News of the Institute

2009 Annual Meeting: Ski Utah!

The organizing committee is well underway in creating an exciting program for the 2009 EERI Annual Meeting, to be held jointly with the Western States Seismic Policy Council (WSSPC) and taking place February 11-14 at the Hilton Salt Lake City Center, Utah. The timing is perfect for combining edification with pleasure, as the meeting overlaps with the three-day Presidents Day weekend. We invite you to take advantage of the best of the Utah ski season following the meeting! Located in the heart of the vibrant downtown, the hotel is within a 30- to 45-minute drive from eight world-class ski resorts — having what is known as “the greatest snow on earth.” The Utah Transit Authority Ski Day Pass costs $6.50 for a round-trip on ski buses, which stop across the street from the hotel. Save the dates and watch for more information on EERI’s website, in future newsletters, and in the program brochure later this year!

2009 EERI Board Nominees Announced

The 2009 EERI Nominating Committee has submitted a slate of candidates for the two director positions that will become open when Jonathan Bray and Laurie Johnson complete their terms next January. The nominees are:

For Director A:
- William A. Anderson, Associate Executive Director, Division on Earth & Life Sciences, National Academies, National Research Council, Washington, D.C.
- Robert B. Olshansky, Professor, Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign

For Director B:
- Craig A. Davis, Waterworks Engineer, Los Angeles Department of Water and Power
- Reginald DesRoches, Professor and Associate Chair, Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta.
Learning from Earthquakes
M5.4 Chino Hills, California, Earthquake

Caltrans geologist Martha Merriam contributed this report.

Late in the morning on July 29, 2008, a M5.4 earthquake shook southern California. The earthquake was the strongest to hit the Los Angeles area since the 1994 Northridge earthquake. It occurred at a depth of 9 miles and the aftershock sequence was 75% less energetic than the average California aftershock sequence for a M5.4 mainshock, possibly because of its depth.

Strong shaking was reported to the north in the Chino basin and to the west in the Los Angeles basin. Buildings swayed in downtown Los Angeles 28 miles from the epicenter, area amusement parks were evacuated and temporarily shut down, but damage was minor. California State University, Fullerton, located about 10 miles west, suffered some damage in its older buildings. A minor landslide near Route 91 in the Anaheim Hills, 7 miles to the south, caused some traffic congestion, but no injuries or structural damage were reported. The volume of telephone use after the shock disrupted service into the afternoon, and some power outages occurred.

The earthquake gave organizers of the Great Southern California Shakeout (http://www.shakeout.org/), planned for later this year, an opportunity to promote the event and stress the need for preparedness in this active seismic area. The magnitude 5.4 earthquake is about 5,000 times smaller than the magnitude 7.8 earthquake, considered realistic for the region, that will be depicted in the Shakeout.

Ground shaking predicted by the latest ground motion prediction equations developed for use in the 2008 USGS seismic hazard maps fits well with most observed recordings of this event. The greatest acceleration observed (horizontal pga) was about 0.44 g recorded near Walnut, about 11 km northwest of Chino Hills.

continued on next page
Chino Hills Earthquake

continued from page 2

the epicenter. Peak velocity measured at the Walnut station was 38 cm/sec and the duration was a few seconds. Recordings in the greater Los Angeles area were commonly in the 10% g to 20% g acceleration range, and peak velocities in that area were mostly in the range 5 to 15 cm/sec.

According to Sue Hough of the USGS, the earthquake occurred in a complicated tectonic region, namely, the wedge sandwiched between the Whittier and Chino Hills faults that has many small faults with different orientations. The current theory (offered by Caltech seismologist Egill Hauksson) is that the wedge conceals a structure known as the Yorba Linda trend with no surface expression but with a linear trend of seismicity. The moment tensor showed a mixture of thrust and left-lateral strike-slip faulting on a plane striking 43° east of north, with a southerly dip of 58°. The preliminary locations of aftershocks suggest that this is the fault plane.

Updates to this information may be found at: http://www.cisn.org/.

Board Nominees

continued from page 1

Additional nominations may be made by the membership in accordance with Article VII of the EERI Bylaws (Sections 4 and 5), upon submission of a petition with signatures of 25 members. Petitions must be received prior to November 1. Biographies of the candidates and short vision statements will be published in a future issue of the Newsletter and posted on the EERI website, www.eeri.org.

EERI wishes to thank the Nominating Committee: Donald Ballantyne (chair), Scott Ashford, Craig Comartin, Rich Eisner, and Patricia Grossi.

Subscribing Member News

Risk Engineering Merges with WLA

Risk Engineering, Inc. (REI), an EERI Subscribing Member since 1995, has been acquired by William Lettis & Associates (WLA), a leading consulting company specializing in geological and geotechnical investigations for engineering facilities, with offices nationwide. WLA is an operating company of Fugro, with offices worldwide. REI will merge with WLA's geohazard division. REI's expertise in seismic hazard and risk analysis as well as its expertise in hazards and risks from hurricanes, wind and wave loads, and storm surge, will complement WLA's expertise in site investigations and geotechnical characterization of sites.

REI's software programs EZ-FRISK™ and ST-RISK™, with applications and databases for characterization of hazard and risk for facilities worldwide, will continue to be licensed and supported. REI will continue to support clients from its Boulder, Colorado, and Acton, Massachusetts, offices, and its personnel and contacts will not change. Robin McGuire, REI founder, will become vice president and executive manager of WLA. Gabriel R. Toro will become a senior principal engineer with WLA.

Miyamoto: A New Subscribing Member

EERI is pleased to announce that the firm Miyamoto International recently became a Bronze Subscribing Member. Miyamoto provides structural, earthquake and risk engineering services. The firm's earthquake risk reduction program utilizes performance-based design concepts and applies them to existing facilities. This program has been expanded over the years to incorporate other natural hazards. The award-winning staff has engineered over 8,000 buildings and consults to clients worldwide on state-of-the-art designs, consistently delivering cost-effective innovation. With California offices in West Sacramento, Los Angeles, Orange County, San Diego, and the San Francisco Bay Area, in addition to offices in Portland-Vancouver and Tokyo, Miyamoto is one of the largest and fastest growing structural engineering firms in California. The firm's roots go back to Arthur Sauer & Associates in California's central valley in the 1940s, when they specialized in school and hospital projects. The firm eventually evolved into Marr Shaffer & Miyamoto, Inc. In 1997, Kit Miyamoto became president and sole owner of the firm. Kit was named one of the "Top 40 Executives under 40" in 1999 by the Sacramento Business Journal for his enthusiasm to develop the firm into an industry powerhouse.

WPM Awarded LEED® Silver

EERI Subscribing Member WALTER P MOORE’s new corporate office in downtown Houston has been awarded CI (Corporate Interiors) LEED® Silver by the U.S. Green Building Council (USGBC). LEED (leadership in energy and environmental design) is the USGBC’s leading rating system for designing and constructing the world’s greenest, most energy efficient, and high-performing buildings. The LEED certification was achieved through energy use, lighting, water and material use as well as incorporating a variety of other sustainable strategies. LEED considers environmental performance, occupant health, and financial return. For more information, visit www.walterpmoore.com.
News of the Institute

EERI Student Chapter Activities

Oregon State University

Members of the EERI Student Chapter at Oregon State University (OSU) gave a geotechnical and structural earthquake engineering presentation at OSU’s winter precollege program for gifted and talented youth. The demonstration showed the basic causes of earthquakes, discussed roles of geotechnical and structural earthquake engineers, and demonstrated a liquefaction simulation model, response spectra showing natural frequencies of single-degree-of-freedom systems, and a portable structural frame on a shake table. OSU students competed this year in the 5th Annual Undergraduate Seismic Design Competition at the EERI Annual Meeting in New Orleans (see page 5 in the March Newsletter). The OSU balsa wood structure placed 7th overall, out of 7 teams. Chris Thompson of Catena Consulting Engineers was a joint EERI/ASCE speaker and discussed the basics of buckling restrained braced frames as well as what students may expect entering today’s engineering firms, typical career paths, and employers’ expectations. The chapter, in conjunction with the ASCE student chapter, continued the tradition started in 2005 of hosting the “Order of the Engineer” induction ceremony just before commencement. The chapter website is http://groups.engr.oregonstate.edu/eeri/index.php.

University of Kansas

The University of Kansas (UK) EERI Student Chapter hosted speakers who introduced undergraduate and graduate students to real world issues and research. Adolfo Mataromos, associate professor at UK, gave a presentation on his visit to Peru following the August 5, 2007, Pisco earthquake, showing numerous photographs of the damage and explaining what had occurred structurally and how certain problems could have been avoided. Steve McCabe, program director of the Network for Earthquake Engineering Simulation, spoke about NEES and its role in earthquake engineering research. He gave students an overview of the NEES-sponsored laboratories throughout the country and described what types of research is being done at each.

University of Michigan

The EERI Student Chapter at the University of Michigan spearheaded the creation of the Civil and Environmental Engineering Research Symposium (CEERS), which provided undergraduate and graduate students from across all groups in the department an opportunity to present their research, to network, and to learn about other research projects. The chapter recruited three other student groups to increase the breadth and appeal of the symposium and worked with department, college, and university organizations to secure funding. The chapter is working to make CEERS an annual event.

A student chapter representative participated in the 2008 EERI Annual Meeting in New Orleans.

The chapter also organized the following series of nine speakers, most of whom are EERI members:

- Keh-Chyuan Tsai of the National Center for Research on Earthquake Engineering in Taiwan on Taiwan-Japan collaborative retrofit tests on RC columns
- Chin-Hsiung Loh of the National University of Taiwan on inelastic response analysis of RC structures
- Huafei Zhou of Hong Kong Polytechnic University on vibration-based structural damage
- Abolhassan Astaneh-Asl of the University of California at Berkeley on the World Trade Center towers and the impact of planes on structural systems
- Kenneth Stokoe of the University of Texas at Austin on evaluating the nonlinear stiffness and liquefaction resistance of soil
- Jinsong Pei of the University of Oklahoma on techniques for modeling nonlinear dynamic systems
- Annie Kammerer of the U.S. Nuclear Regulatory Commission on integrated interdisciplinary approaches in earthquake engineering
- Rigoberto Burgueno of Michigan State University on concrete structural walls under cyclic loads
- Michael Kreger of Purdue University on response of an RC structure to earthquake loads.

The chapter website is http://www.engin.umich.edu/soc/eeril.
In addition to having John Hooper of Magnusson Klemencic as a Fried- 
man Family Visiting Professional, the University of Minnesota EERI 
student chapter hosted two other 
speakers. Erik Johnson of the Uni-
versity of Southern California dis-
cussed his research on structural 
control and structural health monitor-
ing. Katsumi Kobayashi of Fukui 
University, Japan, presented his 
work on reinforced concrete struc-
tures and seismic retrofitting using 
fiber-reinforced polymers. The chap-
ter also participated in several out-
reach events to schools for age-
appropriate seismic demonstrations 
that were able to show the effect of 
base-isolation design, using a table-
top shake table. In Minnesota, a 
region not accustomed to hearing 
about earthquake hazards, these 
activities are especially useful in in-
creasing awareness.

University of Notre Dame

Continuing its well-established an-
ual tradition, EERI@UND student 
chapter members reached out to 
an area elementary school with the 
Shakes and Quakes program to 
challenge students in the design 
of LEGO “masonry” buildings and 
K’NEX “steel” buildings. The pro-
gram has become a supplement to 
the textbook during an earth science 
unit on earthquakes at Stanley Clark 
School.

EERI@UND made a presentation to 
the Notre Dame Summer Science 
Camp for elementary and middle 
school students about how structural 
engineers design for earthquakes.

University of Notre Dame student member helping stu-
dents with a bridge model during the High School 
Math and Engineering Challenge.

EERI@UND did a similar demon-
stration for a senior geology class 
at the Culver Academies, a private 
high school. The chapter hopes to 
build a multi-level project-based 
course (like Shakes and Quakes) 
that would appeal to an older age 
group. The chapter worked in coop-
eration with the ASCE student chap-
ter in two other programs: the 7th 
Annual High School Math and En-
gineering Challenge and the 17th 
Annual Science Alive Exhibit at the 
St. Joseph County Public Library in 
South Bend, which was attended 
by more than 5,000 children and 
adults. The chapter also hosted 
guest lectures by EERI members 
Jonathan Bray on “Mitigation of 
the Surface Fault Rupture Hazard” 
and Jerome Lynch on “Advance 
Sensor Technologies for Smart 
Structure Applications.” Additional 
presentations were made by Jose 
Roesset of Texas A&M University on 
“Dynamics of Deepwater Offshore 
Platforms” and William Marcuson, 
past national president of ASCE, 
on “The Civil Engineer in the 21st 
Century.”

The chapter’s web site is www.nd. 
edu/~eeriund/. As the chapter’s 
activities gain more publicity in the 
South Bend area, its website has 
been expanded to house program 
information and archive press cov-
verage in local newspapers and on 
television.
Announcements

International EQ Conference in LA

Online registration is now available at http://ieclacity.org/html/registration.html for the Los Angeles International Earthquake Conference (IECLA) being held at the Omni Hotel, November 12-14, 2008, with the theme “Policy, Planning, and Preparedness.” The conference will bring together the world’s leading authorities in seismic safety and disaster preparedness and recovery. Key goals of the conference include developing policy recommendations for future legislation that will improve preparedness, response, and the ability to rebound quickly from major earthquakes. IECLA is part of the Great Southern California ShakeOut, which will feature the largest earthquake drill in U.S. history.

Register by September 1, 2008, and receive a $50 discount on the registration fee, and book an Omni Hotel room for two nights by September 1 and receive a $100 credit towards your accommodations upon departure.

Disasters Roundtable Workshop

The 23rd day-long Disasters Roundtable Workshop (free and open to the public) is scheduled for October 2, 2008, at the Keck Center in Washington, D.C., on the topic of “Making the World Safer from Disasters: the U.S. Role.” This workshop will consider the role of the U.S. in global disaster reduction. The focus will be on existing efforts and new challenges, such as the pattern of spiraling disaster losses, seen in many countries, that relevant U.S. institutions and organizations face in attempting to play a leading role in reducing disaster vulnerability worldwide.

Session topics include opportunities and constraints for participating in disaster risk reduction in developing countries, capacity building for disaster resilience, collaborative natural hazards research, collaborative research on terrorism, seismic monitoring, tsunami warning systems, the Office of Foreign Disaster Assistance, and panels on research collaboration, cooperative monitoring of environmental hazards, and international disaster assistance.

Speakers include EERI member Brian Tucker, Stephen Bender, Carla Prater, Bob Woodward, and David McKinnie. For more information, visit http://dels.nas.edu/dr.

COSMOS Technical Session

The Consortium of Organizations for Strong Motion Observation Systems (COSMOS) will hold its Annual Meeting and Technical Session at the Oakland Airport Hilton, California, on November 21, 2008. The day-long session will focus on “Selection and Scaling of Ground Motion Records for Site Response Analysis and Geotechnical Evaluations.” The session is co-sponsored by the Pacific Earthquake Engineering Research Center and the California Geological Survey.

The technical session will include a presentation on recommendations for the selection and scaling of ground motions to satisfy current building code site-specific response analysis requirements when used to establish site-specific design ground motions. Presentations will also be made on time series selection for geotechnical evaluations of port facilities, the BART tube, earth dams, and levees. The speakers will serve on a panel following their presentations.

For complete program and registration details, visit www.cosmos-eq.org.

NMES Seeks Proposals

The New Madrid Earthquake Scenario (NMES) initiative will produce a report for the February 2012 Bi-centennial of the Great New Madrid Series. The steering committee welcomes additional input and participation. Proposals regarding the scenario earthquake event and mitigation needs should be submitted to Greg Hempen (greg_hempen@urscorp.com) by October 20, 2008. The scenario issues will be developed by volunteers working on specific products, by researchers, and by symposia or conferences. A planning meeting to evaluate the proposals is tentatively scheduled for November 7, 2008, in St. Louis, Missouri. Proposals by prior workshop participants and those received from previous requests will be considered first. For more information, visit http://newmadrid.eeri.org/.

Calls for Papers

AGU Special Session

Papers are invited for a special session at the American Geophysical Union Fall Meeting titled S13: “Investigation and Public Awareness of Earthquake Hazard in Northern California.” The meeting will take place December 15-19, 2008, in San Francisco. Abstracts are due by September 10. The special session aims to (1) highlight important advances in the understanding of earthquake hazards in northern California, (2) foster collaboration and integration of results across disciplinary fields, and (3) take stock of efforts to publicize the hazards posed by the Hayward fault and other faults in the San Francisco Bay Area. Those developing hazard analysis methodologies in other regions are encouraged to participate and cross-fertilize. Papers addressing InSAR, GPS, LiDAR, aeromagnetic, continued on next page
Calls for Papers
continued from page 6

gravity and high-resolution seismic reflection data, and other related topics are welcome. For abstract submission details and more information about the meeting, visit http://www.agu.org/meetings/fm08/index.php/Main/HomePage.

SEM Conference

The Society for Experimental Mechanics (SEM) has issued a call for papers for the 2009 SEM Annual Conference and Exposition on Experimental and Applied Mechanics, scheduled for June 1-3, 2009, in Albuquerque, New Mexico. The submission deadline is October 16, 2008, for abstracts on micro-electro-mechanical systems and nanotechnology and for the following three tracks: dynamic behavior of materials; fracture and damage simulation, prediction and detection; and experimental and applied mechanics. For more information, visit http://sem.org/CONF-AC-TOP.asp.

CALENDAR

Items that have appeared previously are severely abbreviated. The issue containing the first appearance, or the most informative, is indicated at the entry’s end. Items listed for the first time are shown in bold.

2008

SEPTEMBER

16-17. 5th European Workshop on the Seismic Behavior of Irregular and Complex Structures (5EWICS), Catania, Italy. Info: http://www.5ewics.dica.unict.it/ (10/07)


22-24. 9th Workshop on 3-D Modeling of Seis. Wave Generation, Propagation, & Inversion, Trieste, Italy. agenda.ictp.it/smr.php?1965 (12/07)


OCTOBER


12-17. 14th World Conf. on EQ Eng., Beijing, China. Info: www.14wcee.org (12/05, 6/07, 7/07, 9/07, 4/08)


NOVEMBER

7. New Madrid EQ Scenario Planning Meeting, St. Louis, MO. Date tentative. See page 6.


DECEMBER


2009

FEBRUARY


APRIL

8-10. Annual Meeting of the Seismological Society of America, Monterey, CA. Info: http://www.seismosoc.org/meetings/meetings.html (7/08)

JUNE

1-3. SEM Annual Conf. & Expo on Experimental and Applied Mechanics, Albuquerque, NM. See this page. (9/08)


SEPTEMBER

13-17. 10th Int'l Conf. on Structural Safety & Reliability (ICOSSAR2009), Osaka, Japan. Info: www.sc.kutc.kansai-u.ac.jp/icossar2009 (2/08)

2010

MAY

23-29. 5th Int'l Conf. on Recent Advances in Geotech. EQ Eng. & Soil Dynamics & Symposium in Honor of I.M. Idriss, San Diego, CA. Info: prakash@mst.edu (4/08)

JULY

25-29. 9th U.S. Nat'l & 10th Canadian Conf. on EQ Eng.: Reaching Beyond Borders, Westin Harbour Castle Hotel, Toronto, Canada. Info: 2010eqconf.org (2/08, 7/08)
Position Available

USGS Post-Doc Opportunity

The U.S. Geological Survey seeks a post-doctoral candidate to evaluate quantitatively the tsunami hazard to the U.S. Gulf of Mexico and Atlantic coasts, at the behest of the U.S. Nuclear Regulatory Commission following the surge in applications for licenses to build new nuclear reactors along these coasts. The successful candidate will (1) compile and analyze various data to evaluate and date the distribution of landslides in these regions, (2) investigate theories and observations regarding the effects of slide speed and bottom friction on the amplitude of tsunamis, and (3) use in-house software packages to model the effects of potential landslide sources on selected coastal segments. Post-doctoral candidates in the fields of geophysics, geology (with a strong background in computer simulations) or civil engineering are encouraged to apply. The work will be pursued in both Woods Hole, Massachusetts, and Menlo Park, California. This two-year position, to start in October 2009, is part of the USGS Mendenhall post-doctoral fellowship program. Details about the program can be found at geology.usgs.gov/postdoc.

Publication

Predicting Organizational Crisis Readiness

New York University’s Center for Catastrophe Preparedness and Response and the Public Entity Risk Institute have completed a study on the level of crisis readiness among government, business, and nonprofit organizations across the United States. The findings reveal a large number of organizations lack effective preparedness programs to respond to and recover from a crisis, despite estimates that crises to come may be more frequent and complex. The report, Predicting Organizational Crisis Readiness: Perspectives and Practices toward a Pathway to Preparedness, examines characteristics that position organizations and governments to improve their recovery after a crisis, identifying those that serve as significant predictors of crisis readiness, and presenting recommendations for enhancing organizational preparedness. The report includes the results of a survey of opinion leaders from government and the for-profit and nonprofit sectors, comparing crisis characteristics of organizations.

The report is available for download at no charge from www.nyu.edu/ccpr/ and www.riskinstitute.org.

Subscribing Member Posting

Geomatrix Openings

AMEC Geomatrix, Inc., an EERI Subscribing Member, is seeking talented and self-motivated staff and senior level geotechnical engineers with 0 to 10 years of Bay Area experience. Applicants with California PE preferred. Located in Oakland, California, two blocks from BART. For application information, visit www.amecgeomatrixinc.com.

AMEC Geomatrix is an equal opportunity employer. Minorities, females, veterans, and disabled persons are encouraged to apply.