News of the Institute

NRC Roundtable on Soil Liquefaction

At its May 2010 meeting, the EERI Board of Directors established an ad hoc committee to provide advice regarding technical and monograph preparation issues associated with the EERI monograph (MNO 12) Soil Liquefaction During Earthquakes, authored by professors Ed Idriss and Ross Boulanger. The committee’s report, submitted in August, can be downloaded from http://www.eeri.org/site/news/latest-news/960-rpt-on-rvw-liquefaction-monograph. Their report was accepted by the EERI Board at its September meeting. The Institute is deeply indebted to professors Tom O’Rourke (chair), Liam Finn, Steve Kramer, and Les Youd for their service on the committee. Their principal recommendation was “that EERI broaden the discussion and resolution of liquefaction issues … by promoting a major liquefaction workshop conducted under the auspices of the National Academies to consider the current state of knowledge and practice in liquefaction hazard evaluation.”

The National Research Council (NRC) Committee on Geological and Geotechnical Engineering (COGGE) organized a half-day roundtable discussion on “Liquefaction Susceptibility Criteria” at its December 8, 2010, meeting. O’Rourke represented EERI’s ad hoc committee at this meeting and summarized their report in an opening statement. Other speakers were Zia Zafir (M.EERI) of Kleinfelder, Ann Marie Kammerer (M.EERI) of the U.S. Nuclear Regulatory Commission (USNRC), and William Marcuson of the U.S. Army Corps of Engineers (USACE) (emeritus). Their presentations were followed by a three-hour discussion of what should be included as part of an NRC study. A list of the 23 participants at the meeting is posted on the above-mentioned URL.

Next steps are for COGGE to draft a scope of work that will be refined through an iterative process, and NRC staff will then work with potential sponsors to develop a budget and secure the necessary funding for a 2011 workshop and study. Potential sponsors include the National Science Foundation, the USNRC, FEMA, the USACE, the Federal Energy Regulatory Commission, the National Institute of Standards and Technology, the U.S. Geological Survey, the Electric Power Research Institute, the Federal Highway Administration, the California Department of Water Resources, and Caltrans.

Learning from Earthquakes

M6.5 Hosseinabad, Iran Earthquake

A magnitude 6.5 earthquake struck in southeast Iran on December 20, 2010. The earthquake occurred at 10:11:59 P.M. local time (18:41:59 UTC) at 28.491°N, 59.117°E and at a depth of 11.8 km. The epicenter was about 100 km southeast of Bam, where a magnitude 6.6 earthquake killed 30,000 people on December 26, 2003, and destroyed an ancient citadel.

Rescue operations by national and local government agencies and the Red Crescent are continuing. As of December 22, 2010, eleven people have been reported killed, another 100 injured, and several thousand homes were damaged. Villagers built their homes from mud brick that turned to rubble and buried them during the earthquake. Rescue efforts were hampered by landslides, downed telephone poles, and blocked roads. This region (part of Kerman Province) is mountainous and sparsely populated, so casualties are expected to be much smaller than occurred during the 2003 earthquake.