

EARTHQUAKE PREPAREDNESS For CENTRAL U.S. MOBILE HOME OWNERS

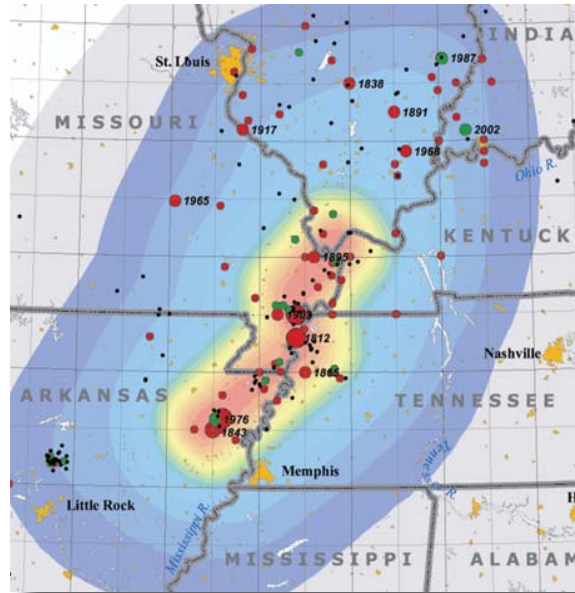


Remember that all you do now, will add to your comfort and safety following an earthquake!

Central United States
Earthquake Consortium
www.cusec.org

A major New Madrid earthquake will cause damage to numerous mobile homes in the Central United States. Risks are highest in counties located in or near the New Madrid Seismic Zone. (NMSZ).

Scientists believe that even a moderate sized, magnitude 6-6.5, New Madrid seismic event has about a 25-40% chance of occurring in any 50 year time period.



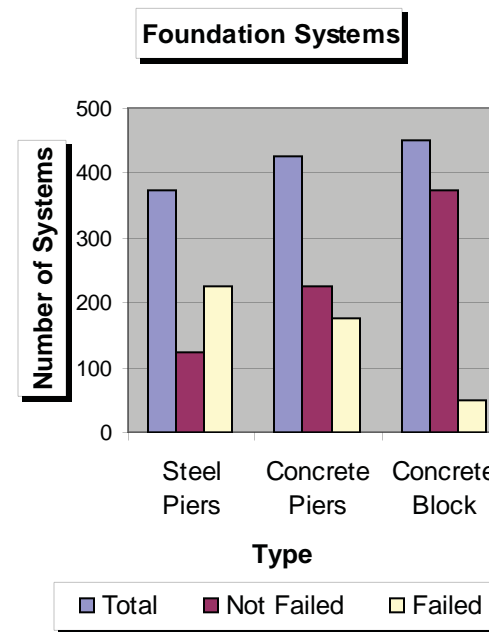
Area in red shows approx. location of the New Madrid Seismic Zone. Dots represent earthquakes that have happened in the past.

Fortunately, there are things that can be done now to make mobile homes safer from seismic shaking damage. By providing strong foundation support systems and securing the contents, mobile home owners can reduce potential losses and make their homes a safer place to live.

Mobile homes have special seismic problems. They are often supported by weak or unstable foundations that make the mobile home a more susceptible to damage than a conventionally constructed home supported by a permanent reinforced concrete foundation.

Let's compare mobile home support systems.

A clear result of the California Loma Prieta quake shows a substantial difference in the performance of standard mobile home foundation support systems. The structural concrete block systems performed better than either steel or concrete piers. (See chart below.)



The above chart indicates the different types of support systems found, the number that performed without failure, and the number that failed as a result of the Loma Prieta Earthquake.

MOBILE HOME SUPPORT SYSTEMS

The two major types of mobile home support systems are:

- 1) the permanent reinforced concrete or masonry foundation system
- 2) some sort of portable support system

The Permanent Reinforced Concrete or Masonry engineered foundation system is used for terminal installation of a mobile home. This is the strongest system available, but also is the most well bolted to an engineered permanent foundation, and is least likely to suffer major earthquake damage.

There are three major types of portable support systems:

- 1) The Concrete Block System is used most often. Concrete blocks provide a greater bearing surface than steel or concrete piers. This fact is believed to be responsible for this system's improved performance in past quakes. Several states in the central U.S., including Arkansas, require concrete block support systems, installed under exact specifications, as the only approved portable system

ADDITIONAL EARTHQUAKE INSTALLATION INFORMATION

- Local Mobile Home Dealer Assoc.
- State Office of Emergency Services
- State Manufactured Housing Commission
- State Department of Housing & Community Development
- National Manufactured Housing Institute
- National Foundation of Manufactured Home Owners
- Central U.S. Earthquake Consortium
- Federal Emergency Management Agency



Prepared by:
James Blacklock, Ph.D., P.E.
Donna Elliott, Earthquake Technical Writer

DISCLAIMER:

This publication is meant to be instructional and provide information that will help you understand and reduce earthquake risk. The information in this publication is believed to be accurate at the time of publication. The agencies and individuals involved in the preparation, printing, and distribution of this publication assume no responsibility for damage or injury that arises from any action that is based on information found in this publication

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QUESTIONS FOR MOBILE HOME OWNERS

Q: How serious is the problem of earthquake damage to mobile homes?

A: Very serious, you could be without use of your home for several weeks or months due to an earthquake.

Q: How expensive is it for home owners to repair damaged mobile homes?

A: Damage could run from a few thousand dollars up to total cost.

Q: Which portable foundation support system and materials have the best performance record?

A: Based on recent California earthquakes, concrete blocks are the best. (See chart on the reverse side.)

Q: Which locations have the highest risk?

A: Earthquake risk to mobile homes varies by geographic location. Experience shows that major damage is typically concentrated in specific locations that can be identified in advance. Some of those locations are:

- near active fault zones
- on soft soil where ground movement is magnified
- on sloping ground where slides can occur
- near where water meets land

WHAT CAN I DO TO PREPARE FOR MYSELF AND MY FAMILY

Practice “duck, cover, and hold” drills

Learn and discuss the “safe spots” in my home with children

Develop an earthquake response plan for my home and neighborhood, and hold practice drills

Learn to use fire extinguishers, to provide basic first aid, and to turn off the gas electric, and water supplies

Make plans to assist the elderly, handicapped and others with special needs in my neighborhood

Store enough emergency food supplies to last for at least 3 days. Check with state or local emergency offices for recommended lists of emergency supplies

Prepare an earthquake kit to include gloves, flashlight, batteries, candles, radio, and hand tools

Secure all heavy items, such as pictures and mirrors, that hang on walls, especially over beds

Attach tall, heavy furniture to sturdy walls

Add lips or rails to storage shelves to help prevent items from falling

Install strong latches to cabinet doors, especially in the kitchen

Assemble a first aid kit, complete with all prescription medication

2) **The Steel Pier System**, which is used by many mobile home installers. These are lightweight, triangular, and can be stacked one upon another. They are easily adjustable, but give little bearing surface for the mobile home frame. Movement of the home during an earthquake can cause the pier to topple over or push through the floor. Steel Piers are not allowed for new installations in Arkansas and several other central states

3) **The Concrete Pier System**, which has similar design as the steel pier, but is much heavier and slightly better. It has a pyramid design with an adjustable steel support bolt. Arkansas and several other central states do not allow the new installation of concrete piers

Lateral Restraint System

All pier and block systems should have a lateral restraint system, too. It must have the capability to resist wind in all Central U.S. portable mobile home foundation systems. Usually lateral restraint is supplied by installing diagonal frame anchors attached to strong ground anchors, according to exact specifications. The wind safety requirements in many states is usually greater than most earthquake requirements.