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SMALLER BUT NOT HELPLESS: RURAL COMMUNITIES TAKE CHARGE



DeSoto County, MS - Courthouse

The layers of bureaucracy and red tape that can choke a project in an urban community is almost nonexistent in comparison. City and county officials in rural communities seem to have more of a personal relationship with their citizens. Having had the opportunity to visit with community leaders while working on various mitigation projects, I have witnessed first hand the interaction between the elected official and citizens they represent. Accessibility to the elected official seems to be the biggest asset these communities can offer. This provides a great platform for getting a community-wide mitigation program implemented.

State Emergency Management Agencies, in an attempt to break the cycle of disasters, have begun to maximize the financial support

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Rural communities, although smaller than their urban counterparts, are capable of carrying out mitigation activities that make a difference. Some would even argue the ability of a smaller community to carry out mitigation activities far exceeds that of the larger, more urbanized communities. Funds available for mitigation can go further and have a more significant impact, as demonstrated recently in the community of Tuckerman, Arkansas (see Tuckerman Community Protects Its Children, page 7).

The town of Tuckerman, Arkansas smallest of all the Project Impact (P.I.) communities in Arkansas, has been able to use funds made available through FEMA's P.I. and the state's Hazard Mitigation Grant Program (HMGP) to mitigate almost every government building, school, and a large number of public and private storm shelters. The same amount of funding would have had far less impact on a larger urban community.

The level of participation by elected officials is often much higher in rural communities, as is the interaction between the public and private sector organizations.

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available to rural communities through various federal and state agencies for hazard mitigation. Although not clearly understood what the ramifications would be, the state of Arkansas was the first in the country to nominate a rural community to be a participant in FEMA's previous Project Impact Initiative (P.I.). Despite some hesitation initially by those running P.I. at the federal level to accept such a nomination, the overall feeling today is that of satisfaction having seen what a small community can do if provided with the right tools and resources.

Rural communities are more dependent on outside resources such as Federal and State grants, outside planning organizations, and Federal and State initiatives, such as Empowerment Zone/Enterprise Community and Procurement Technical Assistance Center. These are some of the many programs that are available to rural communities to help them find or provide the resources needed to better the community. One very important asset is the Hazard Mitigation Grant Program (HMGP) (see page 8 for details on the program) which is administered through the State Emergency Management Agency.

Although Project Impact was short lived, it clearly demonstrated to those in Arkansas, as well as other CUSEC States, the value to be gained by directing mitigation dollars to rural communities that want to make a difference. Rural communities and the people who live and work in them exhibit remarkable resilience in the face of change-related stresses. It is part of their histories and their traditions. Rural people typically display innovation and creativity when faced with tough challenges. They work together to maximize their opportunities for developing sustainable rural communities.

In addition, small communities, by virtue of the "human-scale" of their local social organization, have obvious advantages over larger communities for building local solidarity, other things being equal. The availability of these opportunities and advantages, however, gives no assurance that small communities in rural areas will be able to use them for their own revitalization. Actions and policies of federal and state agencies can set the stage, but community development itself is an "inside job," a process of community-building by community

leaders and groups

CUSEC, working with its partners, has continued to stress the need for a collaborative approach. Bringing together those in the upper levels of government and outside private sector groups, to address the needs of the rural community.

Given the trends of the times in rural America, mitigation programs will be an uphill push, just as they are in the larger communities. Action at either the federal and state level or at the community level, without the other, is likely to have far less effect on rural mitigation efforts than would a coordinated effort involving actions at both levels. Federal actions to promote mitigation, for example, without community and state involvement development is a sure way to lessen the effectiveness of the actions. By the same token, local action to build community cohesion without attention at other levels to the forces that constrain local development can produce local frustration. A coordinated approach is needed for an effective effort to address the communities mitigation needs.

The bottom line is that rural communities are good investments for mitigation programs. With much less effort and greater impact a rural community can achieve a far greater level of mitigation than its urban counterpart.

Many would argue that rural communities lack the population base, infrastructure, and political influence to warrant much attention. I say it is all in your perception. It does not take many rural communities to equal the population and loss potential of a larger community.

The articles featured in this issue of the Journal focus on some of the resources available to rural communities as well as some of the mitigation success that have been observed in the central US. There is much to be gained, but even more to be lost if we do not take the time to include our rural communities in the mitigation process.

Jim Wilkinson
Executive Director



EARTHQUAKE MITIGATION – ALWAYS A CONSIDERATION IN ILLINOIS

**by Jan Horton, State Hazard
Mitigation Officer**

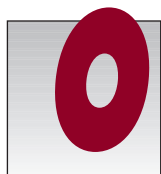
While the Illinois Emergency Management Agency cannot boast of spending more than a minuscule amount of its \$100 million Hazard Mitigation Grant Program (HMGP) budget on earthquake mitigation, the State's vulnerability, especially in the rural southern counties, is always at the forefront of its project review. Illinois has an Interagency Mitigation Advisory Group (IMAG) which meets monthly to review, evaluate, prioritize and eventually recommend projects to the Federal Emergency Management Agency (FEMA). The IMAG considers "all hazards" when sorting through voluminous applications from jurisdictions either recently impacted by or having a potential for one or more natural hazards.

The State was the first in the nation to publish a manual and recommend mitigation measures to lessen the impact of severe windstorms—inland wind as opposed to coastal wind from hurricanes. These same measures that "hold the structure together" are applicable to earthquake mitigation and, in a nutshell, address "how to keep the roof connected to the walls, the walls to the floor, and the floor to the foundation". These building techniques are also reiterated in two companion videos which small communities are using to achieve both earthquake and wind mitigation.

As a result of three paths of tornadoes that crossed Illinois in April, 1996, HMGP funds were expended on the Marion County Emergency Operations Center to insure that proper earthquake mitigation was included in the construction. In the relocation of communities after the 1993 flood, seismic zones were a large consideration for the new sites. Many of the present HMGP projects are located in the areas where structural earthquake damage begins, VIII and IX on the Modified Mercalli Index Scale. Therefore, at no time does the IMAG want to mitigate one hazard while allowing the potential impact from another such as earthquakes to go unrecognized.

Questions regarding proposed projects and/or mitigation planning, which will soon become a prerequisite for HMGP funds, may be addressed to the IEMA Mitigation Staff, 110 East Adams Street, Springfield, IL 62701-1109; phoned into 217/782-8719; or e-mailed to jhorton@iema.state.il.us.

Disaster Preparedness for Small Business



One of the least studied and examined aspects of earthquakes and other disasters is their effect on America's small

businesses. While the large layoffs from Fortune 500 companies regularly garner news, in reality, small businesses constitute by far the largest provider of employment in the United States. The effects of an earthquake on small businesses can have a dire economic impact within the community.

Consider that following most disasters as many as 29% of companies will close within two years. More amazing is that 43% may NEVER reopen! And, believe it or not, damage to structures and contents is not the primary cause of business failure. While there are many causes of business failure, the most predominant causes of business failure following a disaster are lifeline failure and lack of operating capital.

Research by the University of Delaware Disaster Research Center (UDDRC) following the 1993 Des Moines flood revealed that, simply, the loss of water has an immediate and devastating impact on businesses. Among small businesses in Des Moines, over 80 percent reported losing water and nearly 40 percent lost sewer service. While one might think that a water outage affects only a few specialized businesses such as restaurants, the UDDRC survey found that business and professional services experienced the greatest business interruption - averaging 120 hours. One need only glance through the predictions of lifeline failures following a major earthquake within the New Madrid Fault Zone (NMFZ) to appreciate the impact upon small businesses within the disaster area. By the way, Beyond Computing magazine states that 68% of companies that lose their computers for seven days NEVER reopen.

The fortunate small business that makes it past the lifeline failure often faces a second major challenge, lack of operating capital. Even if they wanted to remain

open, many small businesses just don't have the cash to repair and restock the business. Older citizens often own small businesses. These older business owners may not wish to go through the process of rebuilding the business and instead prefer to liquidate the business. Younger business owners often have poor credit and have already tapped family members for loans to start the business.

But, doesn't the U.S. Small Business Administration (SBA) make disaster loans? Yes. Immediately following a major disaster, teams of SBA personnel from one of four SBA Disaster Assistance Offices arrive to make physical and economic injury disaster loans. However, many small businesses that could benefit from these loans either don't apply or don't qualify. Reasons for not applying can include lack of personal and business financial statements, lack of federal income tax information, and difficulty in completing the loan forms. Reasons for not qualifying often include unpaid federal taxes and inability to repay the loan. Loan approval typically takes between 7 and 21 days and approved loans are paid in installments. It is during this period, between the disaster and the loan approval, that small businesses face a lack of operating capital and may be forced to close. North Carolina is one of the first states to recognize this barrier and in 1999, immediately following hurricane Floyd, passed legislation to provide bridge loans to small businesses.

The Arkansas Small Business Development Center (SBDC) has taken a proactive role in earthquake preparedness by Arkansas' small businesses. The Arkansas SBDC collaborated with the Arkansas Center for Earthquake Education and Technology Transfer (ACEETT) to develop a comprehensive web site to provide preparedness information for the general public, schools, businesses and governments within Arkansas. The Arkansas SBDC further developed a standard 3-hour earthquake preparedness seminar for small businesses and an accompanying

20 page workbook.

The 3-hour small business seminar includes information on the NMFZ, damage estimations for the local community, and specific actions for each phase of the emergency management cycle. For example, while discussing recovery from an earthquake, seminar attendees are presented with a basic 5-step business recovery process:

- *Assign responsibility for the process.*
- *Establish temporary facilities.*
- *Contact your customers.*
- *Establish joint alliances.*
- *Establish agreements with vendors.*

Following the ice storms of December 2000, the Arkansas SBDC established a liaison with the responding SBA Disaster Assistance Office. The SBDC assisted the SBA by informing SBDC clients and the public of the availability of disaster loans and schedules for the SBA mobile disaster teams. Additionally, SBDC business consultants assisted small business owners in completing the SBA disaster loan documents.

The Arkansas SBDC has taken a leadership role by joining the Arkansas State Disaster Coalition and the Governor's Earthquake Advisory Council (GEAC). During the summer of 2001, Janet Nye, State Director of the Arkansas SBDC, addressed the GEAC about the economic impact of disasters on small business and the local community.

As a result of its work with small businesses following several recent disasters, the Arkansas SBDC makes the following recommendations:

- *Include representatives from your state's SBDC on earthquake planning committees.*
- *Consider state legislation and funding to provide bridge loans to small businesses following major disasters.*
- *Develop an economic damage assessment system to catalog damaged businesses and to assist in providing outreach services.*
- *Provide specialized disaster preparedness materials and training to small businesses through chambers of commerce and outreach agencies.*

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IT'S 10:00 P.M. Do You Know Where Your Cultural Resources Are?

Cultural resources are at risk. Have you taken the necessary steps to protect those in your custody?

Disasters, whether through flooding, fires, bombing, hurricanes, tornadoes, terrorism, blizzards, or lightning, to name but a few, have long been a major source of loss to our cultural heritage. Unfortunately, not many people think about the impact that a major disaster would have on the patrimony of a town, a region, or a nation, or even the world. One only



The heavy marble bust on a tall, thin pedestal is a good example of an unstable shape which needs to be considered.

needs to reflect upon the unknown quantity of paintings, sculptures, other artwork, books, manuscripts, or public records lost through wars (e.g. the Battle of Britain, the attacks on Sarajevo), floods (e.g. the Midwestern floods, the floods in India), and fires (e.g. the Los Angeles Public Library, the National Academy of Sciences in Leningrad) to realize that significant portions of those countries' cultural heritage has been lost. Yet, what is being done to prevent or at least minimize the impact of these types of losses?

Cultural resources are often considered the lifeblood of society, although many people take them for granted. Without them people could not receive their paychecks, Social Security checks, medical records, birth, death, and marriage certificates, let alone do research in a library, archives, or museum; access important research materials and resources for businesses and government; enjoy a relaxing afternoon with a book; attend a play or concert; or be able to enjoy the paintings and other artwork of the masters. By the same token, the staff of most cultural institutions (whether librarians, archivists, art and museum curators, or public records custodians) often do not realize that they need to work with their emergency managers and fire and police personnel to develop disaster preparedness plans for themselves, their buildings, and their collections. How many of these people have developed such plans? A small minority. Where does one start?

Although the focus of this paper is supposed to be on cultural resources housed in a damaged building that may be or may have been condemned, it is important to realize that the issue of the survival of the cultural resources needs to be addressed long before a disaster occurs. One of the first things that the staff of cultural institutions must do is to make contact with personnel of all the appropriate emergency agencies to make them aware that they exist and that their collections are important, not only to the institutional staff but to others in society. This may not be easy. Subsequently, the staff needs to assess any and all potential dangers to the building and the collections. This does not mean limiting the examination to the building itself. It is necessary to look beyond the walls to determine, for example, if there is a railroad line or interstate highway close by upon which hazardous or dangerous materials might be transported. Is there a river nearby with a dam upstream of the town? Are the institution and the town sitting on an earthquake fault, in tornado alley, or in the path of potential

hurricanes? Is it near other sites that might be the target of violent terrorism? Each of these scenarios will pose a significantly different problem to the institution's staff and to the emergency personnel in the area.

However, it is only by assessing the potential dangers that these institutions and their collections face that any concrete steps can be undertaken to mitigate the possible impact of such a disaster and to prepare as much as possible for the survival of these collections. Once a disaster has occurred, it is too late to plan! General concerns that need to be addressed in advance, in addition to those identified by the assessment of the region and the building and collections themselves, include:

- *the creation of a disaster preparedness plan that addresses the building and the collections as well as different kinds of disasters,*
- *decisions about the feasibility of off-site storage of materials and backups of vital information,*
- *decisions as to how and where collections can be moved if there is enough warning, and if it is necessary,*
- *a chain of command to address the disaster and to work with emergency personnel,*
- *decisions as to which staff have responsibilities for what tasks and decisions, such as obtaining supplies, directing recovery, moving collections,*
- *training to deal with different kinds of disasters, and*
- *the availability of staff, supplies, and resources (material and personnel) to respond to a disaster.*

Following a disaster, emergency management response and recovery priorities are life, property, and returning services to normal as soon as possible. These are exactly the priorities that should exist. However, these priorities ignore the fact that having cultural resources available in society is extremely important to society's well being and to returning life to normal following a disaster. If disaster recovery ignores these materials, then society will be all the poorer in the future. In addition, certain types of records and cultural resources are crucial for the day-to-day activities of our population. If public and medical records, for example, are unavailable, then lives could be totally upset or even lost. What about the emotional trauma families experience when

SO YOU THINK YOU KNOW ABOUT GOVERNMENT CONTRACTORS?

by Judy Jerome

We all think we know about government contractors. They're big guys like Lockheed Martin with multi-billion dollar contracts to build fighter jets. They count the paperwork by the truckload. They have government auditors living on their front door steps. We've heard the stories.

But have we? Some of the parts on NASA's Space Shuttle are made by a small manufacturer in Indiana. Candy provided to sailors on our biggest ships comes from a small company in rural Michigan. Wiring harnesses from a small town in Kentucky are on Air Force helicopters. And the National Institutes of Health depends on a small company in Illinois to assemble various kits. These are the stories that aren't thought about when government contractors come to mind.

As you drive around the Midwest each day, regardless of the size of town you're in, you unknowingly pass many, many small government contractor's facilities. Places that ensure that the vast machinery of this country keeps humming along by supplying all our almost unimaginable needs. In fact it's often said that the government buys whatever you can imagine ... and what you can't imagine, it bought yesterday. Which means that the government has to do business with many small companies in order to meet those unimaginable needs.

Ask any economist and you'll be told that small business is the engine of our economy. Because it creates the majority of our jobs and because it develops the greater portion of our advancements in technology. The federal government knows this and in 1984 Congress took action to support small businesses specifically with regards to government procurement.

In that year, money was appropriated to fund the creation of a nationwide Procurement Technical Assistance Center (PTAC) program. The federal money is matched by local funds and centers are established to help small businesses with any and all aspects of government contracting, from initial marketing to final delivery of product and payment.

Thinking back to that contractor that comes to all our minds, Lockheed Martin, some of the government's most valuable vendors are third or fourth tier suppliers to contractors of Lockheed's size. Those are the small businesses, for example, that supply the replacement parts that enable us to keep 50-year-old aircraft in reliable service for the Air Force. So when Uncle Sam thinks "contractor" he definitely thinks small business, too.

Today small businesses benefit from a streamlining of the government's acquisition regulations and its desire to retain their involvement in its procurement process. Paperwork has

been reduced and simplified. Orders are made electronically. The move is toward commercially accepted standards. Payment is made promptly and electronically. Emphasis is placed on utilizing emerging minority-, woman-, and veteran-owned businesses.

Now you know more about government contractors. If your business would benefit from inclusion or expansion in this marketplace, contact your local PTAC. They have free resources that will surprise and please you ... and probably increase your bottom line. Find your PTAC at www.sellingtothegovernment.net

Because of the importance of small business to our economy, it is imperative that they survive during any natural or man-made disaster. CUSEC and other disaster resistant/preparedness groups provide assistance to small businesses so that they can be prepared for such disasters and be able to continue during these trying times. Our economy relies on these businesses to generate revenue, provide jobs and fulfill many demands of our nation and its military operations.

Ms. Jerome is executive director of the Indiana statewide PTAC, the Government Marketing Assistance Group, in Indianapolis.

Picking up the Pieces: A Guide to Restoring Rural Housing and Communities After a Disaster is available from the Housing Assistance Council. This guide explains resources available from federal and state governments for rebuilding housing after a disaster, on a temporary basis or long-term. It also tells readers how to find local assistance. It is available free on the web at www.ruralhome.org/pubs/disaster/pickingup.htm. Paper copies are available from HAC and are free for victims and community organizations in disaster areas, \$5 for others.

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The University of Arkansas at Little Rock (UALR) is Arkansas' only metropolitan university, and its mission emphasizes applied research, outreach, and community service. The Arkansas SBDC is a joint partnership between UALR and the U.S. Small Business Administration. The Arkansas SBDC

provides training, information, and consulting services to small business through 11 geographically dispersed locations throughout the state of Arkansas. The Arkansas SBDC is part of a national network of more than 950 small business development center offices, the largest small business

assistance program in the United States. More information on the Arkansas SBDC and its outreach programs is available at <http://asbdc.ualr.edu>.

Maher Award Presented

Dr. Norman C. Hester served in the U.S. Navy during the Korean War from 1952 to 1956. He then attended engineering school at the University of Louisville. In 1960, he enrolled at the University of Cincinnati to study geology, receiving his B.S. in 1962, an M.S. in 1965, and a Ph.D. in 1968.

Dr. Hester began his geologic career at the Illinois State Geological Survey, where he remained until 1973. Norm then spent several years at Eastern Kentucky University as an associate professor of geology. While at Eastern he contributed to the massive Kentucky mapping co-op project, mapping the bedrock geology of the entire state of Kentucky at a scale of 1:24,000 for the U.S. Geological Survey. In 1978, Dr. Hester left Eastern to accept a position as Assistant State geologist at the Kentucky Geological Survey where he remained for two years. He then spent six years as the exploration manager for Consolidated Resources of America and then as an independent consultant. In 1986, Dr. Hester returned to public service



Dr. Norman Curtis Hester receives the 2001 J. E. Maher Award of Excellence from Board Chairman Bud Harper during the 2001 CUSEC Annual Meeting in Little Rock, Arkansas, March 19, 2002

as the Director of the Indiana State Geological Survey and faculty member in the Department of Geological Sciences at Indiana University.

Dr. Hester's professional interest in earthquakes soon followed his return to public service. In spring of 1987, Dr. Hester was called upon to make a presentation before the Governor's Advisory Council for the Department of

Natural Resources on seismic hazard in Indiana. As with a lot of Directors, he had a staff member put together his presentation. As a geologist he had an understanding of earthquakes but knew less about the seismicity of the central US. A few days later, the State capital of Indiana was shaken by a distant magnitude 5.0. This immediately caused the Dr. Hester to again come before the advisory council. This time he had to admit his understanding of the cause of earthquakes in this region was limited but made a commitment to elevate it within his agency.

He has kept that commitment and was instrumental in taking the issue beyond Indiana through the formation of the CUSEC State Geologists. Following his retirement as state Director of the Indiana Survey in the summer of 1998, he accepted the appointment of Technical Director of the Association of CUSEC States Geologists to further expand the efforts of the Association.

Dr. Hester's efforts have helped to close the gap that exists between those of us in emergency management and other programs not intimately associated with the science side of this hazard.

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they have lost everything including family records and photographs due to a flood, earthquake, or tornado? This trauma is personal, emotional, and often devastating. It is important to those people. Take that to a larger level, and one is talking about the loss of the cultural heritage of a town, region, nation, or the world.

Therefore, why is it necessary to plan in advance? Two of the most important reasons to plan in advance are to eliminate or reduce dramatically the losses directly due to a disaster or to increase greatly the quantity of materials that are recoverable in the aftermath of a disaster. By carrying out the kind of risk assessment described briefly above, the staff of cultural institutions have the possibility to examine the risks and to take steps to mitigate them as much as possible. While these steps will probably not eliminate the risks identified, they should ensure the survival and access to the greatest amount of material possible following a disaster and may actually minimize the possibility of a disaster occurring at all. Such

steps should also ensure that the material that survives a disaster is in the best possible condition. Furthermore, because a disaster preparedness plan was developed, because the staff was involved in developing the plan, and because the staff has been trained in disaster recovery of their materials/collections (all highly ambitious and not as probable as one would like); minimal additional damage should be inflicted upon the materials involved in the disaster during recovery operations. In addition, if the staff of these institutions has worked cooperatively with the staffs other cultural institutions and with fire, police, and other emergency management organizations; there is a greater possibility that assistance will be available to assist in response and recovery operations. Such activities could also reduce some of the possible damage to collections because emergency personnel will be much more familiar with the collections and their liabilities and requirements in the event of a disaster. This alone could greatly minimize damage to the materials.

As was mentioned above, cultural resources in this country and abroad are at risk. They are potentially more at risk than many other categories of materials because they are often left out of the loop in emergency management. The staff of cultural institutions needs to take the initiative and conduct risk assessments of their institutions and regions. They then need to follow up with the development of institutional disaster preparedness plans. By the same token, emergency personnel need to become aware of the special needs of these institutions and their collections. Together, it is possible to mitigate potential disasters and ensure that the least amount of material/collections is affected by a disaster and also to ensure that the greatest amount of the materials/collections affected can and will be recovered.

Gregor Trinkaus-Randall
Preservation Specialist
Massachusetts Board of Library
Commissioners

Tuckerman Community Protects Its Children

The rural community of Tuckerman, AR (population approx. 2,000) has met its priority goal of providing tornado

protection for their 650+ school children. The year 2000 Project Impact Community completed its tornadic retrofit of their school campus on August 9th, approximately one week before school opened. In just 50 days, three hallways (total length of 500 feet) were converted into tornado saferooms that will withstand up to 250 mile/hour winds.

The triple rebarred floor is 12" thick concrete, the walls and ceilings are 8" thick. The 300lbs steel doors, from each class room leading directly into the new saferooms, have four heavy duty hinges on one side and three dead bolts and a heavy duty latch on the other side.

Pete Whitby, School Superintendent, stated; "Now we feel confident that our children will be safe if a tornado strikes us while school is in session. In the past parents have rushed to school to remove their children from school when a tornado warning has been issued. They won't have to do that anymore because they will know that their children are safe."

The funding for the project was provided by a \$890,612 Hazard Mitigation Grant, 75% federal, 12.5% state and 12.5% local, coordinated through the Arkansas



Pete Whitby, Tuckerman County School Superintendent highlights retrofit during CUSEC field trip.

Department of Emergency Management. Project Impact funds paid for the pre-grant engineering survey.

The next major Disaster Resistant Community project of Tuckerman will be to accomplish a non-structural seismic retrofit of the City

Hall, the Police Department, the Fire Department and all of the school buildings. For the school buildings, since about 95% of the non-structural seismic retrofit elements have been accomplished, this project will mainly provide for the installation of window film on all windows of all the buildings. This project is estimated to cost \$109,949, with 50% provided by Project Impact funds and 50% provided by the state of Arkansas.

Tuckerman will also repair 89 abandoned tornado shelters distributed throughout the community. Owners have agreed to open their shelters to the public. This will provide over 1,000 additional tornado shelter spaces to the citizens of Tuckerman. In 1997 and 1999, Tuckerman narrowly missed being included in the terrible tornado destruction that Arkansas experienced.



Indiana Approved for Hazard Mitigation Grant, for seismic retrofits

The Indiana State Emergency Management Agency Earthquake Program working with FEMA Region V and the Southwest Indiana Disaster Resistant Community has secured a hazard mitigation grant for \$121k to perform a structural retrofit of fire stations located in New Harmony, Newburgh and Chrisney, Indiana. This grant will also permit the installation of seismic gas shut off valves at hospitals in Princeton and Oakland City Indiana.

The fire stations were selected due to their proximity in their counties, and the specialized equipment that is housed at these stations. The hospitals were selected because of their rural locations and they will not just provide care for their communities, but will assist in providing care for surrounding communities that do not have a hospital facility.

Roger Lehman, Chairman of the Southwestern Indiana Disaster Resistant Community worked with local

engineering and architectural firms to provide the structural analysis needed for each facility. This donated service, valued at \$22.5k, was put towards the local match for the grant.

This project is a continuation of other seismic mitigation projects that have included the structural retrofitting on fire stations in Evansville and Princeton. Non-structural retrofitting of two hospitals and a seismically safe well at another hospital.

What is the Hazard Mitigation Grant Program?

The Hazard Mitigation Grant Program (HMGP) was created in November 1988, by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The HMGP assists States and local communities in implementing long-term hazard mitigation measures following a major disaster declaration. In December 1993, the President signed the Hazard Mitigation and Relocation Assistance Act which amends Section 404 to increase Federal funding of HMGP projects to 75 percent of the project's total eligible costs. For disasters declared before June 10, 1993, the Federal share for the program is 50 percent.

The Program's objectives are:

- *To prevent future losses of lives and property due to disasters;*
- *To implement State and local Hazard Mitigation plans;*
- *To enable mitigation measures to be implemented during immediate recovery from a disaster; and*
- *To provide funding for previously identified mitigation measures that benefit the disaster area.*

Who is eligible?

Applicant eligibility is the same for the Hazard Mitigation Grant Program as it is for the Public Assistance Program. Applicants who are eligible for the HMGP are:

- *State and local governments;*
- *Certain private non-profit organizations or institutions; and*
- *Indian tribes or authorized tribal organizations and Alaska Native villages or organizations.*

What types of projects can be funded?

The HMGP can be used to fund projects to protect either public or private property. Examples of projects include:

- *Structural hazard control, such as debris basins or floodwalls;*
- *Retrofitting, such as flood proofing to protect structures from future damage;*
- *Acquisition and relocation of structures from hazard-prone areas, and*

- *Development of State or local standards to protect new and substantially improved structures from disaster damage.*

How do I apply?

Eligible applicants must apply for the Hazard Mitigation Grant Program through the State, since the State is responsible for administering the Program. The applicant should contact the State Hazard Mitigation Officer for specific details. Every State must develop a Hazard Mitigation Administrative Plan that explains the State's procedures for administering the HMGP.

What is the deadline for applying for funds?

The State must submit a letter of intent to FEMA to participate in the HMGP within 60 days of the disaster declaration. Applications for mitigation projects are encouraged as soon as possible after the disaster occurs so that opportunities to do mitigation are not lost during reconstruction. All new project proposals must be submitted for approval within 90 days after FEMA approves the State's hazard mitigation plan for the disaster.

You should contact your State Hazard Mitigation Officer for specific application dates.

How much money is available in the HMGP?

FEMA can fund up to 75% of the eligible costs of each project. The State or local match does not need to be cash; in-kind services or materials may be used. With the passage of the Hazard Mitigation and Relocation Assistance Act of 1993, Federal funding under the HMGP is now based on 15% of the federal funds spent on the Public and Individual Assistance programs (minus administrative expenses) for each disaster.



How are potential projects identified and selected for funding?

The State's administrative plan governs how projects are selected for funding. However, proposed projects must meet certain minimum criteria. These criteria are designed to ensure that the most cost-effective and appropriate projects are selected for funding. Both the law and the regulations require that the projects are part of an overall mitigation strategy for the disaster area.

How does the HMGP differ from mitigation funded under the Public Assistance Program?

Mitigation projects may also be identified and funded through FEMA's Public Assistance funds allow an existing damaged facility to incorporate mitigation measures during repairs, if the measures are cost-effective or are required by code. These potential measures can be identified by either FEMA, the State, or the local applicant.

Mitigation funded under Public Assistance is only for public facilities damaged by the disaster. The HMGP can fund mitigation measures to protect public or private property, so long as these measures fit within the overall mitigation strategy for the disaster area, and comply with program guidelines. For public property damaged in the disaster, it is more appropriate to fund mitigation measures under Section 406 before applying to the HMGP.

Where can I obtain further information?

Regulations for the HMGP are published in Title 44 of the Code of Federal Regulation, Part 206, Subpart N. Detailed information about applying for and managing the Program can be found in FEMA's HMGP Desk Reference, FEMA Pub. 345.

For copies of the handbook or further information, contact your State Hazard Mitigation Officer, FEMA Mitigation Division in your Region or CUSEC.

Earthquake Program Managers Take New Positions

After serving 12 years as Missouri's Earthquake Program Manager, Ed Gray has taken a position as the state's Radiological Emergency Planner. During Ed's tenure as earthquake program manager, he established a number of key programs that have help define the earthquake program in Missouri and served as models to other CUSEC States. Among those are the Structural Assessment of Buildings and Vertical Structures Coalition (SAVE) which was established to assist the state and local government in assessing building damage following an earthquake by using trained volunteers. Ed was also successful in establishing a very productive and involved seismic advisory council. The council has provided additional support to the earthquake program and has helped to elevate the understanding of the hazard across a much broader spectrum.

Ed served in a leadership capacity among the CUSEC Earthquake Program Managers, passing his knowledge of the program on to the newer program

managers and ensuring a level of continuity. Ed's presence at meetings insured that meetings were productive and lively.

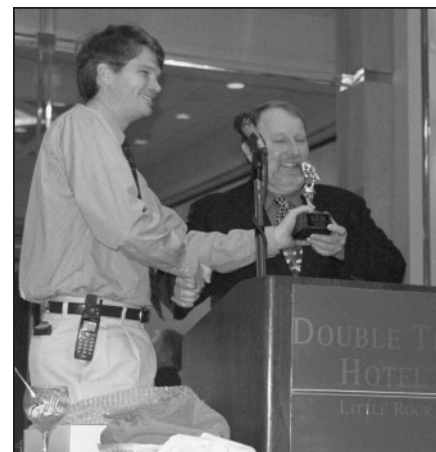
Mississippi's Earthquake Program Manager, Mr. Patrick Wanker, has taken a position as the ESF-5 Planner focusing on GIS support. While serving as the Earthquake Program Manager, Patrick was instrumental in the fostering the use of FEMA's Loss Estimation Software, HAZUS, within Mississippi.

Patrick's knowledge and understanding of HAZUS was utilized by several of the CUSEC States through a series of training programs designed to expand the use of HAZUS on a regional level.

Although Patrick has relinquished his duties as the earthquake Program Manager, he will still serve in an advisory capacity to the earthquake program.

Replacing Patrick is Mr. John Cartwright who also serves as Mississippi's Hurricane Planner.

Paulett Williams, who served as Alabama's Earthquake Program Manager, has taken a position as the Emergency



Ed Gray (right) was honored for his contributions to the earthquake program during the awards luncheon at the recent CUSEC Annual Meeting in Little Rock.

Management Director for Mobile County, Alabama. Paulette worked to increase not only the level of earthquake preparedness and mitigation in the state prior to becoming a funded participant in the National Earthquake Hazards Reduction Program (NEHRP) within FEMA, but also to increase the level of involvement of the CUSEC Associate states within CUSEC. Her efforts were instrumental in insuring a successful program for the state. Jim McCamy has taken over the role as Earthquake Program Manager in addition to his duties as the North Alabama Regional Coordinator.

All CUSEC States are now active EMAC Participants

Alabama, Illinois, and Ohio are the final CUSEC states to become a signatory to the Emergency Management Assistance Compact (EMAC). That brings the total membership to 46 states and two territories.

The Emergency Management Assistance Compact (EMAC) is a mutual aid agreement and partnership between states.

EMAC allows states to assist one another during emergencies: EMAC offers a quick and easy way for states to send personnel and equipment to help disaster relief efforts, in other states. There are times when state and local resources are overwhelmed and federal assistance is inadequate or unavailable. Out-of-state aid

through EMAC helps fill such shortfalls.

EMAC establishes a firm legal foundation: Requests for EMAC assistance are legally binding, contractual arrangements which makes states that ask for help responsible for reimbursing all out-of-state costs and liable for out-of-state personnel. States can rest assured that sending aid will not be a financial or legal burden for them.



Participating EMAC States

EMAC provides fast and flexible Assistance: EMAC allows states to ask for whatever assistance they need for any emergency, from earthquakes to acts of terrorism. On the other hand, states are not forced to send any assistance unless they are able to. EMAC's simple procedures also mean states can dispense with bureaucratic wrangling.

EMAC gives the participating states the added security of knowing that when disasters strike, help is just a call away.

Since being approved by Congress in 1996, as Public Law 104-321, 41 states and two territories have ratified EMAC and several other states are in the process. The only requirement for joining is for a state's legislature to simply ratify the language of the compact. States are not even required to assist other states, unless they're able.

CUSEC expands its partnership with USGS through the Advanced National Seismic System (ANSS)

CUSEC, which serves on the *Mid-America Regional Advisory Committee* for the *Advanced National Seismic System* as a representative of the emergency management interest in the central US, has recently increased its involvement. CUSEC will host a *strong motion instrument* at its headquarters in Memphis, Tennessee.

The CUSEC building, which happens to be located in the southern-most portion of Memphis adjacent to the Memphis International Airport, is an ideal location for studying ground motion and its effects on a critical facility. The Memphis airport is a critical link in the response planning efforts for the Memphis area. Information gained from this instrument and others in the system will quickly show the level of shaking experienced. This information can then be used to give an idea of the amount of damage that may have occurred due to the shaking. The information will be vital to researchers trying to learn more about the shaking motion, but also to emergency responders trying to get outside aid into the Memphis area.

Tennessee Emergency Management makes generous contribution to CUSEC

The Tennessee Emergency Management Agency, (TEMA) one of the CUSEC Member States has contributed six computers and monitors, in addition to installing a network server. CUSEC, which is a non-profit organization, has struggled, like so many other non-profits, to keep up with the changing technology, something that was quickly becoming a losing battle. Through the efforts of TEMA, CUSEC now has the software and hardware that will enable the organization to

effectively exchange information both internally and externally. TEMA's contribution also included a T1 connection for connecting to the Internet. Installation was handled by TEMA's Information Systems Officer, Pat Bohannon.

Contributions like these from CUSEC members and its partners have helped to keep CUSEC's efforts moving forward. CUSEC wants to thank Director White and the TEMA staff for their efforts in supporting CUSEC and its mission.

CUSEC is pleased to announce its latest Corporate sponsor

SIMPSON STRONG-TIE CO., INC.

Simpson is a leader in the industry with just over \$400 million in sales for 2001, five US and three international manufacturing locations and 1,500 employees world-wide. Simpson Strong-Tie, a subsidiary of Simpson Manufacturing Co., Inc., designs, engineers and manufactures structural connectors, anchors and other products for new construction, retrofit and do-it-yourself markets.

Inspired by their entrepreneurial beginnings, the people of Simpson Strong-Tie share the belief that a company is as strong as each individual, and each individual is responsible for the strength of the company. Despite their growth, their approach to business is rooted in the foundation that made them the world leader in the framing hardware industry. Through innovation, integrity and service, they work each day to satisfy their customers and help them build safer structures. It's as simple as that. Simpson is listed among Forbes' 200 Fastest Growing Companies for the past five years.

Simpson Strong-Tie has been a valuable asset over the years for CUSEC as it works with its member states to address the seismic hazard. Working with their regional representative, James Wiley, Simpson Strong-Tie has been involved with workshops, seminars and hands-on interaction with local officials

and has strengthened the understanding of mitigation practices in construction.

CUSEC looks forward to a long and productive partnership with Simpson Strong-Tie.

Central Alabama Gets its own Earthquake Monitoring Station

Central Alabama received its first seismic monitoring station, part of a national network. Technicians from the National Earthquake Information Center in Golden, Colorado said this is one of fifty planned to be installed across the nation, which is part of the US Geological Survey's Advanced National Seismic System ANSS, with more planned later.

The ANSS network is a nationwide network of at least 7000 shake measuring systems, both on the ground and in buildings, that will make it possible to:

- *Provide emergency response personnel with real-time earthquake information*
- *Provide engineers with information about building and site response and*
- *Provide scientists with high quality data to understand earthquake processes and solid earth structure and dynamics*

The long term goal is to have a monitoring station across the nation spaced about every 300 kilometers. Dorothy Raymond, a geologist with the Alabama Geological Survey chose a spot near Centreville, about forty five minutes south of Birmingham, Alabama's largest city.

Ms Raymond picked this site because of the transition from the hard bedrock of the north, which gives way to the soft sand and clay of the coastal plains. Centreville is located in Bibb County, which happens to be where the remnants of the Appalachian Mountains head underground, covered by the coastal plains.

Ms. Raymond said the catalyst for the new station occurred in 1997, when a series of minor earthquakes rattled Escambia County on the Alabama / Florida State line, an area that does not have a history of earthquake activity. The temblors measured from 3 to 4.9.

CUSEC State Transportation Task Force Chair and CUSEC Executive Director Meet With Indiana DOT Commissioner

The CUSEC Transportation Task Force Chair, Jerry Thompson, and CUSEC Executive Director recently met with the Indiana Department of Transportation Commissioner, Bryan Nichol, to discuss ways of strengthening the Task Force among and within the CUSEC state DOT's.

State Departments of Transportation are large agencies with many different divisions and in most cases differ from state to state to some degree. The probability that each of these divisions and the various states DOT's are working on some aspect of the earthquake problem is fairly high. The Task Force realized early on that there is little to no coordination taking place within these different areas

with respect to the seismic issue. The Task Force hopes by working with the Commissioner they can address this coordination issue from the top down. By both elevating the Task Force's role within the various divisions and increasing the awareness of their efforts, the Task Force feels this will increase its effectiveness in addressing both regional and state specific issues related to the seismic threat on the transportation infrastructure.

The outcome of the meeting was a letter by Commissioner Nichol to his counterparts in the other CUSEC states outlining the importance of the Task Force and asking them to help support the Task

Force's efforts by outlining its role and function within the state DOT's and in relation to the state emergency management. The Task Force is also looking to work with the Commissioner in

developing closer working relationship

American Association of State Highway and

Transportation Officials (AASHTO).



CUSEC Hires New Mitigation Program Coordinator

Ms. Rae Varian was hired as the new Mitigation Program Coordinator in August of last year. Ms. Varian brings with her a diverse background in emergency management. Ms. Varian came to CUSEC from Yellowstone County, Montana where she was the Project Impact Coordinator. Prior to that, she worked at FEMA under a couple of different capacities and she holds a degree in Emergency Management from the University of North Texas. Ms. Varian has a long list of certifications including Certified Floodplain Manager, Red Cross instructor and is a licensed amateur radio operator.

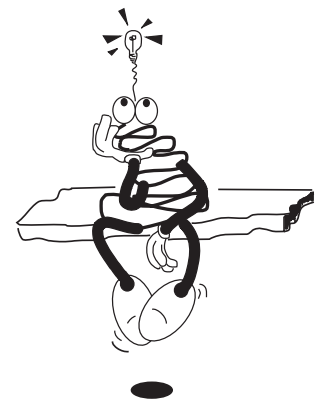
Mrs. Varian is responsible for the development and implementation of the mitigation program working with the various CUSEC partners at the Federal, State, and local levels to address the seismic hazard in the central US.

Ms. Varian replaces Mrs. Jill Johnston, who resigned from her position at CUSEC to pursue other endeavors. During Mrs. Johnston's time at CUSEC she was actively involved with mitigation projects in Arkansas, Indiana, and Tennessee promoting the earthquake program as part of an all hazard approach. Jill was instrumental in expanding CUSEC's role in the Memphis area by her involvement with the Memphis Area Hospital Safety Council, which resulted from a mitigation project with area hospitals.

New Version of HAZUS Earthquake Loss Estimation Software

Hazards U.S. (HAZUS) is a software program that is used to estimate losses from potential earthquakes, developed by the Federal Emergency Management Agency (FEMA) in partnership with the National Institute of Building Sciences (NIBS). This article describes the many

new features and improvements of the latest version of the software, how to order the software, and how to join the Southern California HAZUS User Group. Read more at <http://www.scec.org/resources/020502hazus.html>



DATES TO MARK

The Federal Emergency Management Agency's **Emergency Management Institute (EMI)** provides year-round training, both on-site at the National Emergency Training Center (NETC) in Emmitsburg, Maryland and off-site around the country. EMI has courses on virtually all aspects of emergency management. For a catalog of current courses, **contact:** Emergency Management Institute 16825 South Seton Avenue Emmitsburg, MD 21727 (301) 447-1000 or (800) 238-3358; WWW: <http://www.fema.gov/emi/>.

7th National Conference on Earthquake Engineering (7NCEE) - 7/21-25 2002, **Location:** Boston, Massachusetts **Contact:** Andrea Dargush, The Multidisciplinary Center for Earthquake Engineering Research, Red Jacket Quadrangle, State University of New York, Buffalo, NY 14261

Phone 716-645-3391, **Fax** 716-645-3399, **E-mail** dargush@acsu.buffalo.edu or mceer@acsu.buffalo.edu

World Congress on Disaster Reduction - 8/26-30/2002, **Location:** Washington, DC, **Contact:** Walter

Hays, ASCE, 1801 Alexander Bell Drive, Reston, VA 20191. **Phone:** 703-295-6054; **Fax:** 703-295-6141 or Michael Cassaro Email: macass@aye.net or walter_hays@msn.com
Web Site: <http://www.asce.org/conferences/disaster2002>

CUSEC Annual Meeting -Sheraton Downtown, Nashville, Tennessee, March 25-27, 2003. The 2003 conference marks the 20th anniversary for CUSEC. For information, contact CUSEC at 1-800-824-5817. Watch the CUSEC web site for further announcements.

The **Central United States Earthquake Consortium** is a not-for-profit corporation established as a partnership with the Federal government and the seven member states: Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee; and ten associate member states: Alabama, Georgia, Iowa, 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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Illinois Emergency Management Agency

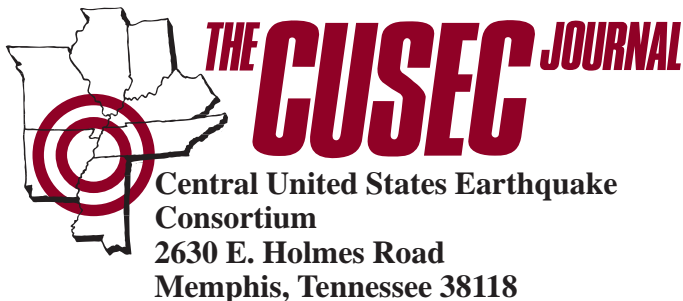
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