

Great ShakeOut Earthquake Drills

Now in a State (or Country) near You!

The 2008 “Great Southern California ShakeOut” was planned as a one-time event to motivate millions of people to practice “Drop, Cover, and Hold On” and to get prepared at work, school, and home for the potential of a major earthquake. With the involvement of many partner organizations, the ShakeOut program has since expanded to include 42 states and U.S. territories, plus four other countries. More than 19.5 million people participated in 2012.

ShakeOut Origins

Beginning in 2007, Dr. Lucy Jones of the U.S. Geological Survey (USGS) led more than 300 scientists, engineers, and others to create the “ShakeOut Scenario,” a comprehensive study of how a magnitude 7.8 earthquake on the San Andreas Fault would directly affect southern California (and economically the entire country). This became the basis of a state-led exercise held in November 2008. To involve the general public in the exercise, the Earthquake Country Alliance¹ (ECA) organized a set of activities including the first ShakeOut drill on November 13, 2008. The Southern California Earthquake Center (SCEC), with funding from the National Science Foundation (NSF) and the USGS, developed supercomputer simulations of this earthquake as the basis for loss estimation in the scenario, and to communicate the intensity of expected ground shaking throughout the region. In addition, SCEC created www.shakeout.org with a registration system so participants could be counted. The involvement of millions of students and staff of K–12 schools and colleges inspired many other people and organizations to register, for a total of 5.4 million participants.

ShakeOut Expansion

Although ShakeOut was intended to be held only once, requests from ShakeOut participants prompted partners and state agencies to expand the event statewide as an annual ShakeOut drill on the third Thursday of October. This date is ideal for schools and follows National Preparedness Month in September, allowing for significant media exposure prior to the drill. More than 6.9 million Californians participated in 2009.



ShakeOut website at www.shakeout.org. Courtesy of SCEC.

Beginning in 2010, more states, territories, and countries began to join the ShakeOut, with websites replicated by SCEC in partnership with state and local agencies who recruit participants. Nevada and Guam joined first in 2010, followed by Oregon and British Columbia in early 2011. As part of the New Madrid earthquake bicentennial, the Central U.S. Earthquake Consortium (CUSEC) organized the first multistate drill in April 2011, with 3 million participants across 11 states. CUSEC also coordinates the SouthEast ShakeOut, which had its kick-off event at the damaged Washington Monument on the one-year anniversary of the 2011 Mineral, VA, earthquake. Leadership from the Federal Emergency Management Agency (FEMA), the USGS, CUSEC, and other partners were in attendance.

¹ The ECA (www.earthquakecountry.org) is a public-private partnership of people, organizations, and regional alliances in California; ECA partners work together to improve preparedness, mitigation, and resiliency statewide.

Currently, 22 “Official ShakeOut Regions” spanning 42 states and territories, two Canadian provinces, New Zealand, Southern Italy, and a growing number of Japanese regions are holding ShakeOut drills. A “Global” ShakeOut website (where people from unaffiliated states or countries can also register) was launched in 2012 in both English and Spanish (as was the site for Puerto Rico). ShakeOut sites also now exist in French, Italian, and Japanese. Visit www.shakeout.org.

ShakeOut Resources and Practices

FEMA provides support to SCEC to manage each region’s ShakeOut website, create materials, and provide other assistance. However, the success of each ShakeOut event depends upon state or regional public and private partners working together to recruit participants. One reason for ShakeOut’s success has been its practice of localizing content for each region, so that organizers and participants take ownership of their ShakeOut (even though all websites and materials are centrally managed). FEMA’s multidisciplinary “Whole Community” approach is essential, with customized information provided for more than 20 audience categories (schools, families, businesses, government, non-profit organizations, museums, etc.). Each registered participant receives e-mail reminders as well as drill instructions, preparedness and mitigation information, and access to a variety of resources available on their region’s ShakeOut website. These include comprehensive drill manuals, an audio file to play during the drill, and downloadable posters, flyers, and artwork.

Many regions also develop their own resources that are shared with others in the ShakeOut network. For example, in 2012, guides were developed for people with access and functional needs and for health care organizations.

ShakeOut Results

ShakeOut aligns well with NEHRP goals to improve understanding of earthquake processes and impacts, develop cost-effective measures to reduce these impacts, and improve the earthquake resilience of com-

munities nationwide. In particular, ShakeOut has become an infrastructure for providing earthquake information to the public and involving them in community resiliency. While assessing participation via registration and showcasing ShakeOut activities have been essential from the start, evaluation results are expected to be published this fall to document what participants have been learning and improving in regard to preparedness and mitigation.

In addition to registered participants, millions more see or hear about ShakeOut via broad news media coverage. ShakeOut generates thousands of news stories worldwide each year and has been featured on the front page of the *New York Times*, on many national and local morning television programs, and even in late-night talk shows. This media attention encourages dialogue about earthquake preparedness.

In 2011, the ECA received the “Awareness to Action” award from FEMA for creating ShakeOut and other activities, and CUSEC was recognized for organizing the first multistate ShakeOut drill. These awards led to the naming of Mark Benthien (SCEC) and Brian Blake (CUSEC) as White House “Champions of Change” along with other preparedness leaders in 2012. ShakeOut and the ECA also received the “National Award in Excellence” at the 2012 National Earthquake Conference.

By focusing on a simple activity that nearly everyone can do together, ShakeOut fosters a sense of community that facilitates dialogue and preparedness. In addition to expanding their geographic reach, new resources and methods for educating participants about how to understand and manage their earthquake risk are continually being added. The slogan of the ECA is “we’re all in this together” and as far as ShakeOut goes, “we’ve only just begun.”

For more information, visit www.nehrp.gov or send an email to info@nehrp.gov.

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