**News of the Profession**

**Dealing with Issues of Acceptable Risk in Northern California**

The 53rd EERI Annual Meeting will be held in Monterey, California, February 7-10, 2001, at the DoubleTree Hotel.

**Highlights**

How do people make decisions about seismic risk? Do engineers and earth scientists approach the problem differently from policy makers, building owners, lenders, or the general public? This challenging issue provides the focus for EERI’s 53rd Annual Meeting.

There will be thought-provoking roundtable discussions from engineering, architectural, and governmental perspectives, focusing on managing seismic risk in universities, critical facilities, and the high tech industry. Speakers will explore questions concerning how safe to make these facilities, whether current standards for hospitals can be met, and whether society is prepared to pay for higher performance in existing buildings.

Other sessions will cover programs that address risk in new and existing government buildings at the federal, state, and local levels. Attendees will hear from public risk managers about some of the seismic risk challenges they are faced with and opportunities for engineers to work with local governments to reduce this risk. Friday’s session will conclude with a rousing debate on our capacity to define “acceptable” risk.

On Saturday there will be a presentation on the NEES (Network for Earthquake Engineering Simulation) program, a look at the way in which seismic risk is being dealt with internationally, and a chance to get the inside scoop on the design and construction of the world-renowned Monterey Bay Aquarium.

Following the Friday evening banquet, the audience will be entertained by the Hysteretic Loops (see article at left).

Watch your mail. Registration forms will be mailed in November and registration information will also be available on the EERI web site (**www.eeri.org**). Be sure to mark your calendar – whether it’s your first or your 53rd Annual Meeting, you won’t want to miss it!

**Hysteretic Loops**

**Looking for Recruits for Banquet Entertainment**

Not soon forgotten by those who witnessed their world premiere performance at 1998’s 50th Annual Meeting in San Francisco, the Hysteretic Loops, Professor Re-entrant Körner, Anchor Bolt, and Stud Wall will all be back on stage following the 2001 Annual Meeting Banquet on Friday evening, February 9th.

Put it on your calendar now and plan to be in Monterey in February.

Residents of the Bay Area will have an opportunity to join the fun. If you are interested and can carry a tune, play a musical instrument, dance, write a skit, or act, contact Bruce Bolt (e-mail: boltuc@socrates.berkeley.edu; phone 510/843-7935). No audition necessary.
Turkey-Taiwan NSF Research Awards

The National Science Foundation (NSF) has announced the awards for NSF 00-32 Solicitation on research related to the 1999 large earthquakes in Turkey and Taiwan. The following is a list of the research awards:

Geotechnical and Ground Motion Topics:

“Ground Deformation Due to Fault Rupture and Liquefaction during the 1999 Kocaeli and Duzce, Turkey, Earthquakes.” PI: Bardet, University of Southern California.

“Collaborative Research: Shear Wave Velocity Profiling by SASW Method at Selected Strong-Motion Stations, Liquefaction Sites, and Sites of Building Damage: 1999 Turkey Earthquakes.” PI: Bay, Utah State University.

“Ground Failure and Building Performance in Adapazari, Turkey.” PI: Bray, University of California-Berkeley.

“Development of a Database from the Duzce-Bolu Region in Turkey to Enable Testing Hypotheses Relating Urban Building Damage to Structural, Geotechnical, and Geological Parameters.” PI: Frosch, Purdue Research Foundation.

“Investigation of Soil Liquefaction in the 1999 Chi-Chi, Taiwan, Earthquake.” PI: Juang, Clemson University.

“Seismic Performance and Design of Reinforced Soil Structures with Reference to Lessons Learned from the 1999 Earthquakes of Taiwan and Turkey.” PI: Stokoe, University of Texas at Austin.

“Preliminary Investigation and Implications of Improved Ground Performance during the 1999 Turkey Earthquakes.” PI: Martin, Virginia Polytechnic Institute and State University.


“Institutional Response Topics:

“Assessment of Performance of Modern Bridges in the 1999 Chi-Chi, Taiwan, Earthquake.” PI: Mahin, University of California-Berkeley.

“Near-Field Bridge Response Library for the Chi-Chi Earthquake.” PI: Fu, Wayne State University.

“The Role of Input Energy in Assessing Seismic Hazard and Damage Following the Turkey Earthquakes.” PI: Manuel, University of Texas at Austin.

“Behavior of Large-Diameter Water Pipe at Seismic Fault.” PI: O’Rourke, RPI.


“Response of Precast Construction in Turkey during the 1999 Earthquakes.” PI: Wood, University of Texas at Austin.
Publications

New FEMA Earthquake Loss Study

FEMA recently released a national study of earthquake risk on September 20, 2000, at the National Earthquake Risk Management Conference in Seattle, Washington. According to the study, earthquake losses in the United States add up to about $4.4 billion a year. Eighty-four percent of the nation’s annual losses are expected to occur in California, Oregon, and Washington, with California alone accounting for $3.3 billion of the estimated damage costs. In addition to California metropolitan areas, cities ranked among the top 40 high-loss potential urban areas include Seattle, Portland, New York, Salt Lake City, St. Louis, Tacoma, Las Vegas, Anchorage, Boston, Reno, Memphis, Charleston, Albuquerque, Newark, Honolulu, and Atlanta. Earthquake loss estimates are annualized to factor in historic patterns of frequent smaller earthquake events with infrequent but larger events.

FEMA reports that the $4.4 billion estimate is extremely conservative and includes only capital losses, such as repairing or replacing buildings, contents and inventory ($3.49 billion), and income losses — business interruption, wage, and rental income losses ($0.93 billion). It does not cover damage and losses to critical facilities, transportation and utility lifelines, or indirect economic losses.

The study indicates that probable annual earthquakes losses in the United States are almost equal to the losses experienced from floods or hurricanes. Annual flood losses totaled $5.2 billion during 1989 to 1998, according to the National Weather Service. The National Climatic Data Center estimates $5.4 billion in annual hurricane losses for the same period.

To arrive at their findings, FEMA building scientists and seismologists used the earthquake loss estimation methodology called HAZUS, developed in cooperation with the National Institute of Building Sciences. The study represents an important benchmark in a long-term FEMA effort to analyze, rank, and compare seismic risk across regions in the United States.

The information from the study can provide policy makers and planners with a nationally consistent approach that will help them understand the complexity and dynamics of risk, how levels of risk can be measured and compared, and the multitude of factors that influence risk.

“We hope that we can convince state and local policy makers to adopt and enforce seismic building codes in regions of the United States that experience infrequent but damaging earthquakes,” FEMA Director James Lee Witt said. “In addition, the information provided in this study should become an integral component of a national seismic risk baseline, aggregated at the metropolitan, state, and regional levels to support options and actions to reduce seismic risk in the United States.”

The full report, HAZUS 99: Average Annual Earthquake Losses for the United States, is available on FEMA’s web site at www.fema.gov/pdf/FEMA366.pdf. Hard copies of the study can be obtained by calling FEMA publications at 800/480-2520.

USGS Earthquake Maps

Since 1973, the U.S. Geological Survey National Earthquake Information Center (NEIC) in Golden, Colorado, has provided up-to-date earthquake information to scientists, government agencies, universities, private companies, and the general public. Of the many millions of earthquakes estimated to occur each year, the NEIC staff presently locates and publishes information for approximately 20,000 events. This service rapidly and accurately determines the location and magnitude of significant earthquakes throughout the world.

Through the work of NEIC, the USGS can deliver information and graphics, contained on maps, concerning why and where we have earthquakes and how to be prepared if living in an earthquake-prone area. All maps may be viewed at: earthquake.usgs.gov/neis/pANDs/global.html. Most maps are priced at $10.00. In addition, a $5.00 handling fee will apply (more for international shipping). For more information, phone: 1-888-ASK-USGS, fax: 303-202-4693, or e-mail: infoservices@usgs.gov.

12WCEE Commemorative Volume

In commemoration of the successful 12th World Conference on Earthquake Engineering (12WCEE) held January 30-February 4, 2000, the New Zealand Society for Earthquake Engineering has published a commemorative volume as the September 2000 edition of its Bulletin series.

This special edition contains the unabridged keynote papers as presented in Auckland. A montage of color photos of both formal and informal conference events is also included in the special publication. Copies of the Bulletin will be sent to all members of the Society.

Additional copies of this edition are available from the Society for $75 NZ in New Zealand and $100 NZ elsewhere. For more information, contact the Society by fax: +644-528-4907 or e-mail: quirke@ihug.co.nz.
News of the Institute

Summary Minutes of the May 31, 2000
Meeting of the Board of Directors

Preliminaries: The meeting was called to order at 8:39 am. Directors present included President Chris Arnold, President-Elect Chris Poland, Dennis Mileti, Thalia Anagnos, Paul Somerville, Norman Abrahamson, Thomas O'Rourke, and Ron Mayes. Also present were Executive Director Susan Tubbesing, Administrative Assistant Beth Nelson, and Information Technologist Xena van de Walle. Alaska Chapter President John Aho arrived at 8:00 am and left at 12:00 noon. Director Comartin arrived at 3:00 pm and left at 5:30 pm. Director Green was not present.

Alaska Chapter Report: John Aho, Alaska Chapter President, noted that the chapter meets when there are issues of concern. They have 15 to 20 members. The chapter is active in politics, especially with respect to Alaska’s building codes. They are sponsoring a dinner to attract new members.

Regional Chapter Liaison Report: Director Mileti reported that the MAE Center has reorganized its Board. He noted that social scientists and engineers are working together, which hasn’t happened very often in the past.

NSF/FEMA Status: O’Rourke briefed the Board on recent NSF changes. Gene Wong, head of the Critical and Mechanical Systems Division of NSF, is leaving in June, but it is clear that he has changed priorities at NSF during his tenure. Mileti urged EERI to consider its role in contributing to a sustainable environment, and to consider collaboration with environmental and urban hazard organizations. This could be crucial to the continued growth and vitality of the Institute.

Secretary/Treasurer’s Report: The Board accepted Treasurer Mayes’ report. It indicated that the combined balance sheet as of March 31, 2000, shows the Institute’s opening fund balance of $1,013,026 increased by excess revenue over expenses of $233,143. EERI’s total liability balance of $296,959, combined with the total fund balance, equaled $1,543,128.

The Endowment Program’s opening fund balance of $799,621 increased by excess revenue over expenses of $1,173. The Endowment Program’s total liability balance of $165,225, combined with the total fund balance, equaled $966,019. All programs combined, including association, technical, and endowment, totaled $1,543,128.

The Investment Funds Report showed $188,132 in the General Administrative Short-Term Fund, $211,013 in the General Administrative Long-Term Fund, and $801,794 in the Endowment Fund. The Innovation Prize Investment Fund totaled $164,724. The Institute’s interest-bearing checking account showed a balance of $44,390. With the combined invested funds in both General Administrative Funds, this account totaled $399,146. The Grants Status Summary showed that of $712,829 in active grants, $484,667 had been expended as of March 31, 2000.

Mayes noted that support for the 6ICSZ has been reduced by NSF from $150,000 to approximately $60,000. The uncertainty of future funding from NSF and FEMA requires that EERI develop alternative funding sources and a strategic plan.

On another topic, Sonya Hollenbeck will be asked to contact EERI’s investment advisor and schedule a meeting with the Finance Commit-

tee. It is time to re-evaluate EERI’s current investment strategy, which has been in place for several years.

Dinner Speaker Proposal: Poland discussed his proposal to create an EERI dinner speaker program. The intention is to add value to EERI membership and attract new members. Poland suggested starting out on a bi-annual basis, and expanding into a quarterly program. New York, Los Angeles, and San Francisco were brought up as potential first-run cities. There will be an effort to coordinate with other associations, such as AIA, SEAOI, SEAOC, SEAONY, and others to develop the Speaker Program for this year.

Membership: Total membership is up slightly from last year. Student members account for the increase. The Board discussed the importance of encouraging the next generation of scholars to go into hazard research in each of the disciplines. Eric Williamson, chair of the Student Activities Committee, should be asked to devise a plan to reach out to non-engineers.

Publications/Sales: Tubbesing noted that CD-ROM publications have been a good source of revenue for EERI. Their development will continue to be a priority in the future. EERI needs to generate more publications. During this period of very rapid technological change, the staff will attempt to determine what types of publications that members find most useful.

Endowment Financial Management
White Paper: A new project, Seismic Vulnerability of the World’s Housing, has generated a tremendous amount of interest. The Project Management group met at the end of April to review progress on the draft form used for collecting information. John A. Martin and Associates, through Farzad Naeim, will be donating staff time to create an interactive, searchable database on our web site.
Publications Policy Committee Report:

Oral Histories: It was agreed that the oral histories should be published on the Internet, but that one volume will continue to be issued in print each year. The Art Sedgwick oral history will be used as a catalyst on the web site. Tubbesing will communicate this decision to Stan Scott, to get his concurrence.

Spectra Cost/Size Guidelines: The Publications Policy Committee will address the issue of Spectra size. It has gradually become longer over the past few years. The Board agreed that the Spectra Editorial Board needs to do more outreach, to improve the balance of papers from under-represented disciplines.

LFE proposal: The LFE Program will be renewed by NSF for one year, at a 10% reduction of the request. The staff will need to write a proposal for the next two years. NSF has asked that safety training for the reconnaissance team members be added into the general training.

Student Member Dues: The possibility of raising student dues was discussed, to cover shipping costs if nothing else. Hollenbeck will be asked to contact faculty advisors of each student chapter to get their reaction to an increase in dues and report to the Board.

The possibility of creating a transition membership, with lower than regular dues for recent graduates, was discussed briefly and will be given more consideration in the future.

Finalities: The meeting was adjourned by President Chris Arnold at 6:00 pm.

News of the Profession

Strong Earthquake Strikes Western Japan

Japan’s strongest earthquake in five years hit the western region of the country on Friday, October 6, at about 1:30 in the afternoon. The Mw 6.6 (M7.3 JMA) event occurred in western Tottori prefecture, a primarily rural area. The closest large city is Matsue in Shimane prefecture, 30 km northwest of the earthquake. There were more than 100 people injured and about 200 homes destroyed, but no fatalities reported to date. Two people were rescued after being buried by landslides at two construction sites in Shimane prefecture, on the coast facing the Sea of Japan.

Focal mechanisms show that the mainshock was due to strike-slip faulting. There are no large mapped faults in the region that have the same trend as the aftershocks; however, there is a small unnamed fault with the correct orientation that can be found on the Active Faults Map of Japan. The shaking intensity, as measured by the JMA scale, had a maximum value of 6+ in the vicinity of the epicenter. The event was felt over a large region of western Japan with intensity 4 in Kyoto and Kobe, and intensity 3 in Osaka. Mild shaking was also reported in parts of Tokyo, about 360 miles east of the worst-hit areas.

Call for Papers

ERES 2001

The Third International Conference on Earthquake-Resistant Engineering Structures (ERES 2001) will be held September 4-6, 2001, in Malaga, Spain. The meeting will provide a forum for discussion of basic and applied research in the fields of earthquake-resistant analysis and design. Conference topics include the following: reinforced concrete structures, bridges, building structures, ground motion and site effects, seismic design criteria, earthquake-resistant design, historical buildings and monuments, soil structure interaction, seismic isolation and control, soil dynamics, retrofit, case studies, steel structures, and lifeline structures.

The deadline for 300-word abstracts (preferably submitted by e-mail) is January 3, 2001. For more information, contact the ERES 2001 Conference Secretariat by phone: +44-0-238-029-3223; fax: +44-0-238-029-2853; e-mail: shanley@wessex.ac.uk; web site: www.wessex.ac.uk/conferences/2001/eres01/.

News of the Profession

ANSS Mid-America Subcommittee

The next meeting of the Advanced National Seismic System (ANSS) Mid-America Region Subcommittee will be held November 28-29 at the Fogelman Executive Center at the University of Memphis. There is room for 15 additional participants, so please contact withers@ceri.memphis.edu if you plan to attend this meeting. The subcommittee will review and finalize a draft report for submission to the National Steering Committee in support of establishing a Mid-America Region. Details will be posted on the ANSS-MA web site (www.anss-ma.org) as they become available. To be added to the list of those interested in supporting the ANSS, visit the Seismological Society of America (SSA) website at www2.seismosoc.org/anss_announce. The ANSS is an effort to upgrade seismic monitoring systems throughout the United States by improving hardware, management, operations, cooperation, and outreach.
News of the Institute

EERI Student Chapter Annual Reports

Presently there are 19 EERI student chapters at universities in 13 states. Each year, student chapters are expected to submit a report describing the membership and activities of the chapter during the previous year. This year's reports are summarized below. For information on the benefits of establishing a student chapter, and the requirements, contact the EERI office.


Georgia Institute of Technology, Atlanta; established April 1999. President: Julio Valdez; Faculty Advisor: Reginald DesRoches; Industry Contact: Stanley Lindsey, Stanley D. Lindsey & Associates. 1999-2000 Highlights: Hosted seminars on the earthquakes in Turkey and Taiwan; hosted a presentation by Robin McGuire of Risk Engineering.

Oregon State University, Corvallis; established May 1992. President: Nason McCullough; Faculty Advisors: Thomas Miller and Stephen Dickenson; Industry Contact: John Ferguson, CH2M Hill. Web site: www.ccee.orst.edu/eeri/. 1999-2000 Highlights: Hosted three speaker meetings, including John Egan from Geomatrix Consultants as part of the EERI Visiting Professionals Program; built an e-mail list server that includes local practitioners in earthquake engineering.

University at Buffalo, SUNY, New York; established December 1997. President: Ani Natali Sigaher; Faculty Advisor: John Mander; Industry Contact: Sarafim Arzoumanidis, Steinman Boynton Gronquist Birdsell. 1999-2000 Highlights: Hosted several seminars and audiovisual activities; hosted Jeremy Isenberg of Weidlinger Associates for a two-day visit as part of the EERI Visiting Professional Program; participated in the 2000 EERI Annual Meeting.


University of California at Los Angeles; established June 1999. President: Sandrine Lermotte; Faculty Advisors: Jonathan Stewart and John Wallace; 1999-2000 Highlights: Hosted a seminar series with more than 13 speakers, including talks by EERI Distinguished Lecturers Allin Cornell and Joseph Penzien.


University of Kansas, Lawrence; established October 1992. President: Andrew Cushing; Faculty Advisor: JoAnn Browning; Industry Contacts: Harold Sprague, Black & Veatch, and David Byers, HNTB. 1999-2000 Highlights: Visited site of a mine collapse in Kansas City; participated in University of Kansas Engineering Exposition for local K-12 students; visited earthquake research facilities at Washington University in St. Louis.


University of Texas, Austin; established January 1993. President: Brian Siddle; Faculty Advisor: Michael Kreger; Industry Contact: David Teasdale, HAAG Engineering. Web site: www.utexas.edu/students/eeri. 1999-2000 Highlights: Hosted a successful seminar series, including two talks by EERI Distinguished Lecturer Allin Cornell.

Washington University, St. Louis, Missouri; established August 1991. President: Juan Martin Caicedo; Faculty Advisor: Kevin Truman; Industry Contact: Shan-Nan Gong, Sverdrup & Parcel Associates. Web site: www.cive.wustl.edu/~eeri/. 1999-2000 Highlights: Participated in Earthquake Awareness Week at St. Louis Science Center; hosted students from University of Kansas EERI Chapter; participated in the 2000 Annual Meeting.

Other student chapters active during the 1999-2000 academic year are located at the following institutions:

Brigham Young University, Provo, Utah continued on page 7
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.

2000

**NOVEMBER**

4-7. IAEM Annual Conf., Austin, TX. Info: iaem@aol.com (7/00)
7. Kobori Symposium, Kyoto, Japan. Info: suzuki@zeisel.dpri.kyoto-u.ac.jp or wdiwan@caltech.edu (3/00)
7-9. 5th International Conference on Corporate Earthquake Programs, San Jose, CA. Info: vukazich@email.sjsu.edu (11/99)
20-22. Earthquake Engineering Joint Conference, Seattle, WA. Info: www.eeri.org (5/00)

**FEBRUARY**

7-10. 2001 EERI Annual Meeting, Monterey, CA. Info: www.eeri.org. See page 1. (2/00, 10/00, 11/00)

**MARCH**

26-31. 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, CA. Info: prakash@novell.civil.umr.edu (6/99, 2/00, 6/00)
31-April 1. ASTM Symposium on Performance of Exterior Walls, Phoenix, AZ. Info: pjohnson@dt.smithgroup.com (4/00)

**APRIL**

18-20. SSA Annual Meeting, San Francisco, CA. Info: www.seismosoc.org/meetings/ (8/00)

**MAY**


**JUNE**

4-6. ERES 2001, Malaga, Spain. See page 5. (11/00)

**AUGUST**

7-10. International Tsunami Symposium, Seattle, WA. Info: www.pmel.noaa.gov/its2001 (7/00)
17-19. SMiRT Conference, Washington, DC. Info: www.engr.ncsu.edu/SMiRT_16 (7/00)
16-19. International Conf. on Engineering Materials, San Jose, CA. Info: mcmullin@email.sjsu.edu (3/00)
29-31. IABSE Conference on Wooden Structures, Lahti, Finland. Info: www.iabse.ethz.ch (8/00)

**SEPTEMBER**

8-10. 46th EERI Annual Meeting, Philadelphia, PA. Info: www.drexel.edu/sdee2001 (9/00)

**OCTOBER**

3-5. Modelling and Simulation in Civil Engineering, Paris, France. Info: www.enpc.fr/caquot/ (9/00)
7-10. SDEE’2001, Philadelphia, PA. Info: www.drexel.edu/sdee2001 (9/00)

2002

**JULY**

21-25. 7th National Conference on Earthquake Engineering, Boston, MA. Info: www.eeri.org (9/99)

**SEPTEMBER**

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

**Student Chapters continued from page 6**

Notre Dame University, Indiana
University of California at Berkeley
University of California at Irvine
University of California at San Diego
University of Memphis, Tennessee
University of Minnesota, Minneapolis
University of Missouri-Rolla
Obituary

William Wheeler

William (Bill) Wheeler, a member of EERI since 1958, died in Pasadena, California, at the age of 89, on October 7, 2000.

Wheeler served on the EERI Board of Directors from 1973-1975. He attended the California Institute of Technology and received a degree of civil engineering. In 1946, he founded the business that would eventually become Wheeler and Gray, Consulting Engineers.

Over the next 54 years, his civil and structural engineering company would work on many high profile projects, including Disneyland and Walt Disney World.

Wheeler is survived by two sons, five grandchildren and five great grandchildren.

News of the Profession

Ali Memari Wins NSF Award

Ali Memari, an assistant professor of Architectural Engineering at Pennsylvania State University and an EERI member since 1993, has received a Faculty Early Career Development Award (CAREER) from NSF. The award, described by NSF as its highest honor for new tenure-track faculty, provides up to five years of funding in support of "research and education of the highest quality and in the broadest sense." Memari’s research focuses on development of innovative seismic isolation designs for curtain walls with architectural glass, brick veneer walls, cladding panels, and infill walls. He teaches earthquake design of buildings, with emphasis on nonstructural elements, to architectural engineering students.

Employment Opportunities

United Nations, Geneva, Switzerland. Director of the Inter-Agency Secretariat of the International Strategy for Disaster Reduction to serve as focal point within the UN system for the coordination of strategies and programs for natural disaster reduction. Director is tasked with ensuring synergy between disaster reduction strategies and those in the socio-economic and humanitarian fields. Deadline for applications is November 18, 2000. Fluency in both English and French is required. Contact: Staffing Support Section, Office of Human Resources Management, Room S-2475, United Nations, New York, 10017; fax: 212/963-3134; e-mail: staffing@un.org.