

# The Earthquake Exchange

## Before You Build or Buy Your Home

### Special points of interest:

- Set one preparation goal per month and then actually do it! Get the family involved. Start with the basics in home & personal safety.
- **Commencing in April 2007, *The Earthquake Exchange* will be distributed quarterly instead of monthly.**

Thinking about building or buying a home along the Wasatch Front? We welcome you to the area! There are a few things you should consider when choosing your house and neighborhood.

Unfortunately, the beautiful mountains and lakes that surround us can also create certain hazards. Awareness of these potential risks will help you make a choice appropriate for you and your family.

The most common geological hazards are landslides which occur most often in the spring & early summer due to rain, snowmelt and swollen rivers. The precipices in Southern Utah, where people commonly buy homes for their sweeping views, are sometimes highlighted in the news due to deadly mudslides. However, as the picture at right depicts, landslides can and do happen throughout Utah.

Before buying, examine your

property and surrounding area for slide potential. Factors could include proximity to the mountains, soil composition, proximity to ledges in the front, back, or side of your home, and liquefaction potential determined in part by the property's nearness to water.

Other hazards include avalanche, earthquake, and earthquake related risks like liquefaction, landslide, and flooding. Landslide damage will certainly increase significantly when an earthquake happens.

According to the Utah Geological Survey's January 2007 edition of *Survey Notes*:

"... publicity surrounding ... damaging landslides raised questions in the media about the wisdom of some new residential developments on hillsides, and whether the geologic hazards were adequately considered during the approval process."



Landslide in Northern Utah—  
Davis County, South Weber  
April 9, 2006

"In May 2006, Governor Huntsman requested that a Geologic Hazards Working Group be established to improve the subdivision approval process to reduce losses from geologic hazards to an acceptable level."

**Home buyers, residents, and real-estate agents can learn more about this study and geologic risk-factors at:**

<http://geology.utah.gov/utahgeo/hazards/realtors.htm>

**Research earthquakes & faults, landslides, rock falls, ground cracks, and liquefaction at:**

<http://geology.utah.gov/utahgeo/hazards/index.htm>

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## Hotel Evacuation—Lessons Learned

by Gary Hoose

**It was 1:00 AM when the fire alarms went off in the luxury high-rise hotel where we were staying. Strobe lights began flashing, and an insistent voice came over the loud-speaker telling us to "evacuate the hotel immediately."**

With one of us struggling to become fully awake, we

grabbed keys, purse, and wallet, donned bathrobes from the closet, and headed for the stairwell emergency exit where, one of us with slippers on and the other in bare feet, we descended six flights of stairs to the ground floor exit. Moving into the parking lot we shivered in in the 40 degree weather and observed the

other guests exiting the hotel. At least one lady did not even take time to grab a bathrobe and was clad only in a sheet. Surprisingly, some of the guests took the opposite approach and seemed more concerned with their appearance than getting out of the building.

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## Helping the Community: Read This Month's UGS Survey Notes!

This month's *Survey Notes* is full of important earthquake information.

**Get a free copy!**

**Call (801) 537-3300**

**or, view it on the web**

<http://geology.utah.gov/surveynotes/>

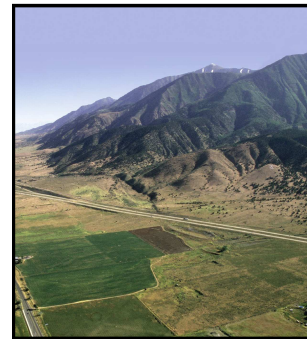
Issue includes—

- **Two major articles about the Wasatch Fault and earthquakes in Utah**

- A trivia question (featured below)
- **A section for teachers to help them integrate earthquake discussion in the classroom**
- An update on the Basin and Range Province Earthquake Working Group meeting
- The Director's Perspective concerning landslides and new housing development initiatives
- Other fascinating geologically related articles

Anyone interested in earthquakes in Utah should check out this issue of the Utah Geological Survey's quarterly publication.

Don't miss out!



**Cover of *Survey Notes*, January 2007:**

**View north along Wasatch fault at base of southern Wasatch Range.**

**Photo by Ronald Bruhn.**

## Did You Know?

From *Survey Notes*, Jan 2007, pg 11 "Glad You Asked"

**Q: What does the original Saltair resort on the south shore of Great Salt Lake have in common with the coasts of Indonesia, Thailand, and northwestern Malaysia?**

**A: EARTHQUAKE GENERATED WAVES!**

The coasts of Indonesia, Thailand, and northwestern Malaysia were all hit by the devastating tsunamis generated by a magnitude 9.1 earthquake under the Indian Ocean in December 2004. Similarly, in 1909 an estimated magnitude 6 earthquake near the north arm of Great Salt Lake generated a wave that damaged the original Saltair resort and overtopped the old wooden railroad trestle that crossed

the lake. This trestle was 12 feet above lake level, suggesting the wave was at least that high. The wave in Great Salt Lake (technically a "seiche") differed somewhat from the Indian Ocean tsunamis in that it resulted from ground shaking in a closed basin rather than fault rupture and offset of the seafloor.

**"...in 1909 [an ... earthquake near the] Great Salt Lake generated a wave that damaged the original Saltair resort and overtopped the old wooden railroad trestle... 12 feet above lake level."**

## Monthly Preparation Tip: Emergency Kits On Wheels

Every six months, the first weekend of April and October, my husband and I open our 72-hour emergency kits and peruse their contents. We eat food that is nearing its expiration date and replace it with new. We add warm clothes in October and cool clothes in April.

We make a list, check it twice, add one or two items to beef up the kits, repack, and then heft them back onto our top closet shelf. It takes the effort of us both to lift them individually.

We use two large mountaineering packs for our kits, and while I can place mine on my back

and walk, it's difficult. My husband's is even heavier and less comfortable.

This year we've decided to buy a large plastic trash can on wheels, not unlike the refuse and recycle bins the city provides us, making sure the lid is tight.

Into this we'll place our tent and poles, sleeping bags and extra quilts, tarp for shade, shelter, or ground protection, flashlights, first aid kit, some water and food that can weather high and low temperatures, extra clothing, an extra collar, leash and canned food for our dog, as well as

other necessities.

We intend to leave this kit in an inconspicuous place in the backyard. If we have to evacuate due to an earthquake or other hazard, we can concentrate on removing our family from danger. The main portion of our 72-hour kit will already be safely outside.

A large trash can will hold a larger kit than our current backpacks, will be waterproof outdoors, and will move more easily on wheels. And with our packs empty, maybe we can finally get back to some serious hiking...



**In a large trash can, a rolling ice chest, a duffel—heavy items move faster and more easily on wheels.**

**Educate  
Prepare  
Communicate  
Share**

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**We're on the Web!**

Past newsletters are now posted on our web site. Go to [www.UtahEarthquake.org](http://www.UtahEarthquake.org) and click Free Newsletter.



**Like it or not, you may need to evacuate in the middle of the night—home or hotel.**

**Check out the well-earned evacuation suggestions in this article.**

*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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Astoundingly, the evacuation process went on for an extended period of time with some of the hotel patrons having taken time to fully dress, pack, and perhaps even to apply make-up.

We remember one man who made sure to bring his guitar and case. He later serenaded the evacuees with "Kum Bay Yah." However, carrying luggage and large personal effects down the stairwell could have slowed or confused the evacuation process, perhaps unnecessarily jeopardizing human life.

Others assumed additional risk by taking the elevator instead of the stairs.

Fortunately, there was no actual fire that night and we only suffered mild discomfort and several hours of inconvenience.

Had there been an actual fire, we doubt that all of the guests would have made it out, particularly those who spent so much time in their rooms prior to evacuating, or those who chose the uncertainty of the elevator over the stairs.

We realize that there is a better way, a middle ground between our solution which resulted in standing outside in bathrobes, and the choice that other guests made to expend precious seconds, minutes, or tens of minutes packing and preparing to evacuate.

We now make it a regular practice to pay attention to the layout of the room and to arrange clothes and shoes on a chair close to the bed.

We recommend leaving wallets, keys, cell phones, etc. in pants pockets or purses so

that there will be no need to think of these items or to search for them, possibly in the dark, during the confusion and noise of an emergency situation.

*Gary Hoose is a geologist in Texas. He and his wife travel frequently.*