



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

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News of the Institute

9USN/10CCEE News: Explore Vibrant Toronto

It's not too late! To register for the 9th U.S. National/10th Canadian Conference on Earthquake Engineering happening later this month, July 25-29, visit <http://2010eqconf.org/>. You'll find a wealth of information about the exciting program. Participants from over 45 countries will be attending. Your attendance will certainly add to the success of this meeting, which is held only every four years. Your registration will reserve a spot for you at the gala luncheon and the evening banquet being held at the majestic Liberty Grand. The conference program has been designed to allow many opportunities to network and meet with colleagues who share similar interests. The above site has everything you need to know regarding accommodations, exhibits, social events, things to do, and field trips.

While Toronto is a bustling urban metropolis, it is also dedicated to its natural beauty. Take in the view from a skyscraper, and you'll see clusters of canopies formed by over 3 million young and old trees that act as portals to the many green spaces. The synergy from Toronto's diverse cultures gives the city a unique flair for the unexpected in art, theatre, architecture, and music. It teems with artistic expression, including world-renowned galleries and museums such as the Royal Ontario Museum and the Art Gallery of Ontario.

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The Royal Ontario Museum in Toronto (photo courtesy of Tourism Toronto).

Call for Papers

Special Issue of *Spectra* on Haiti Earthquake

The journal *Earthquake Spectra* will be publishing a special issue on the January 2010 Haiti earthquake. Papers are invited on the earth science, engineering, and social and economic sciences aspects of the earthquake and its aftermath. All papers should be submitted online through the *Earthquake Spectra* manuscript submission web page: <http://eqs.peerx-press.org>.

When the manuscript is uploaded, authors must select "Haiti Earthquake" from the drop-down list for special issues. The cover letter accompanying

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News of the Institute

EERI Commences Internship Program

EERI has inaugurated its first rotation of a new four-month internship program. Two interns were selected from a strong pool of candidates who recently completed degrees from top-ranked undergraduate and graduate engineering programs, or who are currently graduate students.

EERI extends a warm welcome to new interns Alice Ng and Ruben Negrete. Alice is a graduate of UC Davis with a bachelor's degree in civil engineering. Ruben is a graduate from UC Berkeley with a master's degree in structural



Alice Ng and Ruben Negrete

engineering. They are assisting on a number of EERI projects, including the Concrete Coalition, the World Housing Encyclopedia, the Confined Masonry Network, the 9th U.S. National/10th Canadian Conference on Earthquake Engineering, technical seminars, and various publications. These internships are a great way to gain valuable professional experience, to be involved in meaningful projects related to seismic safety, and to network with others in the profession while supporting the Institute's mission of seismic risk reduction.

9USN/10CCEE: Explore Vibrant Toronto *continued from page 1*

Toronto's Theatre District is among the world's most active theatre scenes. For sports fans, the Blue Jays will be hosting the Baltimore Orioles (July 26-28) and the Cleveland Indians (July 30-August 1) at the Rogers Centre.

A unique feature of Toronto is its downtown underground walkway named PATH, which links 28 kilometres of shopping, services, and entertainment. The system facilitates pedestrian linkages to public transit and provides a safe haven from summer heat. According to Guinness World Records, PATH is the largest underground shopping complex with its 28 km (17 miles) of shopping arcades.

For more information, visit <http://www.mytorontomeeting.com/>.

Haiti Special Issue of *Spectra* *continued from page 1*

your manuscript should clearly indicate that the paper is being submitted for possible publication in this special issue. All papers to be reviewed must be received by **September 15, 2010**. We expect to have preliminary review decisions by February 1, 2011, and revised papers accepted for publication by July 1, 2011. The special volume should be published in October 2011. Papers without a clear link to the Haiti earthquake or not complying with *Spectra's* instructions to authors will not be reviewed for this issue.

Questions regarding paper content should be directed to one of the guest editors for the special volume, Reginald DesRoches (rd72@ce.gatech.edu) or Mary Comerio (mcomerio@berkeley.edu). For questions regarding submission procedures, contact *Spectra* Editorial Assistant Liz Stalnaker (liz@eeri.org). Authors are strongly encouraged to send abstracts of their papers by e-mail to the guest editors prior to formal manuscript submission so that the suitability of proposed topics for the special issue can be evaluated.

NEHRP Graduate Fellowship Awarded to Sharyl Rabinovici

Sharyl Rabinovici, a Ph.D. candidate in public policy at the University of California, Berkeley (UCB), has been selected as the 2010-2011



Sharyl Rabinovici

NEHRP Graduate Fellow in Earthquake Hazard Reduction. EERI awards this fellowship each year in a cooperative program with the Federal Emergency Management Agency's National Earthquake Hazards Reduction Program. The award is given to foster the participation of capable individuals in furthering the goals and practice of earthquake hazard mitigation. The fellowship provides \$12,000 for a nine-month stipend and \$8,000 for tuition, fees, and research expenses.

The fellowship applications were reviewed by Scott Olson, University of Illinois (chair of the EERI Student Activities Committee); Scott Brandenburg, University of California, Los Angeles; Judy Liu, Purdue University; Anne Lemnitzer, Cal State Fullerton; and William Kitch, Cal Poly Pomona.

Rabinovici was chosen from a group of nine well-qualified applicants from the fields of public policy and structural and geotechnical engineering at universities in California, Illinois, Iowa, Michigan, North Carolina, Texas, Utah, and Virginia.

Her research at UCB focuses on the beliefs and behavior of people and organizations that are in a position to make critical preparedness choices for their communities. Her dissertation evaluates a 2005 Berkeley law aimed at the soft-story woodframe apartment building problem and examines the influences on building owners' seismic safety investment decisions. It is the first study to compare the relative roles of individual

continued on next page

News of the Institute

Spread the Word: EERI E-Affiliate Membership

As announced in the March *Newsletter*, EERI initiated a trial period for a new category of membership, the E-Affiliate Program, intended for professionals in developing countries.

The EERI Board of Directors recognizes that many issues facing earthquake professionals are particularly challenging for those in developing countries. While more than 20% of EERI's membership is from outside the United States, the Board would like to increase this percentage. EERI believes that many colleagues in developing countries would benefit from membership, but that the current dues of \$250 (or \$166 for members in developing countries who receive printed copies of EERI materials) is prohibitive.

To that end, EERI developed the new category of E-Affiliate Membership. It is an electronic membership that will be available to new members in developing countries only,

with dues of \$25 per year. A special benefit of joining this year is that new members will enjoy membership privileges through 2011.

EERI urges you to let your colleagues in developing countries know about E-Affiliate membership and inform them of the following benefits:

- online access to the *EERI Newsletter*;
- listing in the EERI membership directory;
- a pdf file of an abridged directory or roster, listing EERI members by state, country and discipline;
- electronic access to earthquake reconnaissance reports;
- electronic access to up to two papers per issue of the quarterly journal *Earthquake Spectra*;
- member rates for all conferences and meetings;
- a certificate of EERI E-Affiliate membership by e-mail.

This type of membership does not include voting rights. It is being implemented for a trial period until the end of 2011, at which time it will be evaluated by the EERI Board.

EERI would like to welcome its newest members who recently joined under this program:

- Ugurhan Akyuz, Middle East Technical University, Turkey
- Ulugbek Begaliev, Kyrgyz Republic Ministry of Education and Science, Kyrgyzstan
- Farhad Behnamfar, Isfahan University of Technology, Iran
- Vicente Capa Guachon, Terra Projects, Ecuador
- Anil Ahmet Dindar, Istanbul Kultur University, Turkey
- Alpa Sheth, VMS Consultants Pvt. Ltd., India
- Ahmet Yakut, Middle East Technical University, Turkey

To access an application form for E-Affiliate Membership, visit <http://www.eeri.org/site/membership/join>.

Rabinovici

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characteristics, social influences, and economic factors on mitigation choices. The findings will be directly relevant to other jurisdictions that are struggling with how to reduce seismic vulnerabilities in their existing building stocks.

Her UCB faculty sponsor for the fellowship, Professor Mary Comerio, suggests that Rabinovici's goal of tapping into the psychology behind mitigation decisions means that hazard mitigation professionals will have better tools to affect the outcome of risk decisions. This timely cross-disciplinary research on problems that are central to the well-being of at-risk communities will provide great benefits to society.

Rabinovici earned a master's degree in public policy at the University of

Chicago and a B.S. with distinction in geologic and environmental sciences at Stanford University.

After obtaining her Ph.D., she plans to serve the public in a government, academic, or nonprofit setting through needs-driven research and evaluation of promising new policy approaches to hazard mitigation.

Honors Committee Seeks Nominations

EERI's Honors Committee is charged with recommending members for several awards. The committee greatly depends on nominations submitted to it by the members of the Institute. The committee now needs members' help in identifying worthy members whose contributions should be recognized.

Please nominate candidates for the George W. Housner Medal, the Alfred Alquist Special Recognition Award, and Honorary Membership, as well as authors who deserve the 2009 Outstanding Paper award for *Earthquake Spectra*. All nominations should be accompanied by a brief justification, and they must be received by **October 1, 2010**, in order for the Honors Committee to complete deliberations and forward its recommendations to the Board of Directors.

All of the awards will be presented at EERI's Annual Meeting in San Diego in February 2011. Send your nominations to the EERI office at eeri@eeri.org. Past awardees are listed on page ii of the *EERI Roster*. Complete descriptions of each award can be found at <http://www.eeri.org/site/awards/honors-awards>.

Announcements

NEES/PEER Annual Meeting

The George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) and the Pacific Earthquake Engineering Research Center (PEER) are combining their 2010 annual meetings into one joint conference: Quake Summit 2010. Researchers from PEER and NEES will gather to discuss future research projects and share their successes from the past year — with the goal of “shaking research forward.”

Quake Summit 2010 will be held at the San Francisco Marriott Union Square October 8-9, 2010. The meeting will contain both plenary and concurrent technical sessions, as well as a student poster reception. The registration deadline for student poster presenters is August 2.

The technical committee is in the process of identifying speakers, and a final program will be available on the conference web site in early July. NEES is also hosting a Media Competition, for which the submission deadline is August 30.

All professionals, researchers, funding agencies, and other colleagues are welcome and encouraged to attend. The meeting aims to:

- enhance integration and synergy among researchers from different projects and disciplines,
- inform practitioners about research results and their practical applications,
- explore emerging research trends and opportunities,
- engage students with the organizations,
- foster contact with sponsors and funding agencies.

Registration to Quake Summit 2010 is free and will be available on a first-come, first-served basis. The registration deadline is September 1. For more information, visit www.quakesummit2010.org.

Learning from Earthquakes

NEEScomm Supports LFE Reconnaissance

EERI extends its appreciation to NEEScomm, the Purdue-based management organization for the Network for Earthquake Engineering Simulation (NEES), for supporting a number of key personnel on EERI's Learning from Earthquakes reconnaissance teams in Haiti and Chile.

Immediately following both events, Professor Julio Ramirez, Director of NEES operations, reached out to EERI with unsolicited offers of collaboration and financial support to augment EERI's LFE funding from the National Science Foundation.

NEEScomm provided travel support for Roberto Leon (Georgia Tech) and John Wallace (UCLA) on EERI's reconnaissance team in Chile, and Marc Eberhard (U Washington) and Ayhan Irfanoglu (Purdue) on EERI's reconnaissance teams in Haiti.

Park and Paulay Fund

The Park and Paulay Fund has been established at the University of Canterbury, Christchurch, New Zealand, in memory of the outstanding contributions of EERI members Professors Bob Park and Tom Paulay to the fields of structural and earthquake engineering and to encourage others to follow their example. The fund will be used to make awards to outstanding young engineers. To make a donation, contact the University of Canterbury Foundation at ucfoundation@canterbury.ac.nz.

Professor Park made major contributions in the areas of reinforced and prestressed and precast concrete buildings and bridges. Professor Paulay was perhaps best known for his development of the concept of capacity design, which forms the

News of the Membership

Award for Habibullah

The Structural Engineers Association of Northern California (SEAONC) recently bestowed the H. J. Brunnier Lifetime Achievement Award for Excellence in Structural Engineering upon Ashraf Habibullah, the president and CEO of Computers & Structures, an EERI Platinum Subscribing Member

The award recognizes Habibullah for having improved the practice of structural engineering with

his development of efficient and usable structural analysis programs.

basis of seismic design in many nations. In 1975, they jointly authored *Reinforced Concrete Structures*, which became a valued fundamental text translated into many languages. An EERI Oral History volume covering both their careers can be ordered from <http://www.eeri.org/site/com-oral-history>.



Ashraf Habibullah

In accepting the award, Habibullah expressed appreciation to the entire structural engineering community for their invaluable feedback and collaboration, which have helped advance CSI products to the forefront of the industry.

PLEASE POST IMMEDIATELY



Earthquake Hazards Reduction Fellowship Announced

Under a cooperative agreement established with FEMA, the Earthquake Engineering Research Institute is pleased to offer the **2011 Professional Fellowship** to provide an opportunity for a practicing professional to gain greater skills and broader expertise in earthquake hazards reduction, either by enhancing knowledge in the applicant's own field, or by broadening the applicant's knowledge in a related but unfamiliar discipline.

Who Should Apply?

This unique fellowship is designed to bring together an experienced career professional with other professionals conducting significant research, thereby providing opportunities to both enrich the applicant's knowledge and skills and to broaden the research base with challenges faced in practice. The Professional Fellowship is *not* intended to fund work towards a degree.

The Award

The fellowship provides a stipend of \$30,000, commencing in January 2011, to support tuition, fees, and relocation and living expenses. The fellowship will be awarded on the basis of a specific project, with the proposed work or course of study to be carried out over a period of up to one year. The recipient will have the flexibility to work less than full time with the host institution and academic sponsor, with the understanding that the effort will result in a report by the end of twelve months.

Criteria

Applicants must provide a detailed work plan for a research project that would be carried out in the twelve-month period. Research projects related to the 2010 earthquakes in Haiti and Chile are encouraged. The fellow will be expected to produce a written report upon completion of the project. All applications must be accompanied by a professional resume and letter of nomination from the faculty host at the cooperating educational institution. Faculty members should also indicate the institution's ability to provide research facilities, including library, work space, telephone, and computer access. Applicants must hold U.S. citizenship or permanent resident status.

To Apply

Candidates may obtain an application form from EERI's web site at
<http://www.eeri.org/site/awards/fellowships/professional>

**The deadline for electronic submission of all application materials is
September 17, 2010.**

Announcement of the award will be made October 29, 2010.

News of the Profession

Italian Seismologists Indicted

Information in this report was gathered from physicsworld.com/cws/article/news/43001 and nature.com/news/2010/100622/full/465992a.html.

More than 5,000 researchers and practitioners from 100 different countries, including hundreds of EERI members, have signed a letter to decision-makers in the government of Italy calling for an end to the criminal investigation of seven scientists and technicians. They had been called upon to assess seismic activity before the magnitude 6.3 earthquake that struck L'Aquila in the central Italian region of Abruzzo on April 6, 2009. (See the report in the June 2009 *EERI Newsletter*.) The letter called upon the government to concentrate on "earthquake preparedness and risk mitigation rather than on prosecuting scientists for failing to do something they cannot do yet — predict earthquakes." The seven individuals have been placed under formal investigation on the basis that their advice gave the city's inhabitants a false sense of security.

The scientists, who are members of the Major Risks Committee (MRC), which advises Italy's Civil Protection Agency (CPA) on the risks of natural disasters, are being investigated by L'Aquila prosecutors for gross negligent manslaughter following complaints by members of the public. At the center of the controversy is a meeting held by the MRC with the CPA on March 31, 2009, six days before the quake, to assess the risk of a major earthquake. In the six months leading up to the earthquake, a series of smaller seismic movements and tremors were recorded nearby, including a magnitude 4.0 earthquake on March 30. The committee concluded that there was "no reason to suppose a sequence of small earthquakes could be the prelude to a strong event" and that "a major earthquake in the area is unlikely but cannot be ruled out."

Immediately after that meeting, two individuals who attended held a press conference in L'Aquila, where government official Bernardo De Bernardinis, deputy technical head of the CPA, told reporters that "the scientific community tells us there is no danger, because there is an ongoing discharge of energy. The situation looks favorable." Only one of the seismologists from the committee, Franco Barberi, acting president of the committee and a volcanologist at the University of Roma Tre, was at the press conference.

The investigation originated when about 30 L'Aquila citizens registered an official complaint that the scientists had failed to recognize the danger of the earthquake during the days and weeks before the event. According to the group of local citizens, many of the earthquake's victims had been planning to leave their homes, but had changed their minds after the committee's statements. In August 2009 they filed a formal request asking a prosecutor to investigate. L'Aquila's chief prosecutor, Alfredo Rossini, told the press on June 3 that this left him no choice but to proceed with an investigation and that his office had now gathered enough information to indict the individuals named. Indictments usually precede a request for a court trial.

Minutes from the March 31 meeting show that the scientists recommended that buildings in the area should be monitored to assess their ability to handle a major earthquake. At no point did any of the scientists say that there was "no danger" of a big quake.

To sign the letter of support, visit http://www.mi.ingv.it/open_letter/.

Publication

The 2009 L'Aquila Earthquake: Findings and Implications

Following the first anniversary of the L'Aquila earthquake, a new research report from the Aon Benfield University College London Hazard Research Centre shows that central and southern Italy should prepare for the possibility of larger earthquakes and take steps to reinforce poorly constructed buildings.

Research by Dr. Ioannis Papanikolaou identified the following key findings to assist seismic hazard assessment, planning and recovery:

- The L'Aquila earthquake occurred in a high seismic hazard area, based on traditional maps and the historical record.
- The event ruptured a small segment of the fault system and not one of the major postglacial fault scarps in the area. Surrounding faults can produce much stronger earthquakes that can generate primary surface ruptures up to 15-20km in length with maximum displacements exceeding 1m.
- Satellite imagery showed that the earthquake resulted in a maximum subsidence of 25cm and uplift of 10cm.
- Bedrock geology and basin effects played a decisive role in the damage pattern even at short distances.
- The majority of damage in villages was to poorly constructed, old masonry buildings, while collapses in reinforced concrete buildings were relatively few in number. However, despite the fact that reinforced concrete frames remained intact, buildings experienced crumbling masonry and collapsed infill walls. This suggests that the nature of the infill walls and their attachment to the frame of the buildings should be examined.

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Call for Papers

ACEE 2010

The Association of Structural Engineers of the Philippines, the Asian Institute of Technology, the Tokyo Institute of Technology, and the Engineering Institute of Thailand are jointly organizing ACEE 2010, the 3rd Asia Conference on Earth-

quake Engineering, with the theme of "Disaster Risk Reduction and Capacity Building for Safer Environments," to be held December 1-3, 2010, in Bangkok, Thailand. The official language of the conference is English. Abstracts of not more than 300 words are due by July 15, 2010. For more information, visit <http://acee2010.com/>.

L'Aquila Earthquake

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Maurice Cox, General Manager, Italy, for Aon Benfield, said: "...we're beginning to see insurers considering stepping in...insurers will need to improve monitoring of exposures and access to construction data, while taking greater control over their risk accumulation"

Paul Miller, head of international catastrophe management at Aon Benfield, added: "...enhancements to the catastrophe models can help to reduce uncertainty around the risk and will allow insurers to make more informed decisions about offering earthquake cover in the region."

To download a copy of the report, visit: <http://www.abuhrc.org/Publications/ESR2.pdf>.

News of the Membership

Bruneau's Novel Wins Award

The novel *Shaken Allegiances*, by University at Buffalo professor and EERI member Michel Bruneau, recently received the Grand Prize for Fiction from the 2010 Next Generation Indie Book Awards.

The jury described the book as "a highly original what-if story that breaks the mold" in the disaster genre with its humorous take on "the tangled mess created by government, the press, and the people affected after a major earthquake in the dead of winter cuts off Montreal Island from the rest of the world."

CALENDAR

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

2010

JULY

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

25-29. 9th U.S. Nat'l & 10th Canadian Conf. on EQ Eng., Westin Harbour Castle Hotel, Toronto, Canada. Info: <http://2010eqconf.org/>. See page 1. (2/08, 7/08, 1/09, 3/09, 6/09, 8/09, 10/09, 1/10, 4/10, 5/10, 6/10, 7/10)

AUGUST

8-11. 2010 Eng. Mechanics Conf., USC, Los Angeles, CA. Info: <http://viterbi.usc.edu/emi2010/> (11/09)

11-13. Int'l Workshop on Conservation of Heritage Structures Using FRM and SHM, Ottawa-Gatineau. Info: <http://www.ishmii.org/CSHM3/CSHM3home.html> (9/09)

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

SEPTEMBER

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

16-18. Int'l Conf. on Urban Habitat Construction under Catastrophic Events, Naples, Italy. Info: www.civ.uth.gr/cost-c26/ (2/10)

22-25. SEAOC Convention, Indian Wells, CA. Info: <http://convention.seaoc.org/> (2/10)

OCTOBER

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

8-9. Quake Summit 2010 (NEES/PEER Joint Annual Meeting), San Francisco, CA. See page 4. (7/10)

12-15. Deep Foundations Inst. 35th Annual Conf., Hollywood, CA. Info: www.deepfoundations2010.org (1/10)

NOVEMBER

4. Young Engineers Conf., London, United Kingdom. Info: www.cege.uci.ac.uk/events/yec (5/10)

DECEMBER

1-3. 3rd Asia Conf. on EQ Eng. (ACEE 2010). Bangkok, Thailand. See this page. 7/10

18-20. 11th Int'l Symp. on Structural Eng. (ISSE-11), Guangzhou, China. Info: <http://www.isse-11.org> (2/10)

2011

JANUARY

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

26-28. 12th East Asia-Pacific Conf. on Structural Eng. & Construction (EASEC-12), Hong Kong. Info: http://bccw.cityu.edu.hk/easec12/wp_special_session.asp (5/10)

FEBRUARY

9-12. EERI Annual Meeting, San Diego, CA. Info: www.eeri.org/site/2011-annual-meeting (4/10)

JUNE

27-July 8. 25th IUGG Assembly, Melbourne, Australia. Info: <http://www.iugg2011.com/> (6/09)

JULY

4-6. 8th European Conf. on Structural Dynamics (EURODYN 2011), Leuven, Belgium. Info: www.eurodyn2011.org. (6/10)

2012

FEBRUARY

15-18. 4th Int'l Conf. on Grouting & Deep Mixing, New Orleans, LA. Info: www.dfi.org/conferencedetail.asp?id=163 (5/10)



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Learning from Earthquakes **GEO-CAN: Haiti Crowd-Sourcing Damage Assessment**

Soon after the Haiti earthquake in January, EERI put out a call to its members and their associated networks of professionals to participate in a web-based damage assessment using high-resolution (pre- and post-earthquake) satellite and aerial imagery. This assessment was part of an effort organized by ImageCat (an EERI Subscribing Member) for the World Bank, and complemented damage assessments performed by several UN agencies and the European Commission.

The consortium of organizations and individuals that was created has been given the name GEO-CAN (Global Earth Observation Catastrophe Assessment Network). The effort was considered highly successful — over a short period of time, volunteers were able to identify over 30,000 severely damaged or collapsed buildings out of almost 100,000 buildings assessed through aerial imagery. The figure to the right shows the cumulative number of volunteers registering to aid this Haiti initiative. At its height, GEO-CAN consisted of over 600 individuals from 23 countries and 131 private and academic institutions.

On March 3, 2010, the organizations involved in this initial assessment submitted the Building Damage Assessment Report, in support of the Post Disaster Needs Assessment (PDNA) and Recovery Framework, to the Haitian government. This report is available on EERI's Haiti Clearinghouse website (see URL below).

On May 4, 2010, EERI and ImageCat hosted a small invitational workshop to discuss lessons learned from EERI's participation in GEO-CAN, and to make recommendations that would improve the process in the future. Many of these recommendations focused on the need for more standardization in definitions and instructions, and better training and feedback for the volunteers. The workshop report is now also available on the EERI Haiti Clearinghouse website, as is a report prepared by Cambridge Architectural Research Ltd. on the use of pictometry data (URL below).

Participants at the EERI/ImageCat workshop included:
Matt Barnard,

Degenkolb Engineers; Reginald DesRoches, Georgia Institute of Technology; Ron Eguchi, ImageCat, Inc.; Galen Evans, World Bank; Jim French, AMEC Geomatrix; Marjorie Greene, EERI; Charlie Huyck, ImageCat Inc.; David Lallemand, UC Berkeley; Randolph Langenbach, Conservationtech Consulting; Art Lembo, Salisbury University; Justin Marshall, Auburn University; Eduardo Miranda, Stanford University; and Ellen Rathje, University of Texas, Austin.

The workshop report, as well as the Building Damage Assessment Report and the Cambridge Architectural Research Inc. Report, are all available on the EERI Haiti Clearinghouse website at <http://www.eqclearinghouse.org/20100112-haiti/>.

