

## So What's Shakin In Nevada this month you ask?

On our net back on June 24th, Rob asked the question: Are you ready for our July Earthquake Drill? In July as part of that show, we were to run a simulated earthquake drill, I hope you did it but if not, there is an event this month that you may want to look at doing.

In 8 days from now there is an event called "The Great Nevada Shake Out". Millions of people around the world also practice their Drop Cover and Hold On drills in October as well. The official date for this is October 15<sup>th</sup> at 10:15am. To date, about 600,000 Nevadans have signed up for the event, last year there were over 570,000. With Nevada ranking 4<sup>th</sup> in the country for earthquakes, these events and practice sessions are only training for the real deal that everybody in emergency services, UNR seismology lab and the USGS have said we ARE OVERDUE for. You know these mountains around here didn't get here without the earth throwing a major tantrum.

Just to put a few things in perspective:

**From 1974 to 2003 the number and percentage by state**

1	Alaska	12,053	57.2%
2	California	4,895	23.2%
3	Hawaii	1,533	7.3%
4	Nevada	778	3.7%
5	Washington	424	2.0%
6	Idaho	404	1.9%
7	Wyoming	217	1.0%

All others less than 1% of all quakes

**The 5 largest recorded earthquakes are:**

Chile	1960	9.5
Alaska	1964	9.2
Northern Sumatra	2004	9.1
Honshu Japan	2011	9.0
Kamchatka	1952	9.0

The Shakeout, is an event designed to make folks aware of the fact that we can be more prepared for ourselves, our families and our community. The online resource for all information can be found at [www.shakeout.org](http://www.shakeout.org).

On this site you can sign up to participate on the 15<sup>th</sup> or if that day does not work, tell them which day you will do the drill. If you ever wanted a site to help you set up your drill, walk you through it and tell you what to do when "The Shakin Stops", this is the site. There is so much great information and learning to do.

### So let's do a quick review of notable earthquakes in our great state of Nevada

#### **Pleasant Valley, 1915**

A magnitude 7.75 earthquake hit eastern Pleasant Valley, about 40 miles southeast of Winnemucca.

#### **Cedar Mountain, 1932**

A magnitude 7.3 quake hit a largely uninhabited desert region of western Nevada near Cedar Mountain.

#### **Excelsior Mountains, 1934**

A magnitude 6.6 quake hit the Excelsior Mountains in western Nevada in Mineral County.

#### **Fallon-Stillwater area, 1954**

On July 6, 1954, a magnitude 6.4 quake hit the Fallon area

#### **Stillwater, 1954**

Less than two months later, another large earthquake hit the same area. A magnitude 6.8 quake hit Stillwater. The quake damaged the Rogers Dam.

#### **Fairview Peak and Dixie Valley quakes, 1954**

1954 wasn't a good year for Nevada earthquakes. These two major quakes hit the same area within minutes of each other on Dec. 16, 1954: a magnitude 7.1 and a magnitude 6.8. USGS treats the two as a single event because the damage can't be separated.

#### **Wells, 2008**

The most recent major earthquake to hit Nevada was a 6.0 that did \$10.5 million in damage when it struck near the Elko County city of Wells.

**The result of these quakes** is that buildings were destroyed, streams and springs changed flow entirely. Most of these occurred in uninhabited areas so they had no loss of life, just property damage. Things today would be entirely different given population density along with the ranching and mining. Even the Wells quake in 2008 had no loss of life but major property damage.

According to the UNR Seismological Lab and the Nevada Bureau of Mines and Geology; although earthquakes do not occur at regular intervals, there is a general thought on future events. The frequency of M6 or greater in Nevada has been about one in every ten years while M7 and greater average once every 27 years.

If we look at the cluster of M6 and M7 in 1954, that put those events at 61 years ago. So the last M6 was in Wells in 2008, putting that one 7 years ago.

*Just looking at the numbers, we are way overdue for a Major event.*

### Interesting facts on Nevada:

1. We have two fault lines running into the city of Reno capable of larger than 7.0 earthquakes.
2. Nevada has several thousand events every year.
3. The faults in Nevada that are most active are just west of the Sierra Mountains.
4. The most likely major quake here would be between 7.0 and 7.9. With the faults here, we could have events just as large as Northridge or Loma Prieta.
5. A major earthquake in California will affect events here.

Most of us have heard of the Richter scale. This is the scale used to determine the magnitude of an earthquake. The "scale" is formally called "The standard body-wave magnitude formula" and is just that, a math formula. One general rule about the scale is that each level is 10 times more powerful than the last.

### Generally speaking, the following is true of all quakes:

Less than 2.0	Micro <u>daily</u>	Earthquake and not generally not felt but recorded
2.0 to 3.9	Minor 1,300,000yr	Sometimes felt but recorded. Rarely causes damage
4.0 to 5.9	Light-moderate 130,000yr	Shaking, minor damage but major damage to poorly designed buildings
6.0 to 6.9	Strong 134yr	Can be destructive in areas up to 100 miles in populated areas
7.0 to 7.9	Major 15yr	Destructive over very large areas from center
8.0 to 9.9	Great 1 to 1 per 10yr	Depending on where these occur, they can cause major damage for several hundred miles. Can affect ocean movements thousands of miles
10.0 and up	Massive	Never recorded, widespread devastation across very larger areas.

## So now we have the facts, what's next?

First of all, I would encourage you to log onto the Shakeup site and see what you can participate in. Through this process, you will be able to evaluate where you stand in being prepared. If you participate you will learn where you are strong, weak and have nothing in place to keep you safe. You have to find out what you need and what you don't need.

One of main drills at Shakeout is the Drop-Cover and Hold on. This drill is designed to work where you are. There are drills for home, work, schools, Healthcare and Government Agencies. The purpose of this is to protect yourself when it hits and has three main parts:

- a. DROP. The sheer force of an earthquake can knock you down. Rather than falling and landing wherever, you choose where to end up on the ground.
- b. Cover. Get under something sturdy. Objects will be falling and thrown around. Cover will prevent or reduce and major injuries.
- c. Hold On. Hold on to the shelter until the shaking stops. If you can't hold on, cover your neck and head until the shaking passes.

This drill is step one. Now do an inventory by walking through your house of items that may fall during a quake and make a plan to secure them. These steps make your environment more conducive to survival. Now repeat this at other places you frequent such as work or where you donate time.

So having survived the quake, now we turn to survival. Like prepping, event preparedness is based on what YOUR plans are. Do you plan on staying put or moving somewhere else? Can you get news information and can you communicate with others? So many things to cover but start on the website by establishing a plan, there are links to help you put that together.

Every source of after the quake information will tell you to make up a 72hr kit. Let's all get that done. The NNPG have recorded information on the 72 HR KIT, the GET HOME/POSSIBLES BAG and several others for you to look at and gain useful information. I will post the links to these video presentations along with additional sources of information in this documentation at the NNPG site.

The important thing is to start where you are, with what you have and add to it. There are those that can buy everything they need in a container and then those of us who cannot afford to do that. The important thing is to make a start and then try to stick to it. You will find that the 72hr kit is not expensive to put together!

So I have given you some history, facts and laid the groundwork for The Great Shakeout to get you started. It's now your job to get signed up for the event and get started with your emergency preparations for you and your family. Remember that we are here to help you be ready; the government will be the first to tell you that you are on your own for the first 72hrs at least. So don't hesitate to call on the group for some help and guidance.

**Other resources are:**

<http://earthquake.usgs.gov/earthquakes/?source=sitenav>

<http://www.seismo.unr.edu/>

<http://earthquaketrack.com/r/nevada/recent>

<http://www.ready.gov/>

<http://www.redcross.org/prepare/disaster/earthquake>

<http://emergency.cdc.gov/disasters/earthquakes/>

<http://www.fema.gov/earthquake-safety-home>

**Video Training links:**

72hr Kits

[https://www.youtube.com/watch?v=\\_V8BZ18nxNw](https://www.youtube.com/watch?v=_V8BZ18nxNw)

Get home Possibles Bag

<https://www.youtube.com/watch?v=wKsolWOjciA>

72hr Kits for Kids

<https://www.youtube.com/watch?v=Ok8Ghs5HURg>

72hr Kits for Pets

[https://www.youtube.com/watch?v=S-Qfu3Nq\\_BM](https://www.youtube.com/watch?v=S-Qfu3Nq_BM)