

# Winter Weather Preparedness Week

**Winter Weather Preparedness Week in Utah is November 2-8, 2008**

Governor Jon Huntsman, Jr. has declared November 2-8, 2008 as Winter Weather Preparedness Week in Utah.

The National Weather Service (NWS), in partnership with the Utah Department of Public Safety, Forest Service Utah Avalanche Center, Utah Department of Transportation, the three Utah chapters of the American Red Cross, Utah State Parks and Recreation, and the Utah State Board of Education welcome your participation in this winter weather campaign.

In an average year, winter weather is directly or indirectly involved in 400,000 vehicular accidents in the United States, leading to 1,300 fatalities. Add to that, loss of life due to avalanches and exposure to cold, plus billions of dollars in economic losses, and it is clear that winter weather is a significant threat. The goals of the campaign are to educate the citizens of Utah on winter's hazards, to help everyone be prepared before severe winter weather strikes, and to have an understanding of winter weather terms and safety rules.

Daily press releases and statements will be issued on newswires and broadcast on NOAA Weather Radio All Hazards during the week. Warning Coordination Meteorologists and Public Information Officers serving your area will be available for interviews and questions.

## **Preparedness Steps for Your Family, Community, School, and Business**

**Make Plan...**Create a disaster plan, practice it, and adhere to it.

**Make a kit...**Prepare a disaster supply kit, complete with the essentials needed to survive an emergency. Details on what to include in the kit can be found page 5 and on the Be Ready Utah homepage at <http://beready.utah.gov>

**Be Informed...**Check out the latest weather forecast and road conditions before venturing out.

A full color version of this publication is available on-line at:  
<http://www.wrh.noaa.gov/slc/wxsafety> and <http://www.crh.noaa.gov/gjt/?n=wxsafety>

**Winter 2008/2009**

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# Winter Weather Preparedness 101 For Schools

## Designing a Winter Weather Emergency Plan

### Gathering information

Know where to get weather information. Utilize NOAA Weather Radio All Hazards, local media sources, internet, and paging services. Use the Utah Department of Transportation (<http://www.udot.utah.gov> on the Web, or via phone at 511 within UTAH and 866-511-UTAH if out of state). City and county transportation officials are also excellent resources.

### Alerting students and staff

Alert students and staff to take action. Use mobile communications for bus drivers, and a PA system for school staff and students.

### Activating plan

Determine when to activate your plan. Gather information about the type of winter storm, expected impact, and time of impact on the school district. The primary decision will be whether to cancel, delay, or hold classes as usual. In watch situations, immediate action will usually not be required. When a warning or advisory is issued, assess the weather situation by monitoring forecasts, current weather conditions, and road conditions.

### Canceling or Delaying Classes

Determine when to cancel or delay classes. How much time do you have before the storm impacts the area? Not only must students be transported to school safely, but also back home via bus, car, or on foot. What kind of an impact will the storm make? Will roads be impassable, or will road conditions just have a minimal effect on transportation of students, causing only small delays?

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## Winter Storms...Deceptive Killers

Winter storms are considered deceptive killers because most deaths are *indirectly* related to the storm. Fatalities occur:

- \* In traffic accidents on icy roads
- \* From heart attacks while shoveling snow
- \* From hypothermia due to prolonged exposure to cold

## Winter Deaths...Nationally

Related to ice and snow:

- \* About 70% occur in automobiles
- \* About 25% are people caught out in the storm
- \* Majority are males over 40

Related to exposure to cold:

- \* 50% are people over 60 years old
- \* Over 75% are males
- \* About 20% occur inside the home



Annually, nearly 100 fatalities are directly attributed to winter weather.

## New NWS Winter Weather Headline Methodology

In an effort to enhance the clarity and consistency of winter weather messages, a new headline methodology will be utilized by the NWS this winter. This new headline structure will combine a number of current Winter Weather Advisory and Winter Weather Warning products into categories associated with similar impacts. The tables below detail which headlines will be used. Note that Heavy Snow and Sleet Warnings will no longer be issued as they will now be issued as a Winter Storm Warning. Similarly; Snow, Snow and Blowing Snow, Sleet, and Blowing Snow Advisories will no longer be issued, instead being issued as a Winter Weather Advisory. Specific event type information (Heavy Snow, Sleet, etc.) will be detailed in the first sentence of the body of the advisory or warning product.

Traditional Winter Warnings	2008/2009 Winter Warnings
Blizzard	Blizzard
Ice Storm	Ice Storm
Lake Effect Snow	Lake Effect Snow
Wind Chill	Wind Chill
Winter Storm	Winter Storm
Heavy Snow	Winter Storm
Sleet	Winter Storm

Traditional Winter Advisories	2008/2009 Winter Advisories
Freezing Rain	Freezing Rain
Lake Effect Snow	Lake Effect Snow
Lake Effect Snow and Blowing Snow	Lake Effect Snow
Winter Weather	Winter Weather
Snow	Winter Weather
Snow and Blowing Snow	Winter Weather
Sleet	Winter Weather
Blowing Snow	Winter Weather

For specific warning criteria within the NWS Salt Lake City County Warning and Forecast Area (CWFA), visit: <http://www.wrh.noaa.gov/slc/wxsafety>. For warning criteria within the NWS Grand Junction CWFA (extreme eastern Utah), visit: [http://www.crh.noaa.gov/gjt/Weather\\_Info/gjt\\_criteria.php](http://www.crh.noaa.gov/gjt/Weather_Info/gjt_criteria.php).

## Frostbite

Frostbite is damage to body tissue caused by that tissue being frozen. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the tip of the nose. If symptoms are detected, get medical help immediately! If you must wait for help, slowly re-warm the affected areas. However, if the person is also showing signs of hypothermia, warm the body core before the extremities.

At a Wind Chill Temperature of minus 50°F, frostbite will occur within 10 minutes. At minus 30°F, frostbite will occur within 30 minutes.

## Hypothermia: Low Body Temperature

Warning Signs - Uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.

Detection - Take the person's temperature. If below 95°F (35°C), seek medical care immediately!

If medical care is not available, begin warming the person slowly. Do not warm extremities (arms and legs) first! This drives the cold blood toward the heart and can lead to heart failure. Instead, warm the body core first. If needed, use your own body heat to help. Get the person into dry clothing and wrap them in a warm blanket, covering the head and neck. Do not give the person alcohol, drugs, coffee, or any hot beverage or food; warm broth is better.

For more information on the dangers of extreme cold, as well as a wind chill chart, visit:  
<http://www.nws.noaa.gov/om/windchill/index.shtml>.

## Avalanche Awareness

Do you enjoy the winter backcountry of Utah in the greatest snow on Earth? Don't become a statistic. An average of 4 Utahns die in the backcountry powder each year while enjoying the freedom of the hills on their skis, snowmobiles, snowshoes, or snowboards. Many of these deaths could have been averted had they checked the Forest Service Utah Avalanche Center's (UAC) daily advisory.

The UAC forecasters spend hours and hours in the snow in the mountainous backcountry to learn about potential avalanche danger. This information is then distilled and offered to recreationists every morning at [www.utahavalanchecenter.org](http://www.utahavalanchecenter.org) and toll free at 1-888-999-4019.

The Utah Avalanche Center issues forecasts and danger ratings for the mountainous areas from Logan to the Manti-Skyline Plateau and the La Sals, including the Salt Lake, Ogden, Provo, and Park City regions of the Wasatch, as well as the Western Uintas.





## Be Prepared...Before the Storm Strikes

### At home and at work have available:

- \* Flashlight and extra batteries
- \* Battery-powered NOAA Weather Radio All Hazards (Public Alert) receiver and portable radio
- \* Extra food and water
- \* Extra medicine and baby items
- \* First-aid supplies
- \* Heating fuel
- \* Emergency heating source
- \* Fire extinguisher
- \* Smoke and Carbon Monoxide detectors

### In vehicles (cars, trucks, snowmobiles):

- \* Fully check and winterize your vehicle
- \* Carry a winter storm survival kit: blankets/sleeping bags, flashlight, first-aid kit, knife, non-perishable food, extra clothing, a large empty can and plastic cover with tissues and paper towels for sanitary purposes, a smaller can and water-proof matches to melt snow for drinking water, sand, shovel, windshield scraper, tool kit, tow rope, booster cables, water container, and road maps
- \* Keep your gas tank near full
- \* Carry a cell phone
- \* Let someone know your itinerary.

## Winter Storm Driving Considerations

### Monitor road conditions before departing:

- \* Utah Department of Transportation (<http://www.udot.utah.gov> or via phone at 511 (within Utah) and 866-511-UTAH (out of state)
- \* **Drive for the conditions:**
- \* Slow down
- \* Allow extra braking distance
- \* Do not tailgate
- \* **Allow snowplow operators to do their job:**
- \* Maintain a safe distance...if salt is hitting your vehicle when following a snowplow, you are too close
- \* Avoid passing snowplows on a roadway that is only one lane in each direction
- \* **Remain alert for sudden road condition changes:**
- \* Bridges and overpasses often become icy first
- \* Snow and blowing snow can produce sudden restrictions in visibility

don't get plowed!



**December 25-27, 2003**

*A mammoth winter storm clobbered northern Utah, depositing heavy wet snow. Trees and power lines collapsed under the weight of the wet snow, leaving over 70,000 people without power. Emergency shelters were opened in Salt Lake City and Ogden. Over 15,000 traffic accidents occurred during the 3 day period. On December 26, a large avalanche released near Aspen Grove, claiming the lives of 3 people.*

## When Caught in a Winter Storm

### At Home or in a Building

- \* **Stay inside** and when using alternative heat from a fireplace, wood stove, space heater, etc., use fire safeguards and ventilate properly
- \* **If you have no heat:**
- \* Close off unneeded rooms
- \* Stuff towels or rags in cracks under doors
- \* Cover windows at night
- \* **Eat and drink** as food provides the body with energy for producing its own heat fluids prevent dehydration
- \* **Wear layers of loose-fitting, light-weight, warm clothing** and remove layers to avoid overheating, perspiration, and subsequent chill

**October 17-18, 1984**  
*An early season Lake Effect snowstorm deposited 18.4 inches of snow at Salt Lake City International Airport, a new record for 24 hour snowfall. Power was lost at approximately 20,000 homes and around 500,000 trees were damaged.*

**November 11, 1978**  
*A 120 mile per hour wind gust was recorded at Bountiful.*

### In a Car or Truck

- \* **Stay in your vehicle** as disorientation occurs quickly in wind-driven snow and cold
- \* **Run the motor about ten minutes each hour for heat:**
- \* To avoid carbon monoxide poisoning, open the window a little for fresh air, making sure the exhaust pipe is not blocked
- \* **Make yourself visible to rescuers by:** turning on your dome light at night when running the engine; tying a colored cloth (preferably red) to your vehicle to make it more visible; and raising the hood to indicate trouble after the snow stops falling
- \* **Exercise from time to time by vigorously moving arms, legs, fingers, and toes to keep blood circulating and to keep warm**

**January 6-10, 1993**  
*23.3 inches of snow fell at Salt Lake City International Airport, the greatest single storm total. For the month of January, 50.3 inches of snow fell, an all time monthly record.*

### Outside

- \* **Find shelter and try to stay dry**, covering all exposed parts of the body
- \* **If no shelter:** prepare a lean-to, windbreak, or snow cave for protection from the wind and build a fire for heat and to attract attention
- \* Place rocks around the fire to absorb and reflect heat

**February 9, 1933**  
*The mercury dropped to minus 30°F, the coldest reading ever recorded at Salt Lake City International Airport.*

## **Winter Weather Preparedness 101 For Schools...continued**

### **School Bus Driver Actions**

For heavy snow or blowing and drifting snow: Be familiar with alternate routes, stay up to date on the latest forecast, and maintain communication with school officials. For ice storms, remain alert for downed trees and utility lines, and other road hazards. Be familiar with alternate routes. Stay up to date on the forecast and maintain communication with school officials. Learn to recognize and treat symptoms of extreme cold, including hypothermia and frostbite.

### **Safety Instruction**

Educate school staff and students and conduct drills and hold safety programs annually. Participate in Winter Weather Preparedness Week campaigns. Contact your local Emergency Manager or National Weather Service Office for a speaker to discuss winter weather safety.

## **NOAA Weather Radio All Hazards**

Keep ahead of the storm by listening to NOAA Weather Radio All Hazards (NWR) for the latest winter storm watches, warnings, and advisories. In addition to routine broadcasts, the Specific Area Message Encoding (SAME) feature of NWR activates the Emergency Alert System (EAS). EAS is used by the broadcast media to provide notification of emergencies to the public. Blizzard warnings will be distributed with EAS activation.

**Special needs NOAA Weather Radios designed to meet the needs of the deaf and hard-of-hearing are available.**



**For more information, visit the NOAA Weather Radio All Hazards Web Site at: <http://www.nws.noaa.gov/nwr>.**

**For Special Needs NOAA Weather Radio All Hazards information, visit: [http://www.weather.gov/nwr/special\\_need.htm](http://www.weather.gov/nwr/special_need.htm).**

## **NWS Impact Based Services**

This winter, NWS Salt Lake City and NWS Grand Junction forecasters will examine the expected impact of snow events to aid in determining whether an advisory or warning will be issued in addition to using the traditional fixed snowfall and wind criteria. Considerations will include: time of onset (rush hour); day of onset (major holiday travel day); cold temperatures allowing snow to stick on road surfaces despite treatment; blowing and drifting snow; and impact on utilities/commerce.

## Internet Sites

National Oceanic and Atmospheric Administration (NOAA)

<http://www.noaa.gov>



National Weather Service

<http://www.weather.gov>

National Weather Service Salt Lake City, UT

<http://weather.gov/saltlakecity>

National Weather Service Grand Junction, CO

<http://weather.gov/gjt>

NWS Office of Climate, Water and Weather Services

<http://www.nws.noaa.gov/om/winter>

Federal Emergency Management Agency

<http://www.fema.gov>

Avalanche Centers

<http://www.avalanche.org>

Utah Department of Public Safety's

Division of Homeland Security

<http://homelandsecurity.utah.gov>



American Red Cross

<http://www.redcross.org/services>

Utah State Parks and Recreation

<http://www.stateparks.utah.gov>

NOAA Weather Radio All Hazards

<http://www.nws.noaa.gov/nwr>

Climate Prediction Center

<http://www.cpc.noaa.gov>

Utah Department of Transportation

<http://www.udot.utah.gov>

CommuterLink

<http://www.commuterlink.utah.gov>

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