Winter Weather Preparedness Week

Winter Weather Preparedness Week in Utah is November 4-10, 2007

Winter 2007/2008

Inside this issue:

Governor Jon Huntsman, Jr. has declared November 4-10, 2007 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 four 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

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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.
- Know how and where to get road information: 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) is an excellent resource. City and county transportation officials, drivers, and security teams are also excellent sources.

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.

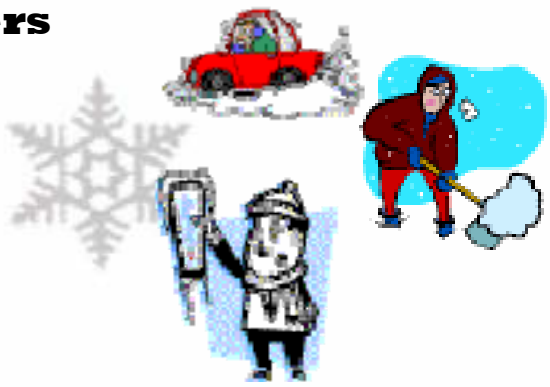
Activating plan

- Determine when to activate 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.

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 years old.

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.

Winter Weather Terms…What To Listen For

Hazardous Weather Outlook/Special Weather Statement - A Hazardous Weather Outlook/Special Weather Statement will be issued to alert the public of the potential for hazardous winter weather. These products are issued on an as needed basis and may provide weather information out to 7 days.

Winter Storm Watch - A Winter Storm Watch is issued to inform the public of the possibility of one or a combination of the following events: blizzard conditions, heavy snow, significant and damaging accumulations of freezing rain, or heavy sleet. A watch usually gives 12 to 36 hours advance notice of the onset of winter weather conditions.

High Wind Watch - A High Wind Watch is issued to inform the public of the possibility of damaging sustained winds or wind gusts. A watch usually gives 12 to 36 hours advance notice of the onset of high winds.

Blizzard Warning - A Blizzard Warning is issued when heavy snow and/or blowing snow (visibility less than 1/4 of a mile) and sustained winds or frequent wind gusts of 35 mph or more are expected for a period of three hours or longer.

Heavy Snow Warning/Lake Effect Snow Warning - Heavy Snow and Lake Effect Snow Warnings will be issued for significant accumulations of snow. For specific warning criteria within the NWS Salt Lake City County Warning and Forecast Area (CWFA), visit: http://www.wrh.noaa.gov/slc. For warning criteria within the NWS Grand Junction CWFA (extreme eastern Utah), visit: http://www.crh.noaa.gov/gjt/Weather_Info/gjt_criteria.php.

Winter Storm Warning - A Winter Storm Warning is issued when a mixture of heavy snow, wind, and/or freezing rain is expected.

Ice Storm Warning - An Ice Storm Warning is issued when significant and damaging ice accumulations (usually one quarter inch or more) are expected.

Wind Chill Warning - A Wind Chill Warning is issued based upon the wind chill value criteria defined below, with conditions expected for a period of three hours or more, coupled with a wind speed of 10 mph or greater:
NWS Salt Lake City CWFA - 30ºF below zero or colder
NWS Grand Junction CWFA - 35ºF below zero or colder in the mountains and 25ºF below zero or colder at lower elevations.

High Wind Warning - A High Wind Warning is issued for the following criteria:
Valleys - Sustained winds (one hour or longer) of 40 mph or higher and/or wind gusts (any duration) of 58 mph or higher.
Mountains - Sustained winds (one hour or longer) of 50 mph or higher and/or wind gusts (any duration) of 75 mph or higher.

Avalanche Advisories - Issued to provide critical avalanche information needed to make life-and-death decisions in avalanche terrain.

Avalanche Warnings - Issued in times of extreme or unusual avalanche conditions to provide critical avalanche information needed to make life-and-death decisions in avalanche terrain.

Advisories are issued for winter weather events that are hazardous, but not severe enough to warrant a warning. Advisories may be issued for: snow and/or blowing snow, lake effect snow, freezing rain, freezing drizzle, wind chill, wind, dense fog, and blowing dust.

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 50ºF, frostbite will occur within 10 minutes. At minus 30ºF, 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 95ºF (35ºC), 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.

Forest Service Utah Avalanche Center

Forest Service Utah Avalanche Center (UAC) forecasters, working with NWS staff, provide critical avalanche information needed to make life-and-death decisions in critical avalanche terrain. Their goal is to "Help keep people on top of the Greatest Snow on Earth instead of buried beneath it." The UAC Avalanche Advisories and Warnings are based on forecast snow stability and weather trends into the future. The information provided helps outdoor recreationalists decide what kind of terrain is safe, and what kind is dangerous, in addition to giving them useful clues to look for when venturing into avalanche terrain.

Avalanche Warnings will again be issued under the WOUS45 KSLC WMO Heading this season.

UAC avalanche information is disseminated by:

- Recorded telephone messages.
- Live radio interviews each day.
- E-mail– daily automated e-mail, free of charge.
- Internet - http://www.avalanche.org, http://www.csac.org, http://www.wrh.noaa.gov/slc, and http://www.crh.noaa.gov/gjt/Weather_Info/avalanche.php.

Be Prepared…Before the Storm Strikes

At home and at work…

Have available:

- Flashlight and extra batteries.
- Battery-powered NOAA Weather Radio 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.

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. 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. Food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration.

Wear layers of loose-fitting, light-weight, warm clothing. 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.

In a Car or Truck

Stay in your vehicle. 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.
- Quickly make sure the exhaust pipe is not blocked.

Make yourself visible to rescuers:

- Turn on your dome light at night when running the engine.
- Tie colored cloths (preferably red) to your vehicle to make it more visible.
- Raise 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.

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

Outside

Find shelter:

- Try to stay dry.
- Cover all exposed parts of the body.

If no shelter:

- Prepare a lean-to, windbreak, or snow cave for protection from the wind.
- Build a fire for heat and to attract attention.
- Place rocks around the fire to absorb and reflect heat.

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.

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.
- Extreme cold: Learn to recognize and treat symptoms of hypothermia and frostbite.

Safety Instruction

- Educate school staff and students: 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.

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.nws.noaa.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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