



# Let's Not Repeat the Past – the Role of Mitigation After an Earthquake



*Protecting critical infrastructure is just one way that effective mitigation programs can reduce losses from earthquakes.*

integrating disaster operations policies, procedures, and training under the National Response Framework.

A major earthquake in the central United States will trigger an enormous disaster response at all levels of government. In the aftermath of an earthquake or any other major disaster, buildings and critical infrastructure will be damaged and the communities affected will have immediate needs, including search and rescue, emergency medical care,

food, water, shelter, and the restoration of electric power and critical transportation routes.

Clearly these issues will take priority in the first several days following an earthquake. What may be less apparent is the important role of Mitigation during a disaster response. Having a visible, credible mitigation presence during disaster response and recovery provides a key opportunity to strengthen the affected communities and improve their resilience against future events for all levels of government.

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While the term ‘mitigation’ has been around long enough that most people have an idea what they think it means, the concept has been around a lot longer. Most can think of examples where they learned from past events and take action to keep something from happening again. It’s in peoples own best interest to do those things because of the benefits they gain. And taking action to mitigate the effects of disasters adds value to society by creating safer communities, enabling individuals and businesses to recover more quickly, and lessening the financial impact on all parts of society.

Mitigation can occur before, during and after the design and construction of buildings and infrastructure and it can occur before or after a disaster. After a disaster, the Federal Emergency Management Agency’s (FEMA) mitigation programs play a critical role developing and

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# AROUND THE REGION

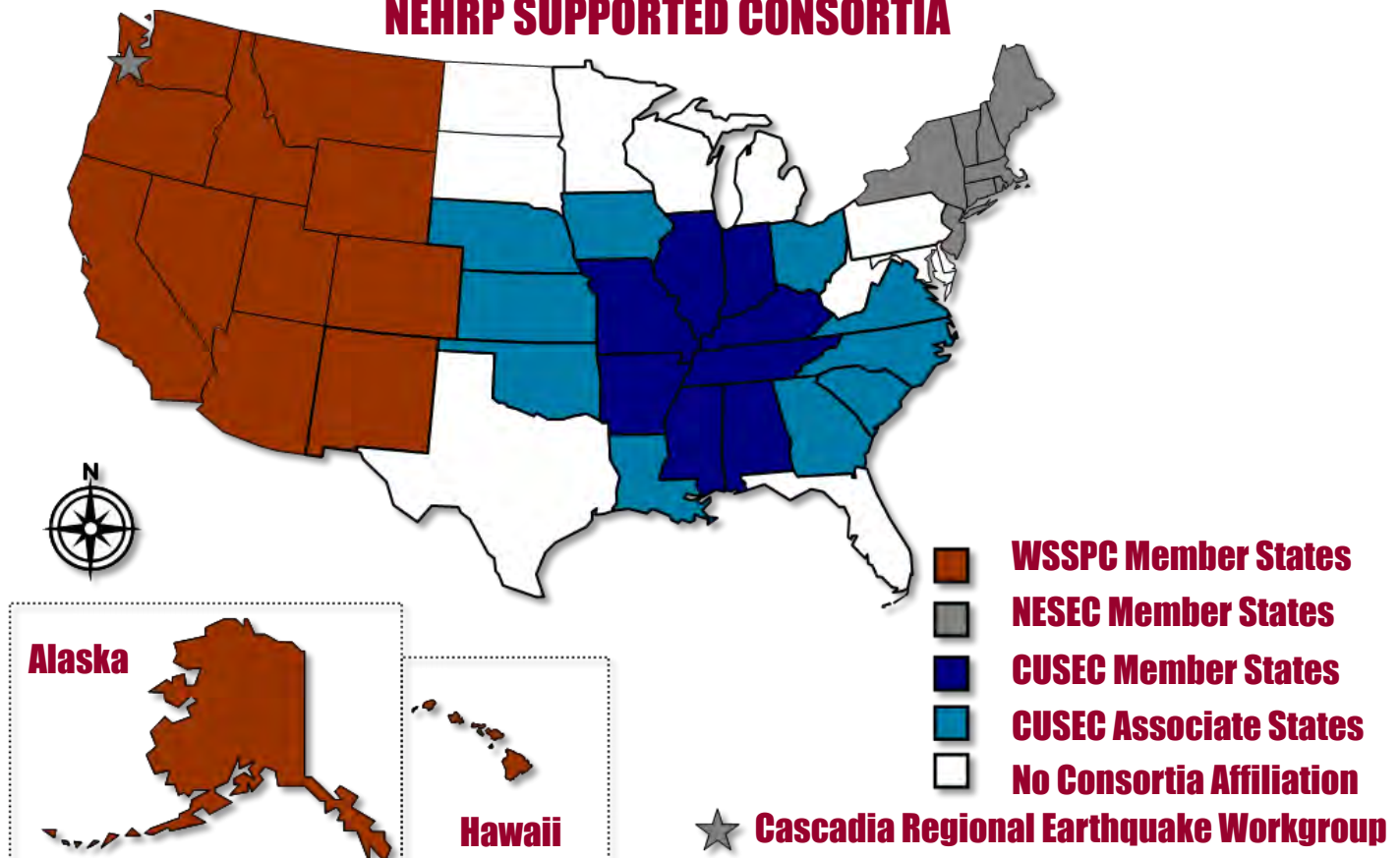
## CUSEC WELCOMES NEW ASSOCIATE STATE MEMBER

CUSEC is pleased to announce that Kansas has been voted in as the tenth Associate State by the CUSEC Board of Directors. This addition comes at the request of Major General Tod Bunting, State Director of the Kansas Division of Emergency Management (KEM). In a letter to the CUSEC Board of Directors, Director Bunting stated that Kansas is actively planning with their neighboring state, Missouri—which faces the constant threat of a New Madrid seismic event—to be ready to provide various resources in the event of a damaging earthquake in the central US. These resources will include sending equipment and housing disaster victims in congregate care shelters.

Kansas has a long-time reputation for assisting other states across the country in times of disaster. In 2005, the state deployed Kansans to the Gulf Coast following Hurricane Katrina and Hurricane Rita. Prior to that, Kansas personnel were sent to New York post 9/11 to assist with donations management. Most recently—in 2008—KEM personnel went to Iowa to assist with flood recovery. Please join us in welcoming Kansas as the newest Associate State of CUSEC.

*The Kansas Division of Emergency Management provides 24-hour operations to reduce loss of life and property, protect Kansans from all hazards by providing and coordinating resources, expertise, leadership and advocacy through a comprehensive, risk-based emergency management program of mitigation, preparedness, response and recovery.*

## NEHRP SUPPORTED CONSORTIA



CUSEC, along with the Western States Seismic Policy Council, the Northeast States Emergency Consortium, and the Cascadia Regional Earthquake Workgroup, are key elements to the National Earthquake Hazards Reduction Program (NEHRP). NEHRP is the federal government's program to reduce risks to life and property from earthquakes. NEHRP includes parts of four federal agencies: the Federal Emergency Management Agency, National Science Foundation, US Geological Survey, and National Institute of Standards and Technology.

## DISASTER MEDICINE 101

LITTLE ROCK, ARKANSAS - CUSEC recently sponsored a new edition of “Disaster Medicine 101: Post-Earthquake Public Health and Medical Issues in the New Madrid Seismic Zone” class at the Arkansas Department of Health (ADH) Auditorium in Little Rock, AR, on February 4, 2009. This class was presented in conjunction with Arkansas Earthquake Awareness Week sponsored by the Arkansas Department of Emergency Management (ADEM)

The class, known as “Disaster Medicine 101” for short, is an overview of public health concepts related to the earthquake threat in the New Madrid Seismic Zone. It is open to first responders, medical professionals, public health officials, emergency managers, and others concerned with public health issues following an earthquake. The instructors are recognized experts from the federal, state, and local levels of government. Topics for the class included:

- The New Madrid Earthquake Threat and the Effects on Key Infrastructure
- Rapid Assessments and Disease Surveillance Activities During a Major Disaster
- Role of the Environmental Health Specialist During a Disaster
- Earthquake Disaster-Related Injuries and Injury Prevention

Unlike previous editions of the class, this presentation was made available via Video Teleconference (VTC) to other CUSEC states, as well as many ADH offices across Arkansas. Students at these remote sites were able to email questions to the class facilitator in Little Rock so the instructors could answer them as well as questions from the on-site audience. Viewing the class were four sites in Missouri and even one at the state EMA office in South Carolina, which is a CUSEC associate state.

“This is the first time we’ve been able to present a class using VTC, and it was very successful,” said Paul Hogue, Exercise/Training Officer for CUSEC. “The ability to broadcast the class via VTC greatly expanded the chances for people to see the class. We had nearly 50 on site at the auditorium, which is a good number of students. Because of the teleconference, though, 226 students were able to receive that training.” Hogue also remarked that broadcasting the class this way results

in real savings for attendees and their sponsoring agencies. This is the first CUSEC class that has been sent out via VTC, and much of the success of the class is owed to the staff at ADH.

## 2009 EARTHQUAKE AWARENESS WEEK RECAP

Five CUSEC Member States - Arkansas, Kentucky, Mississippi, Missouri and Tennessee held Earthquake Awareness Activities during January and February.

Participating states began their Earthquake Awareness Week’s observance with a governor’s proclamation along with a host of other activities such as:

- earthquake-related training
- business meetings
- school drills
- public health (and medical issues) courses

CUSEC Executive Director Jim Wilkinson and Mike Womack, State Director of the Mississippi Emergency Management Agency (MEMA), kicked-off Mississippi’s activities with a press conference at the Tunica Museum. Womack and Wilkinson presented information to museum visitors, members of the press, and emergency management officials about the central US earthquake hazard, how MEMA and other government agencies are addressing the issue and the importance of earthquake preparedness.

Also, in observance of Earthquake Awareness Week, CUSEC Member States Arkansas and Mississippi became official GeoCache sites. With the unveiling of GeoCache boxes in these two states, and the current boxes already installed in Kentucky, Missouri and Tennessee; this brings the total number of CUSEC GeoCache sites to five. Plans are being made to launch GeoCache sites this summer in Alabama, Illinois and Indiana. GeoCaching is a high-tech treasure hunting game played throughout the world by adventure seekers equipped with GPS devices. The basic idea is to locate hidden containers, called GeoCaches, outdoors and then share your experiences online. For more information about the CUSEC GeoCaches visit <http://www.geocaching.com/seek/nearest.aspx?u=cusec&submit4=Go>

Stay tuned to this newsletter for information on Earthquake Awareness Week 2010.



## CUSEC AND FEMA REPRESENTATIVES HEADLINE EM-FORUM MEETING

WASHINGTON, D.C. - In a virtual meeting dedicated to the subject of earthquakes on March 25, CUSEC Executive Director Jim Wilkinson and Federal Emergency Management Agency (FEMA) Acting Chief of Catastrophic Disaster Planning Branch Derek Estes talked about the region's earthquake hazard and the New Madrid Seismic Zone (NMSZ) Catastrophic Planning Initiative. Topic discussions included:

- the history of earthquakes in the central US
- the regional and national consequences of a damaging New Madrid Seismic Zone earthquake
- the challenge of providing resources to the central US - rural and urban areas - post earthquake
- the New Madrid Seismic Zone Catastrophic Planning Initiative

Wilkinson and Estes also answered questions about business and community recovery, private sector involvement, participation of the local and state emergency management agencies in the NMSZ Catastrophic Planning Initiative and the 2011 National Level Exercise. This unique meeting format was hosted by the Emergency Management Forum (EMFORUM)—a non-profit educational organization dedicated to enhancing the practice of emergency management, and thereby public safety, through offering professional development opportunities to practitioners and other interested persons.

## CUSEC INITIATES EARTHQUAKE PROJECT WITH ST. JUDE

MEMPHIS, TENNESSEE - CUSEC and St. Jude Children's Hospital, along with the Institute for Business & Home Safety (IBHS), are teaming up to build an earthquake resistant home in Memphis, Tennessee, in 2011-2012. The Dream Home, which is built for St. Jude's by a local contractor, is auctioned off as part of their national St. Jude Dream Home® program. This Dream Home, which will be built to the IBHS Fortified...for safer living® standards, also will have a unique twist in that it will be in support of the commemoration of the New Madrid Bicentennial—the

200th year observance of the great 1811 and 1812 New Madrid earthquakes.

Like previous Dream Homes, this house will be a two-story structure with all of the modern conveniences any homeowner can imagine; but it also will include amenities not often thought of or even seen. Specifically to help reduce and prevent losses from a damaging earthquake, contractors will apply several seismic strengthening techniques which will take the home above current local building code requirements such as:

- fully braced walls to prevent collapse
- installation of flexible gas and water supply lines to help prevent gas and water leaks
- bolting the house frame to the foundation

Contractors also will implement non-structural techniques which include:

- bracing the hot water heater to prevent it from falling over
- adding latches to kitchen cabinets to prevent dishes from being thrown out
- anchoring tall bookcases prevent them from falling over

CUSEC, St. Jude, and IBHS are making plans to begin construction on this dream home in 2011, with a video documenting the complete construction process. The house will be available for viewing in February—typically observed as Earthquake Awareness Month in the central US—of 2012, with its completion planned for June.

“This is a wonderful opportunity to work with two outstanding organizations on a project that will not only spread the word about cost-effective earthquake mitigation, but benefit the St. Jude's Research Hospital; something we see as a win-win situation,” said Jim Wilkinson, Executive Director of CUSEC.

This partnership between CUSEC, St. Jude and IBHS is not simply just to give away a luxurious home; but to remind the public that the central US is indeed earthquake country and that there are sound methods to reduce property losses.

St. Jude Children's Research Hospital is internationally

recognized for its pioneering work in finding cures and saving children with cancer and other catastrophic diseases. It is the only pediatric cancer research center where families never pay for treatment not covered by insurance. If you would like to know more about St. Jude's Children Research Hospital, visit [www.stjude.org](http://www.stjude.org).

## NEW MADRID SEISMIC ZONE CATASTROPHIC PLANNING INITIATIVE UPDATE

CUSEC Member States submitted earthquake plans to FEMA in December 2008. This milestone demonstrates that FEMA's NMSZ Catastrophic Earthquake Response Planning Project is having an extremely positive impact on the member states as we plan and prepare for a NMSZ event. We still have additional planning to do at the local, state, regional, and national levels. We must also periodically exercise these plans.

The ice storms of early 2009 showed that NMSZ earthquake planning activities helped with coordinating disaster response over large areas in difficult conditions (impassable roads and bridges, power and communications outages, etc.). According to Brigadier General John W. Heltzel, Kentucky National Guard and Director of Kentucky Division of Emergency Management, "Kentucky's integrated New Madrid Earthquake plan - updated and fully exercised in March of 2008 - was a significant positive factor in the response efforts across the Commonwealth during the January 2009 Ice Storm. Emergency Managers, County Judges and the National Guard were able to execute support and supply functions practiced and refined a year earlier to save lives and sustain government operations. Without the plan, which was funded by a CUSEC Grant, EMPG Funds and National Guard Exercise

### RECENT CENTRAL U.S. EARTHQUAKE ACTIVITY

DATE	LOCATION	MAGNITUDE
January 26	Portia, Arkansas	2.8
January 27	Williamsburg, Kentucky	3.1
February 17	Blytheville, Arkansas	2.6
March 9	Sullivan, Missouri	2.6
March 15	Tellico Plains, TN	2.6
March 27	Springfield, South Carolina	2.6
April 4	Milledgeville, Georgia	3.1
April 21	Centreville, Alabama	3.8
April 22	Centreville, Alabama	2.9
April 24	Oak Hill, Ohio	3.4

**IF YOU FEEL AN EARTHQUAKE, REMEMBER TO:  
DROP, COVER, & HOLD ON FOR MAXIMUM SAFETY**



Visit <http://www.dropcoverholdon.org> to learn more ~ Image Courtesy Southern California Earthquake Center

dollars - our response would not have been as effective. We literally practiced the response on the ground where we were impacted.”

Planning continues as Arkansas, Indiana, Missouri and Mississippi held small local workshops over the last several months to help county and city planners with their local earthquake plans. Alabama held their final state workshop December 8-9 in Florence, AL. Some local workshops will continue into the spring, and two more states hope to hold additional workshop before August.

FEMA regional NMSZ workshops began in February. The first was held by FEMA Region V, which includes the CUSEC states of Illinois and Indiana. Regions IV (Alabama, Kentucky, Mississippi, and Alabama), VI (Arkansas), and VII (Missouri) held their workshops in April and May. These workshops will help the FEMA regions complete their earthquake response plans.

FEMA and the CUSEC states are already planning the 2011 National Level Exercise (NLE), which will be based on a catastrophic NMSZ event. Local, state, regional, and national NMSZ earthquake plans will be exercised during the first NLE that is primarily a natural disaster. With the exercise approximately two years away, state and local governments, voluntary organizations, and businesses should be planning their involvement to gain full benefit of participating. The 2011 NLE occurs during the New Madrid Bicentennial commemoration of the great 1811-1812 NMSZ earthquakes.

The Region V workshop in February marked the beginning of a closer working relationship between FEMA, the U.S. Geological Survey, CUSEC State Geologists, and the emergency management community in the NMSZ. The USGS briefed over 200 workshop participants on the earthquake hazard. They also hosted a breakout session that included CUSEC, CUSEC state geologists, emergency managers, DHS, FEMA, and others. The session addressed USGS and state geologic survey NMSZ response plans and systematic scientific data collection following major earthquakes. This collaboration continued at the Region IV, VI, and VII workshops.

We continue to build the CUSEC Multi-State Coordination Annex (MSCA). Dubbed the “Oh, by the way Annex”, the MSCA provides a means of helping individual states remember the shared risk they face. It will share earthquake response information and supports the CUSEC Board’s Multi-State Planning Priorities. CUSEC functional associations and working groups (Communications, Geologists, Public Information, Operations, Transportation, and Public Health) are responsible for MSCA appendices. This effort fosters a closer working relationship between the primary states that will be affected by an NMSZ earthquake.

The CUSEC organization and all of its members appreciate FEMA’s continuing strong support of the NMSZ Catastrophic Earthquake Response Planning Project and the associated 2011 National Level Exercise.



*Recent participant photos at the FEMA Region IV New Madrid Seismic Zone Catastrophic Planning Workshop. The workshop was held in Atlanta, Georgia in May of 2009 as part of the multi-year FEMA-led initiative.*

## CUSEC PARTICIPATES IN REGIONAL COMMUNICATIONS MEETING IN TENNESSEE

TIPTONVILLE, TENNESSEE - CUSEC Exercise/ Training Officer Paul Hogue spoke to a group of central United States Amateur Radio Operators at a meeting for New Madrid Seismic Zone Earthquake EmComm Group on February 7 in Tiptonville, Tennessee. His presentation was in coordination with the University of Tennessee at Martin's geologist, Dr. Stan Dunagan and Jackson, Tennessee local HAM Operator, Carl Peppe. Presentations spotlighted information concerning:

- the science behind earthquakes
- building infrastructure issues in the central US
- communication infrastructure issues
- general earthquake safety information

Most of the meeting attendees - Amateur Radio Emergency Services (ARES) HAM Operators - were familiar with potential communication issues following a damaging earthquake; having assisted several states affected by the ice storms in January.

This was the New Madrid Seismic Zone Earthquake EmComm Group's first meeting. For more information about this group visit [http://groups.yahoo.com/group/New\\_Madrid\\_Fault\\_Zone\\_Ecomm/](http://groups.yahoo.com/group/New_Madrid_Fault_Zone_Ecomm/)

For more information about HAM operators contact Larry Ford at [n0ric@sbcglobal.net](mailto:n0ric@sbcglobal.net).

## CUSEC TIDBITS

### CUSEC CONTINUES GeoCache EFFORT

In April, CUSEC launched another GeoCache, this time in Hickman, Kentucky. The cache is located at the Fulton County Office of Emergency Management in Hickman. Special thanks to Hugh Caldwell, Fulton County EM Director, for arranging for the GeoCache to be placed.

CUSEC now has five caches with earthquake awareness, mitigation, and preparedness information

in them. At our other GeoCache locations, recent comments include:

- March 27 - Blytheville, AR by specialteacher: This was a neat informative cache
- March 18 - New Madrid, MO by skdela: Very nice cache. I read all about the earthquake and faults; so I got a very educational lesson
- March 26 - Tunica, MS by bevofan: Great cache! Thanks for the earthquake education
- March 28 - Memphis, TN by twzf8: A great educational cache

## EARTHQUAKE PROGRAM TRANSITIONS

In January, CUSEC Emergency Planner Roger Arango joined the Memphis Shelby County Health Department in the position of Cities Readiness Initiative (CRI) Coordinator. Since joining CUSEC in 2007, Roger has helped coordinate catastrophic planning efforts among the FEMA Region IV states of Alabama, Mississippi, Tennessee, and Kentucky, and also helped develop the framework for the CUSEC Multi-State Coordination Annex.

In April, Lori King, Area 1 Manager and Earthquake Program Manager with Kentucky Division of Emergency Management (KYEM), accepted a position with the Marshall County Health Department in Benton, Kentucky. Lori has been the Earthquake Program Manager in Kentucky since 2007, and has been a key player among the CUSEC State Earthquake Program Managers. Steve Oglesby, former KYEM Earthquake Program Manager, will fill in for Lori until a permanent replacement is made.

In May, Indiana Department of Homeland Security (IDHS) Earthquake Program Manager Pam Roach, announced she was leaving IDHS to pursue opportunities at FEMA Region V in Chicago, Illinois. Pam has been heavily involved in the New Madrid Seismic Zone Catastrophic Planning initiative over the past two years. Her expertise in emergency planning will be missed.

CUSEC would like to wish Roger, Lori, and Pam the best of luck in their new endeavors.



*Continued from page 1*

You may not have considered all the ways that mitigation can add value following a disaster. What follows are some missions, responsibilities and activities where mitigation can have an impact.

### **Hazard Mitigation Field Operations**

The mission of hazard mitigation is to protect lives and prevent or reduce the loss of property from hazard events. Post-disaster, this is accomplished through comprehensive efforts authorized by the Stafford Act, as amended by the Disaster Mitigation Act of 2000, Executive Orders and the National Earthquake Hazards Reduction Program (NEHRP), among others. FEMA hazard mitigation staff partner with State, local, and Tribal governments to:

- Assess factors that contributed to disaster effects
- Identify risk reduction opportunities
- Educate the public and local government officials in methods to reduce future risks
- Promote hazard mitigation community planning and project development that will result in sustainable community development
- Provide grants to fund hazard mitigation projects
- Provide technical assistance to State, Tribal and local governments to rebuild according to enhanced local codes and ordinances
- Identify and document proven mitigation actions and projects
- Quantify the benefits of hazard mitigation

### **Hazard Mitigation Organizational Elements**

Under the National Response Framework, Hazard Mitigation exists as a Branch under the Operations Section in the Joint Field Office (JFO). The Hazard Mitigation Branch Director and management support staff are responsible for hazard mitigation field operations functions, which are carried out by four groups: Floodplain Management and Insurance, Hazards and Performance Analysis (HPA), Community

Education and Outreach (CEO), and Hazard Mitigation Grants and Planning.

### **Community Education and Outreach**

The CEO group promotes effective hazard mitigation through community education, outreach, training, and coordination with the public and private sectors. This is accomplished by providing advice to the public on hazard mitigation techniques and measures through Disaster Recovery Centers (DRCs), other disaster assistance facilities, community meetings, and special events.

### **Moving from Plans to Sound Projects**

The Hazard Mitigation Grants and Planning Group supports state and local participation with programs authorized by Section 404 of the Stafford Act (Hazard Mitigation Grant Program (HMGP)) and Section 322 of the Disaster Mitigation Act (mitigation planning). This support includes assistance to State and local entities in development of multi-hazard mitigation plans and utilization of hazard mitigation funding from the HMGP to reduce the loss of life and property from future hazard events. In addition, the groups provide technical assistance for the development, maintenance, and updating of State and local hazard mitigation plans. In cooperation with the State, the CEO group promotes partnerships and training of local officials, the construction industry, and residential and commercial building owners. In partnership with External Affairs, they also identify, document, and disseminate Best Practices, which illustrate a variety of sound and effective mitigation measures.

### **Mitigation Field Activities During Response Phase**

There is more that mitigation can and should do in support of disaster response. Efforts to build stronger partnerships between the Mitigation Directorate and Disaster Operations are ongoing and we are working towards fully implementing a number of activities including:

- Mitigation's scientific, geospatial, and technical analysis on social and structural vulnerabilities should be the backbone for pre-response operations to determine the magnitude of potential impacts and support



response planning and pre-deployment of resources to local and state.

- Mitigation should be represented in the forward deployments (R-IMAT and N-IMAT) to provide risk analysis expertise and strongly coordinate and integrate Mitigation priorities and strategies into the overall response and recovery planning with local and state officials.
- Mitigation should be highly integrated in the evacuation decision-making process with the local and state since we are involved and are responsible for evacuation studies, loss estimation modeling, hazard mitigation planning, and risk communication.
- Mitigation should play a key role in supporting geospatial and loss estimation tools. For many years, mitigation supported the development, dissemination, and use of geospatial loss estimation tools like HAZUS. In addition, new tools have been developed by the USGS that supply real time visual representations of earthquake shaking through their ShakeMap and ShakeCast products. Mitigation specialists at FEMA, the State, local and private sectors can provide information and analysis that can be used to get an early picture of damage to buildings and infrastructure, needs for shelter and associated economic impacts.
- Mitigation should be represented in the Preliminary Damage Assessment Teams (PDAs) to assess the level of resources needed to support the impacted community (i.e. insurance, grants, etc.), plan for it, and recommend feasible short-term and long-term solutions for reducing future risks based on sound risk assessment.
- Mitigation should be the primary source of risk communication information in partnership with Public Affairs and other federal agencies to ensure that public messages are based on sound risk assessment and that guidance for risk reduction and flood insurance is appropriately provided.

- Mitigation should be the fundamental decisive factor for response and immediate recovery initiatives to ensure that critical facilities and businesses understand their risks and resilience to continue operations, to ensure that emergency personnel and citizens are sheltered away from high-risks areas, and to ensure that communities rebuild safer and resilient from future disasters.

Progress is being made and mitigation continues to play an important role in areas like collection of perishable data following earthquakes as part of its responsibilities under the NEHRP. FEMA directly supports the collection of critical post-earthquake damage data through supporting organizations such as the Earthquake Engineering Research Institute that play important roles in post-earthquake reconnaissance.

Mitigation has a long and successful history of directing and supporting post-disaster building performance field data collection, analysis and reporting through its long-standing Mitigation Assessment Teams (MAT). The MAT identifies design practices, construction methods, and building materials that either failed under the forces generated by the event or were successful in resisting such forces. This information is provided to States and locals through training and new guidance as well as through inclusion in the Nation's model building codes and standards. These recommendations retrofit guidance, and other information can be applied during the recovery and rebuilding phase to help reduce future damage from earthquakes and other natural disasters.

Making mitigation an integral part of the response and recovery process is the right decision. Mitigation adds value to society by creating safer communities through reduced loss of life and property, enabling people and businesses to recover more quickly, and lessening the financial impact on states, locals, tribes and individuals.

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*Edward Laatsch is Chief, Building Science Section of the Risk Reduction Branch within FEMA's Mitigation Division. This section is responsible for several programs and initiatives including: NEHRP; disaster-resistant building codes and standards activities; and technical and engineering support for earthquake, hurricane, flood, physical security and other natural and man-made hazards.*

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# OTHER NEWS

## EERI SEEKS EXECUTIVE DIRECTOR

The Earthquake Engineering Research Institute's (EERI) Executive Director, Susan Tubbesing, will be retiring at the end of 2009 after nearly 22 years of service to the Institute. The EERI Board of Directors is reviewing applications for their new Executive Director.

Susan Tubbesing became EERI's first executive director, where she has increased its involvement in research, public education, and seismic safety policymaking. She has distinguished herself as an informed and persuasive leader of EERI and as a champion of earthquake loss reduction in the U.S. and abroad. Under her leadership, EERI's membership grew and its budget increased to over \$1 million. In addition to organizing memorable annual, national, and international meetings, Susan advises the EERI President and Board of Directors, oversees the EERI staff, and maintains good connections with the news media. She also organized and managed the first interdisciplinary earthquake clearinghouse after the 1994 Northridge, California earthquake that today serves as the model for collection of post-disaster field observations.

Tubbesing's credentials also include notable appointments such as Editorial Board, Journal of Homeland Security and Emergency Management; Steering Committee, 2008 National Earthquake Conference; and Executive Advisory Board, Mid-America Earthquake Center.

CUSEC would like to extend a personal farewell to Susan. She has been a wonderful person to work with over the years she has served as executive director of EERI. A woman of clear vision and professional integrity who has served not only EERI but the larger earthquake program with such distinction, she is just what one would expect from someone who has her roots in the central US.



## FEMA OFFERS NEW EARTHQUAKE INDEPENDENT STUDY COURSE

### *IS-8.a Building for the Earthquakes of Tomorrow: Complying with Executive Order 12699*

**Course Overview** - Since the Earthquake Hazards Reduction Act was passed in 1977, many actions have been taken to improve seismic safety. Executive Order 12699, "Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction," signed by President Bush in January 1990 was a significant Federal seismic risk reduction action. This Executive Order requires all new Federal, federally assisted, and federally regulated buildings to be appropriately seismic resistant. Among new construction affected are all buildings financed, either partially or fully, with Federal grants or federally guaranteed loans.

Because this Executive Order is so wide-reaching, covering everything from single-family dwellings to large Federal complexes across the nation, a training course was needed to provide the tools, information, and planning guidance for those people affected by the Executive Order. The purpose of this course is to provide individuals in state and local governments and the building and financial industries with information about the requirements of the Executive Order and how they will be implemented. The course is also intended to provide the student with basic knowledge about earthquakes and how buildings can be built to be safe during an earthquake.

**Course Objectives** - The goal of this training course is to provide the students with the tools, information, and planning guidance they need to effectively deal with and prepare for the implementation of the Executive Order and its consequences.

For more information about this course visit [www.fema.gov](http://www.fema.gov)

## UPCOMING CONFERENCES, TRAINING, WORKSHOPS, ETC.

WHEN	WHAT	WHERE
May 27-May 28	FEMA Region VII Catastrophic Planning Workshop	Jefferson, MO
May 28	Earthquake Insight Field Trip	St. Louis, MO
June 3-5	New Madrid Time-History Determination Conference	Memphis, TN
June 23-25	NEES 7th Annual Meeting	Honolulu, HI
July 7-8	New Madrid Emergency Preparedness Conference	Metropolis, IL
July 22*	Get Your Home Ready for Earthquakes Seminar	Cape Girardeau, MO
July 23*	Get Your Home Ready for Earthquakes Seminar	Blytheville, AR

Visit the CUSEC website at [www.cusec.org](http://www.cusec.org) to learn more about upcoming events... \*Tentative Dates

### DID YOU FEEL IT?

If you recently felt an earthquake, remember to go to the USGS website and log your experience on the "Did You Feel It?" webpage. The information you provide helps scientists understand how the ground shakes at different locations and helps show the wide reaching effects of earthquakes. Visit -

<http://earthquake.usgs.gov> for more info



### New Madrid Earthquake Emergency Preparedness Conference



University of Illinois Extension – Southern Region, AJMPU Unit  
in collaboration with Extension Services in  
Arkansas, Indiana, Kentucky, Missouri & Tennessee and



#### CONFERENCE MISSION:

- To continue to re-educate residents living in the six-state area of the earthquake threat (including Illinois, Arkansas, Missouri, Kentucky, Tennessee, and Indiana) in the New Madrid and Wabash Valley Seismic Zones
- To continue to expand the reach of the program and inform residents of all ages, including business owners, what they can do individually to prepare for a large magnitude earthquake to help them to survive and cope with the aftermath of such an event

#### SAVE THE DATE: JULY 7 – 8, 2009

Location:	Harrah's Conference Center, 100 East Front Street, Metropolis, IL 62960
Hotel Phone:	618-524-2628 (Block of rooms available)
Time:	July 7 <sup>th</sup> noon through July 8 <sup>th</sup> , 2:00 p.m.
Registration Fee:	ONLY \$50.00 per person (Meals Included)

To register for the conference, you can email [preparesi@illinois.edu](mailto:preparesi@illinois.edu) or contact Linda Poston at 618/833-6363.

PORTIONS OF CONFERENCE EXPENSE WILL BE FUNDED FROM A GRANT AWARDED BY U.S.D.A. C.S.R.E.E.S.





## DATES TO MARK

**Advancing New Madrid Time History Determination** – June 3-5 2009. This conference, to be held in Memphis, TN, will display the most recent research and the various methods to develop and use intraplate earthquake time histories, particularly in the central U.S. The conference will bring together researchers, design practitioners, government-agency specialists, and large facilities' design managers. Interested parties please Oliver Boyd at [olboyd@usgs.gov](mailto:olboyd@usgs.gov).

**New Madrid Emergency Preparedness Conference** – July 7-9, 2009. The University of Illinois is hosting a preparedness conference in Metropolis, Illinois on July 7-8, 2009. The conference will bring together community leaders, the emergency response community, and the general public to learn about earthquakes and the New Madrid Seismic Zone. For information on the conference contact Linda Poston at (618) 833-6363.

**New Madrid Seismic Zone Catastrophic Earthquake Planning** – Spring 2009. The NMSZ Catastrophic Planning Initiative has moved into the Regional Planning Phase as State and Local Planning Workshops conclude. The workshops are taking place in FEMA Regions IV, V, VI, & VII, and bring together key organizations to address the issue of responding to a catastrophic earthquake on the New Madrid Seismic Zone.

The Central United States Earthquake Consortium is a not-for-profit corporation established as a partnership with the Federal government and the eight member states: Alabama, Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee; and ten associate member states: Georgia, Iowa, Kansas, Louisiana, South Carolina, North Carolina, Ohio, Oklahoma, Nebraska and Virginia. The Federal Emergency Management Agency provides the basic funding for the organization.

CUSEC's purpose is to help reduce deaths, injuries, damage to property and economic losses resulting from earthquakes occurring in the central United States. Basic program goals include: improving public awareness and education, mitigating the effects of earthquakes, coordinating multi-state planning for preparedness, response and recovery, and encouraging research in all aspects of earthquake hazard reduction.

## STAFF

<b>Jim Wilkinson</b>	<b>Executive Director</b>
<b>Peggy Young</b>	<b>Associate Director</b>
<b>Brian Blake</b>	<b>Program Coordinator</b>
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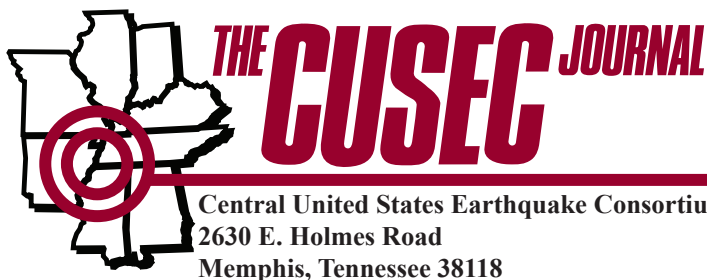
*This publication is funded through a cooperative agreement with the Dept. of Homeland Security / Federal Emergency Management Agency Grant Number EMW-2005-CA-0428*

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