



NEWSLETTER

October 2000 Vol. 3 No. 5

MAE Center Plays Active Role in Development of NEHRP Strategic Plan

Mid-America Earthquake Center Director Dan Abrams and Deputy Director Jim Beavers attended an invitation-only workshop in Reno, Nevada, September 6 and 7, to begin finalizing the National Earthquake Hazards Reduction Program's (NEHRP) Strategic Plan to be submitted to the United States Congress for reauthorization of the National Earthquake Hazards Reduction Act in 2001. First authorized in 1977, NEHRP is the Federal government's program to reduce risks to life and property in the United States from earthquakes. The NEHRP agencies are the United States Geological Survey, the National Science Foundation, the National Institute of Standards and Technology, and the Federal Emergency Management Agency. The four agencies work in cooperation with each other and with other entities to improve the Nation's understanding of earthquake hazards and how to reduce their effects.

This Strategic Plan is in response to congressional interest in the Federal government's efforts to reduce earthquake losses and the desire of Congress that NEHRP emphasize coordination of research activities, transfer of results to the user community, implementation of research results, and mitigation of the earthquake risk. This plan also addresses demands for greater productivity, efficiency, and accountability from government, particularly as required under the Government Performance and Results Act. Emphasis on collaboration and accountability is important because NEHRP must achieve its goals through voluntary actions of other Federal agencies, state and local governments, and private entities.

While vision and mission statements provide strategic guidance to the NEHRP agencies, the implementation activities of the plan to reduce earthquake losses are centered on four goals:

- A. Accelerate implementation of earthquake loss-reduction practices and policies.
- B. Improve techniques to reduce seismic vulnerability of facilities and systems.
- C. Improve seismic hazard identification and risk assessment methods and their use.
- D. Improve the understanding of earthquakes and their effects and consequences.

Over sixty people attended the workshop and each attendee was assigned a specific goal group in which to participate. Dan Abrams and Jim Beavers were the group leaders for Goals C and D, respectively. Ed Fratto, Executive Director, Northeast States Emergency Consortium and Chris Poland, President, Degenkolb Engineers and President-Elect, Earthquake Engineering Research Institute were group leaders for Goals A and B.

Each group leader and assigned group participants reviewed the subgoals and objectives for each of the four major goals. The subgoals and objectives in the current plan were based on recommendations made at a September 1999 workshop. Thus each group evaluated the subgoals and objectives based on those recommendations. During the current review, staff members of the NEHRP Agencies responded to questions and took notes about missing recommendations that should have been included in the plan. The groups then ranked the subgoals and objectives of each of the four major goal areas as high, medium or low to give the NEHRP Agencies an idea of the importance of the subgoals and objectives to the stakeholders.

The groups also discussed the development of stakeholder implementation process and identification of performance measures for the Strategic Plan. This discussion resulted in a number of important recommendations to the NEHRP Agencies.

In the next few weeks, the NEHRP Agencies will take this latest set of recommendations and incorporate them into the Strategic Plan. The Plan will then be sent back to the group leaders and workshop participants for final review and comment. Once the Strategic Plan has been finalized, it will be put on the NEHRP web site for all to review. Since the Strategic Plan is a living document, comments received at that time will be included in the next update.

This Strategic Plan will guide NEHRP research and development through the next five years. The MAE Center is pleased to have taken such an active role in its formation, discussion and development.

FROM THE DIRECTOR

Visibility from the Plains

Though the identity of the MAE Center from the start has stemmed from its regional focus toward earthquake loss reduction in the eastern and central United States, the visibility of the Center with respect to national earthquake



engineering programs continues to increase from coast to coast.

Within the past month the Center had a meaningful participation in the NEHRP Strategic Planning Workshop in Reno, and an announcement was made that the National Center for Supercomputing Applications at

the University of Illinois was awarded a scoping study as the first phase of the NEES system integrator project. Both of these events help to illustrate that people from Mid-America continue to play significant roles in national earthquake programs.

At the NEHRP Strategic Planning Workshop, hosted by FEMA, a draft plan was reviewed that was compiled from input acquired at a workshop held at the Willard Hotel in Washington DC a year ago. This NEHRP planning effort, done under the direction of Craig Wingo at FEMA, is essential for organizing activities of the four NEHRP agencies: NSF, USGS, NIST and FEMA. The new plan encompasses research and development anticipated over the next five years and beyond through all four agencies for a total appropriation of about \$100 million per year. While the emphasis and organization of each agency is different, the NEHRP plan attempts to draw their various activities into a cohesive and comprehensive plan that will make a compelling argument to Congress each time the NEHRP bill comes up for reauthorization.

Whereas the MAE Center's budget from NSF represents but 2% of the overall NEHRP program, the Center played an important role in development of the draft plan. At this recent workshop, both Deputy Director Jim Beavers and myself served as chairmen of breakout groups representing two of the four goals of the program. We take the effort to support NEHRP seriously because we feel that it is imperative to advance what the outcomes of the program shall be in the coming years. Moreover, we feel that working with this national planning activity will strengthen our own strategic planning activities. Knowing the issues, thrusts, and feelings of the general community with respect to the national earthquake agenda will help us prepare and plan our Center research thrust areas, particularly as we enter into our renewal proposal for the next five years. Our renewal plan will follow a strategic plan based on very specific vision, mission and goal statements according to what we feel is important for

earthquake loss reduction in Mid-America. We will also make sure that our plan will dovetail with the NEHRP plan so that our contributions will be self-evident in future reauthorization evaluations of the National Earthquake Hazards Reduction Program.

The second activity of the month attracting attention to Urbana was the awarding of a \$300,000 project from NSF to the University of Illinois at Urbana-Champaign to conduct an initial scoping study for the National Network of Earthquake Engineering Simulation (NEES) program. Goals of the study entitled NEESgrid: A Distributed Virtual Laboratory for Advanced Earthquake Experimentation and Simulation are to initiate community building activities with the nation's earthquake researchers and assess their needs with regard to the national testing and simulation network, to develop a detailed architectural concept for the systems integration, and illustrate the feasibility of the concept through demonstration projects. The scoping study is being lead by Tom Prudhomme of the National Center for Supercomputing Applications at Illinois with help from colleagues in computer science at the USC Information Science Institute, the Argonne National Laboratory, and the Collaboratory for Research on Electronic Work at Michigan. Engineering researchers at USC and Illinois are participating as well.

Interactions with the entire community are essential to ensure that the right features are integrated within the NEESgrid system. Rather than simply rely on input from investigators at Illinois or within the MAE Center, earthquake researchers from near and far will be solicited for their input on system requirements of the new network. An Executive Advisory Council, consisting of experts in experimental research and information technology external to the UIUC effort, has been formed to provide direction on how to execute this scoping study. In addition, a larger Technical Advisory Board is being established to represent the technical interests of the community as a whole. A workshop bringing together the experimental research community and potential users of the NEES collaboratory is being planned for November 16-17 at the USC Information Science Institute in Marina del Rey. The purpose of this non-exclusive workshop will be to receive input from the community on what the requirements shall be for interfacing our nation's experimental facilities with state-of-the-art information technology. I hope that many members of the community can participate in this workshop either live or across the web.

Just as with the recent NEHRP Strategic Planning exercise, I am truly excited that people from Mid-America will play a significant role in development of our next-generation experimental capabilities. This is a very special time to be active in earthquake engineering research, particularly on the plains of Mid-America.

D.P. Abrams

Project Impact Partnership Signed



Michael J. Armstrong, Associate Director, FEMA Mitigation Directorate

The MAE center was among ten private and public partners from the City of Urbana and the State of Illinois on Friday, August 4, to sign a memorandum of agreement with the Federal Emergency Management Agency (FEMA) that strengthens their commitment to being a Project Impact disaster resistant area of the state.

The nationwide initiative called Project Impact: Building A Disaster Resistant Community was created by FEMA to help communities take the necessary steps to prevent damage to life and property and to prepare before a natural disaster strikes. The formation of active partnerships among Urbana's businesses, community leaders, and the state and local government is at the heart of Project Impact and its goal of making the entire community disaster resistant.

Michael Armstrong, FEMA's Associate Director of Mitigation, spoke at the signing ceremony. He stated that too often the nation must rebuild after a disaster due to bad planning and nonimplementation of research and science tools already available. Project Impact bases its approach on three principles: Preventive actions must be decided at the local level; private sector participation is vital; and long-term efforts and investments in prevention measures are essential. The partners of Project Impact will prioritize mitigation efforts, and adopt measures that further protect citizens and businesses from the economic and emotional effects of disasters.

Some of the projects the partners are considering, or have completed, include:

- Demonstration of non-structural earthquake damage prevention techniques
- Distribution of a locally developed wind resistant construction video
- Construction of a tornado "Safe Room"
- Underground electrical service upgrade program
- Presentation of the American Red Cross's "Masters of Disaster" curriculum in a local elementary school

The MAE Center has an important role in the development and implementation of Project Impact in Urbana since the center is a national leader in scientific research for earthquake and natural disaster mitigation. Urbana was invited in December of 1998 to be the second Illinois community partner, and is now one of 200 communities ~~throughout the country to join~~ the national initiative. Not only was Urbana chosen because of its risk for earthquakes, floods, tornadoes, and ice storms, but also because of its strong public/private sector relationships.



MAE Center Deputy Director Jim Beavers, Michael J. Armstrong, FEMA, and MAE Center Director Dan Abrams

Project Impact Private and Public Partners include:

- American Red Cross – Illini Prairie Chapter
- Carle Foundation Hospital
- Champaign County Regional Planning Commission
- Federal Emergency Management Agency
- Housing Authority of Champaign County
- Illinois Emergency Management Agency
- Lowe's Home Improvement Center
- Simpson Strong-Tie, Inc.
- Supervalu
- University of Illinois Department of Urban and Regional Planning
- Urbana Park District
- Urbana School District 116
- BOCA, International
- Busey Bank
- Champaign County ESDA
- Champaign – Urbana Mass Transit District
- Edge-Scott Fire Department
- Flex-N-Gate Corporation
- Illinois-American Water Company
- Institute for Business and Home Safety
- Mid-America Earthquake Center
- State Farm Insurance Companies
- University of Illinois
- University of Illinois – Willard Airport
- Urban League of Champaign County
- U.S. Army Corps of Engineers, Research and Development Center – Construction Research and Engineering Laboratory

UIUC Is Awarded NEES System Integrator Scoping Study

The National Science Foundation awarded \$300,000 to the University of Illinois at Urbana-Champaign (UIUC) to conduct a scoping study to define detailed user requirements, hardware and software technologies, and needed support infrastructure for the new Network for Earthquake Engineering Simulation (NEES). The NEES collaboratory is part of the NSF NEES Major Research Equipment project, which will be developed during 2000-2004 and operated from 2004-2014. The collaboratory will connect, through a high performance network, distributed major earthquake engineering research equipment such as shake tables, centrifuges, tsunami/wave tanks, large-scale laboratory experimentation systems, and field experimentation and monitoring installations. The collaboratory will also provide a curated repository for experimental data, enable teleobservation and teleoperation participation in earthquake engineering experiments, and provide capabilities for computation and distributed simulation.

The National Center for Supercomputing Applications (NCSA) at UIUC is leading the six-month scoping study project that commenced on August 15. The scoping study will identify the needs of the earthquake engineering research community as well as the advanced networking, data management, and computation technology that will be available in 2004 and beyond for the NEES collaboratory. Based on this information, the scoping study will develop a system architecture, a detailed system design, and an implementation plan for the NEES collaboratory. Under the leadership of Tom Prudhomme at NCSA, this truly cross-disciplinary project will include contributions from computer scientists and engineers at the University of Southern California's Information Sciences Institute (ISI), Argonne National Laboratory, the Collaboratory for Research on Electronic Work (CREW) at the University of Michigan, and the civil engineering departments at UIUC and USC. The MAE Center will serve in a supporting liaison role, as needed, to help establish interactions with the earthquake engineering research community.

New MAE Center CD Released

MAE Center CD Release 00-04, *Seismic Design and Evaluation of Multistory Buildings Using Yield Point Spectra* by Edgar F. Black and Mark Aschheim, is now available.

If you are interested in acquiring this title, or those previously released, please contact Sue Dotson at 217-244-1795, sdotson@uiuc.edu or Birgit Fry at 217-244-6302, bfry@uiuc.edu.

New Video Available

The Earthquake Engineering Research Institute (EERI) and the International Conference of Building Officials (ICBO) have developed a new video, *Resisting the Forces of Earthquakes*. This video focuses on protecting wood-framed buildings from earthquakes and the vital role played by framers and inspectors. Load paths and methods of quality construction to prevent earthquake damage are featured.

The videos are available for \$24.95 plus shipping and handling. For additional information, contact Eloise Gilland, Publications Manager, EERI, at 510-451-0905.

Small Earthquake Strikes Ohio



A M 2.8 earthquake struck the small Ohio community of Alliance on August 6. Located 50 miles southeast of Cleveland, Alliance had last suffered an earthquake in 1885 according to Mike Hansen, senior geologist with the Ohio Seismic Network.

EERI Publishes *Financial Management of Earthquake Risk* White Paper

The Earthquake Engineering Research Institute (EERI) has recently published a white paper entitled *Financial Management of Earthquake Risk*. The ten-chapter white paper was written to further understanding of the use of risk analysis and risk management tools in the financial sector. Over the past several years, the financial and insurance industries have increasingly used such tools to assess and manage financial risk due to earthquakes. This paper seeks to further understanding of how the financial and earthquake communities are interrelated. Topics include Understanding Risk Management, Public Policy, The Residential Sector, The Small Business Sector, The Corporate Sector, Lifelines, The Government Sector, The Insurance Sector, The Mortgage Sector, and The Capital Markets. Copies of the paper are \$7 plus shipping. For further information, contact Eloise Gilland, EERI, 510-451-0905.

Aschheim and Hashash Receive NSF 2000 CAREER Awards

Mark Aschheim and Youssef Hashash, University of Illinois, are recipients of 2000 CAREER Awards from NSF. NSF's most prestigious honor for junior faculty members, CAREER Awards recognize exceptionally promising college and university junior faculty who are committed to the integration of research and education. Aschheim's award is for "Advancing the Performance-Based Seismic Design of Multi-Story Buildings Using Yield Point Spectra Representations of Demand." Hashash's award is for "Visualization of Constitutive Models in Geomechanics: A New Generalized Development and Learning Environment." Both received four-year awards.

Youssef Hashash Serves as U.S. Delegate to IYGEC 2000 Conference

Youssef Hashash, University of Illinois, was one of five U.S. delegates to the International Young Geotechnical Engineers Conference (IYGEC) 2000, University of Southampton, England, September 8-13. Delegates from more than fifty countries attended the conference, which is designed to bring together young geotechnical engineers from around the world to share information and research results. Dr. Hashash presented his MAE Center research on site response in the Mississippi Embayment to the conference.

Undergraduate Research Assistant Funding

The MAE Center announces a new program that provides supplemental funding opportunities for undergraduate research assistants. The purpose of the Undergraduate Research Assistants (URA) funding supplements is to supply research opportunities in earthquake engineering and related fields for undergraduates, at their home institutions, during the academic year. Seven supplements of \$2500 will be awarded for the calendar year starting January 1, 2001. Matching support [1:1] will be required by the home institution for the undergraduate student. MAE Center Principal Investigators may submit an application by October 15, 2000. Application forms can be obtained from the MAE Center website <http://mae.ce.uiuc.edu>. For questions contact Sandra Menke at smenke@uiuc.edu or 217-244-8297.

To update mailing address information, please contact Birgit Fry at 217-244-6302, or by e-mail at: bfry@uiuc.edu.

MAE Center Annual Meeting and RA Symposium Scheduled

The Mid-America Earthquake Center's Annual Meeting and RA Symposium will be held November 17-20, 2000, Omni Royal Orleans Hotel, New Orleans. The meeting will begin Friday night, November 17, with an Early Bird Reception at 6:00 p.m. The RA Symposium is Saturday, November 18, 8:00 a.m.-5:00 p.m and features student presentations and poster sessions. The Annual Meeting begins Sunday, November 19, 8:30 a.m.-6:00 p.m. and resumes Monday, November 20, 8:00 a.m., adjourning at noon. A complete agenda is on the MAE Center website at <http://mae.ce.uiuc.edu>.

Please make your hotel reservations under the Mid-America Earthquake Center's block of rooms at the Omni Royal Orleans Hotel, 504-529-5333. Accommodations for all RAs are being coordinated through the MAE Center. All RAs must register using the form posted on our website. Call Sandy Menke, Education Program Assistant, at 217-244-8297 with any questions.

MOU Signed with EDM of Japan

On May 20, 2000, Dan Abrams, Director, Mid-America Earthquake Center and Hiroyuki Kameda, Director, Earthquake Disaster Mitigation Research Center (EDM), The Institute of Physical and Chemical Research (RIKEN), Japan, signed a five-year Memorandum of Understanding. In order to enhance research and training in the areas of disaster mitigation and science and technology, the MAE Center and EDM have agreed: to exchange researchers; to conduct joint research in areas of mutual interest; to organize academic meetings, symposia and workshops; to exchange information and academic materials.

Founded in 1998 in response to the Kobe Earthquake, EDM carries out multi-disciplinary research that embraces engineering and physical and social sciences. Its research focuses on earthquake disaster mitigation for urban regions. More information on EDM may be found on its website: <http://www.miki.riken.go.jp>.

The MAE Center is pleased to have this opportunity to participate with EDM in this endeavor which can benefit research on both sides of the Pacific.

MAE Center Personnel Changes

Ms. Birgit Fry joined the MAE Center in August as Staff Assistant, replacing Judy Watson who retired in June. A native of Germany, Birgit worked as an interpreter for German and U.S. military authorities before moving to the U.S. in 1997. Before joining the MAE Center, she was employed by an engineering firm in Champaign. Birgit has assumed responsibility for management and operation of day-to-day Center activities and will act as liaison with Center faculty, staff and students. She may be reached at 217-244-6302 or by e-mail at bfry@uiuc.edu.

Vicki Jarboe, Outreach Program Assistant, may now be reached at her new telephone number: 217-244-0857.

Outreach and Education

Research Experience for Undergraduates Symposium 2000

The *Earthquake Engineering Symposium for Young Researchers* was the final activity for the ten-week summer Research Experience for Undergraduates 2000 (REU) program that provided valuable educational experiences for undergraduate students through participation in an ongoing center research project. The symposium was held in Memphis, Tenn., on August 17-19, 2000 and supplied a forum for the REU students to introduce the results of their research. Three students from MCEER and two from Washington University joined seven students each from the MAE Center and PEER. The symposium was co-directed by the three National Science Foundation sponsored Earthquake Engineering Research Centers: the Mid-America Earthquake Center (MAEC), the Multidisciplinary Center for Earthquake Engineering Research (MCEER) and the Pacific Earthquake Engineering Research Center (PEER).

PEER education program coordinator Dr. Gerard Pardoen gave the welcome and overview. Student presentations were excellent and exhibited professional well-designed visuals and in-depth research project analysis and summaries. The audience was enthusiastically involved with inquiries and comments. Brian Crowell, UC Irvine graduate, talked about *Life After the REU Summer* and how participation in the 1999 program influenced his future career decisions. Dr. Ed Harris presented the ethics component of the REU experience with concurrent breakout sessions to discuss ethical dilemma problems. The first day concluded with a reception and a "Beale Street" dinner. Gary Patterson from the Center for Earthquake Research and Information (CERI) at the University of Memphis was the after-dinner speaker. Patterson spoke on *Seismic Risk in Mid-America* and *Lessons Learned from the Earthquake in Taiwan*.

A field excursion to the CERI facilities furnished the group with a stimulating learning environment on the second day. Mr. Patterson gave an overview and tour. An examination of the CERI site history, seismograph networks, partnerships with the U.S. Geological Survey (USGS), and the New Madrid seismic zone highlighted the discussions. Dr. Shahram Pezeshk, University of Memphis, spoke on the seismic instrumentation of the I-40 Bridge in Memphis. Dr. Jim Dorman, Emeritus Faculty, retired CERI Associate Director, discussed various aspects of CERI and spoke on the instrumentation and design of the Auto-Zone Building in Memphis. On the final day of the symposium students were treated to a tour of the base-isolated Auto-Zone headquarters building. This is the only earthquake "proof" building east of the Rockies.

The day concluded with a Mud Island tour of the historical museum and scale-model of the Mississippi River.

From this REU summer experience students returned to their home institutions to complete their undergraduate programs. The REU program continues to impact the summer 2000 REU students with several being asked to give their symposium presentations to their advisors, other interested departmental faculty, and graduate students at their home institutions.



REU Symposium 2000 participants on the steps of the Peabody Hotel, Memphis, August 18, 2000

MAE Center Sponsors Geotechnical Earthquake Engineering in Mid-America Seminar

A *Geotechnical Earthquake Engineering in Mid-America* seminar is being presented by the MAE Center on December 7-8, 2000, at the Holiday Inn in Collinsville, Ill. The program covers topics that are of interest in the developing field of soil structure interaction with a focus on the central and eastern United States. Based significantly on the direction and products of MAE Center research, this is a timely introduction to geotechnical problems with case study presentations. A MAE Center team of leading researchers and end-users has been assembled to present the course. Co-sponsors include Illinois Department of Transportation, St. Louis Section ASCE Geotechnical Committee, Central Illinois Section ASCE, Earthquake Engineering Research Institute (EERI) New Madrid Chapter, and Structural Engineers Association of Illinois. Register online at: <http://www.engr.uiuc.edu/ocee/noncredprog.registration.html>. For questions contact Sandra Menke at smenke@uiuc.edu or 217-244-8297.

MEETINGS & ANNOUNCEMENTS

2000

November 7-9: Fifth International Conference on Corporate Earthquake Programs, San Jose, Cal. Contact: Dr. Steven Vukazich, 408-924-3858 (voice), e-mail: vukazich@email.sjsu.edu.

November 12-15: Sixth International Conference on Seismic Zonation, Palm Springs, Cal. Contact: EERI, 510-451-0905 (voice), e-mail: eeri@eeri.org.

December 4-5: Earthquake Disaster Preparedness Conference, Kampala, Uganda. Contact: Ezra M. Twesigomwe, 041-531498 (voice); 041-531061 (fax); e-mail: physics@starcom.co.ug.

December 13-15: ASD 2000, Hong Kong. Contact: ceylxu@polyu.edu.hk.

2001

January 7-12: Conference on Computer Methods and Advances in Geomechanics, Tucson, Ariz. Contact: intermix.engr.arizona.edu/~epd/#IACMAG.

February 7-10: EERI Annual Meeting, Monterey, Cal. Contact: EERI, www.eeri.org.

February 26-March 2: The 6th World Congress of the Council on Tall Buildings and Urban Habitat, Melbourne, Australia. Contact: www.icms.com.au/tbuh.

March 19-22: International Symposium on Deformation Measurements, Anaheim, Cal. Contact: www.pasadena.wr.usgs.gov/scign/fig/.

March 21-23: Safety, Risk, and Reliability - Trends in Engineering, Malta. Contact: malta.2001@iabse.ethz.ch; www.iabse.ethz.ch/conferences/malta.

March 27-31: 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, Cal. Contact: Shamsher Prakash, prakash@umr.edu.

March 28: Special Session on "Geotechnical Aspects of Taiwan, Turkey, Greece, Mexico, India and Other Recent Earthquakes," during the 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, Cal. Contact: Shamsher Prakash, prakash@umr.edu.

March 31-April 1: ASTM Symposium on Performance of Exterior Walls, Phoenix, Ariz. Contact: Dorothy A. Fitzpatrick, 610-832-9677 (voice).

May 21-23: ASCE Structures Congress 2001, Washington, D.C. Contact: www.asce.org/conferences/structures-2001.

June 4-6: 9th Canadian Masonry Symposium, Fredericton, New Brunswick. Contact: Dr. John L. Dawe, 506-459-8889 or e-mail: dawe@unb.ca.

June 4-6: Society for Experimental Mechanics (SEM) 2001 Annual Conference on Experimental and Applied Mechanics, Portland, Ord. Contact: www.sem.org.

June 18-20: Third International Conference on Concrete under Severe Conditions, Vancouver, British Columbia. Contact: Prof. N. Banthia, 604-822-9541 or e-mail: banthia@civil.ubc.ca.

July 4-6: 3-Day International Conference on Structural Faults & Repair--2001, London. Contact: Prof. M. C. Forde, m.c.forde@ed.ac.uk.

July 12-13: 6th Australasian Masonry Conference, Adelaide, South Australia. Contact: Dr. Mike Griffin, 61-8-8303-5451; e-mail: mcgrif@civeng.adelaide.edu.au.

July 29-August 3: International Conference on High Performance Materials in Bridges, Kona, Hawaii. Contact: www.engfnd.org.

October 3-5: The First Albert Caquot International Conference on Modeling and Simulation in Civil Engineering: From Practice to Theory," Paris. Contact: Francoise Bourgain, bourgain@mail.enpc.fr; www.enpc.fr/caquot/.

2002

July 21-25: 7th National Conference on Earthquake Engineering, Boston. Contact: www.eeri.org.

July 29-August 3: United Engineering Foundation International Conference on High Performance Materials in Bridges, Kona, Hawaii. Contact: Dr. Atorod Azizinamini, 410-472-5106; UEF website: http://www.engfnd.org.

September 9-13: Twelfth European Conference on Earthquake Engineering, Barbican Center, London, UK. Contact: Rachel Coninx, 12ECEE Secretariat, Institution of Civil Engineers, London SW1P 3AA, UK; e-mail: 12ECEE@ice.org.uk.

Become a partner with the MAE Center and make an impact on results of investigations directed at evaluating seismic

hazards and developing retrofit strategies for the built environment in Mid-America. As a partner of the MAE Center through this preferred access program, you will have a

voice in how research programs are planned and executed, and how their results are implemented to practice. Business, industry and government partners are invited to become an integral part of the Center's activities by interfacing directly with coordinated research programs as well as with individual research, outreach and education projects.

Members are the first to be informed of the most recent earthquake information, and have access to the latest research results via published reports, technical papers, software and data. To become a member, obtain an application form from the MAE Center website or by calling 217-244-6302.

access²



Mid-America Earthquake Center

1241 Newmark Lab MC-250
205 N. Mathews
Urbana, IL 61801
Ph. 217-244-6302
Fax 217-333-3821

NON PROFIT ORG
U.S. POSTAGE
PAID
Permit No. 75
Champaign, IL 61820

Address Service Requested

MAE Center Personnel

Daniel P. Abrams, Director
James E. Beavers, Deputy Director
Sue E. Dotson, Administrative Manager
Sandra Menke, Education Program Assistant
Vicki Jarboe, Outreach Program Assistant
John M. Nichols, Postdoctoral Research Associate
Birgit Fry, Staff Assistant

Executive Advisory Board

Carl Stepp, Chair, Earthquake Hazards Solutions
David Boore, United States Geological Survey
Gene Corley, Construction Technology Laboratories
William Marcuson, U.S. Army Engineers
Dennis Mileti, Natural Hazards Research Center
Harvey Ryland, Institute for Business & Home Safety
Jim Harris, J.R. Harris & Co.
Maury Power, Geomatrix Consultants, Inc.
Jim Cooper, Federal Highway Administration
Susan Tubbesing, Earthquake Engineering Research Institute

***For further detail on news items
see the MAE Center web site at <http://mae.ce.uiuc.edu>.***