EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

NEWSLETTER

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Kobe Info Clearinghouses Established

The following people and institutions will be serving as clearinghouses for information on the Southern Hyogo Prefecture (Kobe) Earthquake:

Hiroyuki Kameda, Urban Earthquake Hazard Research Center, fax +81-774-33-0963.

Haruo Hayashi, Center for Disaster Reduction Systems, Disaster Prevention Research Institute, Kyoto University, Gokasho, Ugi, Kyoto 611, Japan; fax +81-774-31-8294; electronic clearinghouse, to read messages: kobe72.saigai11.dpri.kyoto-u.ac.jp; to write messages: kobe72in.saigai11.dpri.kyoto-u.ac.jp.

EERI will be serving as a U.S.-side clearinghouse for information on the Kobe earthquake.

Learning from Earthquakes

Kobe, Japan, Devastated by M 6.8 Quake — Large EERI Group in Osaka for Workshop Undertakes Preliminary Reconnaissance Work

The most devastating earthquake to hit Japan since the 1923 Tokyo earthquake occurred at 5:46 a.m. local time on January 17, 1995. The quake was centered under Awaji-Shima Island, 20 km south of the major port city of Kobe. As of press time for this newsletter (Jan. 23) more than 5,000 people were reported killed, more than 26,000 people were injured, about 100 remained missing, and 300,000 have been left homeless. Over 18,000 buildings were damaged, including complete collapses of multi-story structures. Large portions of elevated highways collapsed; trains were derailed; electric and water supplies were cut off. Fires ignited by the quake spread over multiple city blocks. Fire fighting was hampered by lack of water and difficulty in accessing sites where streets were buckled or blocked by debris. No tsunami was generated.

The city of Osaka, about 30 km east of Kobe, was also shaken, but did not suffer the intensity of damage that was experienced in Kobe. About 40 American earthquake engineers, researchers, and responders were in Osaka for a joint EERI-ISSS (Japan Institute of Social Safety Science) workshop on Urban Earthquake Hazard Reduction when the earthquake hit. The workshop participants immediately undertook preliminary postearthquake reconnaissance efforts on behalf of EERI. Their photographs and impressions will be shared with the membership during the Learning from Earthquakes session at the EERI Annual Meeting in San Francisco on February 9-11, 1995, which will be extended until 5:00 p.m. on Saturday. The group also hopes to have a preliminary report printed and ready for distribution at the Annual Meeting. (The report will be mailed to all members.)

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National Earthquake Hazards Reduction Program

USGS Earthquake Research Opportunities

Through its External Grants program, the U.S. Geological Survey (USGS) annually solicits proposals from nonfederal institutions to conduct studies relevant to the program's objectives. Proposals are typically funded for one to two years; announcements describing the program and application procedures are available as of February 1, 1995.

Investigations funded by the USGS's program fall into five categories: National and Regional Hazard and Risk Reduction; Urban Hazard and Risk Reduction; Earthquake Processes; Real-Time Hazard and Risk Assessment; and Geologic Hazards Information Services. Historically, NEHRP studies supported by the USGS have strongly emphasized providing basic and applied earth-science data that contributes to understanding earthquake hazards in various parts of the country. In recent years, the USGS has placed progressively more emphasis on transferring information to users, and the agency is particularly interested in research in this area.

The closing date for proposals to the FY 1996 External Grants Program is April 1, 1995. Proposals will be evaluated by peer-review panels, and decisions on funding will be made in July. Funded projects may start as early as October 1995.

For further information on the program or a copy of the FY 1996 Prospectus, contact John D. Sims, USGS, MS 905, National Center, 12201 Sunrise Valley Drive, Reston, Virginia 22092; (703) 648-6722; fax: (703) 648-6642; e-mail: jsims@usgs.gov.

Kobe Quake, continued

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The U.S. group at the Osaka workshop included: William Anderson, Chris Arnold, Catherine Bauman, Fouad Bendimerad, Mike Blackford, Patricia Bolton, Frank Borden, Gerald Brady, Craig Comartin, Charles Eadie, Mark Ghilarducci, Jim Goltz, Marjorie Greene, Terry Haney, Jim Jirsa, Stephanie King, Charles Kircher, Laurence Kornfield, R. Scott Lawson, Sarah Nathe, Joanne Nigg, Bob Olson, Risa Palm, Jelena Pantelic, Jane Preuss, Henry Renteria, Chris Rojahn, Charles Scawthorn, Diane Schallert, Guna Selvaduray, Paul Somerville, Tom Tobin, Susan Tubbesing, Loring Wyllie, Mark Yashinsky, and Barbara Zeidman.

A flurry of quakes had struck Japan in the months preceding the January 17 disaster, most of them in the northern and eastern parts of the country. On October 4, 1994, an earthquake of magnitude M_s 8.1 struck in the Pacific Ocean near the Kuril Islands at the north end of Japan.

On December 28, 1994 a Richter magnitude 7.5 quake occurred in the Pacific Ocean about 200 kilometers east of Hachinohe, which is on northern Honshu. Two people were killed in a collapsed building in Hachinohe, and hundreds were injured, most of them in Amori Prefecture. That quake was the strongest to hit the area in 46 years. The Japanese Coordination Committee for Earthquake Predictions issued a warning that, in the month following the earthquake, aftershocks up to magnitude 7 could occur in the region. On January 7, 1995 three tremors shook various parts of Japan. A 6.9 and a 4.2 (Richter magnitude) re-rocked the Hachinohe area. About 500 km to the south, a Richter magnitude 5.2 struck just outside Tokyo. The series of quakes focused the attention of the country on the earthquake risk in the northern part of the country. The shock in the Kobe area was unexpected.

NSF Workshop *Directions for Research in the Next Decade* Report Available

NSF support of research in earthquake engineering in the areas of siting, design, and societal response, and of earthquake-related earth science in the areas of geophysics, seismology, and geology have been key elements of NEHRP. In June 1993, a workshop was held in Washington, DC to review accomplishments resulting from NSF funding, to assess directions and needs in the next decade and to examine policies and administrative procedures impacting the role of NSF in NEHRP. A short summary Report and a Proceedings of the workshop are available from J.O. Jirsa, Univ. of Texas, Ferguson Structural Eng. Lab, PRC 177, 10100 Burnet Road, Austin, TX 78758, fax 512-471-1944, e-mail jirsa@uts.cc.utexas.edu.