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Earthquakes!



The San Andreas Fault has seen several maior events. The last seismic event that reached magnitude 7.8 was the San Francisco quake in 1906. This quake was felt from Eureka to the Salinas Valley, and killed about 3000 people. In Southern California, the Fort Tejon quake that occurred in 1857, 160 years ago, had an estimated magnitude of 7.9, rupturing 225 miles between Parkfield and Wrightwood. This quake was 45 times more powerful than the 6.7 magnitude Northridge quake that occurred in 1994 on a much smaller fault in the San Fernando Valley. The Loma Prieta quake that occurred in 1989 had a magnitude of 6.9. This section of the San Andreas Fault had been relatively inactive since the 1906 San Francisco quake.

In 2008, Dr. Lucy Jones of the U.S. Geological Survey, led a group of 300 scientists, engineers, and others to study the likely consequences of a potential 7.8 earthquake on the southernmost 200 miles of the San Andreas Fault from the Salton Sea to Lake Hughes. A quake of this magnitude is expected to shake for two minutes. In comparison, the Northridge earthquake shook for 7-15 seconds. The scientists state that the Northridge quake is not an appropriate reference point to a catastrophic quake such as was seen with the San Francisco quake. The Loma Prieta quake shook for 15 seconds. Both the Northridge and Loma Prieta quakes saw major damage with building collapses, freeway collapses, and in the case of Loma Prieta, the failure of a section of the San Francisco Bay Bridge.



Loma Prieta earthquake damage in Oakland 1989 magnitude 6.9



Northridge earthquake Kaiser Permanente Building collapse 1994—magnitude 6.7



Mexico City earthquake 2017—7.1 magnitude



Napa earthquake 2014—magnitude 6.0

Mexico, our closest neighbor, has seen many more major earthquakes than California. In September there were two, a 8.1 quake on the southern coast, and a 7.1 quake near Mexico City, killing over 2000 people.

It is not <u>whether</u> a major quake will occur on the San Andreas Fault, it is <u>WHEN</u>. How should we prepare?

The first step is to register as an individual or a business for **The Great California ShakeOut on October 19, 2017.** Go to https://www.shakeout.org/. The ShakeOut drill will occur at 10:19 A.M. See the attached flyers on the Great ShakeOut Earthquake Drills and Earthquake Country Alliance.

Ergo Corner Looking at Loss Trends

Loss trends for our membership over the past five years saw major losses from strains, sprains, and cumulative injuries resulting from:

- Climbing on and off equipment
- Walking on uneven ground
- Working on slopes or unstable ground
- Manual lifting and carrying
- Manually turning valves

So what can we do to prevent these injuries?

- Use three points of contact when climbing into or out of equipment or when climbing up or down ladders.
- If you are carrying a tool up or down a ladder, be sure it is secured in a tool belt, or use a bucket on a rope to raise or lower tools or parts.
- When climbing out of equipment or out of vehicles, pay attention to the ground surface you will be stepping onto.
- Pay attention to the condition of walking surfaces to avoid pot holes, or objects on the ground.
- If you must carry something, check your pathway ahead of time.



Consider purchasing equipment to reduce or eliminate manual tasks such as:

- Valve turning equipment.
- Vactor equipment to remove dirt from around corporation stops or for cleaning meter boxes.
- Backhoe/loaders with multiple heads to breakup pavement, scoop out dirt and rocks, and compact replacement soil.
- Cranes for work trucks.

Cumulative injuries occur over time and are most likely the result of overuse, or incorrect work habits that does damage to our bodies. We especially see these types of injuries with older workers.

For all workers, slow down, pay more attention, and ask for help or offer help. Get regular health checkups with your doctor. Add exercise or stretching to your daily activities. Eat healthy.



What's Wrong With This Picture?

Look at the photo below to identify what is wrong in the picture. You may want to review this picture during your next safety meeting.



H.R. LaBounty Safety Awards

The deadline to submit a nomination for the fall round of safety awards is

October 16, 2017.

Submit your nomination to:

tlofing@acwajpia.com http://www.acwajpia.com/SafetyAwards.aspx

Answer - What's Wrong With This Picture?

and shoulder.

5. May need a headset as the employee has the potential of holding the telephone receiver between his neck

for a keyboard tray.

4. May need keyboard tray to push employee further away from the monitor. It appears that his sitting elbow height may be below desk level. This is another reason

3. Cabinet over the desk should be removed, so the monitor can be placed directly in front of the employee.

2. Employee must reach for the mouse.

off to the side on the desk corner.

1. Computer monitor, keyboard, and mouse are pushed

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Great ShakeOut Earthquake Drills

Individuals and Families

At 10:19 a.m. on October 19, 2017, millions of people will "Drop, Cover, and Hold On" in The Great ShakeOut, the world's largest earthquake drill ever! Everyone is encouraged to participate in the drill wherever you are at 10:19 a.m. on 10/19!

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

Why is a "Drop, Cover, and Hold On" drill important? To respond 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.



Millions of people worldwide have participated in Great ShakeOut Earthquake Drills since 2008. The Great ShakeOut is 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.

Register today at ShakeOut.org

HOW TO PARTICIPATE

Here are simple things individuals and families can do to participate in the ShakeOut. Instructions and resources can be found at ShakeOut.org/howtoparticipate.

Plan Your Drill:

- Register at ShakeOut.org/register to be counted as participating, get email updates, and more.
- Download a Drill Broadcast recording from ShakeOut.org/drill/broadcast.
- Have a "Drop, Cover, and Hold On" drill at 10:19 a.m. on October 19. You can also practice other aspects of your emergency plan.
- Discuss what you learned and make improvements.

Get Prepared for Earthquakes:

- Do a "hazard hunt" for items that might fall during earthquakes and secure them.
- Create a personal or family disaster plan.
- Organize or refresh your emergency supply kits.
- Identify and correct any issues in your home's structure.
- Other actions are at www.earthquakecountry.org.

Share the ShakeOut:

- Have a neighborhood party to discuss preparedness, and register for the ShakeOut.
- Invite friends and family members to register.
- Encourage your community, employer, or other groups you are involved with to participate.
- Share photos and stories of your drill at Shakeout.org/share.







As a registered ShakeOut Participant you will:

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

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Seven Steps to Earthquake Safety

When it comes to disaster, there are simple things you can do to make yourself safer. The information on this page is designed as a step-by-step guide to give you details on what to do before, during, and after an earthquake. Start with the simple tips within each step so that you can build on your accomplishments.

An example of this in Step 1 is moving heavy, unsecured objects from top shelves onto lower ones. This will only take minutes to complete and you are safer from that hazard!

The information in the steps linked below will help you learn how to better prepare to survive and recover, wherever you live, work, or travel.

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:

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



Step 3:

Organize disaster supplies in convenient locations.



Step 4:

<u>Minimize financial hardship</u> by organizing important documents, strengthening your property, and considering insurance.



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.

S A

Step 6:

<u>Improve safety</u> 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.

Prepare Survive Recover Know Your Risk Resources News & Events The Alliance