News of the Institute

2011 EERI Board Nominees

The 2011 EERI Nominating Committee has submitted a slate of candidates for the two director positions that will become open when Jack Moehle and Masayoshi Nakashima complete their terms next January. The nominees are:

For Director A:
• Lori Dengler, professor, Department of Geology, Humboldt State University, Arcata, California.
• Ivan Wong, principal seismologist (Seismic Hazards Group) and vice president, URS Corporation, Oakland, California.

For Director B:
• David Friedman, senior principal and chair of the board, Forell/Elsesser Engineers, San Francisco, California.
• John Wallace, professor, Department of Civil Engineering, University of California, Los Angeles.

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: Robin McGuire (chair), Jack Moehle, Arrietta Chakos, Ronald Mayes, and Tara Hutchinson.

EERI-NSF Workshops on Haiti and Chile Earthquake Research Needs

EERI is organizing two workshops to be held in Arlington, Virginia, at the National Science Foundation offices, to identify themes, directions, and data gathering opportunities for research projects resulting from the 2010 Haiti and Chile earthquakes. Workshop reports will help inform NSF’s future solicitations for research relating to these events. Participants will define major lessons and opportunities for research across a range of disciplines, including topics that are multi- and cross-disciplinary in nature. Transformative and cross-cultural research areas will be identified where appropriate. Recommendations from the two workshops will be shared widely with the broader research and practicing earthquake engineering community through EERI’s clearinghouse websites and the EERI Newsletter, as well as the NSF and NEHRP websites.

The Haiti earthquake has research lessons for many disciplines emerging from the response and rebuilding processes. A different set of research needs and lessons are emerging from Chile, which has building codes similar to the U.S. for concrete and steel buildings as well as a geologic setting similar to the Pacific Northwest. In addition, there are similarities and lessons from the transportation, lifelines, and critical facilities sectors, plus similar social and political issues for response and recovery.

The Chile Research Needs Workshop, scheduled for August 19th, will bring together a small representative group of individuals from the U.S. and Chile who were active in reconnaissance, along with selected other experts from the U.S. and Chile, to assess additional data gathering needs and determine

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News of the Institute

YouTube Video: Why Join EERI?

During the 2010 Annual Meeting, EERI staff took advantage of a video camera to interview several members about what they gain from being members of EERI. A range of themes emerged from these interviews, including the benefits of networking, post-earthquake reconnaissance, opportunities to interact with professionals from many disciplines, and the ability to make a difference in seismic risk reduction through EERI activities.

These candid interviews were then condensed into a four-minute video that has been posted at http://www.eeri.org/site/membership and http://www.youtube.com/user/EERIvideos, and is accessible from the EERI homepage.

The video is being used to introduce EERI at seminars and other presentations, such as when visiting professionals speak at university campuses. EERI encourages its use in unlimited ways — please suggest that your non-member colleagues check it out!

EERI thanks all its members who shared their thoughts about EERI on this video: Thalia Anagnos, Jack Baker, David Bonowitz, Veronica Cedillos, Lori Dengler, Heidi Faison, Marshall Lew, Bret Lizundia, Bryce Lloyd, Robin McGuire, Farzad Naeim, Dan Shapiro, and Nick Sherrow-Groves.

New EERI Technical Seminar Series on FEMA 547

FEMA 547 (2006), Techniques for the Seismic Rehabilitation of Existing Buildings, is the subject matter for a new EERI-FEMA technical seminar series planned for late October-early November 2010. FEMA 547 describes common seismic rehabilitation techniques for the standard building types represented in FEMA seismic publications, and supersedes FEMA 172: NEHRP Handbook for Seismic Rehabilitation of Existing Buildings (1992). The primary purpose of the seminar is to provide an overview and examples of seismic rehabilitation techniques in FEMA 547 that are practical and effective. The seminar will also provide guidance on commonly used techniques for mitigating specific seismic deficiencies on a range of model building types.

Seminar presenters are EERI members and the lead authors of FEMA 547: Bill Holmes (Rutherford & Chekene), Bret Lizundia (Rutherford and Chekene), Jim Malley (Degenkolb Engineers) and Kelly Cobeen (Wiss Janney Elstner). Attendees will receive a CD version of FEMA 547 as well as a notebook of presentations made by the authors. The seminar series locations will be the San Francisco Bay Area, the Los Angeles area, the Seattle area, and Salt Lake City. More details on the seminar and registration information will soon be announced on the EERI website and through e-mail to members.

Announcement

Webcast Short Course on Displacement-Based Design

The Structural Engineers Association of British Columbia and the UBC EERI Student Chapter are hosting a 1½-day course “Displacement-Based Seismic Design” with speakers Nigel Priestley of UC San Diego and EERI member Mervyn Kowalsky of North Carolina State University. The course will be held in Vancouver September 17-18, 2010, and will be available by live webcast.

This course will cover the implementation of displacement-based seismic design as a simple and rational alternative to current prescriptive methods. It will show that serious conceptual problems with current force-based seismic design are resolved when the design is based on displacement considerations. The course will follow the textbook Displacement-Based Seismic Design of Structures by Priestley, Calvi, and Kowalsky.

This event is sponsored by the Vancouver firm Glotman Simpson Consulting Engineers and EERI, whose members will receive a discounted registration rate of $375 for either the live webcast or in-person attendance. Additional discounts for early-bird registration by August 16 are available. Registration closes September 6. For more information, visit www.seabc.ca/displacement.
Research Needs Workshops
continued from page 1

the research topics most critical in terms of understanding implications of this event for U.S. academics and practitioners. It is anticipated many of the research projects that ultimately emerge will engage both Chilean and U.S. investigators and students. The workshop steering committee includes Jack Moehle, UC Berkeley (chair and EERI team leader); EERI Executive Director Jay Berger; Jonathan Bray, UC Berkeley (GEER team co-leader); Lori Dengler, Humboldt State (tsunami team leader); Marjorie Greene, EERI LFE Program Manager; Judith Mitriani-Reiser, Johns Hopkins (hospitals team leader); and William Siembieda, Cal Poly (social science team leader).

The Haiti Research Needs Workshop, scheduled for September 30–October 1, will bring together representatives of the 35 Haiti RAPID awards issued by NSF, and several researchers who participated on early reconnaissance trips. They will share their major findings and make specific recommendations on disciplinary and multi-disciplinary themes and research priorities. The steering committee consists of EERI’s team leader in Haiti, Reginald DesRoches, EERI advance team leader Marc Eberhard, RAPID Awardee Mimi Sheller, and Jay Berger. RAPID researchers representing the major disciplines (earth sciences, engineering, environmental sciences, information technology, social sciences) have also been appointed to the steering committee.

Subscribing Member News 2nd MCEER Seminar in Haiti

Before the January 12 Haiti earthquake, Haiti’s engineers and architects had received little, if any, formal training in seismic design and construction principles. This situation is beginning to change as the result of a partnership between the Université Quisqueya (UniQ) and the University at Buffalo’s MCEER, an EERI Subscribing Member. Approximately 200 Haitian engineers and architects will attend the 2nd Earthquake Engineering Seminar at the UniQ campus in Port-au-Prince, September 5-9, 2010; it builds on the first one held in May (see the June 2010 Newsletter, page 5). Developed in consultation with UniQ faculty and based on Haitian construction practices, the September seminar will include two tracks — “Introduction to Earthquake Engineering” and a more advanced program on “Seismic Design Load Calculations and the Seismic Design of Concrete and Masonry Buildings.” The seminar will cover the seismicity of Haiti, earthquake-resistant design principles, and International Building Code standards. The U.S. Geological Survey is sharing their newly developed seismic hazard maps for all of Haiti that are compatible with the IBC seismic provisions. Instructio on concrete building design will follow the American Concrete Institute standards. A Haitian mason will demonstrate how to build a confined masonry structure, an economical approach to construction in which unreinforced masonry walls are confined by reinforced concrete frames. Andre Filiatrault, MCEER director and UB professor of civil, structural and environmental engineering, said that the Haitian participants “realize that engineering practice in Haiti must change, and they are eager to get this change underway as soon as possible.” In addition to Filiatrault, instructors will include UB doctoral candidate in earthquake engineering and Haitian native Pierre Fouché and Wassim Ghannoum, assistant professor at the University of Texas at Austin, also an EERI member. All instruction will be in French, as was the case for the May seminar.

The seminars are the result of a three-year memorandum of understanding between MCEER and UniQ. For more information, visit http://mceer.buffalo.edu/education/UniQ/Second_Seminar/default.asp.

MCEER and UniQ are also in the process of developing a professional master's degree in earthquake engineering that could be enrolling students as early as the 4th quarter of 2011.

Announcement
Save Dates for 15WCEE in Lisbon

The 15th World Conference on Earthquake Engineering will be held in Lisbon, Portugal, September 24-28, 2012, hosted by the Portuguese Association of Earthquake Engineering under the auspices of the International Association for Earthquake Engineering.

Lisbon is linked to earthquake engineering history since the major event of 1755, when the city center was almost completely destroyed. With traces of the Phoenicians, Celts, Romans, Visigoths, and Moors all rumbling below its surface, Lisbon owes much of its current appearance to the 18th and 19th century makeover following the 1755 earthquake.

Lisbon today is a thoroughly modern metropolis, as it demonstrated in holding the title of European City of Culture in 1994 and in staging the successful World Expo in 1998. First-rate transport links have helped firmly cement its position as one of the world’s premier destinations.

Abstracts will be due November 2011. For more information, visit http://www.15wcee.org.
Learning from Earthquakes

Val-des-Bois EQ

Report provided by Martha Merriam of Caltrans and Murat Saatcioglu of the University of Ottawa.

On Wednesday, June 23, 2010, at 1:41 pm local time, a M5.0 thrust-type earthquake occurred 55 km northeast of Ottawa, near the town of Val-des-Bois, Quebec (45.904, -75.497). The earthquake (depth 22 km) lasted 10-15 seconds and was widely felt throughout Ontario and Quebec and as far south in the U.S. as Kentucky. The earthquake was typical of events located in the Western Quebec Seismic Zone. This NW elongated zone is characterized by mostly small events that have not been associated with individual faults. The area experiences earthquakes of this magnitude about every 20 years, with larger events every 100 years.

According to the University of Western Ontario researchers Gail Atkinson and Karen Assatourians, in a paper accepted by Seismological Research Letters, recordings obtained from 120 stations at distances from 60 to 1000 km provide important data for assessing new ground motion predictive equations (GMPEs) for eastern North America. This event produced response spectral amplitudes at distances of less than 200 km that were greater than predicted by the recently developed GMPEs. In contrast, intensities tended to be smaller than predicted. At 60 km, the maximum pga recorded on bedrock was 0.03 g and on soil the maximum pga was 0.07 g. The response spectrum generated from an earthquake record on rock in Ottawa was about 1/5 of the design spectrum specified in the National Building Code of Canada (NBCC-2005). The damage in the city was limited to nonstructural elements, including a chimney collapse on Bank Street, damage to the suspended ceiling of a supermarket on Greenbank Road, cracked masonry in a number of school buildings, and crushed concrete block masonry in one of the local hockey arenas. Near the epicenter, a church, restaurant, community center, and hotel were damaged, and a section of highway collapsed into a river. Near Bowman, about 10 km from the epicenter, a bridge failed as a result of embankment failure.

A map of intensities was developed from the earthquake, with intensity IV, indicating a level of shaking that is felt by most people.

Instrumental Intensity: June 23, 2010 M5.0 Earthquake


Landslide near the epicenter resulted in 50 m of downhill movement, soil failure, and damage to a barn foundation near Gracefield, close to epicenter.

Embankment failure south of Bowman, Quebec (photo: Jean Levac).
The Earthquake Engineering Research Institute is pleased to announce its Annual Student Paper Competition. The purpose of the competition is to promote active involvement of students in earthquake engineering and the earthquake hazards research community.

The general rules of the contest are as follows:

**Undergraduate Category**

1. The paper must be directly related to earthquake engineering or earthquake hazard reduction.
2. The paper is not to exceed 12 pages in length inclusive of all tables and figures.
3. The paper must be authored by the student alone. In addition, a faculty member or other advisor is required to oversee the preparation of the manuscript. The advisor can provide feedback before submission of the paper but may not co-author the paper. The advisor's name should be included in the “Acknowledgments” section of the paper.

**Graduate Category**

1. The paper must be an original contribution in a discipline directly related to earthquake engineering or earthquake hazard reduction.
2. The paper is not to exceed 12 pages in length inclusive of all tables and figures.
3. The paper must represent the original work of the student and be authored by the student alone. A faculty member or other advisor may not co-author the paper.

Applicants must be enrolled at an accredited U.S. college or university and must hold U.S. citizenship or permanent resident status.

Guidelines for preparing the manuscript can be obtained from the EERI web site (http://www.eeri.org/site/paper-comp#details) or from: EERI, 499 14th Street, Suite 320, Oakland, CA 94612, phone 510/451-0905, fax 510/451-5411. All papers must be e-mailed by November 1, 2010, to Juliane Lane at the EERI office, juliane@eeri.org.

**Up to four student authors will be invited to EERI’s Annual Meeting, February 9-12, 2011, in San Diego, California, and will receive travel support for this purpose.**

Their papers will also be considered for publication in *Earthquake Spectra*. The top paper in the graduate category may be presented at the Annual Meeting.

**DEADLINE: November 1, 2010**
Phase II Report on EQs in Central U.S.

The Mid-America Earthquake (MAE) Center at the University of Illinois, an EERI Subscribing Member, recently released Phase II of the report Impact of Earthquakes on the Central USA. It is the outcome of one of the most comprehensive earthquake consequence assessment projects ever funded by the Federal Emergency Management Agency (FEMA). Phase II utilized a significant amount of new data, indicating that a major earthquake event in the central U.S. could result in several thousand fatalities and approximately $300 billion in direct losses, the greatest economic loss due to a natural disaster in the U.S. and more than three times the amount predicted in Phase I. “The second phase of this study looked at the results of a complete rupture of the entire New Madrid fault, whereas Phase I looked at the impacts of earthquake activity to the central U.S. from three seismic zones,” explained Amr El-nashai, lead author of the report, who conducted the study in partnership with FEMA, the Central U.S. Earthquake Consortium (CUSEC), Innovative Emergency Management (IEM), and Virginia Tech. Results from Phase I were used as part of 30 state-level earthquake planning workshops sponsored by FEMA and implemented by IEM.

A multi-phase effort of various scenarios using HAZUS-MH MR2 and MAEviz modeling software, the project is managed by the U.S. Army Corps of Engineers’ Construction Engineering Research Laboratory in partnership with the Center for Technology, Security, and Policy at Virginia Tech, with contributions from eight state geological surveys, IEM, FEMA, the USGS, and CUSEC. The report is available for download at http://mae.cee.illinois.edu/news/reportusa2.html.

Understanding Risk Forum Videos

A forum on “Understanding Risk: Innovation in Disaster Risk Assessment” was held at The World Bank, June 1-6, 2010, in Washington, D.C., sponsored by the Global Facility for Disaster Reduction and Recovery and the Knowledge Strategy Group, in partnership with the Global Earthquake Model and the United Nations International Strategy for Disaster Reduction. The forum addressed the issues of defining, measuring, and managing risk, and explored best practices in areas ranging from open source risk modeling to community-based risk assessments. New approaches were emphasized, focusing on technological developments and the benefits of inclusive partnerships.

Program leader Francis Ghesquiere, who recently led the Bank’s emergency response in Haiti, argued that state-of-the-art technologies are helping communities and governments around the world to get a better grasp of the consequences of unmanaged risk and lack of planning for disasters. Google geospatial technologist Ed Parsons said that mobile devices will lead to a massive transformation in the way people understand and communicate risk. “We already have in our hands the most powerful computer,” he said referring to “smart” phones that are increasingly becoming powerful tools in disaster scenarios.

UN Assistant Secretary General for Disaster Risk Reduction Margaret Wahlstrom reminded city leaders of the importance of joining the ongoing...
### CALENDAR

The issue containing the first appearance is indicated at the entry’s end. Items listed for the first time are shown in bold.

#### AUGUST

- **30-Sept. 3.** 14th Eur. Conf. on EQ Eng. (14ECEE), Skopje-Ohrid, Macedonia. Info: [www.eaee.boun.edu.tr/eaee.htm](http://www.eaee.boun.edu.tr/eaee.htm)  (12/08, 10/09)

#### SEPTEMBER

- **16-18.** Int’l Conf. on Urban Habitat Construction under Catastrophic Events, Naples, Italy. Info: [www.civ.uth.gr/cost-c26/](http://www.civ.uth.gr/cost-c26/)  (2/10)
- **17-18.** Displacement-Based Seismic Design Short Course, Vancouver, BC, Canada, and live webcast. See page 2.

#### OCTOBER

- **6-8.** Workshop on SSI for Nuclear Power Plants, Ottawa, Canada. Info: [http://www.nea.fr/nsd/workshops/SSI](http://www.nea.fr/nsd/workshops/SSI)  (5/10)

#### DECEMBER


### SEAOCE Guidelines for Owners

The Structural Engineers Association of California has developed guidelines that encourage commercial building owners to take preventive steps to avert damage to their structures from earthquakes.


They elaborate on the following recommendations: (1) safeguard important documents, (2) place appropriate tools near utility shut-off valves, (3) assess the condition of a building before an earthquake occurs, (4) retrofit at-risk areas, (5) reduce potential falling hazards within buildings, (6) plan post-earthquake procedures, and (7) consider placing a contractor and/or structural engineer on retainer.

The guidelines also include steps to take following an earthquake, such as enforcing a “do-not-enter” policy, looking for signs of exterior damage, calling an expert if in doubt, and creating a plan for re-occupancy.

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**Understanding Risk Videos continued from page 6**

The initiative is targeting over 1,000 local government leaders worldwide to commit to sustainable development practices that increase their cities’ resilience to disasters.

Videos of the 16 sessions are now available at [http://community.understandrisk.org/page/presentations-1](http://community.understandrisk.org/page/presentations-1). Each 1½-hour session is divided into either three or four videos (.wmv files) to permit a larger audience to download and view the files. PowerPoint choices for the presentation are on the same page. The proceedings of the conference will be summarized in a series of “Best Practice Notes” and made available online.

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#### NOVEMBER

- **4.** Young Engineers Conference, London, United Kingdom. Info: [www.cege.uci.ac.uk/events/yec](http://www.cege.uci.ac.uk/events/yec)  (5/10)

#### DECEMBER


#### 2011

**JANUARY**

- **10-13.** 5th Int’l Geotech. EQ Eng. Conf. (5-ICEGE), Santiago, Chile. Info: [www.5icege.cl](http://www.5icege.cl)  (11/09)

**FEBRUARY**


**MAY**

- **16-18.** SEE6, Tehran, Iran. See p. 6.

**JUNE**


**JULY**


**AUGUST**

- **30-Sept. 1.** Protect 2011, Lugano, Switzerland. See page 3.

**OCTOBER**

- **2-6.** IJBRC 7th World Congress, Las Vegas, Nevada. See page 6.

**2012**

**FEBRUARY**


**SEPTEMBER**

- **24-28.** 15WCEE, Lisbon, Portugal. See page 3.
**News of the Profession**

**2010 Bolt Medal Awarded to David Boore**

David Boore, a geophysicist with the U.S. Geological Survey, was chosen as the 2010 recipient of the Bruce Bolt Medal, which is awarded jointly by the Seismological Society of America (SSA), the Consortium of Organizations for Strong-Motion Observation Systems (COSMOS), and EERI. The award recognizes Boore’s achievements in advancing the understanding of strong-motion seismology. He received the medal in April at the SSA Annual Meeting in Portland, Oregon.

Boore has authored or co-authored more than 230 publications and has been directly involved with the USGS efforts in developing the national hazard maps that affect building design across the nation. His work has improved seismic safety in the U.S. and around the world.

He has focused in particular on the prediction of strong ground shaking, both from analysis of observed data and from simulations, and developed SMSIM, a well-known method for computing estimates of ground motion from simulated earthquakes that is used by engineers and designers. Boore has been on the forefront of improving ground motion prediction equations (GMPEs).

He is currently involved with the seismic design for the proposed nuclear waste repository at Yucca Mountain.

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**Call for Nominations for 2011 Bolt Medal**

The Bruce Bolt Medal recognizes individuals worldwide whose accomplishments involve the promotion and use of strong-motion earthquake data and whose leadership in the transfer of scientific and engineering knowledge into practice or policy has led to improved seismic safety.

SSA, COSMOS, and EERI (see above) are calling for nominations for this distinguished award. Nominations will be reviewed in confidence by a six-person joint panel, comprised of two representatives from each organization. Selection criteria consist of accomplishments in the following areas: (1) promotion of strong-motion instrumentation or advancing strong-motion data processing or data utilization; (2) technical contributions in seismic engineering or engineering seismology; and (3) leadership in the transfer of knowledge into practice or policy that has led to improved seismic safety. The closing date for submitting nominations is August 31, 2010.

For information on the nomination package requirements, visit [http://www.eeri.org/site/bolt-medal](http://www.eeri.org/site/bolt-medal).

The award is issued annually and is presented to the recipient at the annual meeting of the recipient’s choice among the three sponsors.

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**News of the Institute**

**Spectra Impact Factor**

*Earthquake Spectra* Editor Polat Gülkan is pleased to announce that the journal has a 2009 Impact Factor of 2.866, as stated in the Journal Citation Report just released by Thomson Reuters. With this rating, *Spectra* ranks as the second highest among 106 journals in the civil engineering category! The journal's five-year Impact Factor is 1.912.

Both quantitative measures are recognition of the success of *Spectra* in fulfilling its founding mission: improvement of the practice of earthquake hazard mitigation, preparedness, and recovery.

The Institute thanks the authors, editorial board members, and reviewers who have combined forces to make this possible.