

THE OFFICIAL NEWSLETTER OF

THE CENTRAL UNITED STATES EARTHQUAKE CONSORTIUM

VOLUME. 14, NO.1., Winter 2010

Earthquakes Around the World Serve as Reminder of the Hazard Closer to Home

With moderate to major earthquakes occurring around the world, mother-nature continues to prove herself unpredictable. The most recent, a 7.0 magnitude earthquake - and subsequent aftershocks (as large as 6.0M) - in Haiti on January 12, 2010 gives Americans, especially those who reside in the central U.S., a glimpse of the devastation we could face in the event of a major earthquake.

Although official numbers have not been reported, it is feared that hundreds of thousands are dead, and infrastructure damage and rebuilding costs will reach into the billions. To avoid similar fallout of

death and destruction, efforts to adopt new and more comprehensive building codes have been underway in the central United States since the early 1990's. These efforts reduce the vulnerability of new structures, but unfortunately do little to address the pre-existing infrastructure.

So far, the central U.S. has been fortunate not to have experienced a damaging earthquake in almost 200 years, but the clock is ticking and it is imperative that we make every effort to be prepared for earthquakes. Currently, plans are underway to establish greater community awareness/preparedness in this region in the event of a major earthquake, and it will involve participation from many individuals living and working in the central U.S.

CUSEC, our Member States, academia, the corporate sector and other state and federal partners continue to spread the word about earthquake awareness and preparedness in the central U.S. through various



Photo showing damage from the January 12, 2010 7.0M Haiti Earthquake; Photo Courtesy Marco Dormino, United Nations

methods - town hall meetings, the internet, workshops, etc. Since the summer of 2009, these groups have been planning an activity in which every resident, school and business in this region can participate. This activity is known as the Central U.S. ShakeOut. The ShakeOut is going to be a multi-state drop, cover, and hold drill to be held in April of 2011, as a lead up activity for the 2011 National Level Exercise.

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This ShakeOut will be one of many activities in the commemoration of the New Madrid Bicentennial (NMB),- the 200th anniversary of the great 1811/1812 New Madrid earthquakes - with a primary message emphasizing what we do now to prepare determines what our lives will be like after a major earthquake in the central U.S.

Inspired by the success of the 2008 and 2009 Great Southern California ShakeOuts, organizers of the Central U.S. ShakeOut will partner with the Southern California Earthquake Center (SCEC) to develop guidelines such as the scenario and specific measurable objectives for the drill. CUSEC and other key planners of the ShakeOut have set a goal to involve at least one million participants in this drill, and accomplish the following goals:

- Develop a unique brand of earthquake outreach for the region
- Increase awareness and improve disaster preparedness among central U.S. residents
- Strengthen coordination channels between local and state entities
- Involve the corporate sector in the central U.S. earthquake awareness effort

Organizers are also hoping to learn some valuable lessons to help with planning for future drills and earthquake education and outreach programs. Possible results from this ShakeOut can include:

- Identifying the methods of communication i.e. print materials, PSAs, Internet, town hall meetings that are most effective in earthquake awareness outreach and education
- Information for emergency managers, scientists and elected officials for decision making and planning purposes
- Identify things can be done at an individual and community level to help mitigate losses of life and property

As the effort continues to take shape, we hope that by the end of this drill our ultimate goal will be accomplished, which is to change the earthquake preparedness culture in the central U.S.

AROUND THE REGION

CUSEC Leadership Transitions

At the December 2009 Board Meeting, the CUSEC Board of Directors made some key leadership changes.

BG John Heltzel, State Director of the Kentucky Division of Emergency Management (KyEM), will add CUSEC Chairman of the Board to his long list of credentials. During his long and accomplished career in public service, Heltzel has received many accolades and has participated in numerous initiatives within the military and emergency management community. As KyEM Director, he is responsible for the coordination of all resources of state and federal government in the event of natural or man-made disasters and emergencies throughout the Commonwealth. Heltzel also serves as Deputy Commander in the Kentucky National Guard.

Since January of 2007, Tennessee Emergency Management Agency (TEMA) State Director James Bassham served as Chairman of the CUSEC Board of Directors. During his three year tenure as chairman, TEMA completed two state earthquake planning workshops and a catastrophic earthquake annex to the agency's state operations response plan, in support of the New Madrid Seismic Zone (NMSZ) Catastrophic Planning Initiative. Tennessee has also hosted various Earthquake Awareness Week activities each February since 2007. TEMA, like the the other CUSEC Member States, is in the process of preparing to participate in the 2011 National Level (Earthquake) Exercise. Bassham will continue his participation on the CUSEC Board of Directors as Secretary/Treasurer.

Other leadership changes included Mississippi Emergency Management Agency (MEMA) State Director Mike Womack to serve as vice-chairman. This







Left to Right: BG John Heltzel, James Bassham, & Mike Womack

position was previously held by Arkansas Department of Emergency Management (ADEM) State Director David Maxwell. Director Maxwell now serves as the president of the National Emergency Management Association (NEMA). Womack previously served as the CUSEC Board of Directors Secretary/Treasurer.

IEMA State Director Receives State Legislative Award

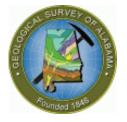


CUSEC would like to congratulate our Board of Directors member and State Director of the Illinois Emergency Management Agency (IEMA), Andrew Velasquez for being selected by the Illinois Legislative Latino Caucus to receive the Exemplary Leadership award for his leadership in serving

as IEMA Director/State Homeland Security Advisor and for his role in managing the state's response to multiple federally- declared disasters in Illinois. State Senator Martin Sandoval and State Representative Toni Berrios presented this award on December 3 with Governor Quinn in attendance.

Member State SpotlightGeological Survey of Alabama

Since 1848, the Geological Survey of Alabama (GSA) has been the state's number one source for information about the earth. Along with technical expertise, the survey provides accurate, objective



and timely information about Alabama's biological resources - which includes mineral, energy and water - to its residents and businesses. GSA is composed of four major research programs: Ecosystems Investigations, Energy Investigations, Geologic Investigations and Groundwater Assessment. Data collected from each of these programs help government officials to properly address the state's following challenges:

- energy and economic development
- · water and materials availability
- geologic hazards
- environmental concerns

- · location and development of infrastructure
- smart growth and development
- sustainable and livable communities

GSA's educational outreach program includes activities such as: hands-on workshops for science teachers, geological field trips, tours of the survey facilities in Tuscaloosa and the development and distribution of publications.

Dr. Berry H. (Nick) Tew Jr. has served as the survey's Director since his appointment as Alabama's State Geologist Supervisor in 2002. Tew has extensive experience in various aspects of geology; which has led to the publication of numerous authored and coauthored reports, journal articles, guidebooks and abstracts. He is a member of the Alabama Board of Licensure for Professional Geologists and also serves on the Board of Regents of the Alabama Museum of Natural History.

Earthquake Preparedness From the State's Perspective

Steve Oglesby, Earthquake Program Manager Kentucky Division of Emergency Management

It was September of 2004, and as the new KyEM Earthquake Program Manager, I spent the morning working on preparations for the annual October earthquake drill. During the morning I received a phone call from a local emergency manager from a southeastern county. He asked why he and his schools should participate in the drill. I told him that in addition to the excellent opportunity for the schools to meet their annual Duck, Cover, and Hold drill requirement, but also that an earthquake could occur anywhere in Kentucky at any time. He said he'd think about it.

During this time heavy rain was falling in eastern Kentucky, so I was dispatched to a flooded area. While in route I received a call from Jerry Rains, our Regional Manager in southeastern Kentucky. "Steve" he said, "Did we just have an earthquake?" I told Jerry that I'd have to get back to him. I called our Duty Officer on the two-way radio and asked him to check several websites. Nothing was listed.

Just five minutes later, I received a call from the Duty Officer who had again checked the web sites

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and found that a 3.7 quake had occurred between Corbin and Barbourville. We started getting more and more reports of the quake being felt in a large area of southeastern Kentucky so I was ordered back to Frankfort to assist with the quake event.

After several hours the situation calmed down. I took advantage of the opportunity to call the local director with whom I had spoken earlier in the day. I asked "Did you get my message about why you should participate in the earthquake drill?" His reply: "Loud and clear!"

Earthquake preparedness is more than being ready to "Duck, Cover and Hold". While this is vital to your protection, preparedness is far more than an annual drill. There are actually three different ways you need to be prepared: personally, as a first responder and as a community.

As a potential victim of the quake you need to prepare yourself, your home and your workplace to be as safe as possible during the shaking. As a first responder you need to put some thought into how you can be of help in an earthquake response. When the big quake occurs missions will include everything from Search and Rescue to Incident Management Team support. You need to get your training now to help then! As a community you need to be prepared to welcome those who could be forced out of their homes by the destructiveness of a quake. Models show that even a moderate western Kentucky quake could destroy tens of thousands of homes. That means that many fellow Kentuckians are going to need short and long term emergency support. Rebuilding could take months or years.

Check out the KyEM Earthquake Program web pages for information improving your safety, earthquake insurance information, a history of Kentucky's earthquakes, and how to get information on earthquakes as they happen. If you need more information on earthquake preparedness contact Steve Oglesby, Earthquake Program Manager at 502-607-2462 or email Steve at: steve.oglesby@us.army.mil

Earthquake Awareness Month will also premier the new KyEM Earthquake Awareness Educational Program for third through fifth graders. Sponsored by KyEM, it was developed by two Franklin County, Kentucky elementary school teachers, Tiffany Lottes and Sarah Gregory, and endorsed by John Ackers, director of the Kentucky Center for School Safety. After its classroom kickoff the first week of February, it will be downloadable from the KyEM web site or the Kentucky Center for School Safety web site.

According to KYEM director John W. Heltzel, the emphasis of the curriculum is to teach children more about earthquakes and how they can be better prepared at school and at home. It is designed to encourage participation at home and involve parents and adults as well. "As far as I know this is the first state initiative of its kind and we're excited to offer it for teachers, students and parents to use learn more about earthquakes and help understand the effects of a devastating earthquake." Heltzel added, "We know we can not prevent earthquakes from happening, but education is the key to preparing for such an event."

CUSEC Saddened by Loss of Close Friend and Colleague



Dr. Norman C. Hester, 76, of Bloomington, Indiana passed away on Monday December 7, 2009. Dr. Hester served for several years as the Technical Director of the Association of CUSEC State Geologists. Serving as State Geologist of Indiana, he was one of the original founders of the Association and recognized early on the need for a collaborative effort among the CUSEC Member State Geological Surveys. As Technical Director, Dr. Hester was the face of the Association, working to advise and bring together the States to address common issues and cross boundary problems presented by the earthquake hazard.

Dr. Hester also had a great sense of the importance of bringing together the science and emergency management communities. In as much, his work over the years with the State

Geologists earned him an Ex-Officio position on the CUSEC Board of Directors.

Throughout his career he had a passion for geology that never wavered. Dr. Hester held faculty and staff positions at Eastern Kentucky University, University of Illinois, the University of Kentucky, and Indiana University. Though he received many awards, two were quite special to him: The Sagamore of the Wabash and The Distinguished Hoosier Award, the latter presented in November of 2009. Both awards signify his achievements and dedication to his field and the State of Indiana.

Dr. Hester served as a colleague, mentor, and most importantly, friend to many people over the years. His leadership, generosity, and sense of humor will be sorely missed by everyone who knew him. The CUSEC Board of Directors and Staff offer our deepest condolences to then entire Hester family.

The Road to NLE 2011

by Paul Hogue CUSEC Exercise/Training Officer



The CUSEC member states and FEMA are working closely on planning for the Tier One National Level Exercise scheduled for May of 2011, commonly known as NLE 2011. This is a huge undertaking involving many

participants, planning conferences, strategy sessions, working group meetings, and lead-up and follow-on events taking place through the summer of 2011. The exercise will test local, state, and federal plans and annexes that were either modified or created as a result of the NMSZ Catastrophic Planning Initiative.

To keep readers of our journal well-informed of these activities, we will have this as a regular column to list major news and events pertaining to the exercise. Recent updates include -

 The four FEMA regions that include the CUSEC States all conducted Initial Planning Conferences (IPC's) and planning meetings following the IPC's in their respective states and the Multi-State IPC. Over these past few months, the regions have formed their own working groups to parallel the groups created at the federal level. The states are also creating these groups as needed according to what they will be testing during the exercise. The working groups' subjects are Scenario, Training, External Affairs, Private Sector, Control & Evaluation, Citizen & Community Preparedness, and Long-Term Recovery. Plans for a federal-level International Working Group were scrapped due to size constraints.

- In this past quarter, there were several leadup exercises in our states. Illinois conducted a tabletop in Carterville on November 3. Arkansas conducted a functional exercise (called "Shake Rattle, and Roll") on November 18, and Tennessee conducted a workshop/tabletop exercise with FEMA Region IV November 17-19.
- The CUSEC Board met in December for their quarterly meeting and addressed some NLE 2011 issues as part of their agenda. They agreed to forward to the national-level Scenario Working Group the issue of the start of a time jump for a second time period. They also considered a proposal by FEMA to move the proposed Central U.S. Shakeout, a large "Drop, Cover and Hold" drill, to coincide with NLE 2011 exercise planning. Originally the event would have happened in October 2011, but they advocated moving it back to April 2011. It was decided not to have the Shakeout the same time as the exercise (May 2011) since the participation of schools in that week would be affected by final exams and summer dismissals.
- On January 6-7, the National IPC for NLE 2011 took place in Alexandria, VA. All of our states participated, as well as a few hundred federal attendees. In the weeks preceding the IPC, DHS and FEMA decided to shrink the scope of the exercise. Presently, the plan is to shorten the exercise from five to three days. This issue is still being debated due to concerns that federal integration and other response activities may not be adequately tested in three days for all involved.

RECENT CENTRAL U.S. EARTHQUAKE ACTIVITY

DATE	LOCATION	MAGNITUDE
10/22/09	Letona, AR	2.6
10/24/09	Greenbriar, AR	2.6
10/26/09	Greenbriar, AR	2.9
10/26/09	Maynard, AR	2.7
10/26/09	Greenbriar, AR	2.5
11/01/09	East Cleveland, TN	3.0
11/2/09	Clinton, AR	2.5
11/6/09	Dyersburg, TN	3.3
11/09/09	Marion, AR	2.5
11/25/09	Appomattox, VA	2.7
11/27/09	Ridgely, TN	2.5
12/18/09	Tiptonville, TN	3.1
01/05/10	LaFayette, GA	2.6
01/15/10	Jones, OK	4.0
1/15/10	Jones, OK	3.8
01/20/10	Lynn, AR	3.3

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

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/dyfi for more info

2009: A Year in Review

CUSEC would to thank those who have supported our quarterly newsletter and also those who have taken a great interest in educating yourselves about the central U.S. earthquake hazard and how you can prepare. As you have read in previous issues, 2009 was a very busy year. Four of the CUSEC Member States - Arkansas, Mississippi, Missouri and Tennessee, participated in Earthquake Awareness Week during February of 2009. These states hosted and engaged the participation of the public in a range of events that included:

- Drop, Cover and Hold Drills

- Meetings, Workshops and Conferences

- Earthquake Exhibits

- Public Health Courses

- Disaster Preparedness Public Forums

- and much more...

Also in the first quarter of 2009, CUSEC Executive Director Jim Wilkinson and Former FEMA Acting Chief of Catastrophic Disaster Planning Branch Derek Estes talked about the region's earthquake hazard and New Madrid Seismic Zone Catastrophic Planning Initiative in a virtual - simulated on a computer - meeting on March 25. 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.

In the middle of a busy first quarter, CUSEC initiated a partnership with St. Jude and the Institute for Business & Home Safety (IBHS) to build an earthquake resistant home in Memphis, Tennessee in 2011-2012. The Dream Home, which will be built for St. Jude by a local contractor, is given away in a drawing as part of their national St. Jude Dream Home program. This Dream Home is being built in support of the New Madrid Bicentennial—the 200th anniversary of the great New Madrid earthquakes and will be built to the *IBHS Fortified...for Safer Living* standards.

CUSEC also hosted a number of town hall meetings, courses and participated in a number of exhibits throughout the region. One notable achievement in 2009 includes the Reauthorization of the National Earthquake Hazards Reduction Program (NEHRP), which includes a strategic plan that addresses the country's resilience from future damaging earthquakes through projects such as the New Madrid Seismic Zone (NMSZ) Catastrophic Planning Initiative, National Seismic Hazard Mapping and National Seismic Monitoring. With the completion of Member State planning workshops, the NMSZ Catastrophic Planning Initiative has moved at a steady pace as they (Member States) put the finishing touches on their plans. As part of the NMSZ Catastrophic Planning Initiative, the emergency management community - local, state and federal - is preparing for a Tier One National Level Earthquake Exercise to be conducted in May of 2011. It is important to note that this exercise is the first and largest national level exercise in U.S. history to focus on a natural disaster.

At the close of a productive year for the CUSEC organization, Executive Director, Jim Wilkinson passes on an important thought that we as educators and providers of information about the central U.S. earthquake hazard should keep in mind as we forge ahead into 2010:

Earthquake Education Efforts Should Include Ourselves

As an organization that is heavily involved with public awareness and education, we work hard to help people understand the various aspects of the earthquake hazard and its associated risks with recommendations and advice for addressing it. But being a provider of information doesn't excuse us from making sure we ourselves are up to date on the facts that we are presenting.

To be effective, we need to ensure that we as information providers take the time to make sure we are as educated as possible on the information we present. Inadvertently spreading of outdated or incorrect information, or incorrectly interpreting information that is then provided as fact, can be problematic.

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This means that we have to periodically reeducate ourselves. Too often it has been observed that when information about the hazard appears on an agenda, people react with statements such as — "we have heard this before" only to be later observed presenting or conveying incorrect information. Again, this is not intentional but it happens and it is important that we recognize our own educational needs, because ultimately, our credibility is based on what we say and who we represent."

Again, we thank you for your support, and we look forward to keeping you abreast on the latest earthquakerelated information this coming year.

2010 Earthquake Awareness Month

February 2010 marks another year in which at least four CUSEC Member States will be holding earthquake awareness activities. Activities include -

Arkansas - Conferences, Trainings, News Releases, Proclamations, and more;

Kentucky - Proclamations, Drills, News Releases, School Outreach Programs, and more;

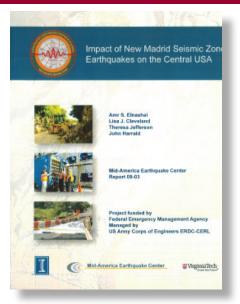
Missouri - School Outreach, Town Hall Meetings, Business Outreach Programs, and more;

Tennessee - Proclamations, Trainings, Media Events, and more;

Missouri and Kentucky will hold earthquake awareness events during the entire month of February, while Arkansas and Tennessee will hold events during the first and second weeks of February, respectively. Additionally, Illinois will hold earthquake awareness activities in April 2010.

Recent CUSEC GeoCache Comments

- This one turned out to be very educational! Thank you so much...
- ...So thankful that you had placed a cache here or we might never have known about this great area...
- I really like these caches that bring awareness about the New Madrid fault...



New Report on Potential NMSZ Earthquake Impacts Available

A new report from the Mid-America Earthquake Center is now available in print and online. This report contains earthquake impact assessments for the CUSEC Member States due to earthquakes caused by the New Madrid Seismic Zone (NMSZ). It reports Phase II work from the NMSZ Catastrophic Planning Initiative funded by the Federal Emergency Management Agency.

The report gives damage estimates to the built environment, projected impacts on transportation and utility networks as well as possible social and economic consequences. It supersedes the report, "Impact of Earthquakes on the Central USA," published in 2008. The analysis employs the best available and most reliable hazard and inventory data that has ever been assembled for the CUSEC Member States.

The work was undertaken by the MAE Center at the University of Illinois in partnership with the Center for Technology, Security and Policy at Virginia Tech University and the Institute for Crisis, Disaster and Risk Management at the George Washington University, with contributions from the Association of CUSEC State Geologists, US Army Corps of Engineers, IEM, FEMA, U.S. Geological Survey, and CUSEC.

Bound paper and CD copies are available from Nasiba Alrawi, IT Coordinator, email: nalrawi2@illinois.edu. For more information on the MAE Center, visit their website at - http://mae.cee.uiuc.edu/

TEMA Hosts Water Exercise

The Tennessee Exercise for the Water Sector (TEWS) was held on November 4, 2009 at the Tennessee Emergency Management Agency's (TEMA) West headquarters in Jackson, Tennessee. The tabletop exercise was sponsored by TEMA, the Tennessee Department of Environment and Conservation (TDEC), and the US Environmental Protection Agency (EPA). A representative of CUSEC also took part as a subject matter expert.

TEWS '09 emphasized the roles, responsibilities and relationships of local, state and federal stakeholders during response to an earthquake, management of drinking water, and wastewater-related concerns. The scenario consisted of a 6.5 magnitude quake occurring in Dyer County, Tennessee, which caused major damage to the northwestern counties of the state. The primary concern for the exercise was the major infrastructure damage resulting, as well as the decreased capability of officials to respond caused by earthquake damage.

In addition to representatives from the sponsoring agencies, a number of local water sector personnel from Tennessee took part. Other state agencies also participated, as did several federal agencies, including FEMA and the U.S. Army Corps of Engineers.

The exercise began with briefings illustrating the response and flow of requests for resources from the locals to TEMA to other states and the federal government. The exercise then progressed through three phases - Event + 4 days, Event + 14 days, Event + Six Months. In the late afternoon, all participants were asked to comment individually on those topics they thought were most important, as well as topics that may have not been covered in the exercise.

UPCOMING CONFERENCES, TRAINING, WORKSHOPS, ETC.

WHEN	WHAT	WHERE
February 1-28	Earthquake Awareness Week/Month	AR, KY, MO, & TN
February 2-3	NMSZ Earthquake Conference	Jonesboro, Arkansas
February 3-6	EERI Annual Meeting	San Francisco, California
February 4	MO Seismic Safety Commission Mtg.	St. Louis, Missouri
February 5	Earthquakes Mean Business	St. Louis, Missouri
February 8	FEMA 154 Workshop	Memphis, Tennessee
February 11	Get Your Home Ready for Earthquakes	Kennett, Missouri
February 15	Get Your Home Ready for Earthquakes	Piedmont, Missouri
February 23-26	Alabama EMA Preparedness Conference	Prattville, Alabama
March 8-10	USACE Regional Readiness Workshop	Memphis, Tennessee
March 18-19	Disaster Medicine 201	Festus, Missouri
April 11-13	Geological Society of America Meeting	Branson, Missouri
April 18-24	Earthquake Awareness Week	Throughout Illinois
April 20-23	Missouri Emergency Management Conf.	Branson, Missouri

Other News

White House Initiates Long-Term Disaster Recovery Working Group

Courtesy disasterrecoveryworkinggroup.gov

At the President's request, the Secretaries of Homeland Security (DHS) and Housing and Urban Development (HUD) are co-chairing a White House Long-Term Disaster Recovery Working Group composed of the Secretaries and Administrators of more than 20 departments, agencies and offices. This high-level, strategic initiative will provide operational guidance for recovery organizations as well as make suggestions for future improvement. An intensive stakeholder outreach effort occurred during October and November of 2009, involving State, Local, and Tribal government representatives, as well as a wide array of private organizations and private non-profit organizations.

The goal is to ensure a more resilient Nation – one in which individuals, communities, and our economy can adapt to changing conditions as well as withstand and rapidly recover from disasters. In order to develop a better national strategy for an effective approach to long-term disaster recovery, the Working Group on Long-Term Disaster Recovery will:

- Provide operational guidance for Federal, State, Tribal and local authorities to provide for unified, and effective disaster recovery. This includes defining roles and responsibilities, detailing recovery management and operational coordination, articulating communications strategies and establishing measurements for success;
- Review disaster recovery programs and the framework of disaster recovery, and identify gaps as well as overlapping and/or conflicting sources of authority for disaster recovery efforts;

- Examine areas for improved interagency planning and collaboration among Federal agencies;
- Examine methods to build capacity within State, local and Tribal governments as well as within the nonprofit, faith-based, and private sectors; both in recovery operations and in pre-disaster recovery planning; and
- Examine successful practices and Lessons Learned during previous disaster recovery efforts, with particular attention to catastrophic disasters such as Hurricanes Katrina and Rita

The Secretaries will provide the President with recommendations to improve long-term catastrophic disaster recovery and will help develop a National Disaster Recovery Framework that provides more detailed operational guidance to recovery organizations under existing authorities.

The Working Group is taking a bottom up approach to implementing this important national initiative and there are multiple opportunities for stakeholder participation.

An intensive stakeholder outreach effort is underway to solicit input from a broad range of recovery stakeholders. To ensure broad representation, input is solicited from Federal, State, Tribal and community leadership; policy- and decision-makers; public and private recovery partners and practitioners; nonprofits; disaster recovery stakeholders and citizens. Participants are asked to identify their existing perceptions of disaster recovery; articulate what they think recovery assistance should look like going forward; identify best practice examples; raise challenges and obstacles to success; and share their thoughts, experiences and Lessons Learned.







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A series of ten (10) Regional Video Teleconferences hosted by HUD and FEMA Regional Offices were held. Five (5) Stakeholder Forums sponsored in partnership with select States and local communities were held across the nation. CUSEC and some of the CUSEC member states participated in these forums and also provided inputs in person and at the web site (http://www.disasterrecoveryworkinggroup.gov). Both series of events provided an opportunity for participants to discuss disaster recovery management issues and opportunities - a discussion that will help shape two important products:

- The White House Working Group Report to the President, which will identify opportunities for improving the delivery of recovery assistance in the future and,
- The National Disaster Recovery Framework, which will provide guidance for the delivery of recovery assistance using current resources and authorities.

For further stakeholder input, you are invited to submit written input and see updates and information regarding this important national initiative at www. DisasterRecoveryWorkingGroup.gov.

The Report to the President is scheduled for delivery the first of April 2010. A draft of the National Disaster Recovery Framework is anticipated for comment first quarter of 2010 with a final publication date scheduled for June 1, 2010.

NOTE: FEMA Assistant Administrator for Disaster Assistance Ms. Elizabeth Zimmerman briefed the CUSEC Board of Directors and FEMA Regional Administrators on the White House Long-Term Disaster Recovery Working Group at the recent CUSEC Board of Directors' Meeting - which focused on long-term recovery after a catastrophic New Madrid Seismic Zone event. Former CUSEC Board Chairman James Bassham noted that long-term recovery has been one of the more difficult issues to get our arms around. In addition, the Board in July 2009 designated Long-Term Recovery as one of their priorities for emphasis following the 2011 National Level Exercise and the NMSZ Bicentennial events.

Engineering Guideline for Incremental Seismic Rehabilitation

FEMA P-420 Now Available in Print and Online!

FEMA is pleased to announce that Engineering Guideline for Incremental Seismic Rehabilitation, FEMA P-420, is now available at no cost from the FEMA Publications Warehouse.

FEMA P-420 is a technical resource for design professionals and engineers who are implementing incremental seismic rehabilitation on their projects or advocating the use of an incremental approach to seismic rehabilitation in practice. It explains the concept of incremental seismic rehabilitation as a strategy; discusses owner maintenance, capital improvement, and decision-making processes as a basis for communicating with decision-makers on seismic rehabilitation opportunities; summarizes available engineering resource documents; and outlines the overall engineering process for incremental seismic rehabilitation of buildings.

FEMA P-420 is a companion guide to the occupancy specific manuals in FEMA's Incremental Seismic Rehabilitation Series (FEMA 395 through 400) and is part of the Risk Management Series. Incremental Seismic Rehabilitation is an effective, affordable, and non-disruptive strategy for responsible mitigation action which can be integrated efficiently into ongoing facility maintenance and capital improvement operations to minimize cost and disruption of daily operations/activities. The manuals present an innovative approach to a series of discrete rehabilitation actions implemented over a period of several years. The publications in this series address different occupancies, including schools (FEMA 395); hospitals (FEMA 396); office buildings (FEMA 397); multifamily apartment buildings (FEMA 398); retail buildings (FEMA 399); and hotels/motels (FEMA 400).

FEMA P-420 is available in print by calling 1-800-480-2520 or by download by visiting the FEMA online publications library at - http://www.fema.gov/library/viewRecord.do?id=3792

New Book About the Science of Predicting Earthquakes



Seismologist Susan Hough examines the question of short-term earthquake prediction in her new book "Predicting the Unpredictable: The Tumultuous Science of Earthquake Prediction".

In this book, Hough separates fact from fiction as she explains

the challenges of predicting earthquakes despite the rapid advances in earthquake science. Readers get the opportunity to travel inside of the laboratory and out in the field with her as she talks in detail about occurrences that have preceded past earthquakes, such as changes in well water levels and mysterious ground fogs.

Hough also addresses the belief that animals can sense impending earthquakes and other assumptions surrounding the occurrence of moderate to large earthquakes.

"Predicting the Unpredictable: The Tumultuous Science of Earthquake Prediction." is available for purchase at http://press.princeton.edu/titles/8990.html

Two Major International Conferences on Engineering to be Held in Florida in 2010

Researchers and professionals from the academic, industrial and public sectors will come together to share their knowledge and experience about problems and solutions in the areas of engineering and metaengineering at the 2010 International Conference on Engineering and Meta-Engineering (ICEME) in Orlando, Florida from April 6-9, 2010.

Topics of focus will be:

- Meta-Engineering Science and Engineering Philosophy
- Meta-Engineering Technologies
- Meta-Engineering Praxis
- Engineering Concepts, Relations and Methodologies
- Technological Development and Innovation
- · Disciplinary Research and Development

Orlando, Florida will also be the host city for the Third International Multi-Conference on Engineering and Technological Innovation (IMETI) from June 29-July 2. Scholars, professionals and consultants in the field of engineering will also meet to discuss the following different aspects of engineering:

- New Knowledge (Engineering as Scientia)
- New Products and Services (i.e. technological innovations (Engineering as Techne')
- New Technical and Managerial Methods and Methodologies (Engineering as Praxis)
- New Meta-Engineering (Engineering of Engineering Activities) Knowledge, Innovations and Methodologies

Participants are encouraged to submit papers/abstracts for both conferences. Details about ICEME 2010, IMETI 2010 and paper submissions are available at the following websites:

ICEME 2010

http://www.iiis2010.org/iceme/website/default.asp?vc=32

IMETI 2010

http://www.iiis2010.org/imeti/website/default.asp?vc=20



International Conference or Engineering and Meta-Engineering



DATES T O MARK

2010 Earthquake Awareness Events Meeting on Earthquake Issues in the 200th Anniversary of the 1811-1812 New and Tennessee will all be holding earthquake awareness activities during the month of February 2010. Activities include business workshops, professional training and seminars, town hall meetings, and more. For more information on activities, visit the CUSEC website at www.cusec.org.

February 2010. The CUSEC Member Central U.S. - February 4, 2010; St. Louis, Madrid Seismic Zone Earthquakes -States of Arkansas, Kentucky, Missouri, Missouri. This meeting will discuss current Ongoing throughout 2011-2012. In 2011issues regarding earthquakes in the central U.S. including the St. Louis Area Earthquake the central United States observing the 200th Hazards Mapping project, Earthquake Ground Motion Simulations, and the New Madrid Earthquake Scenario. The meeting is being assembled by the New Madrid Chapter of EERI. Contact E Neuner@geotechnology. com for more info.

2012, there will be events held throughout anniversary of the great 1811-1812 New Madrid earthquakes. Many organizations will participate in the events, which will include national conferences, earthquake exercises, public outreach events, and more. For more information visit the CUSEC website.

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.

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Please send comments and suggestions to cusec@cusec.org

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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