

Earthquake Country Alliance

The CA ECA is a public-private partnership of people, organizations, and regional alliances, founded in 2003 in Southern California and expanded in 2009.

Each regional alliance conducts its own activities and collaborates with the others

Statewide committees determine long-range plans, sector-based needs, and develop resources

The screenshot shows the Great Alaska ShakeOut website. At the top is a navigation bar with links: Home, Other ShakeOuts, Other Languages, Contact Us, Search, and Login. Below this is a banner image of a snowy mountain range with the text 'The Great Alaska ShakeOut'. A secondary navigation bar contains links: Register Here!, Why Participate?, Who is Participating?, How to Participate, Resources, News & Events, Partners & Sponsors.

The main content area is divided into two columns. The left column is titled 'GET READY TO SHAKEOUT!' and contains text about the 2014 Great Alaska ShakeOut, registration information, and a link to 'Start here'. The right column is titled 'LEARN THE LATEST' and contains links for 'Share your ShakeOut', '50th Anniversary', 'How to Participate', 'Who is Participating?', 'ShakeOut Resources', 'ShakeOut Participant Updates', and 'Frequently Asked Questions'.

Below the main content area is a status bar showing '0 participants registered', '10:16 a.m. on October 16, 2014', and '171 days until the 2014 Alaska ShakeOut'. The bottom section is divided into three columns: 'PLAN YOUR DRILL' (with a 'ShakeOut Shop' link), 'CHECK THE STATS' (with a map of Alaska showing participation counts), and 'PLAY AND SHARE' (with a 'PLAY BEAT THE QUAKE' link and a 'QUAKE QUIZ' link).

At the bottom of the page is a footer with logos for the Alaska Department of Transportation, the Alaska Science Center, and the Alaska Science Center's Safety Commission, along with a navigation bar for Login, Why?, Who?, How?, Resources, News & Events, Share the ShakeOut, Partners & Contact Us, Privacy, Plugins, and Other ShakeOuts.

Shake
Out

What is the ShakeOut?

The Great ShakeOut is the
annual earthquake drill
on the third Thursday of October

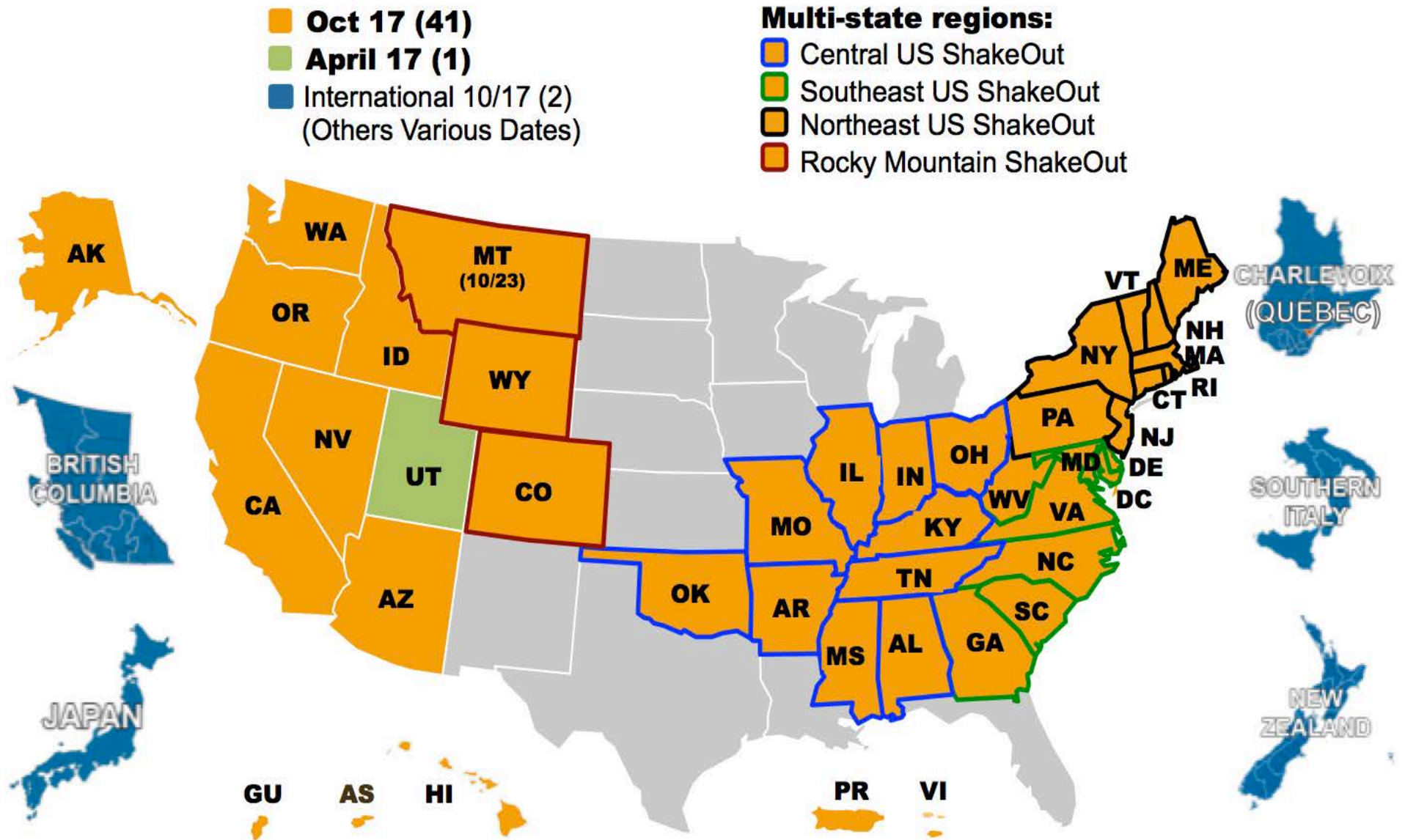
Millions of people practice...



Register today at ShakeOut.org!



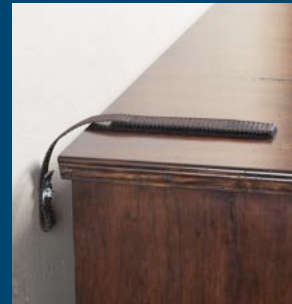
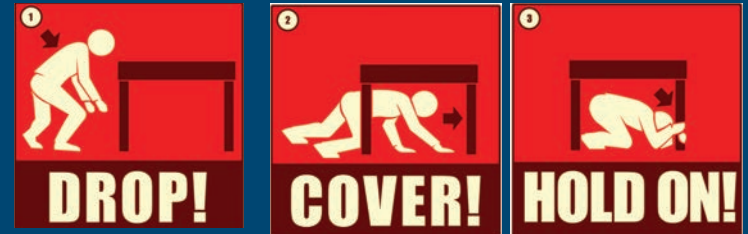
Nationwide and International



Key ShakeOut Preparedness Messages

At home, work, and school:

- Consider what would happen in a big earthquake and what you can do now to reduce damage and recover quickly.
- Practice “Drop, Cover, and Hold On”
- Secure Your Space
 - Top heavy furniture
 - Water heaters
 - TVs & electronics
 - Vulnerable structures
 - Etc.
- Store More Water
 - 1 gallon (4 L) per person per day for at least 3 days and *ideally* for 2 weeks
- Have a Fire Extinguisher(s)
 - Everyone must know proper use



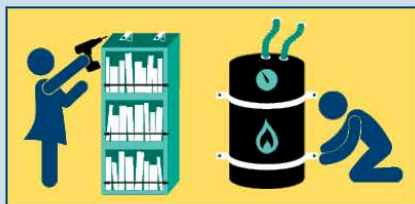
Shake
Out

PREPARE

Before the next big earthquake we recommend these four steps that will make you, your family, or your workplace better prepared to survive and recover quickly:

Step 1:

Secure your space by identifying hazards and securing moveable items.



Step 2:

Plan to be safe by creating a disaster plan and deciding how you will communicate in an emergency.



Step 3:

Organize disaster supplies in convenient locations.



Step 4:

Minimize financial hardship by organizing important documents, strengthening your property, and considering insurance.



SURVIVE AND RECOVER

During the next big earthquake, and immediately after, is when your level of preparedness will make a difference in how you and others survive and can respond to emergencies:

Step 5:

Drop, Cover, and Hold On when the earth shakes.



Step 6:

Improve safety after earthquakes by evacuating if necessary, helping the injured, and preventing further injuries or damage.



After the immediate threat of the earthquake has passed, your level of preparedness will determine your quality of life in the weeks and months that follow:

Step 7:

Reconnect and Restore

Restore daily life by reconnecting with others, repairing damage, and rebuilding community.



ShakeOut.org/resources

Get Ready to Shake Out.

10.20.11
Register Now at
www.shakeout.org

The Great California
Shake Out



The Great California ShakeOut

Annual Statewide Earthquake Drill

Individuals and Families
Get Ready to ShakeOut

Register today at ShakeOut.org

At 10:15 a.m. on October 20, 2011, millions of Californians will "Drop, Cover, and Hold On" in The Great California ShakeOut, the largest earthquake drill ever. Everyone is encouraged to participate in the drill whenever they are at 10:15 a.m. on 10/20.

Major earthquakes may happen anywhere you work, live, or travel in California. The ShakeOut is our chance to practice how to protect ourselves and for everyone to become prepared. The goal is to prevent disaster from becoming a catastrophe.

Why is a "Drop, Cover, and Hold On" drill important? As with anything, to act quickly you must practice often. You may only have seconds to protect yourself in an earthquake before strong shaking knocks you down, or something falls on you.

Nearly 8.5 million Southern Californians participated in the 2010 ShakeOut. New statements will be held on the third Thursday of October each year.

Businesses
Get Ready to ShakeOut

Register today at ShakeOut.org

At 10:15 a.m. on October 20, 2011, millions of Californians will "Drop, Cover, and Hold On" in The Great California ShakeOut, the largest earthquake drill ever. All businesses are encouraged to participate in the drill for plan a more extensive earthquake.

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Why is a "Drop, Cover, and Hold On" drill important? As with anything, to act quickly you must practice often. You may only have seconds to protect yourself in an earthquake before strong shaking knocks you down, or something falls on you.

Nearly 8.5 million Southern Californians participated in the 2010 ShakeOut. New statements will be held on the third Thursday of October each year.

Everyone can participate! Individuals, families, businesses, schools, colleges, government agencies and organizations are all invited to register.

As a registered ShakeOut participant you will:

- Learn what you can do to get prepared
- Be involved in the largest earthquake drill ever
- Receive ShakeOut news and other earthquake information
- Get an example that motivates others to participate

USGS FEMA

Are You Ready to ShakeOut?

We're all in this together...

- On the third Thursday of October each year, you can join the millions of Californians who will "Drop, Cover, and Hold On" in The Great California ShakeOut, the largest earthquake drill ever.
- As described below, major earthquakes may happen where you work, live, or travel in California. The ShakeOut is our chance to practice how to protect ourselves, and for everyone to become prepared. The goal is to prevent disaster from becoming a catastrophe.
- Why is a "Drop, Cover, and Hold On" drill important? As with anything, to act quickly you must practice often. You may only have seconds to protect yourself in an earthquake before strong shaking knocks you down, or something falls on you.
- Other preparedness information is on the back of this flyer and is online at www.shakeout.org
- Everyone can participate! Individuals, families, businesses, schools, government agencies, community groups, and other organizations are all invited to register.
- Register now at www.ShakeOut.org

California is earthquake country!

- California experiences earthquakes as large as the 1800 Northridge or 1906 San Francisco earthquakes on average.
- All areas of California have experienced earthquakes in the past and will do so again in the future. There are hundreds of faults throughout the state that can have large earthquakes.
- There is a 50% chance of a magnitude 7.5 or greater earthquake somewhere in California in the next 30 years (www.usgs.gov).
- While some areas and certain faults have a higher chance of earthquakes than others, the risk anywhere in California is high when compared to most areas of the country.

This section of the San Andreas Fault in central California is one of the most active faults. But many faults do not and are hidden. We must be ready for the next one. No matter where we are in California, we must be prepared!

The account was created using a grant from FEMA's Hazard Mitigation Program, U.S. Department of Homeland Security. Made at the U.S. Department of Homeland Security. U.S. Department of Homeland Security.



Shake Out. Don't Freak Out.

October 20, 2011

The Great California
Shake Out

www.shakeout.org

Official Participant

Join Us

for the Largest Earthquake Drill in U.S. History.

DROP! COVER! HOLD ON!

October 20, 10:20 a.m.

Register at www.ShakeOut.org

"Countdown to ShakeOut" for Businesses

Use the following countdown to ensure everyone in your business takes part in The Great California ShakeOut Drill on October 20, 2011, to prepare for the next big earthquake. All businesses are invited to participate at work, and at home!

- Register your business as an official participant in the 2011 ShakeOut Drill at www.ShakeOut.org
 - Register the number of people participating business-wide
 - Encourage employees to also participate if at home and register as an individual or as a family; invite friends and neighbors to register as individuals or organizations
- Meet with department heads to review plan and obtain their buy-in, if necessary, and determine what level of drill your business will conduct and who will participate. Consider drilling at a higher level to engage staff to be more effective during a disaster. (Drill manuals are available at www.ShakeOut.org/resources/index.html#manuals)
 - Level 1 – Simple: Drop, Cover and Hold On
 - Level 2 – Basic: Life Safety Drill
 - Level 3 – Intermediate: Decision-Making Drill
 - Level 4 – Advanced: Business Operations Simulation Drill
- Create a drill/exercise plan that includes overview of what your drill will consist of (even if just Drop, Cover and Hold On), what you expect to happen during the drill, and a feedback session after the drill to identify strengths and weaknesses
 - Inform employees/staff participants of date and time of drill, your expectations for their participation, and the benefits of the drill
- Encourage suppliers, vendors, contractors, partnering businesses, and others in your business network to participate – as a means of protecting your business – and share ShakeOut resources with them. (Consider other tasks that can protect your business, such as having Service Level Agreements in place to ensure that the services or products you rely on will be available after disaster.)
- Create employee awareness campaigns:
 - Hang ShakeOut banners and signs throughout your business to encourage and remind employees, vendors, and customer to participate
 - Initiate an email campaign to employees, staff, and customers with information and tips on how to prepare at home and work. (See http://www.shakeout.org/resources/for_examples)
 - Encourage employees to post a ShakeOut-related safety message on outgoing email messages, such as "Participate in the 2011 Great California ShakeOut on 10/20 at 10:20am!"
- Review and use ShakeOut resources for drills at www.ShakeOut.org/resources/index.html
 - Drill manuals; Drill broadcast; banners, signs, triangle of life rebuttal; PowerPoint presentations; 7 Steps to an Earthquake Resilient Business booklet; ShakeOut Shop, etc.
- Hold your drill at 10:20 a.m. on October 20th (or an alternative time, if necessary)
 - Hold post-drill discussions to hear what people learned and plan next steps

Earthquake Country Alliance



Tsunami Messaging

- Suggestions for how to organize a tsunami drill with ShakeOut, developed with California Geological Survey. Coordinating with Cascadia EarthScope Earthquake and Tsunami Education Program (CEETEP).



ShakeOut plus Tsunami Evacuation-WalkOut Drill

Add a tsunami evacuation drill to your ShakeOut Drill

First, find out if you live, work or play in a tsunami hazard area:

- Use the links listed below to find out where tsunami hazard zones occur.

CGS website: <http://www.tsunami.ca.gov>

CalEMA MyHazards <http://myhazards.calema.ca.gov/>

- Information from either of these websites can help you identify the tsunami hazard area in your community and help you prepare. If you are located just outside of a tsunami hazard area, you might consider working with your community to see what kind of assistance you might be able to provide for potential evacuees.



Add a Tsunami Evacuation Drill to your planned ShakeOut Drill

- For ShakeOut, it is important to register in advance for the event, and on the day of ShakeOut participate in the **Drop-Cover-Hold On** drill. Prior to ShakeOut, use the links above to determine if you are in a tsunami hazard area. If you are, you can add an organized tsunami evacuation drill that will follow the Drop-Cover-Hold On.
- To prepare for the drill, **identify** if there is an evacuation plan in place for your site. Contact your building manager, school district, and/or city or county offices of emergency services to find out the recommended procedures. Additionally, the maps at www.tsunami.ca.gov and <http://myhazards.calema.ca.gov/> can lead you to links to local, regional, state, and national information sources.
- If there is no tsunami evacuation plan in place for your building, **learn** what the recommended tsunami evacuation routes are in your city, county and region. Some cities and counties have this information available online.
- Identify an area outside the tsunami hazard zone where you can safely relocate (school, church, parking lot).
- Walk your evacuation route prior to the drill. Make sure there are no potential hazards that may prevent you from using this evacuation route safely.



Shake
Out

Why the ShakeOut Works

Using Research-Based Strategies to Encourage Sustainability:

Everybody participates on the Same Day at the Same Time

- I see someone like me doing it, maybe I should do it too.
- Have people take ownership of the idea (i.e. convince them it was their idea to participate).
- Hearing a consistent message many times across many contexts contributes to credibility (e.g. Roots). It avoids giving people an “out.”





Great ShakeOut

Earthquake Drills

October 15, 2015 @ 10:15 am



Register today at ShakeOut.org

The Great
Central U.S.

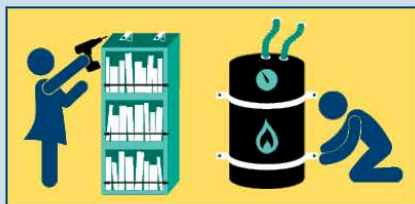


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Restore daily life by reconnecting with others, repairing damage, and rebuilding community.



Earthquake Education and Public Information Center (EPIcenter) Network

- **EPIcenters** include a variety of public venues such as museums, science centers, libraries, aquaria, park visitor centers, and universities
- Share a commitment to demonstrating and encouraging earthquake and tsunami preparedness
- Help coordinate activities in their region (including the ShakeOut), lead presentations or organize events in their communities, or in other ways demonstrate leadership in earthquake and tsunami education and risk reduction.



www.earthquakecountry.org/EPIcenter

**Shake
Out**

ShakeOut Scenario for Southern California

M7.8 Scenario Earthquake
Time = 000.0 s



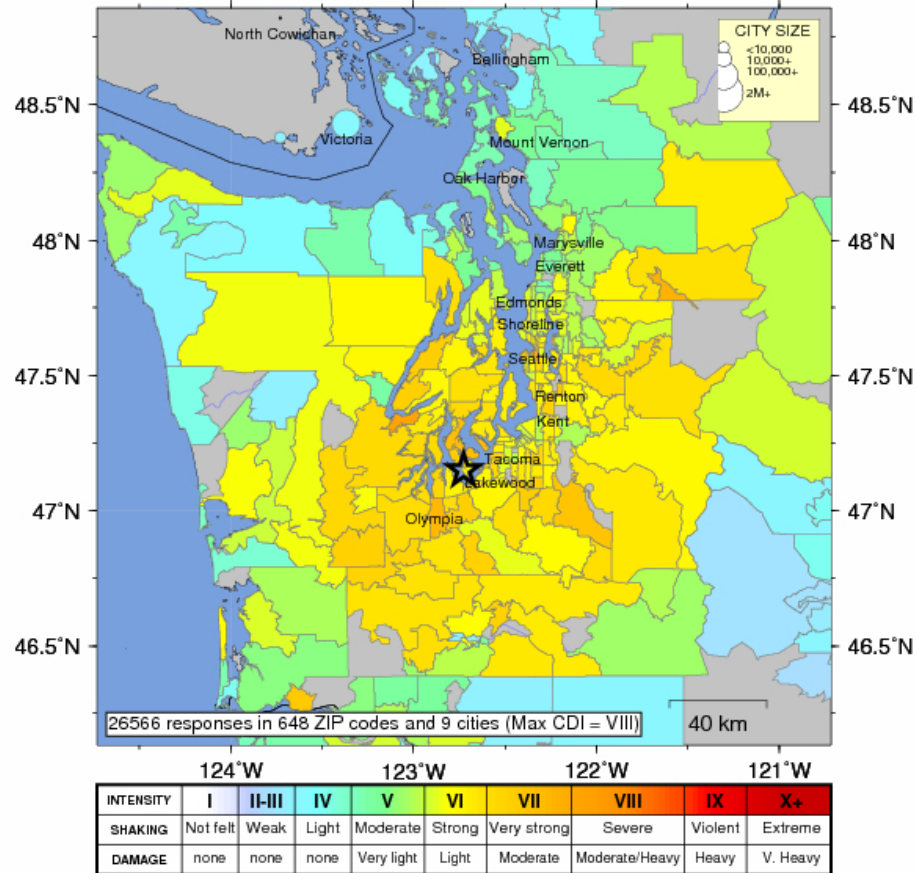
Source: USGS - <http://earthquake.usgs.gov/regional/nca/simulations/shakeout>

Shake
Out

USGS Community Internet Intensity Map

Nisqually

Feb 28 2001 10:54:33 PST 47.1489N 122.7266W M6.8 Depth: 52 km ID:uw02281854

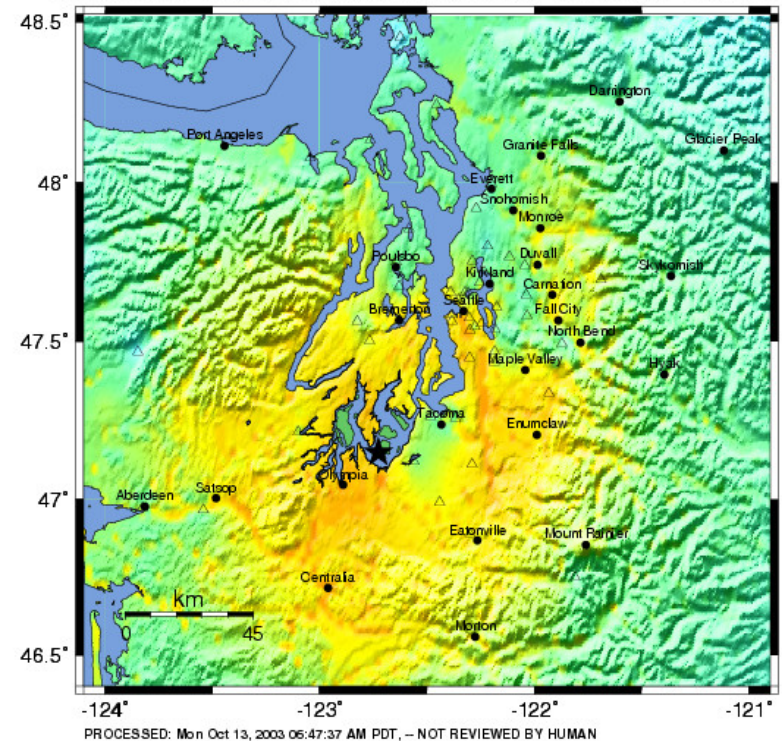


Processed: Fri Aug 8 23:30:49 2014

ShakeMap - Instrumental

PNSN Rapid Instrumental Intensity Map Epicenter: 17.0 km NE of Olympia, WA

Wed Feb 28, 2001 10:54:00 AM PST M 6.8 N47.15 W122.73 Depth: 51.9km ID:0102281854



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC (%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL (cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Did You Feel It? - Community

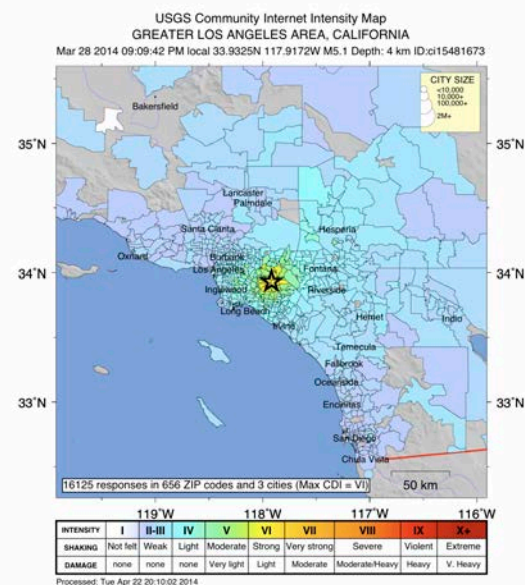
Citizen Scientist!

Quake Catcher Network: Increase the density of seismic observations to better detect earthquakes and mitigate hazard:

- New sensor technology
- Distributed sensing techniques
- Community participation

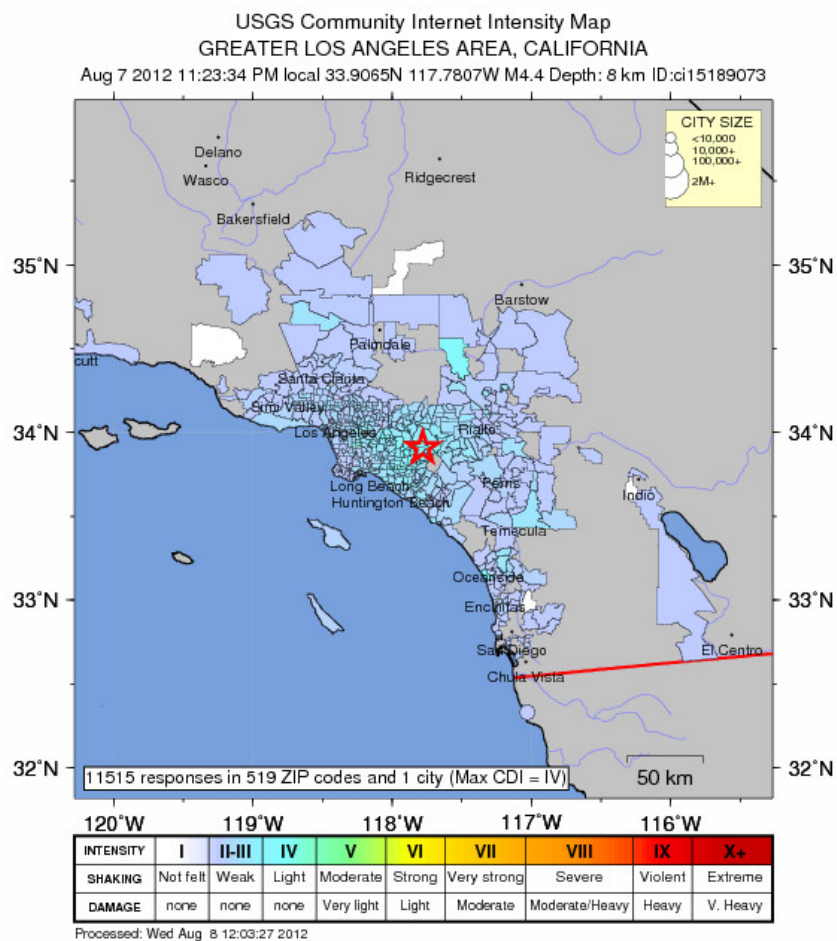
Did You Feel It?

Tap the abundant information available about earthquakes from the people who actually experience them.

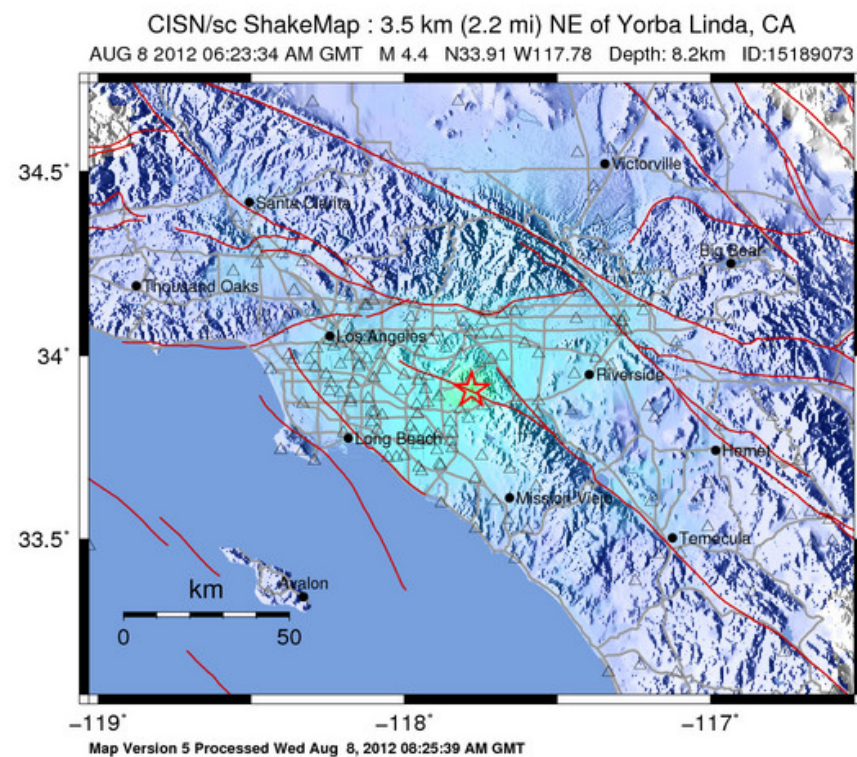


Intensity & Magnitude

ShakeMap



Did You Feel It?



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL.(cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2011)



The Great ShakeOut



yuvtlhe', chagh, 'ej 'uch

Working Together to Promote and Improve
Preparedness, Mitigation, and Resilience



Thank You!

Robert de Groot
Director for Education, Experiential Learning, and Career Advancement
Southern California Earthquake Center (SCEC)
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Earthquake Country **Alliance**
We're all in this together.