

2017 Statewide Tornado Drill Overview

With Gov. Rick Snyder declaring Michigan's Severe Weather Awareness Week from April 16-22, emergency management partners statewide are encouraging Michiganders to conduct a statewide tornado drill at 1:00 p.m. ET on Wednesday, April 19.

All businesses, organizations, families and individuals are welcome to participate in the voluntary statewide preparedness activity. Nearly all state of Michigan facilities will be participating.

While tornadoes can occur any time of the year, they are especially common during the late spring and early summer months. As one of nature's most violent storms, they can devastate homes and property in just seconds. The average lead time for tornadoes to develop is 10 to 15 minutes, which means citizens need to be ready to react quickly when a warning is issued.



2016 in Review: Tornadoes in Michigan

In 2016, there were 16 tornadoes across the state, which is near the average of 15. Most noteworthy about the 2016 Michigan tornadoes was that six of the 16 occurred across the Upper Peninsula, a record for that peninsula! All of the tornadoes were in the weak categories of EF0 and EF1 (tornadoes are rated from the weakest EF0 to the strongest EF5).

The August 20 tornado outbreak across southwest Lower Michigan was the most damaging and significant event across the state in 2016. Six tornadoes touched down from Bangor to Grand Rapids to Orleans, causing over \$5 million in damages. The longest and strongest of the August 20 tornadoes touched down just southwest of Bangor and then tracked through the town. The 10 mile long EF1 tornado with winds estimated up to 110 mph caused the entire city to lose power and downed hundreds of trees. Multiple structures in Bangor were damaged, including the police department. The outbreak also produced two EF0 tornadoes in the metro Grand Rapids area. The first hit Grandville and Wyoming, and the second was in Grand Rapids. Both of these tornadoes downed trees, some onto homes.

Tornado Terminology

Tornadoes can happen abruptly, especially during Michigan's late spring and early summer seasons. Learn the terms to understand and know what to do before, during and after a tornado.

Tornado terms:

- **Tornado:** A violently rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach over 200 mph.
- **Tornado Watch:** Tornadoes are possible in your area. Remain alert for approaching storms. Watch the sky and stay tuned to NOAA Weather Radio reports, commercial radio and television reports for further information.
- **Tornado Warning:** A tornado has been sighted or indicated by weather radar in your area. Take shelter immediately.
- **Supercell:** A system producing severe thunderstorms, featuring rotating winds sustained by a prolonged updraft that may result in hail or tornadoes.
- **Enhanced Fujita (EF) Scale:** Rates the strength of tornadoes in the United States and Canada. There are six categories for the EF scale and are in order of increasing intensity. *It is based on wind estimates of a 3 second gust.*
 - **EF0:** Tornadoes with estimated wind speed of 65-85 mph and leads to light damage.
 - **EF1:** Estimated wind speed of 86-110 mph with the potential of moderate damage.
 - **EF2:** Estimated wind speeds of 111-135 mph with significant damage potential.
 - **EF3:** Estimated wind speeds of 136-165 mph with severe damage potential.
 - **EF4:** Estimated wind speeds of 166-200 mph with devastating damage potential
 - **EF5:** Estimated wind speeds of over 200 mph with incredible damage potential.



Before a Tornado

Tornadoes are known for developing so rapidly that little advanced warning is possible. Average lead time for tornadoes is 10 to 15 minutes, which is why Michigan citizens are encouraged to prepare and make a plan before a tornado strikes. To be ready before a tornado:

- Create an emergency preparedness kit for your home that includes the following items:
 - Water, at least three gallons of water per person, per day
 - Food, at least a three-day supply of non-perishable food per person
 - Prescribed medications
 - Battery-powered or hand-crank radio
 - Flashlight and extra batteries
 - First aid kit and needed medications
 - Whistle to signal for help
 - Pet supplies
 - A complete change of clothing and footwear for each person
 - Bedding
 - Important family documents
 - Extra clothes and blankets
- Develop and implement a family communications plan with family members living in your home so when a tornado strikes, you know how to get to a safe place. Be sure the plan also addresses the following:
 - Where you will meet up if separated?
 - How you will contact each other?
 - What would you do in different situations?
- Listen to your NOAA Weather Radio, commercial radio or television newscasts for the latest information. Listen to instructions given by local emergency management and law enforcement officials.
- Be aware of the danger signs indicating a tornado:
 - Dark, often greenish sky
 - Large hail
 - A large, dark, low-lying cloud (particularly if rotating)
 - Loud roar, similar to a freight train
 - If you see approaching storms or any of these signs, be prepared to take shelter immediately



During a Tornado

With tornadoes having the ability to touch down in a matter of minutes, Michigan citizens need to be prepared to quickly react and launch an emergency plan.

Inside:

- If you are under a tornado warning, seek shelter immediately. If there is a tornado watch in your area, monitor local media and seek shelter when thunderstorms approach.
- If you are in a building—like a home, small building, school or business—go to a pre-designated safe room, basement, storm shelter or the lowest building level. If there is no basement, go to the center of a smaller interior room, such as a closet or hallway, that is away from corners, windows, doors and outside walls.
- Once you are in the lower level room of a building, make sure to protect your head and neck.
- Make sure to bring your emergency preparedness kit to your pre-designated safe room to have emergency supplies ready in the event help cannot reach you right away.
- If you live in a mobile home, exit the home and immediately go to a designated storm shelter. Even when mobile homes are tied down, they offer very little protection from a tornado.

Outside:

- If you are outside during a tornado, the only safe location is a sturdy permanent building. Seek that shelter immediately. Go to the lowest level and seek shelter in an interior room without any windows.
- If you cannot get to a shelter, get to your vehicle and drive to the nearest shelter. If flying debris occurs while driving, pull over and park. Stay in the vehicle with your seatbelt on, covering your head and lying below the windows. If you can safely get to an area noticeably lower than the road, exit the vehicle and lie in that area covering your head with your hands.



- DO NOT seek shelter under an overpass or bridge. These are some of the most dangerous locations and you will be exposed to flying debris.
- Stay away from objects that can be easily blown around. Flying debris is the most common cause of injury during a tornado.
- If you are boating, go to land and seek shelter immediately.

After a Tornado

Once a tornado passes through your area, make sure all family members are safe and secure. Afterward, assess damages and stay safe by following the appropriate steps:

- Inspect your property and motor vehicles for damage.
- Write down the date and list the damages for insurance purposes. Take pictures and videos of the damage.
- Check for electrical problems or gas leaks and immediately report them to your local utility company.
- Watch out for and stay 25 feet away from downed power lines.
- Stay out of damaged buildings until you are sure they are safe and will not collapse.
- Secure your property from further damage or theft.
- Use only chlorinated or bottled water for drinking. Check on your food supply because if stored in a refrigerator or freezer with no power, food will spoil.
- Use the food and water supply in your emergency preparedness kit for your family if power is out.

Tornadoes and Pets

Tornadoes not only put stress on people, but also on family pets. Tornadoes often produce anxiety, fear and a need to escape for pets. Flying debris and high winds can also leave pets susceptible to injury if they are left unprotected outside. Make sure to take preparedness measures for pets before, during, and after a tornado.

Preparing your pet for a tornado:

- Create an emergency supply kit for your pet that includes:
 - Leash and collar
 - Transport carrier
 - Food and water (3-5 day supply)
 - Any medications
 - Vaccination history, rabies certificate
 - Waste disposal supplies
 - A blanket
 - Favorite toy
 - Your veterinarian's contact information
 - Special supplies for pets such as birds, pocket pets or reptiles (e.g., heat lamps)
- Make sure pets are current on all vaccinations.
- Develop an evacuation plan for your pets.
 - For public health reasons, many evacuation shelters will not be able to accept pets.
 - Identify pet-friendly locations in case you need to evacuate.
www.petswelcome.com is a good source.
 - Check with boarding facilities, pet-friendly hotels, veterinary clinics, relatives, or family friends outside the impacted area.
- Ensure your pet can be identified.
 - All pets should have some sort of identification, like a collar with a tag and microchip.
 - Take a photo of the pet and keep it with the medical records.
 - Include any proof of ownership materials, such as registration, proof of purchase, adoption records and microchip information.
- Practice getting the entire family, including your pet, to the tornado safe area before a tornado event occurs.
- Practice learning how to quickly and safely secure your pet in an emergency.



During a tornado:

- Bring your pets inside immediately in advance if possible.
- NEVER leave pets outside and avoid leaving them behind if possible during a tornado watch or warning.
 - If there is no other alternative, leave them loose inside your home with food and plenty of water.
 - NEVER leave your pet chained outside or enclosed in a way they cannot escape danger.
- If your pet is frightened, reassure them and remain calm.
- Pets should be provided the same cover as humans during severe weather.
- Put all pets into cages or carriers in the safe room when a tornado warning is issued. Animals can sense bad weather and often will look for a place to hide or escape if they sense it's near.

After a tornado:

- Be aware that a pet's behavior may change before, during and even after a disaster.
- Familiar scents and landmarks may be altered and your pet may become confused and lost.
 - In the first few days after the disaster, leash your pets when they go outside.
 - Always maintain close contact.
 - Reintroduce food in small servings, gradually working up to full portions, especially if animals have been without food for a prolonged period of time.
- Keep your pet away from storm damaged areas. Power lines could be down and dangerous objects can be littered everywhere.
- If your pet is lost and cannot be found after a disaster, contact your local animal control office. Bring along a picture of your pet if possible.

Source: www.Prepare4AgThreats.org

Additional Resources

- www.michigan.gov/miready—Preparedness information provided by the Michigan State Police, Emergency Management and Homeland Security Division about what to do before, during and after an emergency or disaster.
- www.michigan.gov/prepare—Emergency preparedness health and safety information by the Michigan Department of Community Health, Office of Public Health Preparedness.
- www.redcross.org —Tornado safety information from the American Red Cross.
- www.Prepare4AgThreats.org — Resources to help rural communities prepare for disasters and other hazards by the center for Food Security and Public Health.
- www.ready.gov—Resources and information about all-hazards emergency preparedness.
- <http://www.nws.noaa.gov/om/severeweather/index.shtml>—National Weather Service’s spring weather preparedness page.
- www.mcswa.com—Michigan Committee for Severe Weather Awareness.
- <http://www.nws.noaa.gov/com/weatherreadynation/>—National Weather Service’s Weather Ready Nation. Help your community, organization, or business become weather ready and serve as an example for others to follow.
- www.do1thing.com— A 12-step preparedness program designed to make communities more resilient through all hazards.