



**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE
NEWSLETTER**

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News of the Institute

Shah Prize Nominations Due October 15

The nomination deadline for the \$10,000 Shah Family Innovation Prize is October 15th. Made possible by a gift to the EERI Endowment Fund by the Haresh Shah family, the prize rewards young professionals and academics for creativity, innovation, and entrepreneurial spirit. Nominated individuals should be under 35 years of age on January 1, 2002, and should have demonstrated the potential to make major contributions to the field of earthquake risk mitigation and management. Details about the nomination process are available on EERI's web site at www.eeri.org/eeri/Committees/Honors/shah.html, by calling the EERI office, or by checking the bright yellow page inserted before page 7 of the July 2001 Newsletter.

News of the Institute

2002 Annual Meeting: Call for Poster Abstracts

Planning is in full swing for the 2002 EERI Annual Meeting at the Westin Hotel in Long Beach, California, scheduled for February 6-9, with the theme of *Return to Long Beach*. In exploring what happened in the Long Beach earthquake of 1933, the program will include a simulated EERI reconnaissance briefing. Other sessions will focus on changes in the earthquake fields in the years immediately following that event, and the major long-term advances, including emerging technology.

Individuals interested in participating in one of the Annual Meeting poster sessions are invited to submit abstracts to the organizing committee. The abstracts for posters accepted for presentation will be included in the Annual Meeting notebook, and therefore must be submitted in final form. They will be reproduced as submitted. All abstracts should be prepared with one-inch margins on all sides, single-spaced in a Times Roman or equivalent font (11 points or larger). Text should be flush left. The title of the poster presentation should be centered at the top of the page and capitalized. Presenters should be identified by name, title, and organizational affiliation. Abstracts should not exceed two pages in length. They should be e-mailed by **December 1, 2001**, to EERI's Administrative Secretary Juliane Lane at juliane@eeri.org. Presenters will be notified in early January of acceptance.

Annual Meeting Travel Scholarships Available

As in years past, several scholarships are available to encourage student members and younger EERI members (out of school no more than three years) to attend the Annual Meeting, thanks to support from FEMA. The financial support will be contingent upon the applicants' participation in the

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Long Beach City Marina (photo: courtesy of Long Beach Convention and Visitors Bureau)



National Earthquake
Hazards Reduction
Program

NEES Design Goes to Illinois-Led Team

Development of a national cyber-network for earthquake engineering research will begin in earnest with a \$10 million award from the National Science Foundation (NSF) to the University of Illinois at Urbana-Champaign. The award launches the design and implementation of the George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) which, when completed in 2004, will allow multiple researchers to share facilities, equipment, and data through a high-speed Internet grid. The cyber-network will encourage collaboration among earthquake engineering researchers.

In developing the network, the university's National Center for Supercomputing Applications will partner with Argonne National Laboratory (also in Illinois), the University of Michigan, the University of Southern California, and the TeraScale, LLC, company of New Mexico. The team recently completed a six-month scoping study to prepare for the design phase.

"The goal is to create a collaborative research network by linking researchers and engineering testing facilities across the United States and providing them with the latest computational tools," said Priscilla Nelson, NSF division director for Civil and Mechanical Systems. "We expect this network to speed the

simulations, experiments, and data analysis that lead to better seismic design and hazard mitigation."

NEES will allow researchers to share and remotely operate experimental equipment at more than 20 advanced earthquake engineering facilities linked to the network and to more easily share data and computations. The equipment — including shake tables, geotechnical centrifuges, a tsunami wave basin, and laboratory and field stations — models and analyzes earthquake forces and helps engineers design buildings and infrastructure to withstand those forces. Early this year NSF awarded \$45 million to ten institutions to build and upgrade earthquake engineering equipment in anticipation of the shared-use network. A community-led consortium will be selected in 2004 to manage and operate NEES through 2014.

Groat to Continue as USGS Director

Secretary of the Interior Gale Norton recently announced that Dr. Charles "Chip" Groat will continue to serve as director of the U.S. Geological Survey. Secretary Norton said, "Chip has an outstanding science management background and is the perfect director for USGS and for this Administration."

Groat has served as director of the USGS since November 1998. He has more than 25 years' experience in geological studies and has been directly involved in energy and minerals resource assessment, groundwater occurrence and protection, geomorphic processes and landform evolution in desert areas, and coastal studies. He served as associate vice president for research and sponsored projects at the University of Texas in El Paso, following three years as director of the Center for Environmental Resource Management. Groat was also director of the

University's Environmental Science and Engineering Ph.D. Program and was a professor of geological sciences.

Groat is a member of many scientific societies and has contributed to numerous publications and articles on major issues involving earth resources and the environment.

International Workshop on Disaster Reduction

The International Workshop on Disaster Reduction, with a theme of "We All Know What to Do," was held in Reston, Virginia, August 19-22, 2001, for the purpose of identifying regional needs and planning collaborative worldwide activities. There were 130 experts from 31 countries, contributing their expertise on behalf of the 1,000-member Alliance for Disaster Reduction. The USGS was one of the sponsoring organizations.

Seven regional leadership teams representing the regions of the Pacific, Sub-Saharan Africa, Latin America and the Caribbean, Europe, Asia, the Mediterranean, and North America made commitments for implementation. A document entitled *Global Blueprints for Change* containing more than 300 recommendations was used as a starting point for developing regional blueprints and for formulating the next steps for disaster reduction in each region.

The next steps would include developing updated editions of the blueprints and organizing a world congress, regional forums, regional projects, regional and sub-regional centers for sustainable development, and an ad hoc Strategic Leadership Council comprised of the leadership teams.

For a copy of the Executive Summary, contact Walter W. Hays at walter_hays@msn.com.

Annual Meeting ...

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poster sessions, either through their research projects, or as representatives of student chapters depicting chapter activities (see accompanying article for poster abstract specifications). Each scholarship will cover registration, lodging at the conference hotel for three nights, and round-trip excursion airfare. To apply, send a letter of request by **December 1, 2001**, to the Student Activities Committee in care of EERI's Administrative Secretary Juliane Lane at juliane@eeri.org. Applicants should describe their current involvement in earthquake engineering or a related field and their status as students or professionals.

News of the Profession

Job Opportunity

Stanford University, Stanford, CA. Tenure-track faculty positions at the junior (Assistant or untenured Associate Professor) level in the Department of Civil and Environmental Engineering.

Applicants should have interests in one or more of the following areas related to civil engineering design and construction: structural and geotechnical engineering, design-construction integration, performance-based engineering, hazard assessment and risk management, and construction engineering and management.

For more information, see the Department of Civil and Environmental Engineering's web site www-ce.stanford.edu. Applications will be accepted until the positions are filled but are strongly encouraged to be submitted by November 15, 2001.

News of the Institute

7NCEE Panel Discussions Planned

The technical program co-chairs for the 7th U.S. National Conference on Earthquake Engineering, Andrei Reinhorn, Professor in the Civil Engineering Department at the University at Buffalo (SUNY), and Adam Rose, Professor and Head of the Department of Energy, Environmental and Mineral Economics at Pennsylvania State University, are making plans for several panel discussion sessions designed to reflect a range of views on issues. For example, a Multihazards panel is being organized by Mohammed Ettouney of Weidlinger Associates, Inc., that will cover topics such as the Multihazards Mitigation Council, multihazard structural design, and an insurance perspective on multihazards. Another panel to be moderated by Joy Pauschke of the National Science Foundation (NSF) will explore collaborative research and education opportunities that will be enabled by NSF's George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES). There will also be a panel discussion headed up by Greg Deierlein of Stanford University that will focus on emerging concepts in performance-based earthquake engineering and their implementation in engineering practice. A fourth panel, dealing with earthquake risk management strategies and being organized by Howard Kunreuther of the Wharton School at the University of Pennsylvania, will explore how new advances in information technology and risk assessment offer an opportunity to estimate the potential losses from future disasters more accurately than in the past through catastrophe models.

This interactive panel discussion format follows its successful introduction at the 1998 6NCEE in Seattle. They will be held in addition to the more traditional plenary, break-out, and poster sessions.

Subscribing Member News

EQE International Becomes Part of ABS Consulting

In January 2000, ABS Group of Companies, headquartered in Houston, Texas, acquired EQE International, an EERI subscribing member since 1986. Originally founded in San Francisco in 1981 to provide specialty earthquake engineering services, EQE has since grown to become a multinational firm with more than 500 employees and has achieved international recognition in structural engineering and risk management services related to earthquakes and other natural and operational hazards. Another subsidiary of ABS Group of Companies is ABS Group Inc. (ABS Group), which provides a wide range of services focused on improving the safety, quality, and environmental impact of their clients' operations worldwide.

In July of this year, ABS Group and EQE International completed an 18-month long process of consolidating operations into ABSG Consulting Inc. (ABS Consulting). The two companies provide a combined force of more than 1,100 employees, operating in 32 countries with annual revenues exceeding \$140 million. ABS Consulting is organized around four major business lines: EQE Structural Engineers, Risk Consulting, Management Systems, and EQECAT.

For further information, visit their new web site www.absconsulting.com, or contact EERI members Ron Hamburger, Charles Scawthorn, Don Ballantyne, or Ron Polivka at 510/817-3100.

News of the Institute

Membership Options

Membership dues notices for 2002 will be mailed out to all current members by October 15, 2001. Members may choose to join one of five regional chapters: Alaska, Great Lakes, New Madrid, Northern California, or Southern California. Regional Chapters fulfill a critical role in EERI's objective of increasing activism at the local and state levels. More chapters are expected to be formed during the coming year. To express interest in starting a regional chapter, contact Susan Tubbesing at the EERI office. Additional information about EERI's regional chapters may be found on the web site at www.eeri.org/Membership/Chapters/regional.html.

An additional option is to become an associate member of the Seismological Society of America (SSA). EERI members who choose this option will receive SSA's *Seismological Research Letters*, inclusion in the SSA membership roster, and member discounts for annual meetings, seminars, and publications. Dues for this special EERI association with SSA are only an additional \$50 per year, and may be included with renewal payments of EERI dues. EERI members seeking full benefits of SSA membership, including voting privileges and the bi-monthly *Bulletin of the Seismological Society of America*, should retain their current SSA membership or seek to join the Society as a regular member. (For more information, see www.seismosoc.org.)

News of the Membership

Bruce Clark Elected Chair of California Seismic Safety Commission

The California Seismic Safety Commissioners voted unanimously to elect EERI member Bruce R. Clark as chairman of the California Seismic Safety Commission. The chairman position has a one-year term. Chairman Clark, representing the field of geology, was appointed to the commission by Governor Gray Davis in May 2000. As chairman, Clark will oversee the strategic direction of the commission and will help to further its mission to provide decision makers and the general public with cost-effective recommendations to reduce earthquake casualties and economic losses, and to speed the recovery of earthquake-ravaged communities. The commission was established in 1975 to advise the governor of California, the Legislature, state and local governments, and the public on earthquake risk and on ways of reducing earthquake hazards.

Clark, president and CEO of Leighton and Associates, has extensive experience in the area of seismic safety. He has degrees in geology from Yale and Stanford, and more than 25 years of experience in earthquake hazard evaluation and mitigation projects throughout the world. Since the 1970s, Clark has conducted studies on earthquake-triggered landslides. Some projects of note include studies of the 1989 Loma Prieta, 1994 Northridge, and 1999 Taiwan earthquakes. He also chaired the expert Advisory Committee for the state's Seismic Hazard Mapping Program, which is creating maps of earthquake hazards for both urban and developing areas of California, to support prudent land-use planning, construction, and post-earthquake recovery.

News of the Institute

Friedman Family Visiting Professionals Available

With a generous grant from the Friedman family, the EERI Visiting Professional program has been expanded to accommodate 10 to 12 visits a year by engineering professionals at various universities. This popular program matches potential visiting professionals with the host institutions' engineering or architecture programs for a two-day to three-day exchange in current topics related to earthquake engineering and earthquake risk reduction.

Program materials were sent this month to each of the EERI student chapters, describing the program and the 2001 Visiting Professionals. All universities are welcome to participate.

To request materials or to schedule a visit with one of the 2001 Visiting Professionals, contact Sonya Hollenbeck at the EERI office: sonya@eeri.org, phone 510/451-0905.

Announcements

Chilean Conference on Earthquake Engineering

The 8th Chilean Conference on Earthquake Engineering and Seismology will take place April 24-26, 2002. The conference will be held at the Federico Santa Maria Technical University in Valparaiso, Chile.

For more information, e-mail achisina2002@ociv.utfsm.cl or see the web site www.achisina2002.utfsm.cl.

News of the Institute

Meet the Candidates

For President-Elect



Thomas D. O'Rourke

Thomas D. O'Rourke is the Thomas R. Briggs Professor of Engineering in the School of Civil and Environmental Engineering at Cornell University, where he has been on the faculty since 1978. He taught at the University of Illinois at Urbana-Champaign, and holds a B.S. degree from Cornell University, and M.S. and Ph.D. degrees from the University of Illinois.

O'Rourke has been a member of EERI since 1980, and has served on the EERI Board of Directors (1998–2001) and as EERI Vice President (2000–2001). He has been a speaker at EERI-sponsored conferences, seminars, and workshops, and has served on several EERI committees, including chair of the Publications Policy Committee. His earthquake investigations include the 1987 Ecuador, 1988 Armenia, 1989 Loma Prieta, 1994 Northridge, 1995 Kobe, 1999 Kocaeli, Turkey, and 1999 Chi-Chi, Taiwan, earthquakes. He serves on the Executive Committees of MCEER and the Institute for Civil Infrastructure Systems. He is a member of the Engineering Advisory Committee to the NSF Engineering Directorate. He is past chair of the Executive Committee of the ASCE Technical Council on Lifeline Earth-

quake Engineering. He testified as an expert witness on earthquake-related issues in 1985 and 1999 before the U.S. House of Representatives Committee on Science.

O'Rourke is an elected member of the National Academy of Engineering. His awards include the 1976 Hogentogler Award from ASTM, and 1983 Collingwood and 1989 Huber Research prizes from ASCE. He received the 1995 C. Martin Duke Award from ASCE for his work in lifeline earthquake engineering, and the 1997 Stephen D. Bechtel Award from ASCE for his work in pipeline engineering. He is an elected fellow of AAAS.

Vision

One of the great strengths of the Institute is its exceptionally talented membership committed to advancing earthquake planning and engineering in concert with a highly experienced and dedicated staff. The Institute is an organization that promotes a strong alliance between technology and humanism. This alliance has been especially effective in developing a multidisciplinary framework for its policies and programs.

Because of its multidisciplinary strengths and culture, EERI is well-positioned to influence public policy at community, state, national, and international levels. The EERI Board of Directors set goals in December 2000 to "create a world in which potential losses are understood and steps have been taken to reduce them to an acceptable level." A five-fold plan for achieving this vision was established, involving: 1) strengthening the EERI position as a primary advocate for earthquake safety and risk reduction, 2) identifying and supporting seismic advocates at all societal and disciplinary levels, 3) educating and stimulating seismic risk-reduction experts with lessons learned from earthquakes, 4) generating government support for pre- and post-earthquake mitigation, and

5) achieving financial independence.

We should be reaching out to our members, the public, and policy makers by supporting our vision of a world engaged in reducing earthquake losses and by implementing the five-fold plan. Such activities require the energy and creativity of EERI members and staff. Of key importance are the support and expansion of regional EERI chapters; strengthening governmental partnerships; establishing a certificate program in earthquake engineering; developing a plan for the most effective use of electronic information to support EERI publications, education, and training; and achieving financial independence.

At the same time, we should be strengthening EERI's role as the authoritative source of information for earthquake engineering and earthquake risk reduction in the United States. This activity should be pursued in parallel with strong partnerships with other nations and leadership worldwide in conveying information about best practices.

Of critical importance is the Learning from Earthquakes (LFE) program, which is a hallmark of the Institute. Agencies that have long supported the LFE program are currently examining their policies and funding priorities. A strong LFE program requires a renewal of EERI partnerships with sponsoring agencies, predicated on innovative thinking and eloquence in explaining the importance of this program.

In summary, we need to expand our influence with respect to public policy and to strengthen our role as the authoritative source for U.S. earthquake risk-reduction information. The multidisciplinary capabilities and culture of the Institute are well-suited to realize these goals, and to provide the resources necessary for their success.

Meet the Candidates

For Director A



Mary C. Comerio

Mary C. Comerio joined the faculty of the Department of Architecture at the University of California at Berkeley in 1978. She holds Master's degrees in Architecture and Social Work from Washington University in St. Louis, Missouri. She is currently on the Editorial Board of EERI's journal, *Earthquake Spectra*.

As an architect, she has designed numerous public and private facilities including market-rate and affordable housing, commercial and public buildings. Her research on the costs and benefits of seismic rehabilitation for existing buildings has been widely published, and she is the nation's leading authority on post-disaster reconstruction. Comerio began her involvement in seismic issues with an NSF-supported project aimed at educating building officials and homeowners on retrofit strategies for wood-frame houses. Excerpts from her 1982 monograph, *Earthquake Hazards and Wood Frame Houses*, have been reprinted in numerous books and magazines.

Her research for the cities of Los Angeles and San Francisco in the 1980s established a precedent for

evaluating the economic impacts of building codes for existing structures. This work influenced the building codes in both cities, and contributed to key policies for implementing seismic risk reduction: a \$250 million state bond issue, and a \$350 million San Francisco bond issue dedicated to seismic rehabilitation. In 1997, she was part of the EERI international team investigating the earthquake impacts in Assisi, Italy. During the 1990s, Comerio completed research on housing issues in urban disasters. The results were published in numerous papers and a book, *Disaster Hits Home: New Policy for Urban Housing Recovery* (U. C. Press, 1998). The book looks at the repercussions in sheltering, government assistance, housing finance, and insurance after urban disasters.

In recent years, Comerio has been a faculty researcher with the Pacific Earthquake Engineering Research (PEER) Center. Her work has focused on the risks and potential losses to universities and private corporate campuses in a variety of earthquake scenarios. She has expanded the definition of loss to include detailed evaluations of downtime, loss of function, and building nonstructural elements. Her report on the *Economic Benefits of a Disaster Resistant University* can be found on the UC/IURD web site. Current work on nonstructural losses and upgrade strategies will be available from PEER in the near future.

Vision

The field of earthquake engineering needs to look beyond its long-term mission of advancing the science and practice of earthquake engineering to a future role influencing public policy and championing risk reduction worldwide. I completely agree with the "Vision and Role" for EERI as set out by the current Board of Directors, and if elected, I

would work to develop programs and strategies to advance the five-year goals. In particular, I am personally a strong advocate for promoting earthquake safety and risk reduction in public policy, and I believe that EERI could have a stronger voice and presence in the formation of state and federal policy. I would also promote outreach to my own profession of architects, who have an important role to play in "designing" earthquake safety into every building project.

I have served on many committees and helped to organize many conferences in EERI. It would be a pleasure and a privilege to serve on the EERI Board of Directors.

Announcements

Workshop on Nisqually Earthquake

The Cascadia Regional Earthquake Workgroup (CREW), FEMA and the USGS are sponsoring a conference on "The Business of Earthquakes — The Effects of the Nisqually Earthquake."

The conference will be held November 27-28, 2001, in Seattle, Washington, and will feature businesses presenting how disaster preparedness and mitigation measures expedited post-event recovery; engineers, physical scientists, and social scientists describing the impacts felt throughout Puget Sound; what might be expected from future events and introductions to new approaches in risk reduction; elected officials offering their perspectives on how the Nisqually earthquake is changing public policy; and government agency representatives describing impacts on the region's institutions, lifelines, ports, and critical facilities.

For additional information and registration, visit www.crew.org.

Meet the Candidates

For Director A



Ronald T. Eguchi

Ronald T. Eguchi is president and CEO of ImageCat, Inc., a risk management company specializing in the development and use of advanced technologies for risk assessment and reduction. He has more than 25 years of experience in risk analysis and risk management studies, and has directed major research and application studies in these areas for government agencies and private industry. He currently serves on several Editorial Boards, including the *Natural Hazards Review* published by the American Society of Civil Engineers and the Natural Hazards Research and Applications Information Center, University of Colorado, and the *Journal on Uncertainties in Engineering Mechanics*, published by Resonance Publications, Inc. He is also a past member of the Editorial Board of EERI's journal *Earthquake Spectra*.

In 1997 he was awarded the ASCE C. Martin Duke Award for his contributions to the area of lifeline earthquake engineering. He still remains active in the ASCE Technical Council on Lifeline Earthquake Engineering, serving on several committees. He chaired the council's Executive Committee in 1991. In 1992 Eguchi

was asked to chair a panel, established jointly by the Federal Emergency Management Agency and the National Institute of Standards and Technology, to develop a plan for assembling and adopting seismic design standards for public and private lifelines in the United States. This effort led to the formation of the American Lifeline Alliance, currently managed by ASCE.

Eguchi is a charter member of the Mayor's Blue Ribbon Panel for the City of Los Angeles. He participated on a National Research Council panel that prepared a report for FEMA on "Assessing the Costs of Natural Disasters." Eguchi currently serves on the Multidisciplinary Center for Earthquake Engineering Research's two research committees (National Science Foundation and the Federal Highway Administration Project).

Vision

As a member of EERI for 25 years, I've seen the organization grow from a small "niche" technical organization to an international forum with members in over 50 countries. Through excellent leadership and active member support, EERI has made a significant impact on improving the nation's understanding of earthquake hazards and risks. EERI has played key roles in lobbying Congress on the importance of earthquake research and the need for continued support for the four largest NEHRP agencies that have helped to guide our nation's earthquake hazard reduction programs. EERI has also expanded greatly beyond the initial core group of founding engineers, and is now comprised of members that represent diverse professional backgrounds. Currently, over 25 different disciplines are represented by our membership. This in itself should be considered a major achievement. As a member of the Board, I would continue this tradition of embracing international collabora-

tion, fostering broad member support for national initiatives, and finding new ways of increasing our membership.

An important initiative that I plan to take on personally (if elected) is to encourage more younger member participation. I believe that we need to do more to make EERI attractive to our younger members. Currently, there are a number of effective programs in place that foster younger member participation and recognition. The Shah Family Innovation Prize award recognizes those talented younger individuals who have demonstrated creativity and innovation for earthquake risk mitigation and management. The Friedman Visiting Professional Program allows members from various disciplines to interact with students at participating universities to provide advice and feedback on research, coursework, and prospective job opportunities. However, we can and should do more to focus on younger member interests and needs. We should provide a forum for younger members to express their views on the future direction of EERI. We should encourage more active participation of younger members in the organization of annual and regional functions and activities. We should also do more to encourage and promote mentoring programs and relationships within EERI. There should also be a Younger Member's Forum that meets at each Annual Meeting to discuss relevant issues regarding the profession and how these issues affect them. If elected, one of the first initiatives that I plan to put before the Board is the formation of a Younger Member's Forum.

In closing, if elected, I would support the current goals and direction of EERI (as reflected in its current five-year plan) and would move enthusiastically to attract more young engineers, scientists, and professionals into the Institute.

Meet the Candidates

For Director B



Ralph Archuleta

Ralph Archuleta is a professor of seismology at the University of California, Santa Barbara. He earned a B.S. in physics at the University of Wyoming; an M.S. in physics at the University of California, San Diego; and a Ph.D. in earth sciences (1976) at the Institute for Geophysics and Planetary Physics at the University of California, San Diego. In 1977 he joined the U.S. Geological Survey. He left in 1984 to become an associate professor at UCSB.

In 1986 Archuleta joined EERI. He is past president, vice president and board member of the Seismological Society of America. Since 1991 he has been UCSB Director for the Southern California Earthquake Center (SCEC) and serves as group leader for the prediction of strong ground motion.

He is a member of the following: the International Working Group on Effects of Surface Geology (International Association of Seismology and Physics of the Earth's Interior); the COSMOS (Consortium of Organizations for Strong-Motion Observation Systems) Strong-Motion Program Board and Senior Advisory Council; and the Subcommittee on Data Archiving and Dissemination for the Advanced National Seismic

System. He has consulted on ground-motion issues for the U.S. Nuclear Regulatory Commission, Federal Energy Regulatory Commission, and the Bureau of Reclamation.

Archuleta's research is focused on understanding the nature of strong ground motion with emphasis on effects of the earthquake source and site conditions. He and his collaborators were among the first to describe the effects of rupture directivity on near-source motion, to quantify hanging wall vs. footwall shaking with 3-D dynamic ruptures, and to model 3-D basin effects on ground motion. In 1984 Archuleta initiated borehole installations to record strong and weak motion. Today he and his colleagues operate three borehole arrays (multiple borehole and surface accelerometers) focused on earthquake engineering issues (e.g., liquefaction, nonlinear response, and amplification). They also have been principal investigators for ten other borehole installations.

In 1992 Archuleta started the SCEC strong-motion database that allows random access to data via the Internet. From this database, he and colleagues developed the COSMOS virtual data center that allows users to retrieve data from a worldwide dataset.

Vision

The EERI Board has succinctly enumerated five objectives (including strategies for reaching these objectives) as its vision for the next four years. The overarching element is that EERI can and will communicate the basic information and knowledge necessary to reduce earthquake risk. These objectives recognize that there are the following different levels of knowledge and communication: professional engineers and scientists; users, such as emergency-response officials, planners and architects; educators from university to

high school; and the general public. These objectives recognize that the Internet has become the primary conduit for transferring this information and knowledge.

EERI must do the following to maintain its leadership role as the primary source of information on earthquake engineering issues: 1) It must continue its reconnaissance reports, which are fundamental to increasing our knowledge about earthquakes and their effects. For convenience, these reports — at least an extended summary with photographs — should be available over the Internet. 2) EERI should encourage new monographs on state-of-the-art issues and revisit the topics so wonderfully presented in the original EERI series. These monographs, including the originals, would be available electronically. 3) When possible, proceedings of workshops would also be electronically available. All of this makes it easier for an interested individual to collect the information as rapidly as possible. It reinforces the leading role of EERI.

While the Internet provides an efficient means for obtaining information, the activism necessary to affect policy must rely on people getting involved. A block of time during the Annual Meeting could be used to have keynote speakers lay out the pressing issues where EERI members might participate. The issues could be those that affect any country where earthquake engineers can make a difference in reducing the risk. The structure of the Annual Meeting should be examined to see if it can induce more topical presentations by EERI members and to include seamlessly student presentations into the main body.

I thank you for the opportunity to participate in the governance of EERI. If elected, I will do what I can to achieve the goals of EERI, with its ultimate objective of reducing earthquake risk for all.

Meet the Candidates

For Director B



Donald Ballantyne

Donald Ballantyne, P.E., Vice President of Lifeline Services for ABS Consulting (formerly EQE International), is an internationally recognized lifeline earthquake engineer. He serves on the EERI Learning from Earthquakes Committee and was a member of the *Earthquake Spectra* Editorial Board for six years. He served as chair of the ASCE TCLEE Executive Committee from 1993 to 1994.

As a practitioner, Ballantyne evaluated the seismic risk and recommended improvements for over 40 utility systems in Washington, Oregon, British Columbia, California, Utah, South Carolina, Israel, and Japan. He led the first pilot test of HAZUS on the Portland metropolitan region, and using the same software, recently completed a risk assessment of the Seattle-Tacoma I-5 highway corridor. These projects involved multidisciplinary teams including geologists, engineers, and social scientists.

Ballantyne is active in research and earthquake reconnaissance. He conducted research funded by the USGS, NIST, NSF, FEMA, and

NCEER focusing on water system performance and loss modeling, and participated in exchange programs between the United States, Japan, and New Zealand. He documented damage to lifelines as a member of nine earthquake reconnaissance teams in the United States and abroad, including the recent Bhuj (India) and Nisqually events. Following each of these earthquakes, he has worked aggressively to disseminate the information to the utility community. For example, he wrote the American Water Works Association (AWWA) document, *Minimizing Earthquake Damage: A Guide for Water Utilities*.

Vision

In January 2001, the EERI Board of Directors adopted "The Future of EERI." I am addressing two of the concepts included in this EERI vision statement where I would bring particular interest and experience to the EERI Board. First, EERI should provide a forum to gather and disseminate earthquake damage data, evaluation methods, and design technologies that can be implemented by our membership. Second, EERI should facilitate the education of policy makers to allow them to make rational decisions to address this earthquake risk. These strategies should help promote the earthquake professional community as represented by EERI.

We need to gather and disseminate earthquake damage information more effectively, using modern technologies such as satellite communications and aggressive use of the Internet. I participated on the reconnaissance teams for both the Bhuj (India) and Nisqually earthquakes, and concluded we need to do a better job. This may be an opportunity for participation by our younger members who may be more familiar with these technologies. EERI has received an NSF grant to support our Learning from Earthquakes pro-

gram. This support provides an opportunity to develop methods to communicate information to our membership and to policy makers who will help influence earthquake mitigation programs. We need to reach out to decision makers, people that are in a position to influence the expenditure of mitigation budgets. Few of these people are members of EERI. Their education could have a positive influence on earthquake programs. Possible strategies would be to develop a more active lobbying program, and to reach out to other professional organizations to help influence societal views on earthquake mitigation.

Active Lobbying: Recently EERI did a good job communicating to the membership about writing to our congressional representatives to support specific earthquake legislation. Other professional organizations appear to be much more aggressive, and we should follow suit.

Professional Organizations: I have been active in transferring risk and vulnerability information to the AWWA membership. While EERI membership is familiar with, for example, the seismology in the Pacific Northwest, AWWA members had not been exposed, but are interested. This education has made a difference in the earthquake preparedness of the water supply industry. Similarly, the Cascadia Regional Earthquake Working Group is reaching out to people in the business community who were impacted by the Nisqually earthquake. We should follow these examples.

The timing is right. Historically, many public sector organizations relied on FEMA for "insurance." The tide is turning. It appears that FEMA may deny claims by the State of Washington for repair of the state capitol building, a \$150 million decision. This may provide incentive to decision makers to support earthquake mitigation programs.

News of the Institute

EERI Development/ Outreach Director Job Opportunity

EERI is seeking a Development/Outreach Director to expand membership program, identify funding for the new Earthquake Mitigation Center (see article below), design promotional materials, implement outreach strategies, and exhibit at professional meetings.

We are looking for a professional staff member who is outgoing, a team player, enthusiastic, self-directed, and has superior written and verbal skills. Graphic design and web development skills would be a plus. Half to full-time, depending on range of skills.

Please send a resume and a cover letter discussing experience and skills to Susan K. Tubbesing, EERI, 499 14th Street, Suite 320, Oakland, CA 94612, or fax: 510/451-5411.

News of the Profession

Job Opportunity

U.S. Geological Survey, Menlo Park, CA. Geophysicist/Seismologist to work as part of the Earthquake Hazards Team. This is a research position in earthquake science with an emphasis on the physics of the earthquake source. Requires a geoscientist who is knowledgeable in the fields of both laboratory rock mechanics and theoretical modeling of the earthquake source, and who can bridge the gap between laboratory experiments of rock deformation and numerical simulations of seismic and aseismic fault behavior.

For more information, see announcement USGS-W-01-057 at www.usajobs.opm.gov/wfjic/jobs/IW6865.htm. Contact C. Callesen, USGS, 345 Middlefield Road, MS-612, Menlo Park, CA 94025, or telephone the Human Resources Office at 650/329-4101. Refer to the Vacancy Number given above. Deadline for applications is October 31, 2001.

Announcements

Symposium on Comprehensive Force Protection

U.S. Department of Defense (DOD) instructions have been issued to mitigate in all new construction and major modification projects the threats from natural hazards, conventional explosives, and chemical and biological weapons. The Society of American Military Engineers (SAME) is conducting a National Symposium on Comprehensive Force Protection at The Citadel, Charleston, South Carolina, on November 1 and 2, 2001. The objective of the symposium is to provide state-of-practice DOD natural hazards and force protection design policy, criteria, and methodology to engineers and architects for immediate application in the planning, evaluation, and design of new construction and major modification projects. For more information, contact Charles Lindbergh at charles@lindbergh-assoc.com.

News of the Institute

EERI Seeks Advisory Committee to Guide Earthquake Mitigation Center

Earthquake scientists and engineers continually discuss how to motivate people to take action to reduce seismic risks. New tools are developed annually for engineers to use on new and existing buildings and for local officials and building owners to help them manage seismic risk.

However, many of these tools remain unused by both professionals and communities. EERI has created the Earthquake Mitigation Center to identify tools and existing resources, and to train earthquake professionals to use them in advocating seismic safety in their own communities.

The Center will collect materials (both on a web site and in a library), will develop new materials as appropriate, and will provide training for multidisciplinary teams of professionals. The Center will develop products and programs to encourage risk reduction, including earthquake-sensitive land use, and the seismic rehabilitation of buildings and lifelines in seismically prone regions. EERI will train teams from its chapters around the country.

EERI is on the brink of a period of profound change, driven by rapid engineering advances, technological changes, and the globalization of in-

formation. By harnessing the creativity inherent in change, EERI is ready to improve education and to advocate both in the United States and throughout the world, in collaboration with other organizations concerned with sustainable development and earthquake risk reduction.

EERI invites members to contact Executive Director Susan Tubbesing at skt@eeri.org to indicate their interest in serving on an Advisory Committee that will help frame the project, develop guidelines for advocacy at the local level, and develop an operation plan, goals, and a timeline.

CALENDAR

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

2001

OCTOBER

2-5. International Seismic Seminar, Assisi, Italy. Info: **192.107.65.2/glis** (5/01)

3-5. Modelling and Simulation in Civil Engineering, Paris, France. Info: **www.enpc.fr/caquot/** (9/00)

5-6. Symposium on Soil Behavior, Cambridge, MA. Info: **web.mit.edu/CIVENV/Ladd** (9/01)

7-10. SDEE'2001, Philadelphia, PA. Info: **www.drexel.edu/sdee2001** (9/00)

7-11. Seismic Systems for Concrete Structures, Rome, Italy. Info: **www.ega.it/jbss5_2001** (5/01)

21-24. WSSPC Annual Meeting, Sacramento, CA. Info: **www.wsspc.org** (5/01, 9/01)

27-28. Nonstructural Seismic Hazards Workshop, Portland, OR. Info: **tpetersen@do.usbr.gov** (8/01)

NOVEMBER

1-2. National Symposium on Comprehensive Force Protection, Charleston, SC. See page 10. (10/01)

13. IBC Seminar, Albany, NY. Info: **www.icbo.org** (9/01)

14. IBC Seminar, Arlington, VA. Info: **www.icbo.org** (9/01)

27-28. Nisqually Earthquake Conference, Seattle, WA. See page 6. (10/01)

DECEMBER

4. IBC Seminar, San Luis Obispo,

CA. Info: **www.icbo.org** (9/01).

9-11. CTBUH International Conference, London, UK. Info: **www.ctbuh.org** (4/01)

2002

JANUARY

22-24. Urban Hazards Forum, New York, NY. Info: **www.jjay.cuny.edu/urbanhazardsforum** (9/01)

FEBRUARY

6-9. 2002 EERI Annual Meeting, Long Beach, CA. Info: **www.eeri.org. See page 1.** (9/01, 10/01)

MARCH

17-21. Smart Structures and Materials, San Diego, CA. Info: **www.spie.org/info/ss** (7/01)

APRIL

7-12. World Conference on Structural Control, Como, Italy. Info: **congress@icil64.cilea.it** (7/01)

24-26. 8th Chilean Conference on Earthquake Engineering, Valparaiso, Chile. See page 4. (10/01)

28-May 1. Seismic Conference on Highways and Bridges, Portland, OR. Info: **mceer@acsu.buffalo.edu** (7/01)

JUNE

10-12. 3rd International Conference on Composites in Infrastructure, San Francisco, CA. Info: **www.az-icci.org** (3/01)

19-21. Risk Analysis 2002, Sintra, Portugal. Info: **www.wessex.ac.uk/conferences/2002/risk02** (9/01)

JULY

21-25. 7th National Conference on Earthquake Engineering, Boston, MA. Info: **www.eeri.org. See page 3.** (9/99, 8/01, 9/01, 10/01)

SEPTEMBER

2-5. eurodyn 2002, Munich, Germany. Info: **www.eurodyn2002.de** (8/01).

9-13. 12th European Conf. on Earthquake Engineering, London, UK. Info: **12ECEEE@ice.org.uk** (9/00, 12/00)

OCTOBER

9-12. Structural Engineers World Congress, Yokohama, Japan. Info: **sewc2002.gr.jp** (6/01)

Publications

NZSEE Electronic Newsletter

In August 2001, the New Zealand Society for Earthquake Engineering (NZSEE) released the first edition of the NZSEE electronic newsletter. The newsletter will be issued on a quarterly basis, in between editions of the *NZSEE Bulletin*. The newsletter is intended to cover the following aspects: informal news on events and happenings, progress in each of the Society's activity areas, updates from recent Management Committee meetings, and relevant contributions from members.

The newsletter is intended to be concise, timely, and relevant. Comments on the format of the newsletter and its objectives are welcome. The NZSEE would particularly like to hear from its overseas members regarding information that would be of interest. The newsletter will be broadcast to those members who have advised the Society of their e-mail addresses. It will also be posted on the NZSEE web site at **www.nzsee.org.nz**.



News of the Institute

New Transitional Membership Category

The Board of Directors has approved a bylaws change, creating a new category of membership to be placed on the ballot that will be sent to active and honorary members in November.

This new category is designed for recent graduates who cannot afford the active membership rate. It will be available for up to five years after recent graduates have begun their new career employment.

Members who qualify for this new rate, and who wish to delay their dues billing until January 2002, may contact our Membership Coordinator, Lynn Moreau, at lynn@eeri.org. The outcome of the vote will be reflected in the early January billing notices.

Members need to renew by February 28, 2001, to ensure that they will have no interruption in delivery of their publications.

If this bylaws change passes, a form will also be placed on the web for members to download requesting this new category of membership. The form will also be available by calling the EERI office.

Dues for this new category will be 50% of the active member rate; transitional members will also pay only 50% of active member registration fees for meetings and conferences.

World Trade Center Collapse Investigation

EERI extends condolences to everyone affected by the horrific September 11 terrorist attacks on New York City and Washington, D.C.

Institute members are actively involved in structural evaluations and damage assessments of buildings in the area of New York's World Trade Center. Members have also been explaining the structural collapses of the buildings to the media. EERI will be working with other professional associations and researchers in all disciplines to derive lessons learned that will be shared with members.

The American Institute of Steel Construction, Inc. (AISC) is forming a special task force to investigate the collapses and will make recommendations to AISC's Specification, Blast, and Fire committees.



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