



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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News of the Institute

2010 Annual Meeting: Back from the Future

Imagine this news bulletin from 2056: a M7.5 earthquake has struck San Francisco, but instead of widespread damage and destruction, relatively few buildings have been seriously damaged, few people have been killed, and most utilities are still functioning. Firefighters and other emergency responders have everything under control. The 2010 EERI Annual Meeting, to be held February 3-6 at the Parc 55 Hotel in San Francisco, will discuss and debate the steps that must be taken between now and 2056 to achieve such a performance level. The meeting kicks off with the 2056 field reconnaissance report. The team's observations will frame the issues for three subsequent sessions on buildings and structures, legislation and policy changes, and vital research and education. Speakers will also exchange views on whether this performance vision is attainable and the investments that would be necessary to achieve it.

Save the dates and watch for more information on EERI's website, in future newsletters, and in the program brochure later this year.

See page 3 for more Annual Meeting News.



Location of 2010 Annual Meeting: Downtown San Francisco. Marina District is in foreground; East Bay Hills in background (photo © 2007 Christopher Chan).

Concrete Coalition: A Web-Based Resource

The Concrete Coalition is building a network of volunteer engineers in California who are gathering information on the number and types of pre-1980 concrete buildings that exist in the state, to help understand the risk represented by these buildings. Volunteer engineers have signed up for cities in the high seismic risk counties in the state. Using a variety of techniques, including Sanborn maps, zoning maps, Google Earth, street surveys, meetings with building officials, tax assessor data, library data, engineering firm archives and other online databases, the volunteers gather data for use in developing a reliable estimate of the number of pre-1980 concrete buildings in that community. These estimates exclude public schools, universities, and hospitals, the counts for which are being imported from statewide databases.

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News of the Institute

EERI Student Chapter Activities

Oregon State University

Members of the EERI Student Chapter at Oregon State University (OSU) gave earthquake awareness talks to Linus Pauling Middle School students that included a slide show on the causes and effects of earthquakes and the general roles of geotechnical and structural earthquake engineers. They demonstrated a liquefaction simulation model and a portable structural frame on a shake table, and repeated the demonstration during the 40th Annual CH2M Hill/OSU Bridge Contest and for a group of talented and gifted 6th graders. In the 6th Annual Undergraduate Seismic Design Competition at the EERI Annual Meeting in Salt Lake City, (see page 4 in the March *EERI Newsletter*), the OSU balsa wood structure placed 3rd overall. The chapter gave a lecture and demonstration on earthquake response of structures to about 40 students in an OSU geology class on "Earthquakes in the Pacific Northwest." The chapter, in conjunction with the ASCE student chapter, continued the tradition started in 2005 of hosting the "Order of the Engineer" induction ceremony just

before commencement. The chapter website is <http://groups.engr.oregonstate.edu/eeri/index.php>.

Georgia Institute of Technology

EERI Georgia Tech Student Chapter members visited the Atlanta-based Heritage Preparatory School and presented earthquake preparedness to a class of 6th and 7th graders. The kids enjoyed shake table and liquefaction demonstrations, and participated in a seismic building design competition. Among the several seminars hosted by the chapter were those featuring EERI members Patrick Paultre speaking on "Use of High-Strength Concrete in Seismic Zones" and Masayoshi Nakashima on "Roles of Large-Scale Structural Testing for Advancement of Earthquake Engineering." The chapter also organized a non-technical small group discussion led by EERI member Dennis S. Mileti about the role and direction of the engineering community in preparing for and responding to disasters.

San Jose State University

For its first outreach effort, the new EERI-SJSU Student Chapter held seismic design workshops for two geometry classes at Mid-Peninsula High School, each for two days.

On the first day, chapter members taught the students a few principles about seismic design, such as how buildings can be simplified into single-degree-of-freedom systems and what amplitude and frequency mean. They conveyed key lateral load-resisting design concepts, including symmetry, height, width of the base, rigidity of truss systems, and cantilevered bending with a variety of visual aids provided by chapter advisors Kurt McMullin and Thalia Anagnos. The students were divided into groups and built towers out of K-Nex pieces. On the second day, the groups went head-to-head in a shake table competition. The winner was decided based on two rounds. After the first round, the students could retrofit their structures and strengthen the points where they had failed. The students had fun, the teachers and administrators were impressed, and the chapter members felt rewarded by the successful experience.

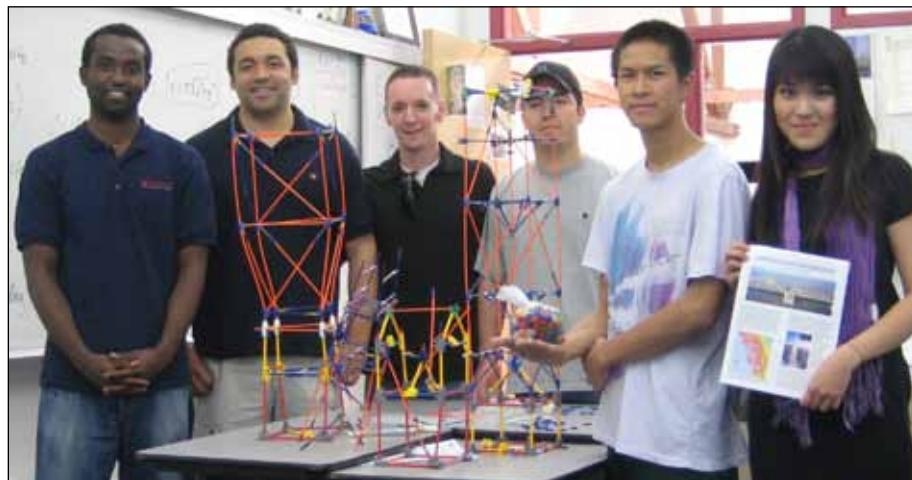
University of Kansas

The University of Kansas (UK) EERI Student Chapter hosted speakers who introduced undergraduate and graduate students to real world issues and research. The director of UK's Engineering Career Service made a presentation about job-

continued on next page



EERI OSU Chapter members with their liquefaction demo.



EERI SJSU Chapter members and the high school geometry teacher with the students' structures.

EERI Student Chapters

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hunting skills and resources. Harold Sprague, a representative of the FEMA Urban Search and Rescue in Missouri and a structural engineer, presented requirements for a facility that must be operational immediately after the maximum considered earthquake. EERI member Nathan Gould of ABS Consulting in St. Louis gave a talk about performance-based seismic design.

University of Southern California

The EERI-USC Student Chapter participated in a May 2 Science and Technology Day on campus. During a lunch period sponsored by the EERI Southern California Chapter, two shakatables were on exhibit, one from USC and the other from UCLA. These demonstrations served as advance organizers for the subsequent building contest. Groups of 10-15 enthusiastic stu-

dents were divided by grade level. Each group was given a bag filled with construction materials and built a structure that was shake tested. EERI chapter members guided the building of the structures and taught the students about what goes into making earthquake-resistant build-

ings. They came up with “key” messages for the students to remember for a “Dollars for Answers” period at the end of the day.

To download complete student chapter reports, visit <http://www.eeri.org/site/membership/student-chapters>.



Shake table test during Science and Technology Day at USC.

Call for Annual Meeting Poster Abstracts

Individuals interested in participating in one of the 2010 Annual Meeting poster sessions are invited to submit abstracts, not exceeding two pages in length, to the organizing committee. The accepted abstracts will be reproduced as submitted in the Annual Meeting notebook and therefore must be in final form. Abstracts should be prepared with one-inch margins on all sides, single-spaced in 11-point Times Roman or equivalent font. Text should be flush left. The title, in upper case, should be centered at the top, with presenters identified by name, title, and organizational affiliation. They should be e-mailed by December 1, 2009, to Juliane Lane at juliane@eeri.org. Presenters will be notified in early January of acceptance.

Annual Meeting Travel Scholarships

Several scholarships are available to assist student members and younger EERI members (out of school no more than three years) to attend the 2010 Annual Meeting, thanks to support from FEMA. The financial support will be contingent upon participation in one of the poster sessions (see above), either through the applicant's own research project, or as a representative of a student chapter depicting the chapter's activities. Each scholarship can be used to cover registration, three nights' lodging, and round-trip economy airfare.

To apply, e-mail a letter of request by December 1, 2009, to the Student Activities Committee in care of 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.

Call for Manuscripts

Authors Needed for Hazards Book Series

Springer has launched a new book series on Environmental Hazards. Authors are invited to submit manuscripts that (1) bring new knowledge and insights to matters of hazards, risk, and disasters; (2) integrate knowledge from natural sciences, social sciences, engineering, and other disciplines; (3) consider natural, technological, social, and intentional hazards and disasters; and (4) are useful and accessible to a broad range of readers in academia, government, nongovernmental organizations, and the private sector.

To obtain a book proposal form, e-mail the series editor, EERI member Tom Birkland, at tom_birkland@ncsu.edu. For more information, visit <http://www4.ncsu.edu/~tabirkla/documents/ENHAFlyer.pdf>.

News of the Institute

2009 Bolt Medal Awarded to Iwan

Wilfred (Bill) D. Iwan, Emeritus Professor of Applied Mechanics at the California Institute of Technology, has been chosen as the first 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 Iwan's many accomplishments in advancing earthquake strong-motion monitoring networks and instrumentation in the United States and internationally, for his research accomplishments in earthquake engineering and engineering seismology, and for his effective leadership roles in professional organizations to further the acquisition and application of strong-motion data. He will receive the medal at the COSMOS Annual Meeting on November 6.

Iwan's contributions include methods for structural systems modeling, methods for nonlinear structural systems analysis for evaluation of structural damage, practical methods for earthquake-resistant design, analytical techniques for evaluating the response of piping and other nonstructural equipment systems, and advances in strong-motion instrumentation, including real-time monitoring of structures. His research led to the introduction of the concept of "drift demand spectrum" as a means of measuring the damage potential of strong earthquake ground motion.

He has served on a number of EERI committees and special project initiatives and on the editorial boards of a number of international journals. Iwan has been a leader in the development of structured earthquake engineering research coordination. He is the founding president of the California Universities for Research in Earthquake Engineering and a founding director of COSMOS and the World Seismic Safety Initiative. He contributed to the founding of the

Network for Earthquake Engineering Simulation. Nationally, he has chaired or served as a member of a number of National Research Council boards, committees and panels.

He is a member of the U.S. National Academy of Engineering and a fellow of the American Society of Mechanical Engineers. He is a recipient of the William H. Wisely American Civil Engineer Award and the Newmark Medal both given by the American Society of Civil Engineers. He is also a recipient of the Alquist Medal, given by the California Earthquake Safety Foundation, and a COSMOS Lifetime Achievement Award.

Subscribing Member News

URS Risk Tools

EERI Subscribing Member URS Corporation recently released two seismic risk tools, SiteRisk and the Earthquake Portfolio Risk Manager (EPRM), with ground motions compatible with the 2008 USGS National Seismic Hazard Maps, and damage relationships that use code-oriented damage assessment (CODA) algorithms (Graf & Lee, *Earthquake Spectra*, February 2009). CODA adjusts building damage relationships for natural period, design strength, and ductility and overstrength. SiteRisk applies to individual buildings and EPRM to portfolios (multiple buildings and sites). Both tools are fully probabilistic, producing risk curves that plot damage cost as a function of return period. URS' software is available for license and for use in risk studies. URS performs seismic risk assessments for individual sites and portfolios, and URS collaborates with other engineers on large portfolio studies.

For more information, contact Bill Graf at URS' Los Angeles office, 213-996-2381, or william_graf@urscorp.com.

Call for Nominations for 2010 Bolt Medal

The Bruce Bolt Medal recognizes individuals worldwide whose accomplishments involve the promotion and use of strong-motion earthquake data, leadership, and improved seismic safety. Professor Bolt's involvement with the three sponsoring organizations (see above) and contributions to the fields of seismological science, engineering seismology, and seismic safety policy inspired the creation of this award following his death in 2005. For more information about Bruce, see page 3 of the December 2007 *Newsletter*.

The three sponsoring organizations are calling for nominations for this distinguished award. Nominations

will be reviewed in confidence by a 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 **October 31, 2009**. For information on the nomination package requirements, visit <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.

The Concrete Coalition

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Volunteers enter their information online, and once approved, the reports are visible on the website (www.concretecoalition.org) by clicking on one of the high seismic risk counties (see figure below).

The project is using the web to store the data as it comes in from various jurisdictions. Volunteers also attach files showing their fieldwork, including Google Earth files, that led to their estimates. These files will be useful in the future, making it possible to go back and understand the counts in more detail. In some cities this will help understand a particularly high or low count—for example, the City of Alameda has a former naval station and so has many more such buildings than other cities of a similar size. Understanding these differences may end up being particularly important in the next phase of the project, when the Concrete Coalition hopes to work with individual jurisdictions to determine which of these buildings are the most vulnerable, and what mitigation strategies might be most appropriate.

Project staff are collecting census data for all of the 350 cities in these higher risk counties. A regression model is being developed, based on these data and volunteer estimates. Within certain levels of accuracy, this model will predict the pre-1980 concrete building counts for the remaining cities with incomplete information.

The strategy is to 1) collect field estimates for the largest cities in California, building on work that has been done in Los Angeles under a separate project, and including San Jose, San Diego, Oakland and San Francisco, and 2) collect field estimates for several cities within each of several major population groupings (<20,000, 20-50,000, etc). Using these estimates, the regression model will be refined, and estimates made for remaining cities.

The table shows the preliminary estimates for various California cities. If you have insights, suggestions or comments that you would like to make on these preliminary estimates, please contact Craig Comartin, project director, or Marjorie Greene, EERI staff.

The next steps will be to revise and run the regression model, factor in data from the statewide databases, and come up with a reliable estimate (or range) for the number of these buildings in the higher seismic risk counties of California. Then the difficult task of figuring out which of these buildings are vulnerable and what to do about them begins.

Particular thanks go to all the volunteers who have completed city reports and to Craig Comartin, project director; David McCormick, volunteer coordinator for northern California; David Bonowitz, data curator and synthesizer of statewide databases; David Pomerleau, volunteer coordinator for southern California; Peter May, developer of the regression model; and Emmett Seymour, Cal Poly REU student. This work is funded by a FEMA Hazard Mitigation Grant through the California Office of Emergency Services (now California Emergency Management Agency).

Table of preliminary estimates for 27 cities, in order of population size (as of August 2009)

CITY	POP	DENSITY	ESTIMATED PRE-80 CONCRETE BUILDINGS
Emeryville	6,882	5,735.0	44
Fairfax	7,319	3,485.2	18
Piedmont	10,952	6,442.4	8
Solana Beach	12,979	3,708.3	3
Mill Valley	13,600	2,893.6	13
Albany	16,444	9,672.9	36
Millbrae	20,718	6,474.4	52
El Cerrito	23,171	6,436.4	22
Calabasas	23,652	1,805.5	2
Eureka	25,579	2,692.5	10
Burlingame	27,380	6,367.4	240
Novato	50,335	1,817.1	18
San Rafael	55,716	3,356.4	53
Alameda	70,576	6,534.8	140-160
Napa	74,782	4,225.0	14
San Leandro	78,178	5,967.8	40
Santa Monica	91,124	10,978.8	70
Daly City	100,339	13,202.5	30
Berkeley	100,744	9,594.7	275
Fullerton	132,787	5,981.4	60
Santa Rosa	154,212	3,845.7	55
San Bernardino	205,010	3,486.6	5
Glendale	207,157	6,747.8	160
Riverside	290,086	3,714.3	3--6
Oakland	395,274	7,045.9	1300
San Francisco	739,426	15,833.5	3100
Los Angeles	4,018,080	8,565.5	1500

The screenshot shows the website interface for the Concrete Coalition. At the top, there is a navigation bar with links for Home, Background, Get Involved, City Programs, Resources & Links, and News Feed. Below this is a search bar with the text "Looking for something in particular?" and "To search, type keywords and hit enter...".

The main content area is titled "California Inventory Project" and includes a description: "The Concrete Coalition is building a network of volunteer engineers in California who will help gather information on the number and types of pre-1980 concrete buildings that exist in the state, and help understand the risk represented by these buildings." Below this is a map of California with several counties highlighted in yellow. A pop-up window lists cities in the highlighted counties: Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, and Pleasanton. A text box says "Click on a highlighted County to view details".

On the right side of the map, there is a "Navigation" section with links: "Volunteer Login Page", "What to Count", "Help From Pilot Cities", and "Sign up for a jurisdiction". Below this is a note: "* Please note: The reports we have posted to date are preliminary and have not yet been reviewed for accuracy. They represent the best estimates of our expert volunteers working in these communities."

At the bottom of the screenshot, there is a caption: "Map of the state with highlighted counties. User clicks on county and a list of cities pops up—cities in black are ones for which we have information."

Announcements

Khan Lecture Series

EERI member Dan M. Frangopol, Khan Endowed Chair in Structural Engineering and Architecture at Lehigh University in Bethlehem, Pennsylvania, invites attendance at the 2010 Fazlur Rahman Khan Lecture Series, sponsored by Lehigh's Department of Civil & Environmental Engineering and the Department of Art & Architecture. The series honors Khan's legacy of excellence in structural engineering and architecture.

The following lectures begin at 4:10 p.m. in the Sinclair Lab Auditorium at Lehigh University:

1. February 26: **Zdeněk P. Bažant**, Professor, Northwestern University, on "Progress Engendered by Collapses of Record Setting Structures: Malpasset Dam, World Trade Center Towers and KB Bridge in Palau";
2. March 19: **Ron Klemencic**, President, Magnusson Klemencic Associates, Seattle, Washington, on "OUTRAGEOUS!"
3. April 16: **John E. Breen**, Professor, University of Texas, Austin, on "The ABCDs of Bridge Building: Affordable, Beautiful, Constructible, Durable."

For additional information visit <http://www.lehigh.edu/frkseries>.

All Hazards Forum

Developed in cooperation with the International Association of Emergency Managers (Region 9) and other local, state and federal officials, the All Hazards Forum, to be held October 20-21, 2009, at California's Long Beach Convention Center, will provide emergency planners and managers in both the public and private sectors the latest information in dealing effectively with the array of potential natural disasters facing California and the western states. For more information, visit <http://www.allhazardsexpo.com/index.html>.

Learning from Earthquakes

Gulf of California Earthquakes of August 3

This article was provided by Caltrans geologist Martha Merriam.

Right-lateral movement along the Pacific and North American plate boundary continues, as reflected by four mid-day moderate earthquakes ranging from M5.0 to M6.9 that occurred on August 3, 2009, in the Gulf of California (Sea of Cortez). Land areas near the Gulf are sparsely populated, and civil protection officials in the two Mexican states on either side of the Gulf reported no cases of injury or damage. However, the events prompted evacuation of high-rise buildings as far away as San Diego, over 400 miles away. Scientists also said that areas near the epicenter may have experienced local underwater landslides.

The earthquakes occurred on a strike-slip fault that is part of the same plate boundary as the San Andreas Fault in California. Motion along this boundary has split Baja California away from Mexico proper, creating the Gulf of California. Continued motion along this boundary is the primary source of earthquakes in western Mexico. In the last 21 years, there have been 22 events of M5.3 and greater (all with strike-slip focal mechanisms) in the Gulf of California, with the latest main event being the largest.

Calls for Papers

Ocean Sciences

The 2010 Ocean Sciences Meeting, sponsored by the American Geophysical Union, will be held February 22-26 in Portland, Oregon. The theme is "From Observation to Prediction in the 21st Century". A session titled "Tsunami Forecasting: A Framework for Advances in Tsunami Research" (Session PO02: Physical Oceanography 02) will focus on recent advances in the speed and accuracy of tsunami forecasting, the present set of challenges, and how a forecasting system may be used for advancing tsunami research. To submit an abstract, visit <http://www.agu.org/meetings/os10/program/index.php>. The deadline is October 15, 2009.

Heritage Conservation Workshop

The International Workshop on Conservation of Heritage Structures Using FRM and SHM (CSHM-3 2010) will be held August 11-13, 2010, in Ottawa-Gatineau, Canada. The workshop will highlight current and

future applications of fibre reinforced materials (FRM) and structural health monitoring (SHM) in a heritage conservation context. Topics to be discussed will revolve around research, application, and the future role of FRM and SHM in the conservation of heritage structures.

Papers are invited in all areas of SHM and FRM in the conservation of heritage structures. Abstracts should be submitted by September 15 to muftia@cc.umanitoba.ca. For more information, visit <http://www.ishmii.org/CSHM3/CSHM-3home.html>.

Publication

NEHRP Tech Brief #2 Correction

On page 3 of the August *EERI Newsletter*, EERI member Scott M. Adan's name was inadvertently omitted from the list of contributors to the NEHRP Technical Brief No.2, *Seismic Design of Steel Special Moment Frames: A Guide for Practicing Engineers*, issued by the National Institute of Standards and Technology (NIST GCR 09-917-3).

CALENDAR

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

SEPTEMBER

2. EERI Next Generation Attenuation (NGA) Models Seminar, Seattle, WA. www.eeri.org (5/09, 8/09)

3. EERI NGA Models Seminar, Oakland, CA. www.eeri.org (5/09, 8/09)

10. EERI NGA Models Seminar, Salt Lake City. www.eeri.org (5/09, 8/09)

11. EERI NGA Models Seminar, Los Angeles. www.eeri.org (5/09, 8/09)

13-17. 10th Int'l Conf. on Structural Safety & Reliability (ICOSSAR2009), Osaka, Japan. Info: www.sc.kutc.kansai-u.ac.jp/icosar2009 (2/08)

16-18. 10th Seminar on Structural & EQ Eng. (ACIES), San Jose, Costa Rica. Info: <http://www.acies.or.cr/actividades.aspx> (8/09)

17. Confined Masonry Construction Mini-Seminar, San Francisco. Info: www.confinedmasonry.org (8/09)

20-23. 4th Int'l Conf. on Geohazards, Nantou, Taiwan. www.engconfintl.org/9ad.html (5/09)

23-26. SEAOC Conv., San Diego, CA. <http://seaoc2009.com/> (2/09)

28-Oct. 10. Advanced School on Nonlinear Dynamics and EQ Prediction, Trieste, Italy. Info: <http://agenda.ictp.it/smr.php?2060> (4/09)

OCTOBER

2. AIA-EERI Forum on Designing for EQs, Stanford University. Info: www.aiascv.org (8/09)

2-3. EQ Geotech. Eng. Satellite Conf., Alexandria, Egypt. Info: mamsakr@yahoo.com (12/08)

5-9. 17th Int'l Conf. on Soil Mechanics & Geotech. Eng., Alexandria, Egypt. Info: <http://www.2009ic-smge-egypt.org/> (12/08)

15-16. PEER Annual Mtg., San Francisco, CA. Info: http://peer.berkeley.edu/events/annual_meeting/2009AM/. (3/09, 8/09)

15-16. 3rd Int'l Conf. on Advances in Experimental Structural Engineering, San Francisco, CA. Info: <http://peer.berkeley.edu/events/2009/icaese3/index.html> (7/09)

17. Loma Prieta Anniversary Event, San Francisco, CA. Info: http://peer.berkeley.edu/events/2009/loma_prieta/ (3/09)

20-21. All Hazards Forum. See page 6. (9/09)

20-23. 34th Annual Conf. on Deep Foundations, Kansas City, MO. Info: <http://www.dfi.org/> (9/09)

NOVEMBER

6. COSMOS Annual Meeting Technical Session, Clarion Hotel (SF Airport) Millbrae, CA. Info: www.cosmos-eq.org (9/09)

11-14. XVII Nat'l Conf. on EQ Eng. (Sociedad Mexicana de Ingeniería Sísmica), Puebla, Mexico. <http://www.smis.org.mx/xvii/> (8/09)

10-15. 5th Cong. on Forensic Eng., Washington, D.C. Info: <http://content.asce.org/conferences/forensics2009/index.html> (12/08)

23-25. 4th Annual Int'l Workshop & Expo on Sumatra Tsunami Disaster, Banda Aceh, Indonesia. <http://www.aiwest-dr.org/> (9/09)

25-26. 7th Int'l Probabilistic Workshop, Delft, The Netherlands. Info: www.elsevier.com/wps/find/newsdetail.cws_home/NWS_WN_nt00008088/essay (3/09)

DECEMBER

9-11. Improving the Seismic Performance of Existing Buildings and Other Structures, San Francisco, CA. Info: www.ATC-SEI.org (12/08, 7/09)

2010

FEBRUARY

3-6. EERI Annual Meeting, San Francisco, CA. Info: www.eeri.org. See page 1. (3/09, 9/09)

22-26. Ocean Sciences Mtg. Portland, OR. See page 6. (9/09)

26. Khan Lecture, Lehigh University. See page 6. (9/09)

MARCH

3-5. 7th Conf. on Urban EQ Eng. (7CUUEE), Tokyo. Info: http://www.cuee.titech.ac.jp/Conference_2010/index.htm (8/09)

19. Khan Lecture, Lehigh University. See page 6. (9/09)

APRIL

16. Khan Lecture, Lehigh University. See page 6. (9/09)

20-23. 2010 SSA Annual Meeting, Portland, Oregon. Info: <http://www.seismosoc.org/meetings/2009/specialsessions.html> (6/09)

MAY

22-27. X Chilean Conf. on Seis. & EQ Eng., Valdivia-Santiago, Chile. www.achisina2010.uchile.cl (5/09)

24-29. 5th Int'l Conf' on Recent Advances in Geotech. EQ Eng. & Soil Dynamics & Symp. in Honor of I.M. Idriss, San Diego, CA. Info: 5geoeq-conf2010.mst.edu (4/08, 1/09)

JULY

11-15. 5th Int'l Conf. on Bridge Maintenance, Safety & Management (IABMAS), Philadelphia, PA. <http://www.iabmas2010.org> (11/08)

25-29. 9th U.S. Nat'l & 10th Canadian Conf. on EQ Eng.: Reaching Beyond Borders, Westin Harbour Castle Hotel, Toronto, Canada. Info: 2010eqconf.org (2/08, 7/08, 1/09, 3/09, 6/09, 8/09)

AUGUST

11-13. Int'l Workshop on Conservation of Heritage Structures using FRM and SHM, Ottawa-Gatineau. See page 6. (9/09)

30-Sept. 3. 14th European Conf. on EQ Eng. (14ECEEE), Skopje-Ohrid, Macedonia. Info: www.eaee.boun.edu.tr/eaee.htm (12/08)

SEPTEMBER

5-9. 32nd Gen. Assembly of Eur. Seis. Com. (ESC 2010), Montpellier, France. www.esc2010.eu (5/09)

2011

JUNE

27-July 8. XXVth IUGG Assembly, Melbourne, Australia. Info: <http://www.iugg2011.com/> (6/09)



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EERI Newsletter, September 2009 Volume 43, Number 9

News of the Institute You Can Help Document Retrofit Progress

One rewarding way to commemorate the 20th anniversary of the Loma Prieta earthquake is by documenting progress in earthquake retrofits in the Bay Area. EERI has launched a new community mapping site to collect this information. Check it out: <http://www.earthquakeretrofit.org/>.

Earthquakeretrofit.org helps answer the question, "How have we reduced our earthquake risk in the 20 years since the Loma Prieta earthquake?" Anyone can add points to the map: homeowners, property managers, contractors, architects, engineers, or anyone willing to post his or her project. You can add a point without publishing your name, but an email address is required to help verify that you are a real person entering the data. A photo is also encouraged, but not required.

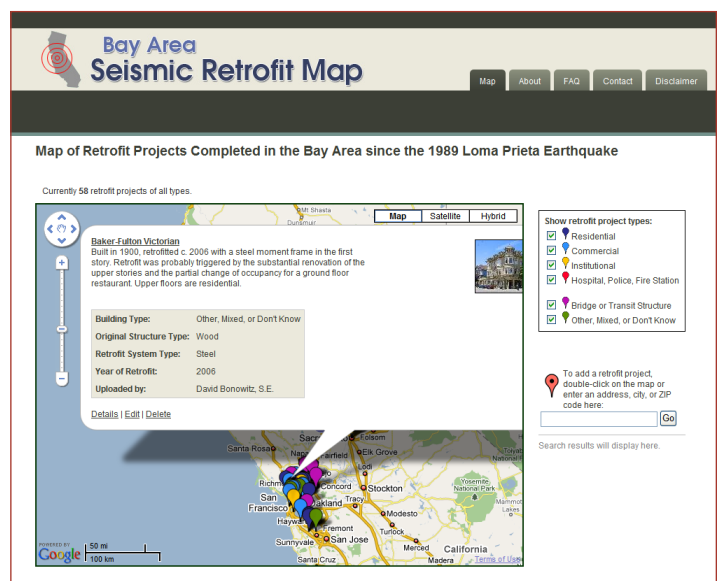
This site is about showing and sharing progress since Loma Prieta. It's an experiment in community mapping, and its success depends on you. We want to get the word out to engineers, architects, owners, con-

tractors — anyone who might want to share the progress they've made toward reducing risk over the last 20 years.

Have a look at the points already posted. More importantly, add your own. Then, even more importantly, pass the link to your neighbors, clients, partners, and consultants.

The site is about community building and emphasizing the positive story that has been taking place in California for the last twenty years. Our investment in mitigation is a story that we want to share widely. Don't be shy about the good work that has been done.

If you have a newsletter or email list, please share the link, and if you have a website, consider linking to this map. Questions? Contact contactus@earthquakeretrofit.org.



Publication

Wenchuan EQ Atlas

Global earth observation systems played an essential role in disaster mitigation after the Wenchuan earthquake of May 2008. The Chinese Academy of Sciences amassed optical and radar data on quake-hit areas. Their results are presented in the 259-page *Atlas of Remote Sensing of the Wenchuan Earthquake*. To order the English version for \$150, visit <http://www.crcpress.com/> and search on the title.