



**THE UNIVERSITY OF OKLAHOMA
INTEROFFICE COMMUNICATION**

To: Distribution

From: Liz Woollen, Chief

Date: March 31, 2011

Subject: Annual Tornado Safety Information

This is the University of Oklahoma Police Department's annual "Tornado Safety Information" mailing as revised for 2011. This document is also available "online" in a printer-friendly (*PDF*) version at <http://www.ou.edu/oupd/tornado.pdf>. Concurrently, a "mass-email" version of this information is also being sent out campus-wide. An expanded "webpage" version is also available "online" at <http://www.ou.edu/oupd/tornado.htm>.

This distribution is made to disseminate consistent information on campus concerning the University of Oklahoma's severe weather preparedness program. We encourage you to use it in any release or other documents you may prepare and to distribute it to others. We will gladly provide additional copies upon request.

If you have questions or comments regarding this document or emergency preparedness planning in general, please contact us at 325-2864.

cc: Executive Officers
Chair, Housing Center Student Association
Director, University Housing and Food Services
Editor, *The Oklahoma Daily*
Editor, *The Norman Transcript*
OU Reporter, *The Norman Oklahoman*
News Director, *KGOU-FM*
News Director, *KREF-AM*
News Director, *KKNG-FM*
News Director, *KOMA-AM*
News Director, *KTOK-AM*
News Director, *WWLS-AM*
Cleveland County Sheriff
Cleveland County Emergency Management
Chief, Norman Police Department
Chief, Norman Fire Department
Disaster Preparedness Coordinator
Director of Public Safety, OU Health Sciences Center Campus
Director of Security, Norman Public Schools
Executive Director, Cleveland County Chapter,
American Red Cross
SCARS
REACT
OUARC

TORNADO Safety Information



GENERAL INFORMATION

OU is very concerned about the safety and well-being of everyone associated with the Norman Campus. During tornado season, we work to provide timely severe weather safety information that we hope will be carefully reviewed by everyone who receives it. We cannot overstate the importance of knowing how to respond to a tornado warning in central Oklahoma.

A tornado's destructive path may vary from 50 yards to one mile in width. Wind speed inside a tornado can reach up to 300 mph. Its forward speed will average 25 to 40 miles per hour. The following instructions for different areas and situations should be studied:

If you are in the open:

- ▶ Attempt to reach a protective area, such as a sturdy building with a basement.
- ▶ If there is not time to escape or find a suitable protective area, lie flat and face-down on low ground, protecting the back of your head with your arms. Get as far away from trees and cars as you can; they may be blown onto you in a tornado. Avoid areas subject to rapid water accumulation or flooding in heavy rains.

If you are in class:

- ▶ The instructor will dismiss the class immediately, after advising students to proceed to a lower level hallway or basement of the building or to the nearest substantially constructed building if the facility being used for the class is not suitable as a protective area.

If you are attending a university function:

- ▶ The function will be terminated at once, and the participants will be advised promptly to seek a protective area on the ground floor away from glass or in the basement of the building.

Buildings with broad, flat roofs or large open interior spaces (*such as auditoriums, cafeterias, or gymnasiums*) should not be used or considered as protective areas. Many such areas, however, have *adjacent* service spaces (*such as corridors, walk-in coolers, or showers*) which may be reasonably safe.

TORNADO SIRENS

The City of Norman maintains a citywide outdoor warning siren network that is used to signal imminent danger from tornadoes. It is a familiar sound, as it is tested every Saturday at noon, including cloudy and rainy Saturdays, unless there is a threat of severe weather in the area, a major event or venue is taking place, or when temperatures are below 32 degrees Fahrenheit.

A **tornado warning** issued from the National Weather Service with a "polygon" including any portion of the City of Norman may be a cause for outdoor warning siren activation.

A steady siren for three to five minutes means **IMMINENT DANGER**. Take shelter immediately in the nearest suitable protective area and seek additional information. Protective areas should be identified in advance. *Once the sirens sound, it is too late to seek protection at a remote location.*

An "all clear" signal will **NOT** be given via the *siren system*. It is urged that reliance be placed on the broadcast media for this and other status and forecast information.

WEATHER ADVISORIES

(AND "ALL-CLEAR" SIGNALS)

The National Weather Service broadcast continuous weather status and forecast information on a special frequency of 162.400 MHZ from its

Norman office; this information is updated hourly. In addition, the NWS will broadcast special alert tones and messages for tornado warnings, flash flood warnings and similar impending weather emergencies.

Special radio receivers are available for purchase to monitor this frequency and receive the special alert warnings. Those persons or offices requiring current, official weather information or desiring to take advantage of the alert warning service should check with a radio equipment dealer for further information.

The Norman Forecast Office conducts a *weekly* alert test, each Wednesday at noon, to allow weather radio owners to verify that their radios are functioning correctly. If there is a risk of severe weather around noon on Wednesday, the test is postponed until the next "good weather" day. For more tests details, visit:

<http://www.srh.noaa.gov/oun/wxradio/radiotests.php>

It is recommended that all persons maintain a battery-operated AM and/or FM transistor radio and take that radio with them should it become necessary to seek a protective area from a tornado or other severe storm.

Persons in protective areas should not rely on visual observations of local conditions as a reliable indicator of the true status of the weather, since hail and tornadoes have been known to occur under apparently clear-sky conditions.

Local AM/FM Radio Stations which may carry local weather advisories (*and forward all-clear information*):

KGOU, 106.3 FM, OU-Norman
KREF, 1400 AM, Norman
KKNB, 93.3 FM, Newcastle

KOMA, 1520 AM, Oklahoma City
KTOK, 1000 AM, Oklahoma City
WWLS, 640 AM, Moore

CAMPUS PROTECTIVE AREAS

Protective areas from a tornado may be sought in buildings of substantial masonry construction; most University facilities have spaces that may be used as protective areas. These protective areas can usually be found in interior spaces or hallways away from exterior walls and windows.

Once the sirens sound, it is too late to proceed to a remote protective area. Occupants should stay alert to developing severe weather and have identified a suitable protective area beforehand.

The lowest level of the building should be used, avoiding spaces with windows; close doors between your refuge area and adjacent windowed areas to limit flying debris.

Buildings of frame construction and those with broad, flat roofs or large open interior spaces (*such as auditoriums, cafeterias, or gymnasiums*) should not be used or considered as protective areas. Many such areas, however, have *adjacent* service spaces (*such as corridors, walk-in coolers, or showers*) which are reasonably safe.

Building-Specific Recommended Refuge Areas:

Bizzell Library

Recommended Refuge Areas:

Lower Level II: The elevator lobby, public corridor, and public restrooms.

Lower Level I: The elevator lobby, public corridor, public restrooms, and library book storage.

Floors 1 through 5: It is recommended that persons on these floors move, down the stairs, to the below-grade refuge of Lower Levels I and II.

Physical Sciences Center

Recommended Refuge Areas:

Floors 1 through 4: Interior corridors and lobbies away from glass entrance areas. All classrooms, laboratories, offices and toilet rooms are also considered equally safe.

Floors 5 through 11: Windowless "core" rooms and corridors, including toilet rooms, are recommended as refuge areas for occupants of each floor.

(more building-specific areas continued on next page)

Lloyd Noble Center

(LNC is ONLY open/used as refuge DURING scheduled LNC events; for attendees only.)

Recommended Refuge Areas:

Upper Seating and Concourse: Persons in the upper seating areas should move to the upper concourse level, where they can seek refuge in toilet rooms and available portions of concessions areas.

Lower Seating and Arena Floor: The floor-level “tunnel” (*and it’s publicly accessible branching corridors*) and the mid-concourse’s exit vomitory areas offer the most protection in the event the roof is severely damaged.

To the greatest extent possible, persons should move away from the arena floor where the greatest damage would occur.

Practice and Administration Wing: Due to the large number of windows in this area, all occupants should move to the vomitory areas that link this wing to the main structure.

RESIDENCE HALLS & University Apartment Centers

Suitable protective areas have been identified within each university housing center. To protect persons using these spaces against airborne debris, particularly glass and wood splinters, all doors opening into the protective spaces should be closed while in use for a severe weather protective area.

OU Housing staff provides residents with annual severe weather safety training/information and OU housing centers maintain/ monitor NOAA S.A.M.E. weather radios. Residents with questions regarding severe weather emergency procedures or designated protective areas in their housing center should contact their building staff or *OU Housing and Food Services, 325-2511*.

RESIDENCE HALLS

In the event of National Weather Service “Tornado Watches” for Cleveland County, OU Housing staff will post a “specific” notification sign on the first floor of each residence hall building, and in elevator cars, alerting residents to “stay tuned” to weather conditions on TV/radio. Housing staff will also monitor the NOAA “S.A.M.E.” weather radio in each Duty Office. Also, through the emergency command system, all residential halls (Walker, Couch, Cate and Adams centers) have voice-notification announcements for tornado watches and warnings.

In the event of a NWS “Tornado Warning” for our area, students living in University residence halls are advised to follow the emergency response procedures permanently posted in the elevator lobbies, hallways or the back side of residents’ room doors.

UNIVERSITY APARTMENTS

In the event of National Weather Service “Tornado Watches” for Cleveland County, OU Housing staff will post a “specific” notification sign throughout the complexes alerting residents to “stay tuned” to weather conditions on TV/radio. Residents of University apartments are encouraged to follow these National Weather Service suggestions for occupants of houses and apartments without basements: “Once the siren sounds, it is too late to proceed to a remote protective area. Go to an interior room such as a hallway, closet, or bathroom.

Crouch as low as possible to the floor, facing down; and cover your head with your hands. A bathtub may offer a shell of partial protection. Even in an interior room, you should cover yourself with some sort of thick padding (*mattress, blankets, etc.*), to protect against falling debris in case the roof and ceiling fail.”



Plan ahead! Know where you can seek refuge in a matter of seconds, and practice an apartment “tornado drill” with your roommates at least once a year. Have a pre-determined place to meet after a disaster.

Flying debris is the greatest danger in tornadoes – so store protective padding/coverings (*mattress, blankets, sleeping bags, etc.*) in or next to your refuge space, ready to use on a few seconds’ notice. If you’ve created a “severe weather emergency kit” your “planned” refuge area would be a good place to store your kit!

When a Tornado Watch is issued, think about your “tornado drill” and check to make sure all your safety supplies are handy. Turn on local TV, radio or NOAA Weather Radio and stay alert for Warnings.

Avoid windows! –Forget about the old notion of opening windows to equalize pressure; a tornado will blow open the windows for you! However, do close all doors between your refuge area and adjacent areas with windows – to help limit flying debris.

CATE AND COUCH RESTAURANTS

In the event of National Weather Service “Tornado Watches” for Cleveland County OU Food Service Staff will post a “specific” notification sign at the entry to both facilities alerting residents to “stay tuned” to weather conditions on TV/radio. Housing staff will also monitor the NOAA “S.A.M.E.” weather radio in each office. Also, through the emergency command system, Couch Restaurants and Cate Center have voice-notification announcements for tornado watches and warnings.

Once the sirens sound, it is too late to proceed to a remote protective area. Residents will be ushered by staff to interior hallways in these facilities.

SOONER SUITES

Take cover in the bathroom or center hallway in each suite. Cover yourself with any available padding such as blankets and comforters.

OFF-CAMPUS Public Refuge Areas: The *City of Norman* makes a limited amount of refuge space available for people who are not already in substantial buildings, such as those living in mobile homes. Those shelters are:

Irving Recreation Center - 1920 E. Alameda
Whittier Recreation Center - 2000 W. Brooks
Cleveland Elementary School - 500 N. Sherry
Little Axe High School - 1306 168th Ave. NE

The shelters in the schools are not available when school is in session (normal school day). The shelters will be opened in anticipation of severe weather approximately one hour before the storm enters Norman.

The *City of Norman Emergency Operations Center (EOC)* is staffed during severe weather events and can be reached at 292-7008 for questions regarding shelter openings and current severe weather conditions. Store the Norman EOC’s phone number on your portable phone and take your portable/cell phone with you when you seek shelter!

AFTER THE TORNADO . . .

Keep with your group/family together and wait for emergency personnel to arrive. Carefully render aid to those who are injured.

Stay away from power lines and puddles with wires in them; they may still be carrying electricity! Watch your step to avoid broken glass, nails, and other sharp objects. Stay out of any heavily damaged houses or buildings; they could collapse at any time.

Do not use matches or lighters, in case of leaking natural gas pipes or fuel tanks nearby. Remain calm and alert, and listen for information and instructions from local radio, emergency crews, and local officials.

Local National Weather Service forecast information is available at www.srh.noaa.gov/oun

Additional, EXPANDED, “ONLINE” severe weather and tornado safety information, including more information on various Norman Campus areas of refuge, is available at the OU Police Department website, <http://www.ou.edu/oupd/tornado.htm>.

THUNDERSTORM/LIGHTNING SAFETY

More people are killed in the U.S. by LIGHTNING each year than by tornadoes and hurricanes.

An Approaching Thunderstorm: When to Seek Safe Shelter

Lightning can strike as far as 10 miles away from the rain area in a thunderstorm. That's about the distance you can hear thunder. When a storm is 10 miles away, it may even be difficult to tell a storm is coming.

IF YOU CAN HEAR THUNDER, YOU ARE WITHIN STRIKING DISTANCE. SEEK SAFE SHELTER IMMEDIATELY!

The first stroke of lightning is just as deadly as the last. If the sky looks threatening, take shelter before hearing thunder.

Use the "30-30 rule" where visibility is good and there is nothing obstructing your view of the thunderstorm. When you see lightning, count the time until you hear thunder. If that time is 30 seconds or less, the thunderstorm is within 6 miles of you and is dangerous. Seek shelter immediately. The threat of lightning continues for much longer period than most people realize.

Wait at least 30 minutes after the last clap of thunder before leaving shelter. Don't be fooled by sunshine or blue sky!

If it is cloudy or objects are obscuring your vision, get inside immediately. It is always safer to take precautions than to wait. Listen to NOAA Weather Radio.

Lightning Safety Rules:

- ✓ Postpone outdoor activities if thunderstorms are imminent. This is your best way to avoid being caught in a dangerous situation.
- ✓ Move to a sturdy building or hardtop car/truck. Do not take shelter in small sheds, under isolated trees, or in convertible automobiles. Stay away from tall objects such as towers, fences, telephone poles, and power lines.
- ✓ If lightning is occurring and a sturdy shelter is not available, get inside a hard top automobile and keep the windows up. Avoid touching any metal.
- ✓ Utility lines and metal pipes can conduct electricity. Indoors, unplug appliances not necessary for obtaining weather information. Avoid using the telephone or any electrical appliances. Use phones ONLY in an emergency. Don't wear wired stereo/computer headphones. Turn off air conditioners. Power surges from lightning can cause serious damage.
- ✓ During a thunderstorm, don't wash dishes or wash your hands, and don't take a bath/shower.
- ✓ If you can't get to a shelter, find an open, low spot away from trees, fencing, and poles. Crouch down, keeping twice as far away from a tree as it is tall.

Be the lowest point. Lightning hits the tallest object. Don't even be the second tallest object during a lightning storm! In an exposed area, do the "lightning squat"! Crouch down, feet together, hands on knees or over your ears.

Make sure the place you pick to shelter/squat isn't subject to flooding. Lightning can strike the water and travel some distance away from its point of contact.

Don't stand in puddles of water, even if wearing rubber boots.

CAUGHT IN THE OPEN?
DO THE LIGHTNING
"SAFETY SQUAT"



- ✓ Avoid metal! Stay away from clothes lines, fences, and metal sheds or other elevated objects. Don't hold on to metal items such as golf clubs, tennis rackets, tools, or bikes. Large metal objects can conduct lightning. Small metal objects can cause burns.
- ✓ Move away from a group of people. Stay at least several yards away from other people. Don't share a bleacher bench or huddle in a group.

SEVERE WEATHER EMERGENCY KIT

✓ Be Prepared At Home Before Severe Weather Strikes

If you're living off-campus, a severe storm can knock out utility services to your area, leaving you without electricity, heat, water or fresh food. It's a good idea to put together an emergency kit you can grab at a moment's notice (*or store it in the "protective area" in your house you plan to use during severe weather.*)

Be sure to store your emergency kit in a waterproof container. (*Remember to check your kit semi-annually. Suggested: At daylight savings time change, when you replace your home smoke detector batteries!*)

- ✓ Flashlight and extra batteries (*Check batteries semi-annually!*)
- ✓ Battery-operated radio with a weather band
- ✓ First aid kit with essential medicines and a manual
- ✓ A large jug of drinking water
- ✓ Non-perishable, ready-to-eat food
- ✓ Towels, toilet paper and bathroom items
- ✓ A spare pair of shoes (*that give some protection from broken glass and broken wood fragments*)
- ✓ Work gloves
- ✓ Duct tape
- ✓ Credit cards
- ✓ A copy of insurance documents
- ✓ Blankets and sleeping gear (*both for flying-debris protection and comfort*)
- ✓ List of phone numbers and addresses of emergency services and protective areas, physicians, family and friends

Stock the kit with spare home tools that you may need:

- ✓ Hammer and nails
- ✓ A pocket multi-tool
- ✓ Screwdrivers, pliers and wrenches
- ✓ Small pry-bar

Make sure everyone in your family knows where the kit is kept. Be sure and store your severe weather emergency kit in the protected area where you plan to seek shelter from storms! Review your emergency plan with your family and post the written plan.

Common Sense Note: Candles and matches in your kit might be great for use during a simple storm-related power outage blackout, but their use could be hazardous where actual storm damage to your apartment/house has caused gas leaks. Use with care!

Additional ideas for disaster emergency kits can be found, online on the Internet, at <http://www.ready.gov/america/index.html> and at <http://www.redcross.org/disaster/safety/fdsk.pdf>.

If possible, take your portable/cell PHONE with you when you seek refuge!