

agweather connection

Groundhog's Day: will the shadow show?

Feb. 2 is quickly approaching and, with it, comes the prediction of either six more weeks of winter or an early spring. The celebration of Groundhog's Day began with Pennsylvania's earliest settlers and is linked to the Christian holiday of Candlemas Day. The legend goes, "For as the sun shines on Candlemas Day, so far will the snow swirl in May..." In medieval times, people believed that all hibernating animals emerged on Candlemas Day, helping to evolve Feb. 2 from a Christian holiday to the secular celebration of Groundhog's Day.

Dr. Mark Shafer, Director of Climate Services at the Oklahoma Climatological Survey, tries to scientifically explain the theory behind Groundhog's Day:

Here's how other meteorologists at the National Weather Center feel about Groundhog's Day:

"Groundhog's Day is when that little rodent comes out of his hole and sets meteorologists up for failure six weeks later." Gary McManus, Oklahoma Assistant State Climatologist

"Groundhog's Day is a day of hope and disappointment for all. Where folks place their faith in a rodent to tell them that spring is just around corner. Yet, year after year, they seem surprised when the furball is wrong." Andrew Reader, Oklahoma Climatological Survey Public Safety Outreach Program Manager

"We celebrated Groundhog's Day because Valentine's Day was always too depressing for weather nerds like me."
Kevin Kloesel, Associate Dean for Public Service and Outreach, Associate Professor, School of Meteorology, OU College of Atmospheric and Geographic Sciences

"During the winter, sunny days are often very cold, because of a Canadian high pressure system. When it is cloudy, that indicates the high pressure is not as strong, and that storm systems and the jet stream are further northward. Cloudy could also come from fog from melting snow cover indicating a warming trend."

"So, in early February, if it's a clear day and the groundhog sees its shadow, then the high pressure is pretty well in place and it will be a while before winter ends. If it is a cloudy day and the groundhog does not see a shadow, then the high pressure is weaker and there will be more frequent intrusions of warm air from the south."

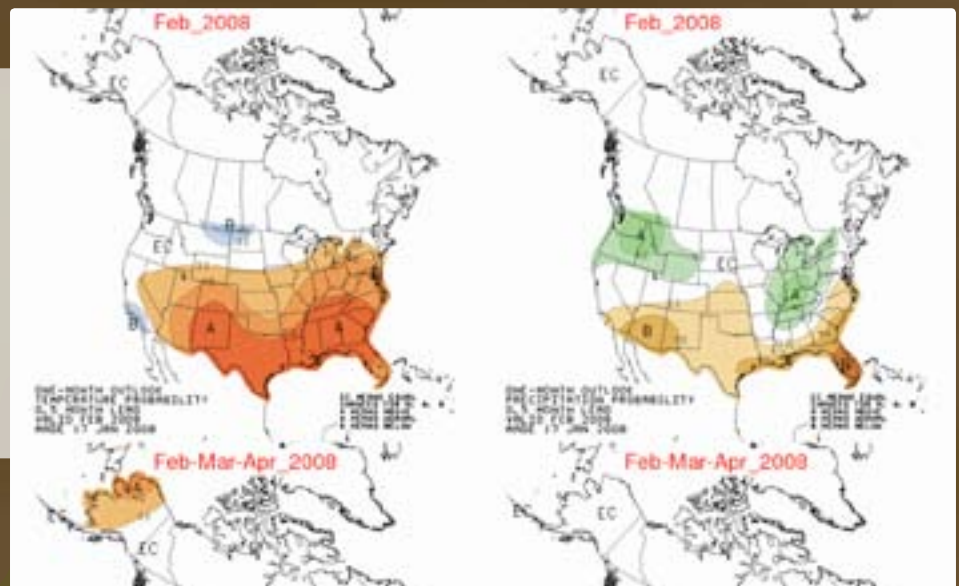
Spring Fever

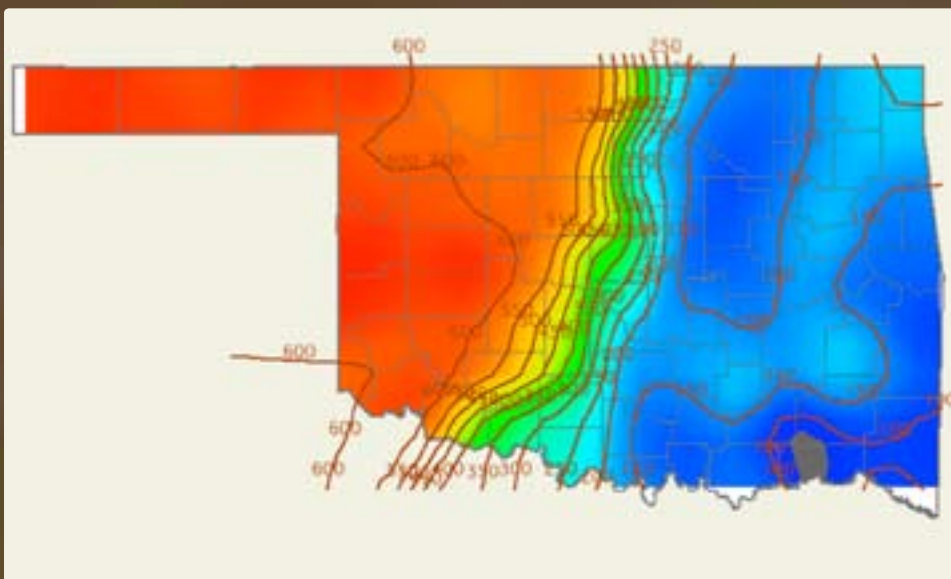
Free download

- Go to <http://aqweather.mesonet.org/>
- Download the WxScope Plugin
- For slow Internet connections, call (405) 325-3126 for a free CD
- [Click here for the Windows software.](#)
- [Click here for the Macintosh software.](#)

Extended forecast

- Go to <http://aqweather.mesonet.org/>
- Click on "Weather"
- Select "Forecasts"
- Click "Extended Forecasts"
- Choose "30-day and 90-day outlook"
- These maps offer a long-term temperature outlook on the left and a long-term precipitation outlook on the right.





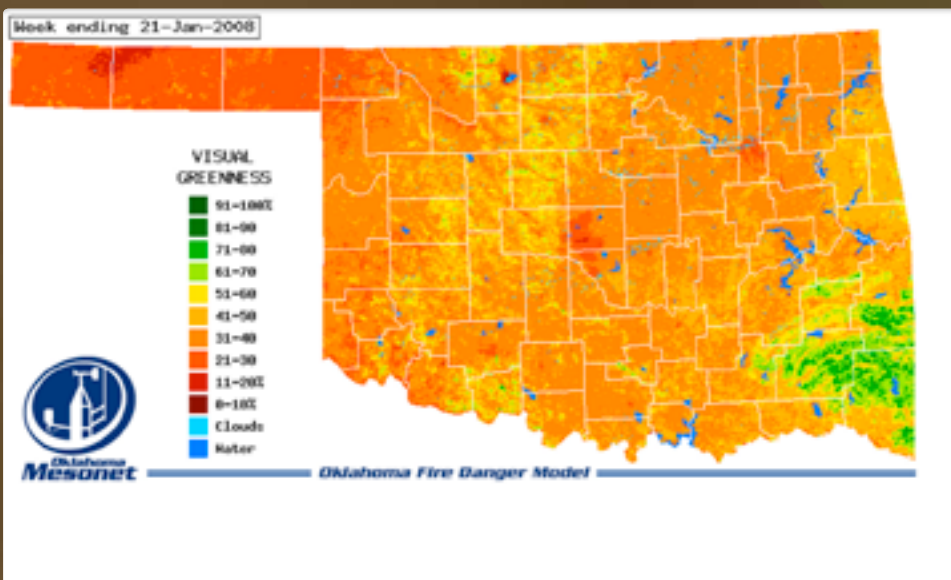
Solar radiation

- Go to <http://aqweather.mesonet.org/>
- Click on "Weather"
- Select "Atmosphere"
- Click "Sunlight"
- Choose "Contour Solar Radiation Map"
- This map illustrates the amount of sunlight that is reaching the ground. The higher the number, the greater the sunlight.



Average soil temperatures

- Go to <http://aqweather.mesonet.org/>
- Click on "Soil"
- Select "Average Soil Temperatures"
- Click the "1-Day Avg. 4-in. Under Sod" button
- Then select the "3-Day Avg. 4-in. Under Sod" button
- When the 1-day and 3-day averages are warmer than the 7-day average, your area is experiencing a warming trend.



Visual greenness

- Go to <http://aqweather.mesonet.org/>
- Click on "Forestry"
- Select "Fire Danger Model"
- Click "Fire Danger Maps"
- Choose "Visual Greenness"
- The Visual Greenness maps portray vegetation greenness as you would perceive it if you were flying high over the landscape.

CELEBRATING National Weatherman's Day

- Meet Dr. Ken Crawford -



As a child, he had no dreams of becoming an accomplished meteorologist. Rather, Dr. Ken Crawford simply wanted to succeed.

"My dad was sick my whole life and my mother was thrust upon the work world. In Texas, in the 1950s, women could not own property and were not paid much. She made a life for myself and my 2 brothers," said Crawford. "I figured if she could make it, I could make it. She was a good example."

After high school graduation, Crawford was accepted as a student trainee with the National Weather Service. This position would ultimately shape his entire career.

"For me, it was a way to pay for school because my mother couldn't afford to. She did what she could, but I needed to be independent," he said.

Crawford stayed with the National Weather Service for 28 years, working his way through college and then some. In 1961, he enrolled in the meteorology program at the University of Texas at Austin. He graduated with a bachelor of science in 1966 and immediately enrolled in the meteorology master's program at Florida State University.

After graduating with his master's degree, Crawford enrolled in the Ph.D. program in 1970 at the University of Oklahoma, but dropped out after two years. He said he quit because he wasn't able to answer the question "Why do I want a Ph.D.?"

"When you get discouraged and there seems to be no end in sight, you will not finish if you can't answer that question.

I had to answer it before I developed the motivation to complete the degree," said Crawford. He waited until 1975 before attempting the Ph.D. program again. Crawford received his doctorate in 1977 and ultimately joined the faculty at the University of Oklahoma.

As Crawford moved forward in his professional career, one childhood memory shaped his desire to help people. When he was 10 years old, the Waco tornado of 1953 ripped through his home state.

"I was about an hour's drive north of Waco in my hometown. The tornado killed 114 or 115 people. Downtown Waco took a direct hit. It was sort of like May 3 in Oklahoma City," said Crawford. "The reaction in my neighborhood was that we know these people that were affected. I just remember them all talking about it."

Crawford said he recalled this tragedy on the night of the Tulsa floods in 1984.

"The fatalities were not quite as high, the damage was higher and the human impact was roughly the same. People did not respond well," said Crawford.

In the wake of these disasters, Crawford and several colleagues were hoping to develop an effective weather warning system for Oklahoma. It was not enough for meteorologists to produce good forecasts and warnings if those warnings never made it to the people who needed it, said Crawford.

Their brainstorming helped spawn the Oklahoma Mesonet, a statewide weather monitoring network that offers its

information freely to the public. The organization also trains emergency managers, teachers and fire officials how to interpret the weather data and make informed decisions. The Oklahoma Mesonet, a joint program between OU and OSU, took years of planning.

"When the weather network was in its early stages, we thought 'Are we dreaming or are we being realistic?'" Crawford said. "And then when we got money to launch the network, it was, 'Do we know what we're doing?' Well, we've been funded, so we've got to do it and we did it well. It was because there was a good team in place."

In addition to the Oklahoma Mesonet, Crawford is most proud of his involvement with meteorology students. He has been teaching since 1989 and has been the committee chair for almost 30 graduate students. He considers these students his biggest legacy and enjoys seeing student's personal growth.

"I influenced their life. They will influence tens of thousands of lives," said Crawford. "My goal is to leave a legacy that others can build upon. If what I did doesn't survive me, I would have wasted time and resources."

As the director of the Oklahoma Climatological Survey, a Regents' Professor of meteorology at the University of Oklahoma and co-leader of the Oklahoma Mesonet, Crawford has certainly left a legacy.

"It's been a fun ride. There have been a lot of interesting talented people along the way... a lot of going against the grain. 'Oh, you can't do that, it's too big.' I'd do it even bigger if I could do it again," Crawford said.

