Volume 4, Issue 4 April 2014

GET READY, SANTA BARBARA!

KNOWING YOUR RISKS

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20 Years Later—Northridge Earthquake

How big was the earthquake? The earthquake was magnitude 6.7 on a previously unidentified thrust fault, creating strong horizontal and vertical ground motion lasting up to 10 seconds. The area of strongest shaking in the earthquake was about 30 miles in diameter from Northridge, California, encompassing southern Ventura and northern Los Angeles counties. Earthquake activity was felt as far away as Las Vegas and San Diego.

What was the human impact? The Northridge earthquake caused at least 57 deaths and over 9,000 injuries. Some 125,000 people were made at least temporarily homeless.

What was the damage to buildings and structures? 82,000 residential and commercial units and 5,400 mobile homes were damaged or destroyed. Many apartment complexes with "soft story" ground floor parking suffered significant damage. Nine parking structures collapsed and nine area hospitals required evacuation because of structural and nonstructural system failures. Great compilation of Northridge damage photos and how the location looks today, from the Daily News.

What was the damage to transportation and utility systems? Seven major freeway bridges in the area collapsed, and 212 were damaged, disrupting traffic in the Ventura-Los Angeles region for weeks following the earthquake. Communication, water and power distribution systems were affected and several fires started.

What was the financial impact? The Northridge earthquake was the costliest natural disaster to have occurred in the United States at the time, and is today the third largest economic loss caused by a natural disaster in the nation's history. The damage cost estimate reached $20 billion in damages, and $49 billion in economic loss.

Are we better prepared now? The Northridge earthquake is one of the most studied events in history. Research and scientific advancements have led to building code amendments, new financial and insurance systems, and an improved ability to mitigate and predict the outcome of future earthquakes. Read more about Advances and Lessons Learned.

Sources: *The Northridge Earthquake of January 17, 1994: Report of Data Collection and Analysis Prepared by the Geographic Information Systems Group of the Governor's Office of Emergency Services, Sacramento, 1994.*

The Northridge, California Earthquake – RMS 10-Year Retrospective, Risk Management Solutions, 2004. https://support.rms.com/publications/northridgeeq_retro.pdf

Santa Barbara History—Laguna Street

The first name given to Santa Barbara was *Laguna de la Conceptión* due to the small lake (a *laguna* as the Spanish say) that once existed near the intersection of Laguna and Ortega Streets. When the Portolá Expedition passed through here in 1769 they camped not too far away from the *laguna* and as it was about the most exciting and dominate feature they'd seen all day they named the area after the little lake.

Laguna Street is also said to have earned its name as it passed through *"El Estero"* the large estuary (or slough) that extended at its fullest from present day Milpas to Santa Barbara streets and from Anapamu to the beach. But the early maps definitely designate the feature of *El Estero* and *Laguna* as distinct and separate entities. Therefore, as the street is named Laguna and not Estero, the little lake deservingly should get all the credit.

Source: Street Names of Santa Barbara by Neal Graffy (pg. 7)

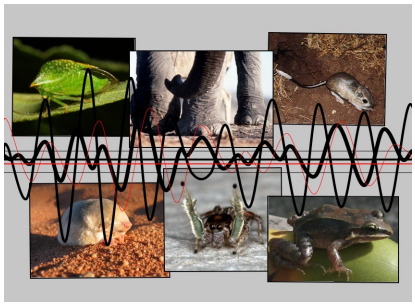
Do you have some Santa Barbara history you want to share? Maybe you have some interesting family history you want to share or maybe you have a question about something. We want to hear it! Send us your stories of, or questions

USGS Earthquake Myths

1. **Can you predict earthquakes?** No. Neither the USGS nor any other scientists have ever predicted a major earthquake. They do not know how, and they do not expect to know how any time in the foreseeable future. However, based on scientific data, probabilities can be calculated for potential future earthquakes. For example, scientists estimate that over the next 30 years the probability of a major earthquake occurring in the San Francisco Bay area is 67% and 60% in Southern California. The USGS focuses their efforts on the long-term mitigation of earthquake hazards by helping to improve the safety of structures, rather than by trying to accomplish short-term predictions.

2. **Can animals predict earthquakes?** The earliest reference to unusual animal behavior prior to a significant earthquake is from Greece in 373 BC. Rats, weasels, snakes and centipedes reportedly left their homes and headed for safety several days before a destructive earthquake. Anecdotal evidence abounds of animals, fish, birds, reptiles, and insects exhibiting strange behavior anywhere from weeks to seconds before an earthquake. However, consistent and reliable behavior prior to seismic events, and a mechanism explaining how it could work, is still elusive. Most, but not all, scientists pursuing this mystery are in China or Japan. To Learn more click here.

3. **What is the "Triangle of Life" and is it legitimate?** The "Triangle of Life" is a misguided idea about the best location a person should try to occupy during an earthquake. It is listed in the Urban Legends category on the Snopes Urban Legends Reference website. Drop, cover, and hold on under a table or desk is still the best recommendation. Click here to learn more.



Anecdotal evidence abounds of animals, fish, birds, reptiles, and insects exhibiting strange behavior anywhere from weeks

4. **Can some people sense that an earthquake is about to happen (earthquake sensitives)?** There is no scientific explanation for the symptoms some people claim to have preceding an earthquake, and more often than not there is no earthquake following the symptoms.

5. **Can the ground open up during an earthquake?** Shallow crevasses can form during earthquake-induced landslides, lateral spreads, or other types of ground failure. Faults, however, do not open up during an earthquake. Movement occurs along the plane of a fault, not perpendicular to it if faults open up no earthquake would occur because there would be no friction to lock them together.

6. **Will California eventually fall into the ocean?** No. The San Andreas Fault System, which crosses California from the Salton Sea in the south to Cape Mendocino in the north, is the boundary between the Pacific Plate and North American Plate. The Pacific Plate is moving northwest with respect to the North American Plate at approximately 46 millimeters per year (the rate your fingernails grow). The strike-slip earthquake along the San Andreas Fault are a result of this plate motion. The plates are moving horizontally past one another, so California is not going to fall into the ocean. However, Los Angeles and San Francisco will one day be adjacent to one another.

USGS tackled 11 earthquake myths of which we have listed 6 of them. You can find the other 5 myths by going to their website, just click here.

The CERT Corner –*The Ice Plant Cometh…*

Santa Barbara is on alert for good reason. Compelling us to look closely at the environment surrounding us is the fact that we are in a long dry period. Sounds like a cliché, doesn't it? For our climate and our history, drought is a fact of life. Our geographic orientation which affords us the best of Mediterranean climate, also affords us the vulnerability of the consequences, primarily fire and flood. Ask a group the question: what are the hazards we have here in Santa Barbara, and the answers come in this order, fire, earthquake, and flood. This year flood is not an issue, but because of that lack of rain, we are at very high risk for fire. Earthquake is the constant.

What can we do at this time to reduce our personal risk from fire around our homes and neighborhoods? This is not difficult. Walk the perimeter of your home. Start near the house itself. Is wood stacked against the house? How about a wood pile near your home? We had a very warm winter and perhaps that half cord of oak you purchased for cozy winter nights is still stacked nearby. Do you have flammable materials in the side yard such as gasoline for your mower? How about charcoal lighting fluid for the barbeque? Although not associated with fire, as you do this survey, look for any standing water where mosquitoes may breed, and empty the containers.

Look at the next radius, expanding outward. How about dead vegetation? With the drought we are losing significant landscape, including trees. Here on the Mesa we have an abundance of ice plant. When I moved to Santa Barbara, over forty years ago, we were told to plant ice plant to create a barrier to fire. We know so much more now, and ice plant, which is quite invasive on the Mesa, is actually a hazard. The bright green spears on the top hide many layers of dead foliage from the past, and this foliage is very combustible. Weeds sprout, grow, and dry. Once they dry, and they will, they are a hazard. With large portions of the Mesa designated as High Fire Area, weed abatement is very important. Weed your property, mow any tall grass. Trim dead wood from native plantings. Typically we would consider this in May, but because of our weather pattern, the dry season is already advancing.

Now look at your neighborhood. Perhaps a small team could meet and do some weed abatement. It's amazing what three or four people can do to make a difference. One hour becomes four when the work is shared, and four people each helping for an hour can make our neighborhood a much safer and pleasant place to live.

The Santa Barbara City Fire Department and the City of Santa Barbara has information regarding the creation of defensible space around your home, including lists of plants approved for creating a firescape, a garden planned to resist fire. We have an example of this opposite Fire Station 7 on Stanwood Road. Worth the drive across town, this 1.7 acre garden has turned 25 years old, and was recently redone.

You can make this difference, just take a look around.

Stella Larson
Mesa Resident

April Fun Fact Quiz

Some fun facts regarding April, see if you can guess them all.

1. The Titanic sank on April 15th; which year?

   a. 1815 b. 1873 c. 1912 d. 1925

2. In April 1906 there was a severe earthquake followed by a fire; where was it?

   a. Los Angeles
   b. San Francisco
   c. Hawaii
   d. Alaska

3. Which president was inaugurated in April 1789?

   a. George Washington
   b. John Quincy Adams
   c. Thomas Jefferson
   d. James Madison

4. The birthstone for April is:

   a. Topaz
   b. Emerald
   c. Sapphire
   d. Diamond

1. c 2. b 3. a 4. d

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and

Emergency Kit Recipes – *"Tectonic Plate" Peach Pastry*

Prep Time: *20 min*
Total Time: *75 min*

Ingredients

Batter:
Mix dry ingredients first
2 cups instant pancake mix (box will read: just add water) like Krusteaz, Bisquick, etc.
2/3 cups sugar
2 tbls powdered coffee creamer
1/2 cup apple juice
1/2 cup Peach syrup (saved from canned peaches)
2 tbls cooking oil

Filling:
Mix dry ingredient first
1 ½ cups granola (I used granola with raisins, honey and almonds)
½ cup flour
½ cup brown sugar
1 can diced peaches (save syrup for batter)
2 tablespoons oil
¼ cup apple juice

Recipe courtesy of emergencykitcookoff.org

Directions

Pour the thick batter into oiled 1 1/2-quart loaf baking dish.

Spread filling on top of batter. It will move into the center when baking, like subduction in plate tectonics. Actually fun to watch when there is no TV in an emergency situation.

Bake in preheated oven at 350 degrees for 45 minutes or until done.

Allow to cool, slice and enjoy its earth-shaking goodness!

If you want to find more Emergency Recipes like this, Click here

Do you have an Emergency Kit Recipe you want to share? Maybe you have a healthy or crazy recipe or maybe you have a question about something. We want to hear from you! Send us your recipes, or questions to PRomero@SantaBarbaraCa.gov

Upcoming Events
April 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 April Fools Day	3 National Day of Hope	4	5 International Pillow Fight Day
6 Army Day	7	8 National Be Kind to Lawyers Day	9	10	11	12 Licorice Day
13	14	15 Income Tax Pay Day	16	17 Blah, Blah, Blah Day	18	19 National Garlic Day
20 Easter	21	22 Earth Day	23 Admin Pro-fessionals Day	24	25	26 Arbor Day
27	28	29 international Dance Day	30			