

Highlights of the 100th Anniversary Earthquake Conference

From the 100th Anniversary Earthquake Conference website

Managing Risk in Earthquake Country

Video highlights of the 100th Anniversary Earthquake Conference are available on the conference website at <http://www.1906eqconf.org>. Twenty-one video clips capture the key points of the plenary sessions and the opening video, “06 – The Next Great Quake”; lays out a ten-point action agenda developed by the earthquake professionals of the 100th Anniversary Earthquake Conference. The agenda is also more fully described in a document titled “Managing Risk in Earthquake Country”. Excerpts of the document, which is available as a pdf on the website, follow.

The purpose of the conference agenda is to increase public safety, reduce future losses, and recover more quickly from the next major earthquake. “In summary, the agenda looks specifically at what is needed to develop a culture of preparedness, and calls on all residents, businesses and governments to know their risks and take responsibility for risk management and preparedness. It challenges governments, public agencies, building owners, and the engineering community to target the most dangerous buildings, essential facilities and community-serving infrastructure for strategic investments in mitigation. It calls on governments, insurers and the region’s major industries to collaborate to ensure that adequate resources are available for recovery. With these actions and a renewed emphasis on safety, Northern California can safeguard its extraordinary cultural and economic vitality and rebound quickly following the next major earthquake.” (quote from page 1, *Managing Risk in Earthquake Country*)

Earthquake Professionals’ Top Ten Actions for Northern California

The people, businesses and government agencies in Northern California risk suffering life, structural and financial losses when major earthquakes strike. Scientists, engineers and emergency management experts gathering for the 100th Anniversary Earthquake Conference call on the region’s citizens, businesses, and policymakers to

take the following actions to increase safety, reduce losses, and ensure a speedier recovery from the next major earthquake.

Develop a Culture of Preparedness

1. Every household, government agency, and business must know the seismic risks of the buildings they occupy, the transportation systems they use, and the utilities that serve them, as well as the actions they can take to protect themselves.
2. Every household, government agency, and business needs to be prepared to be self-sufficient for at least three days (72 hours) following a disaster.
3. Citizens and governments need to take steps to ensure adequate response care for special needs and vulnerable populations.
4. Government agencies, the region’s major industries, and earthquake professionals have to work together to prepare the region to respond to and recover from major earthquakes. This can be done through region-wide, multi-organizational plans, training, exercises and coordination assessments, as well as continuing improvements in our collective understanding of seismic risks.

Invest in Reducing Losses

5. Building owners, governments, and the earth science and engineering professions must target potential collapse-hazard buildings for seismic mitigation, through retrofit, reduced occupancy, or reconstruction.
6. Governments and other relevant agencies must retrofit or replace all facilities essential for emergency response to ensure that they function following earthquakes. These facilities include fire and police stations, emergency communications centers, medical facilities, schools, shelters, and other community serving facilities.

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7. Governments and other relevant agencies must set priorities and retrofit or replace vulnerable response and community-serving infrastructure, including cellular communications, airports, ports, roads and bridges, transportation, water, dams and levees, sewage and energy supplies, to ensure that functions can be resumed rapidly after earthquakes.

Ensure Resiliency in Recovery

8. Government agencies, the region's major industries, and earthquake professionals have to plan collaboratively for the housing, both short- and long-term, of residents displaced by potential fires, large numbers of uninhabitable buildings, and widespread economic and infrastructure disruption following a major earthquake.
9. Every household, government agency, and business has to assess and plan for financing the likely repair and recovery costs following a major earthquake.
10. Federal, state and local governments, the insurance industry, and the region's major industries have to collaborate to ensure adequate post-event funding to provide economic relief to individuals and communities after a major earthquake, when resources are most scarce yet crucial for recovery and reconstruction." (quote from pages 5-6, *Managing Risk in Earthquake Country*)

1906 Ground Motion Simulations

From the U.S. Geological Survey website

To better understand the distribution of shaking and damage that accompanied the great 1906 earthquake, U.S. Geological Survey seismologists have constructed new computer models to recreate the ground motions. The simulations show how ground moved on the two sides of the San Andreas fault and how seismic waves radiated away from the fault to produce the shaking. The earthquake, which began two miles offshore from the City of San Francisco, ultimately grew to cause shaking and damage along more than 300 miles of the San Andreas Fault. To view the simulations, go to <http://earthquake.usgs.gov/regional/nca/1906/simulations>.

New Geologic Maps Highlight Bay Area Earthquake Hazards

From the U.S. Geological Survey website

A joint cooperative project between the U.S. Geological Survey and the California Geological Survey produced two new digital geologic maps of the densely populated section of the San Francisco Bay area. These maps are designed to give the general public as well as land-use planners, utilities and lifeline owners, and emergency response officials, new and better tools to assess their risk from earthquake damage. The new maps show in un-



Proceedings of the 100th Anniversary Earthquake Conference

The CD-ROM with Proceedings of the 100th Anniversary Earthquake Conference contains papers and abstracts of presentations given at the conference with the theme: "Managing Risk in Earthquake Country." Contents are text searchable, indexed by author, title, and topic. The two CD-set includes: (1) Proceedings of the Eighth U.S. National Conference on Earthquake Engineering with approximately 1,000 papers on the following topic areas: ground motion characteristics, hazard analysis, geotechnical engineering, building structures, bridge structures, lifeline systems, nonstructural components and contents, advanced technologies, new design criteria and methods,

earthquake engineering practice, loss estimation, loss modeling and risk analysis, lessons from recent earthquakes, tsunamis, other seismic hazards, experimental methods, information technologies in earthquake engineering, impacts of earthquakes on business, response and recovery, social issues, public policy, and seismic awareness and education (2) Approximately 600 abstracts from the SSA Centennial Annual Meeting (3) Papers submitted to the OES 2006 Disaster-Resistant California Conference (4) Conference Program (5) List of sponsors and (6) List of exhibitors.

CD-ROM Proceedings of the 100th Anniversary Earthquake Conference are available from the Earthquake Engineering Research Institute, 499 14th Street, Suite 320, Oakland, CA 94612-1934. Phone: (510) 451-0905, for \$75.00.