THE OKLAHOMAN
THE STATE NEWSPAPER SINCE 1907
COMPLIMENTARY COPY

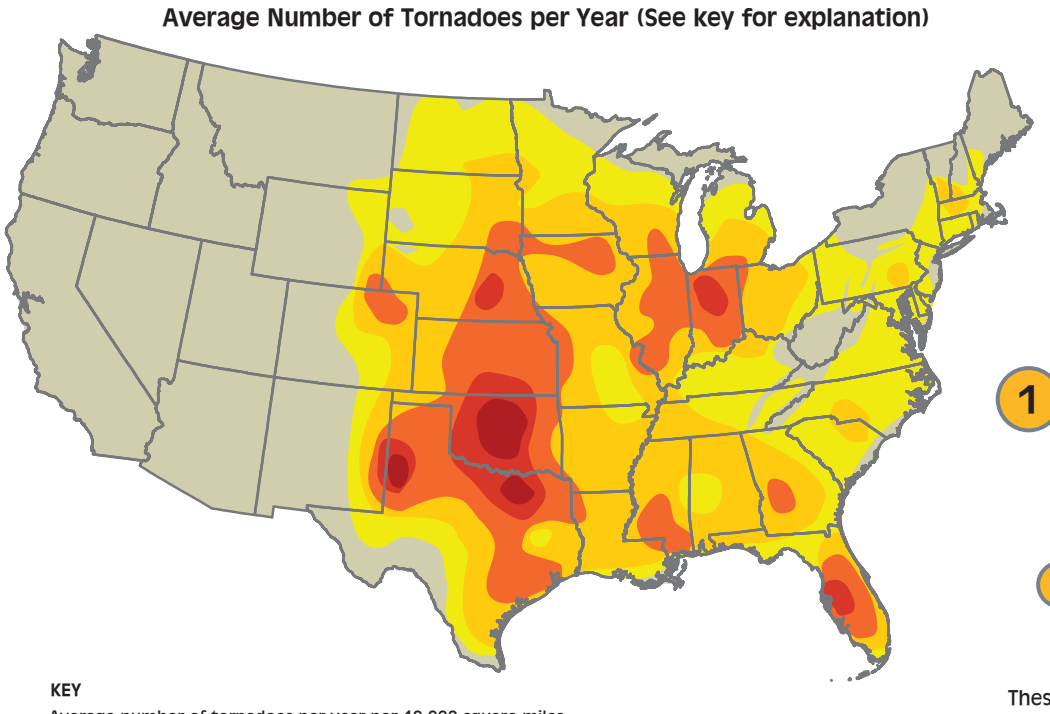
OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Mesonet

SEVERE WEATHER SAFETY

visit us at
earthstorm.ocs.ou.edu

Average Number of Tornadoes per Year (See key for explanation)



KEY
Average number of tornadoes per year per 10,000 square miles

- Fewer than one
- One
- Three
- Five
- Seven
- Nine

weather
from Coast-to-Coast, including data from:

- NEXRAD radar
- National Weather Service Surface Observations
- Atmospheric Radiation Measurement Program
- Oklahoma Mesonet

tornadoes
taking action is easy as 1-2-3

1 **Get In** - Seek shelter in a sturdy building away from windows and doors. Small, protected rooms (e.g., safe rooms, bathrooms) are best. Do not seek shelter in gymnasiums or other large, open rooms.

2 **Get Down** - Find the lowest floor in the structure. Basements are best but the central part of the first floor is acceptable.

3 **Cover Up** - Protect yourself from flying debris by using blankets, mattresses, coats, or sleeping bags. Wear a bike or football helmet to protect your head from serious injury. Wear shoes to protect your feet when emerging from your shelter after the storm.

These steps require that you plan ahead. Be aware of approaching weather systems so you have enough time to find an appropriate shelter.

If you are in a vehicle and cannot get into a safe building, leave the road, get out of your vehicle, and lie flat in a low-lying area that is not flooding. Do not block roads or seek shelter under bridges.

thunderstorms & lightning
the 30/30 rule

30 Seconds: Count the number of seconds between seeing the lightning and hearing the thunder. If the number is 30 or less, lightning is close enough to injure you. Seek shelter immediately.

30 Minutes: Remain indoors 30 minutes after the last lightning flash. More deaths occur with the first and last lightning strike of a storm when people believe the danger is minimal.

REMEMBER – ALL thunderstorms produce lightning. Lightning kills. Be safe. Seek shelter early.

flooding
turn around don't drown

If flooding occurs, get to higher ground. Get out of areas subject to flooding. These include dips, low spots, canyons, and washes.

Avoid areas already flooded, especially if the water is flowing fast. Do not attempt to cross flowing streams.

Road beds may be washed out under flood waters. NEVER drive through flooded roadways. If your vehicle is suddenly caught in rising water, leave it immediately and seek higher ground.

Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.

Be especially cautious at night when it is harder to recognize flood dangers.

stay aware
carry a NOAA weather radio

NOAA Weather Radio

Carry a portable NOAA Weather Radio to keep abreast of all weather situations. These radios provide 24-hour weather coverage from the National Weather Service.

Make sure your NOAA Weather Radio has a visual (flashing) and audio alert feature.

Watch
A watch is used when the risk of a hazardous weather or flood event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.

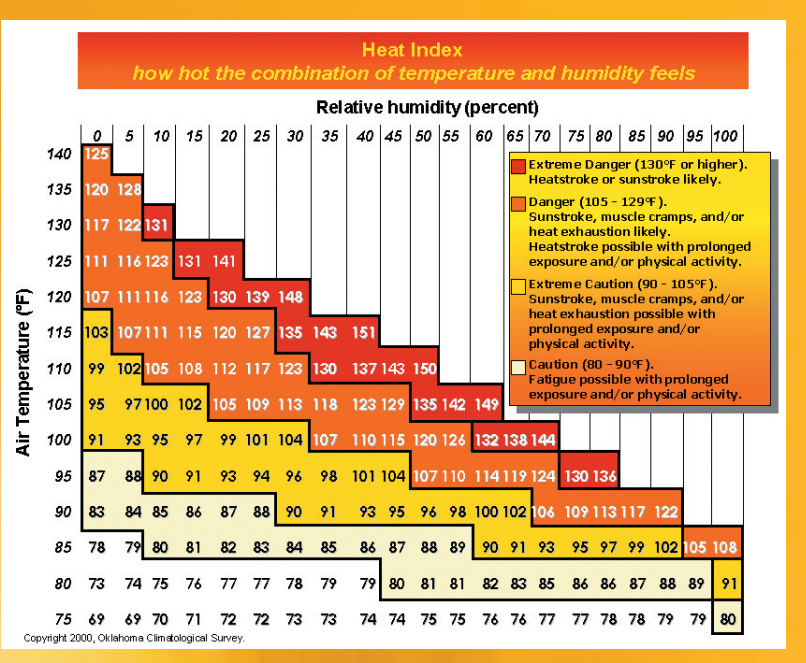
Warning
A warning is issued when a hazardous weather or flood event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.

heat safety & hypothermia
important safety tips

Heat Safety...

If a Heat Wave Is Predicted or Happening...

- Avoid strenuous activity. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4:00 a.m. and 7:00 a.m.
- Stay indoors as much as possible. If air conditioning is not available, stay on the lowest floor. Try to go to a public building with air conditioning each day for several hours.
- Wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy.
- Drink plenty of water regularly and often, even if you do not feel thirsty. Your body needs water to keep cool.
- Avoid drinks with alcohol or caffeine in them. They can make you feel good briefly, but make the heat's effects on your body worse.
- Eat small meals and eat more often. Avoid foods that are high in protein, which increase metabolic heat.
- Avoid using salt tablets unless directed to do so by a physician.



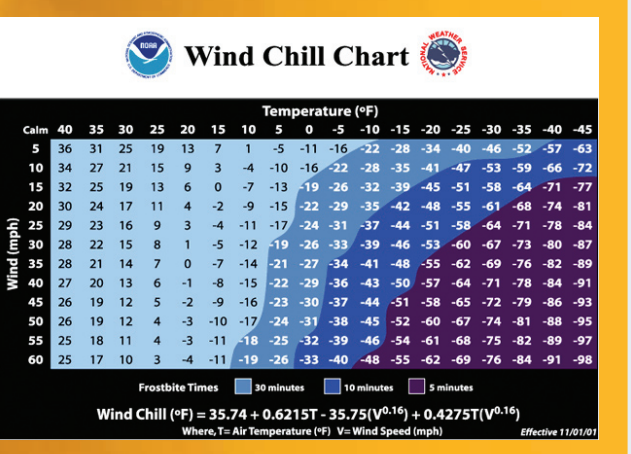
Hypothermia...

When the body begins to lose heat faster than it can produce it, a condition called hypothermia begins to develop. The symptoms of hypothermia are listed below.

- Uncontrollable shivering
- Vague, slowed, slurred speech
- Memory lapses, incoherence
- Immobile, fumbling hands
- Frequent stumbling
- Apparent exhaustion, inability to get up after rest

When going outside, remember the following:

- Dress warmly in loose-fitting, layered, light-weight clothing
- Avoid alcoholic beverages
- Avoid overexertion
- Keep yourself and your clothes dry
- Check infants frequently for signs of frostbite



No taxpayers' dollars were used to print this poster.

EARTHSTORM
ARM Climate Research Facility

www.ocs.ou.edu

OKLAHOMA CLIMATOLOGICAL SURVEY

When 15 Minutes Isn't Good Enough

At the beginning of the year, the Oklahoma Mesonet won a special award from the American Meteorological Society for "serving Oklahoma and the meteorological community by providing high-quality data and information used to protect lives, reduce costs, facilitate cutting-edge research, and educate the next generation." This award and others were earned through hard work, long hours, and dedication from a team of state employees and their partners throughout Oklahoma. It demonstrated that Oklahoma values, knowledge, and experience indeed lead to cutting-edge solutions to issues affecting every Oklahoman.

Even as this award was being announced, the Oklahoma Mesonet team continued to strive toward new goals, new innovations, and new services for Oklahomans. The largest new target for the Mesonet team was to provide our customers, especially those who protect the public, with more data even faster than before.

It is not a trivial task to reduce the time it takes to collect, quality assure, and distribute more than 1 million observations per day from every corner of the state. First, through funding from the Oklahoma State Regents for Higher Education, the Mesonet technicians upgraded more than 250 radios across the state. These radios were found in fields near the end of dirt roads, in sheriff's offices of towns that most people don't know exist, and on tall repeaters that are visited regularly only by birds. If you live in Oklahoma, there's a Mesonet radio that was upgraded within 10 miles of your house.

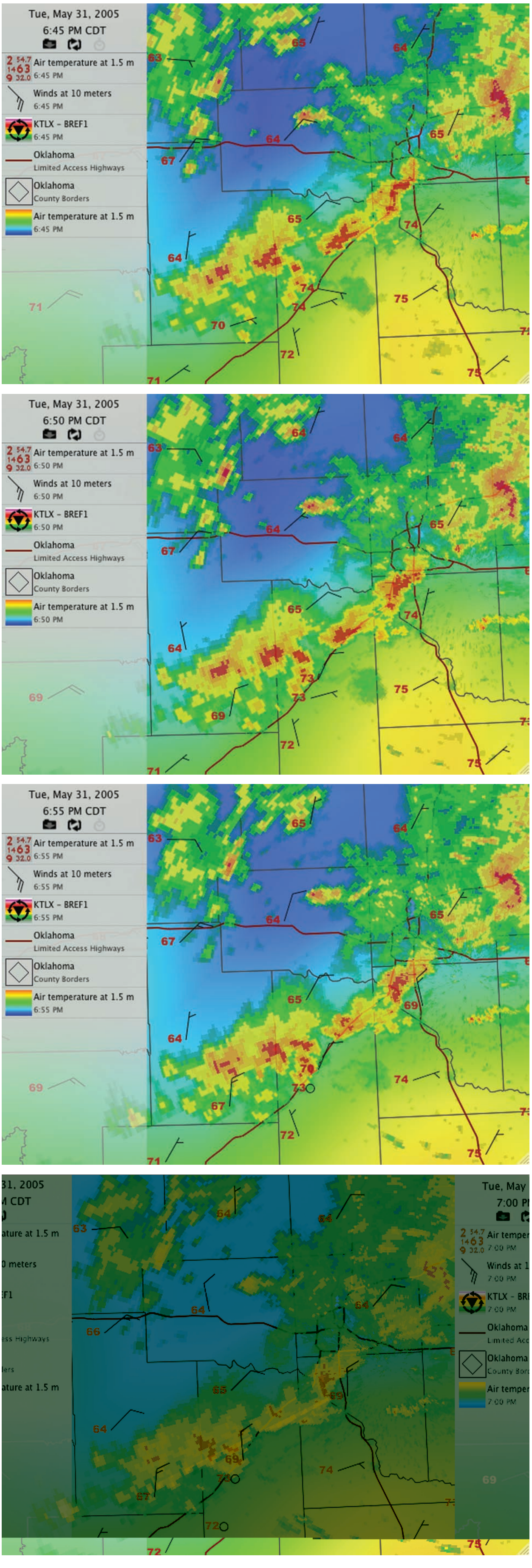
With the upgrade of the radios, the Mesonet could receive observations from the measurement stations faster. Before, computers could "overhear" both radios from Southwest Oklahoma and radios from Western Oklahoma when they "spoke" at the same time. The computers couldn't understand both conversations, so the radios would have to take turns, slowing down the communication process. Now the radios in neighboring regions of the state can communicate at the same time without confusing the computers. As a result, data now arrives twice as fast as before—in about 3 minutes from all 116 Mesonet sites.

Because the data could be sent in less than 5 minutes, the original, 15-minute transfer of Mesonet data was scrapped after 11 years in operation. Now the measurements are sent every 5 minutes—all through the Oklahoma Law Enforcement Telecommunications System without any negative impact.

After the data arrived at the central collection point in Norman every 5 minutes, then the data needed to be processed faster to arrive at government agencies before the next 5-minute observation was sent. Faster computers were purchased, software was optimized for speed, and a new, simpler database was implemented. As a result, the process to quality-assure the incoming data was reduced from 7–10 minutes to about 2 minutes.

Almost as exciting as this fantastic upgrade was that it occurred without bringing the system down or disrupting the flow of data. And at the same time, regular Mesonet operations continued: sensors were calibrated, maintenance was conducted, and products were provided to both government agencies and individuals alike.

Hey, it's 4:40 p.m.! You should go to www.mesonet.org and view the 4:35 p.m. air temperature for your county. You live in the only place in the world where someone can do that today.



WeatherScope software was used to create all images shown.

For more information about the Oklahoma Mesonet, Oklahoma's Weather Network, and to download WeatherScope software for free, visit our website at http://www.mesonet.org.

Oklahoma Mesonet

www.mesonet.org