Volume 7, Issue 1

October 2, 2006

The Earthquake Exchange

Special points of interest:

- Want to contribute to this newsletter? Contact us.

  Prepare@UtahEarthquake.org
- Ask Mary Jane! Use the address above to send your preparedness questions.
- Set one preparation goal per month and then actually do it! Get the family involved. Start with the basics in home & personal safety.

Inside this issue:

Where To Go During An Earthquake

When an earthquake occurs, you will have to make split-second decisions. Be aware of your surroundings so you can try to take advantage of the most logical protection available.

When you are indoors:

- You may be able to hide under a strong table or desk. If you get under a table and it moves, try to move with it.
- Stay away from glass, hanging objects, bookcases, china cases, or other large furniture that could fall. Watch for falling objects such as bricks, light fixtures, wall hangings, mirrors, computers, the contents from shelves, etc. Grab something to shield your face and head from falling debris and broken glass.
- Inner walls and door frames are least likely to collapse in an earthquake. If no other cover is available, go to an inner corner or doorway, away from windows. Be wary of swinging doors.

In the kitchen:

- Turn off the stove and take cover at the first sign of shaking. Protect yourself from falling dishes, food cans, pots, unsecured microwaves, etc.

In high-rise buildings:

- Get under a desk away from windows and outside walls. DO NOT use the elevators. BE WARY of stairs. The sprinkler systems and fire alarms may come on.

In crowded indoor places:

- Move away from display shelves. If you can, take cover and shield yourself from falling debris. In a theater, get down between or under the seats.

Outdoors:

- Move away from buildings, utility wires, and other large objects that could be displaced. Once in the open, stay there until the shaking stops.

In automobiles:

- Pull over to the side of the road **away from** buildings and bridges **(**overpasses & underpasses.) Stay in the vehicle, set the parking brake, and turn on the radio for instructions. A car may shake violently, but it is typically a good place to be until shaking stops.

In a wheelchair:

Landscape Arch
Arches National Park, Utah
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- If you can, move away from windows and furniture that could fall. Use the wheelchair brake and protect your head.

In bed:

- Cover your head and body with pillows and blankets. Or you can roll off the bed and duck or lie next to the bed, continuing to protect your head and body.

Always inspect your surroundings after an earthquake and begin to follow your emergency plan. Extricate yourself carefully from public buildings. Be mindful of loose objects during aftershocks. If you are trapped, bang on pipes or walls. If you are below a dam, have an evacuation plan.

Why do earthquakes happen? *By Jamie Robinson*

The earth's outer surface is broken into plates. Earthquakes occur when these plates move under, over, or slide past each other. This movement of plates is called plate tectonics.

The plates, or blocks of rocks (in the case of the Wasatch fault) move relative to each other at an average rate of 20 mm (1 inch) per year.

When plates are rubbing against each other, they don't just slide smoothly; the rocks catch on each other. The plates are still pushing against each other, but not moving. After a while, pressure builds up along these "stuck" plates.

An earthquakes occurs when the pressure becomes too much, causing a sudden release of the built up energy stored in the rock below the surface and a break along a fault.

When the energy is released,

— Cont'd on Page 4

Helping the Community: Translation Help Needed!

In the year 2000, 12.5% of all people living in Utah reported "Language other than English spoken at home."

Durante el año 2000, se había reportado que 12.5% de toda la gente que vivía en Utah "hablaba otro idioma que inglés en la casa."

We are making efforts to reach these homes with disaster preparation materials so that everyone within our communities is privileged with the same right to plan for the safety of their families.

Nos esforzamos para alcanzar estos hogares con los materials de preparación para los desastres para que todos dentro nuestras comunidades tengan los mismos derechos para planear la seguridad de sus familias.

If you can help accurately translate written materials from English to Spanish and are willing to donate some of your time for the safety and betterment of the community, *please* contact Jonathan at

prepare@UtahEarthquake.org.

Si desea traducir los materials escritos de inglés a español y está despuesto de donar su tiempo para mejorar la comunidad, *por favor* escriba a Jonathan a

prepare@UtahEarthquake.org.

Also contact us if you are aware of other language needs and / or can provide written translations in those languages.

Help translate information into Spanish and other languages to help everyone in the community prepare for emergencies.

Ask Mary Jane: "How many people have earthquake insurance in Utah Valley and/or Salt Lake and is Earthquake Insurance worth it?" — D. McKay, Lindon, UT

According to the Utah Insurance Department's 2004 Annual Report (which seems to be the last year posted,) premiums paid for earthquake insurance in Utah were less than 1% of all property insurances combined. Of 30 different types of property insurance, Utahns paid fewer premiums only for 10, including ocean marine, federal flood, boiler & machinery, and fidelity.

Earthquakes are not covered by standard homeowner's insurance, and premiums for earthquake insurance are much higher. So whether E.I. is worth it for you is partially dependent on whether you can afford it initially. Also, in WA, NV & UT, deductibles are higher than elsewhere in the U.S. at a minimum of 10% of the structure insured. Insurance can't prevent an earthquake, only pay funds to help you rebuild and recover damages & losses.

On the other hand, a recent HAZUS earthquake hazard model released by FEMA estimated close to $12 billion in damages and $14 billion in losses if a magnitude 7.2 earthquake rocked Utah. Large earthquakes, 6.5 to 7.5, can and have happened all along the Wasatch Fault.

You can find more info here:

Federal Government:

www.insurance.wa.gov/factsheets/

Utah Government:

www.insurance.utah.gov/Earthquake.html

Insurance Information Institute:

http://www.iii.org/media/hottopics/insurance/earthquake/

"FEMA has estimated 12 billion dollars in damages and 14 billion dollars in losses if a magnitude 7.2 earthquake rocked Utah."

Monthly Preparation Tip: Staying Fit For An Emergency

As though any of us really need another reason to eat right and exercise! We know we should, a few of us do, most of us plan to ... tomorrow. But consider this. In an emergency, being physically fit might be one of your best preparations.

We budget for emergency food. We spend money on supplies. And yet, exercise is a free investment with high returns.

In an emergency:

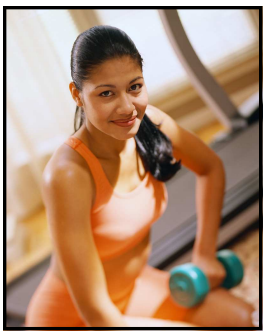
- You may need to evacuate quickly, carry heavy 72-hour emergency kits or children, and participate in rescue operations.
- You might be required to lift the injured, run from flood or fire, use a shovel or axe for an extensive time, sort through debris, walk to a distant emergency shelter, or help move food and supplies.

Physical fitness will be a great service to yourself & others.

Physical fitness can provide the following benefits in an emergency:

- Lift & carry more weight.
- Move faster and farther.
- Strengthen against injuries, heart attack, fatigue, etc.
- Increase mental alertness.

You don't know where you will be when an emergency happens. You may or may not have all your emergency supplies with you. But, as the saying goes - Wherever you go, there you are. **Your healthy body may be your greatest resource.**



Be prepared by becoming physically fit. You may need strength and endurance in an emergency.

UtahEarthquake.org

Educate
Prepare
Communicate
Share

UtahEarthquake.org is a not-for-profit educational tool. Originally created with help from three junior-high students, it was conceived during a UNICEF lecture about natural disasters. The website's mission is to fill a community need for concise earthquake preparation information. The website and newsletter serve to provide easy access about everything from the physical laws of plate-tectonics to home retrofits, emergency instruction, food & water storage, community action, public events, and disaster & supply planning.

Although every reasonable effort is made to ensure information is accurate, information, data, suggestions, links, instructions and guidelines are provided for informational purposes only. UtahEarthquake.org makes no guarantees of any kind. This newsletter, and the information posted herein, may contain personal opinions.

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We're on the Web!

Past newsletters are now posted on our web site. Go to www.UtahEarthquake.org and click Free Newsletter.

Cont'd from Page 1 — Why do earthquakes happen?

the spot underground where the rock breaks is called the **focus** of the earthquake. Earthquake waves start at the focus, and then radiate out from there along the part of the fault that has ruptured.

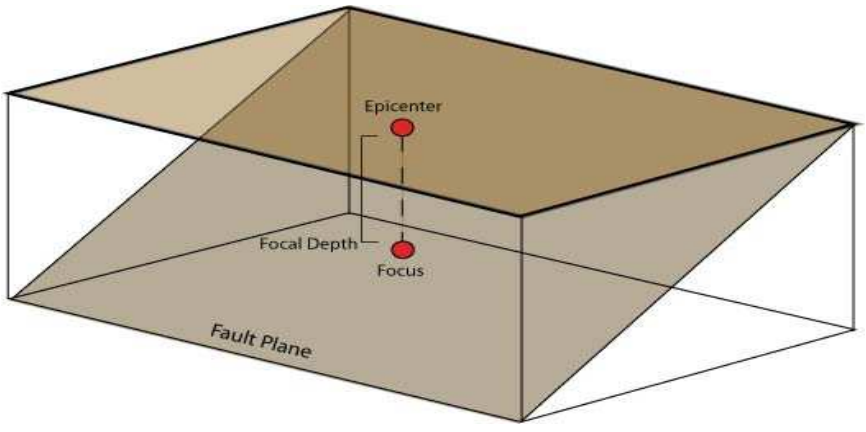
The **focal depth** of an earthquake is the depth from the Earth's surface to the focus. Shallow-focus earthquakes are created if the focus is near the surface of the earth (between zero and forty miles deep) while deep-focus earthquakes are created if the focus is deep within the earth (between forty and four hundred miles deep).

Shallow-focus earthquakes are much more common than deep-focus ones, and they are usually larger, which in turn makes them more dangerous.

The earthquakes that occur along the Wasatch Fault are shallow-focus earthquakes.

The place right above the focus, on the surface of the earth, is called the **epicenter** of the earthquake. The location of an earthquake is commonly described by the position of its epicenter and by its focal depth.

Earthquakes tend to reoccur along faults, which reflect zones of weakness in the Earth's crust. Even if a fault zone has recently experienced an earthquake, there is no guarantee that all the stress has been relieved. Another earthquake could still occur.



Jamie Robinson is a senior at BYU majoring in Geological Sciences. She interned with the Southern California Earthquake Center and is currently investigating AMR, Accelerating Moment Release, along the Wasatch Fault.