FORT SILL
EMERGENCY MANAGEMENT
OFFICE

Emergency Management Spring Weather Update

IMCOM
SOLDIERS • FAMILIES • CIVILIANS

Spring Weather **March 2012**

Phone Numbers

Fire-Police 911

Fort Sill Emergency Management Office

580-442-2533/5158

Fort Sill Emergency Operations Center

580-442-3239/ 3240/ 3241/ 3242

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Prepare for Spring Weather Now

Hopefully we have seen the last of the snow and cold for quite a while. The days are starting to get longer, the temperatures are starting to rise and before you know it the trees and flowers will start to bloom.

As we look forward to those warm days and the amazing feel and smells that spring always brings, now is the time to take a few minutes to look at ourselves and our families to see if we are ready for turbulent times that spring also brings with it.

For those who are new to the region should know that Oklahoma is central to the area called "Tornado Alley". Although tornadoes get all of the attention, we would actually like to focus on "Thunderstorms". It is the thunderstorm that really spawns a majority of the problems that we may face this spring.

We in the Emergency Management Office would like for each of you to start with yourself, then your family and then your neighborhood as you start to prepare for the potentials of severe weather this season. Why would you ask that we say focus on thunderstorms, well here are some fast facts:

*A thunderstorm affects a relatively small area when compared to a hurricane or a winter storm. The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Despite their small size, **ALL** thunderstorms are dangerous! Of the estimated 100,000 thunderstorms that occur each year in the United States, about 10 percent are classified as severe.*

Lightning...

- Causes an average of 55-60 fatalities and 400 injuries each year
- Occurs with all thunderstorms
- Costs more than $1 billion in insured losses each year

Tornadoes...

- Cause an average of 60-65 fatalities and 1,500 injuries each year
- Can produce wind speeds in excess of 200 mph
- Can be 1 mile wide and stay on the ground over 50 miles

Straight-line Winds...

- Can exceed 125 mph
- Can cause destruction equal to a tornado
- Are extremely dangerous to aviation

Flash Floods and Floods...

- Are the #1 cause of deaths associated with thunderstorms, more than 90 fatalities each year

Hail...

- Can be larger than a softball (5 inches in diameter)
- Causes more than $1 billion in crop and property damage each year.

So? Are you ready? Are your kids ready? Are your pets ready? What about your family members who live in other areas?

Oklahoma Storm Statistics

Number of tornadoes in Oklahoma in 2011– 119 with 96 of those being in Apr- May

Since record keeping on tornadoes began in 1950 Caddo County ranks first with 106 tornadoes, Oklahoma County is second with 101, Comanche County is tied for 29th with 54.. The costliest tornado in Oklahoma was the May 3rd 1999 that had over $1 billion in damage costs.

From 1875 to 2010 there have been 64 tornadoes in Comanche County with 12 fatalities and 146 injures.

Comanche County is one of 10 of the 77 counties that lead the state by suffering more than 5 significant flood events in the last 20 years

From 1960-2009 there have been over 100 fatalities from flooding in Oklahoma

On May 27th of 2001 Fort Sill suffered over $10 million dollars damage from a wind event.

Since 1950 Comanche County has had over 60 significant wind events. A significant wind event is classified at winds over 60 knots or higher. Comanche is one of 14 counties with this distinction.

Oklahoma averages 30-50 thunderstorm days per year

Watches and Warnings: What do they mean?

Tornado Watch—NWS meteorologists have determined that tornadoes are possible in your area. Remain alert for approaching storms. Know if your location is in the watch area by listening to NOAA Weather Radio, visiting http://nws.noaa.gov or by tuning into your favorite radio or television weather information broadcast stations.

Severe Thunderstorm Watch—NWS meteorologists have determined that severe thunderstorms are likely to occur in your area. Watch the sky and stay tuned for NWS warnings.

Tornado Warning—NWS meteorologists have determined that a tornado is occurring, or likely to occur within minutes, in the specified area. Warnings indicate imminent danger to life and property.

Severe Thunderstorm Warning—NWS meteorologists have determined that a severe thunderstorm is occurring or likely to occur. Warnings indicate imminent danger to life and property.

When Dangerous Weather Approaches

- Have a Safety Plan
- Postpone Activities
- Monitor the Weather
- Go to a Safe Place
- If you hear thunder don't use a corded phone
- Keep away from electrical equipment, wiring and water pipes.
- Avoid Open Areas
- Listen to your NOAA Weather Radio, Local Radio, and Television
- If you are boating get back to the dock and secure your boat or watercraft
- Prior to going camping, review the campground's safety policies or if you are camping in a primitive location, look for places that you can evacuate to that are secure.
- If the kids are in school, know that the school district has severe weather plans and will do everything in their power to take care of your children.
- Ensure that your pets also have a secure place to go.
- Be prepared to move to a shelter

What Actions Can You Take

- The safest place to be is an underground shelter, basement, or safe room.
- If no underground shelter or safe room is available, a small, windowless interior room or hallway on the lowest level of a sturdy building is the safest alternative.
- Mobile homes are not safe during tornadoes. Abandon mobile homes and go to the nearest sturdy building or shelter immediately.
- If you are caught outdoors, seek shelter in a basement, shelter or sturdy building.
- Avoid driving, walking, or swimming in flood waters.
- Stay away from high water, storm drains, ditches, ravines, or culverts. Even moving water only six inches deep can knock you off your feet. Move to higher ground.
- Do not let children play near storm drains.
- If you come upon a flooded roadway never drive through it.

TURN AROUND DON'T DROWN!!!

Be Prepared It's Up to YOU!

Each year, many people are killed or seriously injured by tornadoes and severe thunderstorms despite advance warning. Some did not hear the warning; others heard the warning but did not believe it would happen to them. The following preparedness information, combined with timely severe weather watches and warnings, may save your life. If you hear a warning or observe threatening skies, only YOU can make the decision to seek safety. This could be the most important decision you will ever make.

What YOU Can Do Before Severe Weather Strikes

Develop a plan for you and your family at home, work, school, and when outdoors. The American Red Cross offers tips at: www.redcross.org, and the Federal Emergency Management Agency (FEMA) at: www.ready.gov. Also take a look at Ready Army at http://www.acsim.army.mil/readyarmy/

Practice Your Plan

■■ Know the risk for the area in which you live or visit. NWS warnings identify locations in the path of approaching severe weather.

■■ Have a Public Alert™ certified NOAA Weather Radio and battery backup to receive warnings.

■■ Discuss thunderstorm safety with all members of your household.

■■ NWS watches and warnings are available on the Internet. Select and bookmark your local NWS office from www.weather.gov

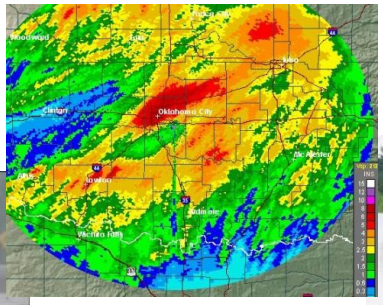
■■ Keep in mind that even though the weather may be calm at the time a Tornado or Severe Thunderstorm Watch or Warning is issued for your area, conditions can rapidly deteriorate and become life threatening. Always heed warnings even if warnings issued for your area in the past did not result in severe weather. Don't gamble with your life.

■■ Tornadoes and severe thunderstorms can and do occur at any location, anytime of day or night, and anytime of year given the right atmospheric conditions.

■■ Tune into your favorite radio or television weather information source for severe weather watch and warning information.

■■ If severe weather threatens, check on people who are elderly, very young, or physically or mentally disabled.

■■ Having a safe room in your home or small business can help provide



Fact or Fiction

Tornado Fact or Fiction

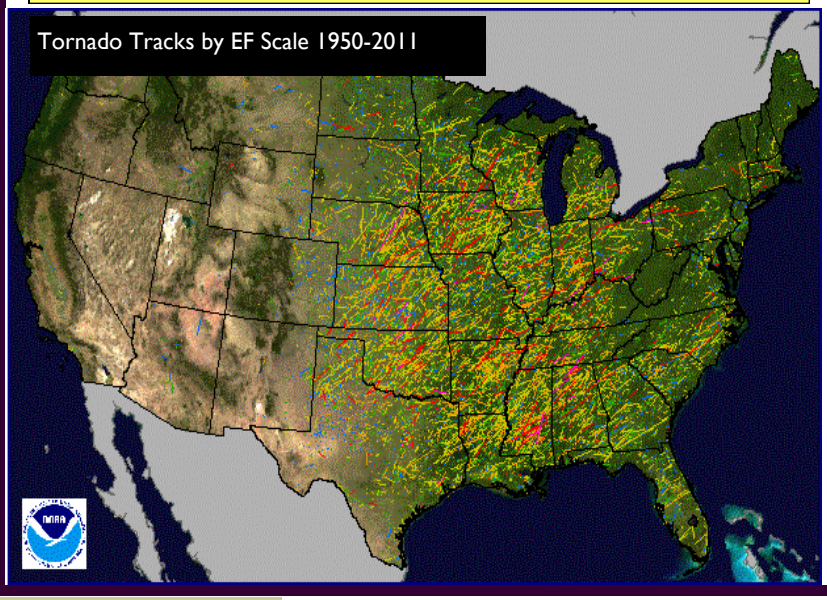
FICTION: Lakes, rivers, and mountains protect areas from tornadoes.
FACT: No geographic location is safe from tornadoes. A tornado near Yellowstone National Park left a path of destruction up and down a 10,000 foot mountain.

FICTION: A tornado causes buildings to "explode" as the tornado passes overhead.
FACT: Violent winds and debris slamming into buildings cause the most structural damage.

FICTION: Open windows before a tornado approaches to equalize pressure and minimize damage.
FACT: Virtually all buildings leak. Leave the windows closed. Take shelter immediately. An underground shelter, basement or safe room are the safest places. If none of those options are available, go to a windowless interior room or hallway.

FICTION: Highway overpasses provide safe shelter from tornadoes.
FACT: The area under a highway overpass is very dangerous in a tornado. If you are in a vehicle, you should immediately seek shelter in a sturdy building. As a last resort, you can either: stay in the car with the seat belt on. Put your head down below the windows, covering with your hands and a blanket if possible, OR if you can safely get noticeably lower than the level of the roadway, exit your car and lie in that area, covering your head with your hands. Your choice should be driven by your specific circumstances.

FICTION: It is safe to take shelter in the bathroom, hallway, or closet of a mobile home.
FACT: Mobile homes are not safe during tornadoes! Abandon your mobile home to seek shelter in a sturdy building immediately. If you live in a mobile home, ensure you have a plan in place that identifies the closest sturdy buildings.



Who's Most At-Risk From Thunderstorms?

From Tornadoes
People who are in mobile homes or outdoors.

From Lightning
People who are outdoors, or anyone who stays outdoors when thunderstorms are nearby.

From Flash Flooding
People who walk or drive through flood waters.

From Large Hail
People who are caught outdoors.

Lightning Fiction and Fact

FICTION: If it is not raining, then there is no danger from lightning.
FACT: Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. This is especially true in the western United States where thunderstorms sometimes produce very little rain.

FICTION: The rubber soles of shoes or rubber tires on a car will protect you from being struck by lightning.
FACT: 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.

FICTION: People struck by lightning should not be touched because they carry an electrical charge.
FACT: Lightning-strike victims carry no electrical charge and should be helped immediately. Anyone who has been hit by lightning requires immediate professional medical care. Call 9-1-1 and begin CPR immediately if the person has stopped breathing. Use an Automatic External Defibrillator if one is available.

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

Other Thunderstorm Hazards

Straight-Line Winds

■ Straight-line winds are any winds not associated with the rotation of a tornado. Straight-line winds are responsible for most thunder storm wind damage.
■ Straight-line winds can exceed 125 mph!
■ A downburst is a small area of rapidly descending air beneath a thunderstorm.
■ A downburst can cause damage equivalent to a strong tornado.
■ A "dry microburst" is a downburst that occurs with little or no rain. These destructive winds are most common in the western United States and are a hazard that wildfire crews watch-out for.

Flash Floods and Floods

■ A **flash flood** occurs within a few hours (usually less than 6 hours) of heavy or excessive rainfall, a dam or levee failure, or the sudden release of water impounded by an ice jam.
■ A **flood** is the inundation of a normally dry area caused by abnormal high water flow. Floods develop more slowly than flash floods, normally greater than 6 hours.
■ Flash floods and floods are the #1 cause of deaths associated with thunderstorms, more than 90 fatalities each year.
■ More than half of all flood-related drownings occur when a vehicle is driven into hazardous flood water.
TURN AROUND, DON'T DROWN!
■ Many flash flood fatalities occur at night.
■ **Six inches** of fast-moving water can knock you off your feet.
■ **Two feet** of rushing water can carry away most vehicles, including SUVs and pickups.

Hail

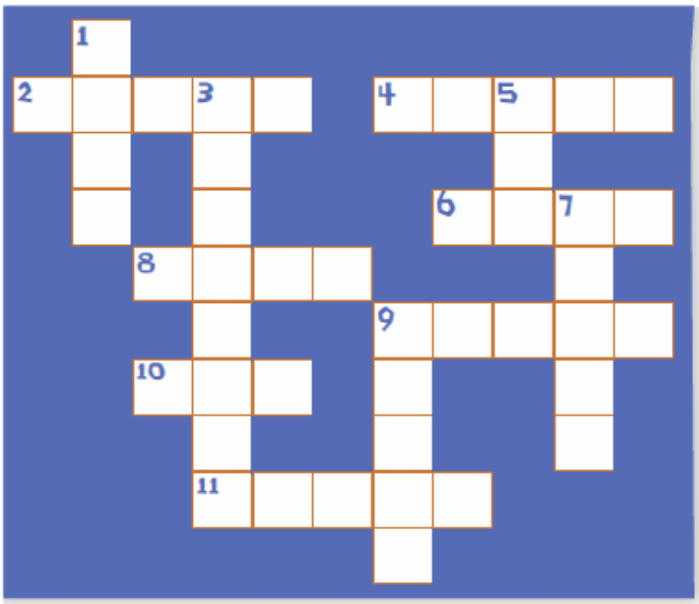
■ Strong rising currents of air within a storm, called updrafts, carry water droplets to a height where they freeze.
■ Ice particles grow in size, becoming too heavy to be supported by the updraft, and fall to the ground.
■ Hail is larger than sleet, and forms only in thunderstorms.
■ Large hailstones can fall at speeds faster than 100 mph!
■ The largest hailstone ever recovered in the United States was a 7 inch wide chunk of ice that landed in Aurora, Nebraska, in June 2003.
■ An accurate weight could not be determined for the Aurora hailstone. A 1970 Coffeyville, Kansas, hailstone weighing 1.67 pounds with a 5.7 inch diameter remains the heaviest hailstone weighed and verified in the United States.

Lawton Tornado 1979
Photos courtesy of Lawton Constitution 4/12/1979

Dear Family,

Family Reproducible Worksheet

To prepare for emergencies, families can collect items that might be useful and put them in an emergency supply kit. Go to www.ready.gov and click on *Ready Kids* to find out how your family can prepare for unexpected situations. Then complete this crossword puzzle to give you an idea of what kinds of things should be part of your family's emergency supply kit.



Clues

ACROSS:

2. _ _ _ _ _ light: A handy tool to have if the lights go out!

4. Every person needs one gallon of this per day!

6. This comfortable piece of furniture should not be part of a family's supply kit.

8. Furry family members that should be part of your preparedness plan.

9. Some people have a _ _ _ _ _ between meals if they are hungry.

10. You might find water, a flashlight, or a whistle in an emergency supply _ _ _.

11. Fun items that families can play together.

DOWN:

1. Families can create a communication _ _ _ _ so that they know where to meet and who to call during an emergency.

3. _ _ _ _ _ _ _ _ bag: Great for napping or keeping warm.

5. Every family member should carry a contact list with at least _ _ _ different phone numbers that will allow you to keep in touch during an emergency.

7. It's important to get the _ _ _ _ _ about different kinds of emergencies, so that you know what to expect.

9. Keep an extra pair of these in your supply kit to keep your feet dry!

Visit www.ready.gov and click on *Ready Kids* for a family scavenger hunt to create your family's emergency supply kit!

EMERGENCY CONTACT INFORMATION

It's important to be able to contact your family if there is an unexpected event. Fill in the following information and keep a copy on the refrigerator, in your car, and in your child's backpack.

Parents/Guardians Contact Names: _____

Telephone numbers: _____

Out-of-State Contact Name: _____

Telephone number: _____

Neighborhood Meeting Place: _____

Meeting Place Telephone: _____

Dial 9-1-1 for Emergencies!

Crossword Puzzle Answers:
Across: 2. flash; 4. water; 6. sofa; 8. pets; 9. snack; 10. kit; 11. games.
Down: 1. plan; 3. sleeping; 5. two; 7. facts; 9. shoes

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