State Of Wisconsin

Department of Military Affairs

Division of Emergency Management

Brian M. Satula
Administrator

Scott Walker
Governor

February 2016

Re: Tornado and Severe Weather Awareness Week – April 11-15, 2016

Dear School Officials,

Governor Scott Walker has proclaimed the week of April 11-15, 2016 as Tornado and Severe Weather Awareness Week in Wisconsin. During Tornado and Severe Weather Awareness Week, we are asking that school administrators, safety officers, and faculty take time to go over the procedures needed when severe weather strikes to ensure that staff and students are prepared.

Wisconsin averages 23 tornadoes annually. In 2015, 17 tornadoes were reported in Wisconsin by the National Weather Service (NWS).

On Thursday, April 14, 2016, two statewide tornado drills are planned. A mock tornado watch will be issued statewide by the NWS at 1:00 pm. The NWS will then issue a statewide mock tornado warning at 1:45 pm. This drill ends at 2:00 pm. This drill will be an ideal opportunity for school staff and students to practice their safety procedures for severe weather.

For the first time, an evening drill is scheduled on the same day with a mock tornado warning to take place at 6:55pm. This gives your students and their families a great opportunity to practice their severe weather plans at home.

You do not have to participate during the April 14 drills; however, you are welcome to hold your own drill at any time. The statewide drills will be postponed until Friday, April 15, 2016 if there is a threat of severe weather in Wisconsin on Thursday. The drill will go on in all other conditions including non-severe weather (clouds, rain, dark sky, scattered thunderstorms, etc.). If severe weather occurs on Friday, the drill will be cancelled. Notification of the drill status will be posted by 10:00 am the morning of the drill at http://readywisconsin.wi.gov.

The Wisconsin Department of Public Instruction, Wisconsin Emergency Management and the National Weather Service encourage your participation in promoting Tornado and Severe Weather Awareness Week. For more information on tornadoes and severe weather, contact your county or tribal emergency management director or your local NWS office.

Thank you for your support.

Brian M. Satula
WEM Administrator

Tornado Safety in Schools

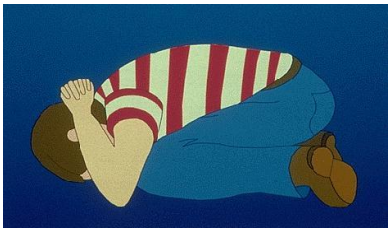
Every School Should Have a Severe Weather Safety Plan

- Develop an action plan with frequent drills. Review the plan annually and anytime changes are made to the building, shelters, or classroom sizes. A good time to practice is during the annual statewide tornado drill held in April.

- Each school should be inspected and shelter areas designated by a registered engineer or architect. Basements offer the best protection. Schools without basements should use interior rooms on the lowest floor and away from windows. Hallways that have doors to the outside can act as wind tunnels, so avoid these areas. Put as many walls as possible between the students and the storm. Gymnasiums, cafeterias, and auditoriums offer no protection from tornado-strength winds.

- Weather safety plans should take into account the amount of time it takes for students to get to shelter areas.

- Make special provisions for disabled students and those in portable classrooms.



- Ensure students know the protection position. It doesn't matter if the students face a wall or put their back to a wall, as long as they cover their head.

- Each school should have a NOAA Weather Radio with battery back-up and other methods to receive emergency weather information. Make sure the weather radio and other source of weather news is always available, **even during after-school activities**.

- If the school's alarm system relies on electricity, have an alternate method to notify teachers and students in case of power failure, such as an air horn or megaphone. Make sure everyone knows what the notification signal is.

- Delay lunches or assemblies in large rooms if severe weather is anticipated.

- During threatening weather, keep children at school beyond regular hours until the storms pass. Children are safer at school than in a bus or car.

- Hospitals, nursing homes, and other institutions should develop similar plans.

You can prepare for the dangers from severe weather by learning the safest places to seek shelter in the school. Learn basic weather terms and danger signs. The chances of staying safe during severe weather are greater if you have a plan for your school and practice the plan frequently.

Tornado Safety at Home, Work, or at Play

Have a Plan at Home, at Work, and When You're Away

- In a home or building, move to a pre-designated shelter, such as a basement, and get under a sturdy table or the stairs. A specially-constructed "safe room" within a building offers the best protection. Search on the internet for "safe room" for more information.

- If a basement is not available, move to a small interior room on the lowest floor and cover yourself with anything close at hand: towels, blankets, pillows. If possible, get under a sturdy table, desk or counter. Put as many walls as possible between you and the storm. Stay away from windows.

- If caught outdoors, seek shelter in a sturdy building. If you cannot quickly walk to shelter, get into a vehicle, buckle your seatbelt and drive to the closest sturdy shelter. If flying debris occurs while you are driving, pull over and park. Now you have two options as a last resort:
  - Stay in the vehicle with the seatbelt on and place your head below the windows.
  - If you can safely get noticeably lower than the roadway, exit the vehicle and lie in that area, covering your head with your hands. Do not seek shelter under an overpass.

- Mobile homes, even if tied down, offer little protection from tornadoes. You should leave a mobile home and go to the designated storm shelter or the lowest floor of a sturdy nearby building.

- Make sure you have **multiple ways** to receive weather information. A NOAA Weather Radio, access to local TV, and smart phone apps can keep you informed when severe weather threatens.

Tornado Myths and Truths

MYTH: Areas near lakes, rivers, and hills are safe from tornadoes.
TRUTH: No place is safe from tornadoes. The tornado that struck Door County in August 1998 formed on the waters of Green Bay and moved onshore, causing over $5 million in damage.

MYTH: The low pressure with a tornado causes buildings to explode as the tornado passes overhead.
TRUTH: Violent winds and debris slamming into buildings cause most structural damage.

MYTH: Windows should be opened before a tornado approaches to equalize pressure and minimize damage.
TRUTH: Leave windows alone. The most important action is to immediately go to a safe shelter.

MYTH: People caught in the open should seek shelter under highway overpasses.
TRUTH: Take shelter in a sturdy, reinforced building if at all possible. The winds of a tornado may actually increase in the tight space of an overpass, increasing the chance for injury.

Lightning Safety for Coaches and Officials

Lightning Kills…Play it Safe!

- All thunderstorms produce lightning and are dangerous. In an average year, lightning kills nearly 50 people in the U.S. Since 2005, lightning has killed eight people and injured at least 30 in Wisconsin.
- Lightning often strikes outside the area of heavy rain and may strike as far as 10 miles from any rainfall.
- If you hear thunder, you are in danger! Anytime thunder is heard, the storm is close enough to pose an immediate threat to your location.
- Have a lightning safety plan. Designate a safe location before the event starts. Have specific guidelines for suspending the activity so that everyone has time to reach safety.
- Prior to a practice or outdoor event, check the latest forecast. If thunderstorms are expected, consider postponing activities early to avoid being caught in a dangerous situation.
- If you hear thunder, suspend your activity immediately and instruct everyone to get to a safe place. Substantial buildings provide the best protection. Avoid sheds, open shelters, dugouts, bleachers, and grandstands. If a sturdy building is not nearby, a hard-topped metal vehicle with windows closed will offer good protection. Do not crouch or lie down—continue moving to a place of shelter.
- If boating or swimming, get to land and find shelter.
- Do not resume activities until 30 minutes have passed since the last thunder was heard.

Lightning Myths and Truths

MYTH: If it is not raining, there is no danger from lightning.
TRUTH: Lightning can strike outside of rain. If you hear thunder, the storm is close enough to pose a lightning threat.

MYTH: The rubber soles of shoes or rubber tires on a vehicle will protect you from lightning.
TRUTH: Rubber-soled shoes and rubber tires provide NO protection from lightning. The steel frame of a hard-topped vehicle provides increased protection if you are not touching metal. Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.

MYTH: People struck by lightning carry an electric charge and should not be touched.
TRUTH: Lightning-strike victims carry no charge and should be attended to immediately. Contact your local American Red Cross chapter for information on CPR and first aid classes.

MYTH: "Heat lightning" occurs after very hot summer days and poses no threat.
TRUTH: Heat lightning is a term used to describe lightning from a thunderstorm too far away for thunder to be heard.

Flooding and Flash Flooding

Turn Around…Don't Drown!

- Many floods occur along streams and rivers. You can determine your risk by knowing your proximity to the water.
- Urban areas have a risk for flash floods due to increased runoff from buildings, roads and parking lots. Low spots, such as underpasses and basements, can become death traps.
- Dam failures have played a deadly role in the history of flash flooding. Be aware of dams upstream from your location. Earthen dams and associated embankments are more easily compromised by heavy rainfall.
- If a warning is issued or flooding is observed, move to higher ground.
- When camping or hiking near a stream or river, listen to the latest weather forecasts and keep away from the water if thunderstorms are expected.
- Do not attempt to walk or drive through a flooded roadway or intersection. Only six inches of fast-flowing water can knock an adult off their feet. And it takes just two feet of moving water to float a vehicle. Turn around, don't drown!
- Beware of flooding potential along the Lake Michigan shoreline in the wake of a line of strong thunderstorms with high winds that move across the lake. The winds push water to the east shoreline which then rebounds to the west shore as a flood wave called a "seiche."

Flooding Myths and Truths

MYTH: A 100-year flood occurs only once every 100 years.
TRUTH: The 100-year flood is an average; there is a 1% chance that a 100-year flood will occur in any given year.

MYTH: Flash floods occur only along flowing streams and rivers.
TRUTH: Flash floods can occur in urban areas where no streams are present.

MYTH: Homeowners insurance policies cover flooding.
TRUTH: Unfortunately, many homeowners do not find out until it is too late that their policies do not cover flooding. Contact your insurance company or agent to buy flood insurance.

MYTH: Larger vehicles, such as SUVs and pickups, are safe to drive through flood waters.
TRUTH: Two feet of rushing water can carry away most vehicles, including SUVs and pickup trucks. If you come to a water-covered road or intersection, turn around, don't drown!

Stay Informed with All Hazards NOAA Weather Radio

The "Smoke Alarm" for Severe Weather

- NOAA Weather Radio (NWR) is a public warning system that broadcasts forecasts, warnings, and emergency information 24 hours a day.

- Radio receivers can quietly monitor these broadcasts and will alert when important and life threatening messages are issued for your area.

- "All Hazards" messages include:
  - ► Natural disasters (e.g., tornado, floods, blizzards)
  - ► Accidents (e.g., chemical release, train derailments, nuclear power emergencies)
  - ► Terrorist attacks

- **Please ensure they are used**. During an emergency, seconds count! These radios are a valuable alerting device, easy to use, and can also be used to check on every-day weather, including wind chill information during the winter.

- Place your radio in areas that are constantly monitored (e.g., school office, principal's office). Remember those occasions when the school is used for activities outside normal hours and make sure the radio can be monitored during those times.

- The radios are tested weekly. Make sure yours works!

- If you have any questions about weather radios, contact your local National Weather Service office.

Related Web Sites

NOAA Weather Radio Home Page…….…….. www.weather.gov/nwr
NWR Coverage in Wisconsin……..…… www.weather.gov/nwr/Maps/PHP/WI.php

Wireless Emergency Alerts

Wireless Emergency Alerts (WEA) are weather and non-weather messages sent directly to cell phones in areas affected by an emergency. These short messages may look like text messages, but unlike texts which are sent directly to your phone number, they are broadcast to all phones within range of cell towers in the alerted area. The alerts will tell you the type of warning, the affected area and the duration of the event. Weather alerts sent as WEAs in Wisconsin include Tornado Warnings and Flash Flood Warnings.

For more information on WEAs and a list of participating carriers, visit FEMA's Wireless Emergency Alert web site: http://fema.gov/wireless-emergency-alerts

Severe Weather Watches and Warnings

What to Listen For…

When conditions are favorable for severe weather to develop, a WATCH is issued. As storms develop, National Weather Service personnel use information from weather radar, storm spotters, and other sources to issue Severe Thunderstorm and Tornado WARNINGS for areas where severe weather is imminent or already occurring.

Watches and warnings are relayed to local radio and television stations and are broadcast on NOAA Weather Radio All Hazards.

Local public safety officials also get the warnings and can activate local warning systems to alert communities.

Tornado Watch: Severe thunderstorms with tornadoes are possible in your area. Remain alert for approaching storms. Be prepared to move to safety if a **Warning** is issued. Know what counties are in the watch area by listening to NOAA Weather Radio or local radio or television stations.

Severe Thunderstorm Watch: Thunderstorms with large hail and damaging winds are possible. Be prepared to move to safety if a **Warning** is issued.

Tornado Warning: A tornado has been sighted or indicated by weather radar. Move to a place of safety now!

Severe Thunderstorm Warning: A thunderstorm with large hail and damaging winds has been reported or indicated by weather radar.

Warnings indicate imminent danger to life and property to those in the path of the storm!

For More Information…

Check out these web sites for more safety tips, the latest weather forecast, and other weather awareness information.

NOAA National Weather Service
http://weather.gov
Click on your part of the state for local weather information

Find the NWS on Facebook
http://facebook.com
Search for your NWS Office name

Follow the NWS on Twitter
http://twitter.com
Search for your NWS Office name

For Kids: Be a Force of Nature!
http://weather.gov/grb/prep

Tornado Preparedness Plan for Schools
http://www.weather.gov/arx/schoolprep

Wisconsin Emergency Management
http://emergencymanagement.wi.gov

ReadyWisconsin
Web - http://readywisconsin.wi.gov
Facebook - http://www.facebook.com/ReadyWisconsin
Twitter - @ReadyWisconsin
Instagram- http://www.instagram.com/ReadyWisconsin

FEMA for Kids
http://www.ready.gov/kids

STEP (Student Tools for Emergency Planning)
http://ready.wi.gov/STEP/default.asp

Family Disaster Plan

Be "Weather-Ready"

Families should be prepared for all hazards that could affect their area. The National Weather Service and Wisconsin Emergency Management urge every family to develop a disaster plan.

Where will your family be when disaster strikes? They could be anywhere—at work, at school, or in the car. How will you find each other? Will you know if your children are safe? Disaster may force you to evacuate your neighborhood or confine you to your home. What would you do if basic services—water, gas, electricity, or telephone—were cut off?

Put together a family disaster plan that answers those questions—and practice it. Become Weather-Ready!

Weather-Ready Nation
www.noaa.gov/wrn

A Disaster Supplies Kit should include...

- ✓ A three-day supply of water and food that won't spoil.
- ✓ One change of clothing per person.
- ✓ One blanket or sleeping bag per person.
- ✓ A first aid kit, including prescription medicines.
- ✓ A battery-powered NOAA Weather Radio.
- ✓ Emergency tools, including a portable radio, flashlight, and plenty of extra batteries.
- ✓ An extra set of car keys and a credit card or cash.
- ✓ Special items for infant, elderly, or disabled family members.
- ✓ Don't forget about your pets and their food and medicine.

Did You Know...

Wisconsin Tornado Weather Facts

- Wisconsin averages 23 tornadoes per year, but in the last 15 years we've had as many as 62 and as few as 4.
- The peak tornado season in Wisconsin is April to August, but they can occur any time of year, like the two tornadoes in Kenosha County on January 7, 2008.
- Tornadoes can occur any time during the day or night, but are most frequent between 4 pm and 9 pm.
- About 80% of tornadoes that hit Wisconsin are relatively weak, with winds under 110 mph. Only 1% are violent with winds over 165 mph.

Other Weather Awareness Dates in Wisconsin

NOAA Weather Radio
Awareness Day
May 4, 2016

Heat Awareness Day
June 9, 2016

Lightning Safety
Awareness Day
June 21, 2016

Winter Weather
Awareness Week
November 14–18, 2016