden Fury: The New Madrid Seismic Zone" video and discussion with DGLS geologist, Onondaga Cave State Park, Leasburg at 10:30 a.m.

DNR’s Division of Geology and Land Survey also gathers critical geologic information to aid in the production of earthquake hazard maps of the St. Louis area. The maps will indicate locations of potential liquefaction and slope instability, conditions that may occur in the event of a damaging earthquake in the region. Funded through a grant from the U.S. Geological Survey, these digital geologic maps represent the Wentzville, Alton, Elsah and Grafton 7.5-minute quadrangles. The division will continue mapping efforts by preparing geologic maps of O’Fallon, Florissant, Clayton, Webster Groves, Cahokia and Oakville. Earthquake hazard maps are essential tools for emergency response efforts. Staff geologists also evaluate geologic hazards related to seismic activity and provide post-earthquake geologic support to SEMA, the Central United States Earthquake Consortium, the U.S. Geological Survey and others to aid in emergency response efforts.

I encourage you to set aside a little time this year to assess your own earthquake preparedness. To help prepare your home and family, visit the Federal Emergency Management Agency and American Red Cross Web sites for tips on making your home safer, what to do during an earthquake and measures to take in the immediate

aftermath. Those with an avid interest in seismic activity might also enjoy visiting the Ed Clark Museum of Missouri Geology, located in Rolla. The museum is hosting a new, interactive earthquake exhibit designed to help both adults and children learn about our active earth, especially seismically active Missouri. Active Earth Kiosk is an interactive computer-based educational tool that provides information about plate tectonics, earthquakes, volcanoes and tsunamis. The Active Earth Kiosk is being made available to DNR’s Division of Geology and Land Survey through Incorporated Research Institutions for Seismology, a university consortium sponsored by the National Science Foundation.

If you manage a business or industrial operation, taking steps now to mitigate risk to your operation is equally important. Visit [disastersafety.org](http://disastersafety.org) and the USGS Web site at <http://earthquake.usgs.gov/learn/topics/?topicID=25&topic=Prepare> for simple tips to prepare your home and business. California’s Earthquake Country Alliance offers a step-

by-step preparation publication at [www.earthquakecountry.info/roots/7StepsBusiness2008.pdf](http://www.earthquakecountry.info/roots/7StepsBusiness2008.pdf).

Also, consider incorporating information from [dnr.mo.gov/geology/geosrv/geores/what2do.htm](http://dnr.mo.gov/geology/geosrv/geores/what2do.htm) into your employee safety manual. Participate in the upcoming Earthquakes Mean Business free seminar at St. Louis University, which is geared toward business and community leaders. The seminar will include break-out sessions, as well as exhibitors who will provide information and resources helpful to business and industry in disaster preparation and business continuity planning. For more information, visit [www.gatewayccc.us/earthquake.htm](http://www.gatewayccc.us/earthquake.htm).

**NOTE:** For more information on seismic activity in Missouri or for updates on Earthquake Awareness Month, visit the department's Division of Geology and Land Survey’s Web site at [dnr.mo.gov/geology/](http://dnr.mo.gov/geology/).

