





Snow & Ice – Blizzards – Freezing Rain & Sleet – Cold Temperatures – Wind – Flooding – Fog



## Winter Weather Safety Winter Weather Hazards



- Snow & Ice
- Blizzards
- Freezing Rain & Sleet
- Cold Temperatures
- Wind
- Flooding
- Fog







**Know Your Risk** 



Winter can be a killer for the unprepared!

Know Your Risk!
Take Action!
Be A Force of Nature!





## Winter Weather Safety Winter Weather



Winter can bring freezing rain, sleet, and snow.

### **How The Different Types Of Winter Precipitation Form** Cold Air Freezing Rain Snow falls into warm Snow melts and Snow falls through Snow melts, hits cold air and freezes on refreezes into sleet as cold air and never air, melts as rain. it travels into cold air. ground and objects. melts.

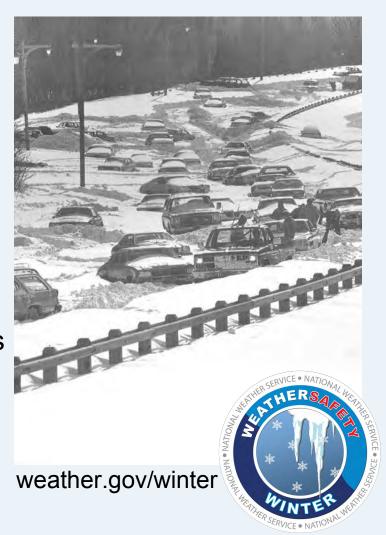


## Winter Weather



### **Snow and Ice**

- A few inches of snow or ice can shut down a city and leave you trapped at home for days.
- Driving on ice and snow-covered roads can lead to car wrecks, injuries, and even death.
- Some winter storms can cover nearly half the nation, affecting tens of millions of people.
- Damage from winter storms adds up to over \$1 billion annually.



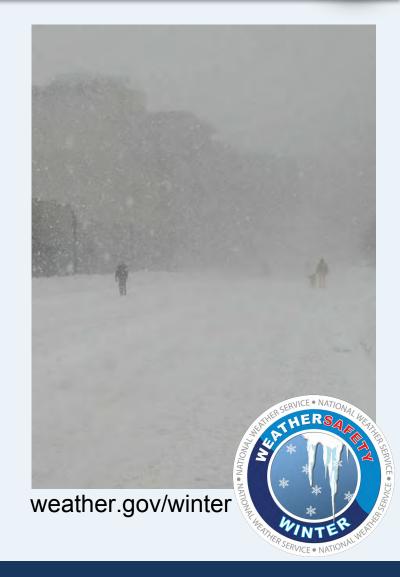


### Winter Weather



### **Blizzards**

- Blizzards are dangerous winter storms with strong winds and blowing snow that cause very low visibilities, or "whiteout" conditions.
- When these conditions are expected, the National Weather Service will issue a "Blizzard Warning."
- Do <u>not</u> travel, especially in open country.
- Have emergency supplies in case you can't leave home for several days.





Winter Weather



### Freezing Rain & Sleet

- Make sure your trees are trimmed and away from power lines.
- Have an emergency kit in case the power goes out.
- Avoid driving. If you must drive, drive slowly and give extra space to the cars in front of you.
- The NWS will issue a Freezing Rain/Sleet Advisory or an Ice Storm Warning.





## Winter Weather Safety Winter Weather



### **Cold Temperatures**

- Exposure to cold temperatures can cause frostbite and hypothermia.
- Frostbite may develop on exposed skin when temperatures are below freezing.
- Strong winds combined with below freezing temperatures can make frostbite occur even quicker.
- Wind Chill calculator: <a href="http://www.nws.noaa.gov/om/winter/windchill.shtml">http://www.nws.noaa.gov/om/winter/windchill.shtml</a>





# Winter Weather Safety Watch, Warning, Advisory



# Winter Warnings, Watches, and Advisories

- Take Action: A Winter Storm Warning is issued for conditions posing a threat to life or property. A winter storm is occurring, imminent, or very likely. Travel will become difficult and impossible in some situations. Delay your travel plans until conditions improve.
- Be Aware: A Winter Storm Watch is issued when the risk of a hazardous winter weather event has increased, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so you can make plans to stay safe.
- Be Prepared: A Winter Weather Advisory is issued when hazardous winter weather is occurring, imminent, or very likely. An advisory is for less serious conditions which may cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life and/or property.





## Winter Weather Safety Take Action!



## Stay safe when faced with winter weather!

- In your car: make sure you have food, water, and blankets in your trunk. Stay off the road when advised to do so by local authorities.
- Dress for the season: wear loose, warm clothing in layers.
- During and after the storm: never use a generator or kerosene heater indoors -<u>carbon monoxide poisoning</u> is a silent killer.
- After the storm: take breaks when shoveling snow and stay clear of downed power lines.



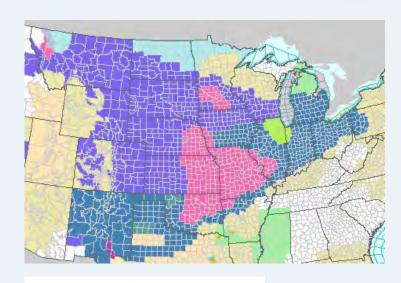


## Winter Weather Safety Take Action!



# Prepare for winter with these simple steps:

- Check the forecast at weather.gov and follow NWS on Twitter and Facebook to make sure you're prepared for the elements and have the latest weather news.
- At home: have an Emergency
   Preparedness Kit with three days of food, water, and prescription medications.
- Make sure your cell phone is fully charged when a storm is approaching and also anytime you're planning to leave the house. It could become your life-line should disaster strike.









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Wind

## Wind Warnings, Watches, and Advisories

- Take Action: A High Wind Warning is issued when damaging or life threatening winds are occurring or will occur soon.
- Be Prepared: A *High Wind Watch* is issued when it's possible for damaging or life threatening winds to occur.
- Be Aware: A Wind Advisory is issued when winds are strong enough to cause difficulty for those outside but likely won't cause widespread damage.





Wind



### **Straight Line Winds**

- Straight line winds are strong damaging winds that have no rotation.
- Typically associated with severe thunderstorms and squall lines.
- Wind speeds can reach over 100 mph and create large damage paths equal to that of a tornado.





Wind



# Wind from Powerful Storm Systems

- Created by a strong pressure gradient.
- Can knock down trees and power lines, and blow over trailers and trucks.
- Makes driving hazardous.
   Keep two hands on the wheel and avoid large vehicles such as semitrucks.





Wind



# What to do when a High Wind Warning is issued...

#### If at home:

 Seek shelter inside, away from windows.

### If outside:

- Seek shelter immediately.
- If you cannot find shelter, avoid trees, power lines, and objects that could blow around. Stay away from the side of the road.







# What to Do When Driving:

- Slow down!
- Keep two hands on the wheel.
- Stay away from trucks, buses, and vehicles towing trailers.
- Watch for flying debris, downed power lines, and branches.

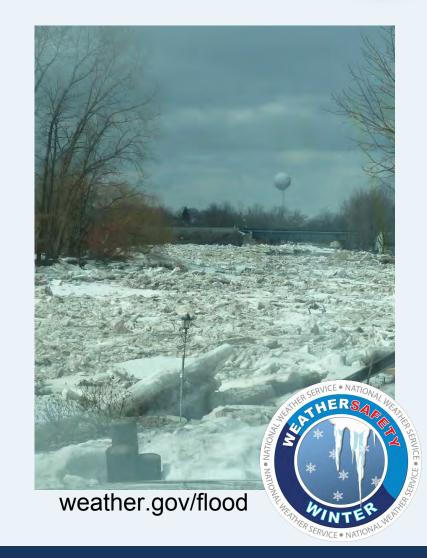






### Ice Jam Flooding

- Ice jams are common during the winter.
- As ice moves downstream, it may get caught on an obstruction to the water flow.
- Water can be held back, causing upstream flooding.
- When the jam finally breaks, flash flooding can occur downstream.







### **Debris Flows**

- When rain falls in areas of steep terrain or where recent wildfires have burned, debris flows are possible.
- When normally dry soil becomes overly saturated, it can reach a point where it turns to a liquid state and flows downhill.
- Soil, branches, rocks, plants and more may be swept downhill.
- Debris flows are often called "mudslides" by the media.

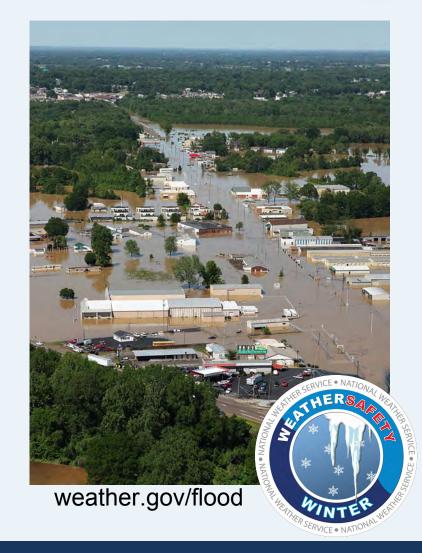






### Before a Flood

- Learn whether your home, school, or place of work is at risk of flooding.
- Find alternate routes to important locations.
- Make a family communications plan.
- Follow evacuation orders.
- Keep up to date on the forecast by visiting weather.gov.

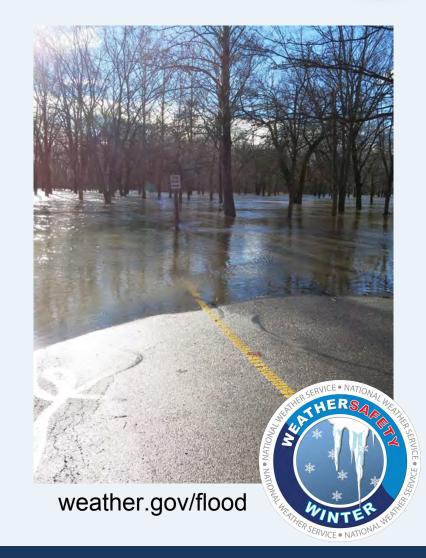






### **During a Flood**

- Never drive or walk into flood waters.
- If told to evacuate, do so immediately.
- Get to higher ground.
- Get information from local television, radio, or your mobile phone.

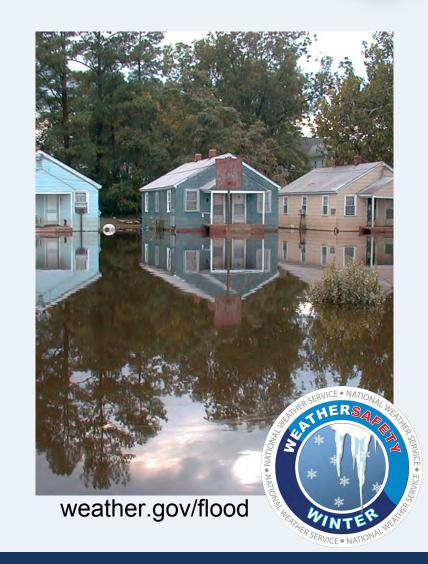






### After a Flood

- Avoid damaged areas and flood waters.
- Heed road closed and other cautionary signs.
- Wait for the "all clear" to enter a flood damaged structure.
- Contact your loved ones via text or social media to keep phone lines clear.







## Turn Around Don't Drown®

- It is never safe to walk or drive through floodwaters.
- It only takes six inches of swift moving water to knock an adult off their feet and sweep them away.
- 12 inches of water will lift most small cars.
- Two feet of water will lift most large vehicles.







Fog

### **Driving in Fog**

- Slow down when you encounter fog.
- Use your low beam headlights.
- Do not change lanes or pass other vehicles unless absolutely necessary.
- If you must pull off on the side of the road, turn off your lights and use your parking break to avoid being hit by cars who may not realize you've pulled over.





## Winter Weather Safety What NWS is Doing



# How NWS prepares the public for winter hazards:

- Issues a Winter Weather Outlook to help the nation prepare for winter hazards.
- Issues national winter weather forecasts at <a href="http://www.wpc.ncep.noaa.gov/wwd/winter\_wx.shtml">http://www.wpc.ncep.noaa.gov/wwd/winter\_wx.shtml</a>
- 122 forecast offices issue local Winter Weather Watches, Warnings, and Advisories.
- The Weather-Ready Nation Ambassador initiative builds partnerships with other agencies and organizations to promote weather safety and preparedness.







Be Weather-Ready

## How you can prepare for winter weather:

- Winterize your car, put on snow tires, and put a winter survival kit in it.
- Prepare your home by adding insulation and trimming branches.
- Restock your emergency kit with extra batteries, food, etc.
- make sure your generator is in working order and review the safety manual. NEVER run a generator in an enclosed space.



weather.gov/winter ready.gov/kit





## Winter Weather Safety More Information



For more information, visit the NWS Winter Weather Safety Page:

weather.gov/winter

