



# The Southern Plains Cyclone

A Weather Newsletter from your Norman Forecast Office for the Residents of western and central Oklahoma and western north Texas



*We Make the Difference When it Matters Most!*

Volume 3

Winter 2004/2005

Issue 1

## Meet Your Weatherman Karen Trammell



Hi! My name is Karen Trammell, and I am a Meteorologist Intern at the National Weather Service Forecast Office in Norman and the editor of *The Southern Plains Cyclone*.

Having lived my entire life in Texas and Oklahoma, I have experienced many kinds and types of weather – from one foot snows to F5 tornadoes to prolonged heat waves. Perhaps it is no surprise that my love of weather began and my goal to become a meteorologist was developed at a very early age – 6 years old to be exact! My parents were very supportive of my decision, as they gave me a Junior Weather Kit for my 7th birthday.

A couple of months before my 12th birthday an F4 tornado moved through the town I lived in and directly over the storm cellar my family and I were in. Although it was a very scary experience, having witnessed nature's fury first-hand only further fueled my desire to study weather. It was only a month or so after this event that I first visited an NWS office – in Amarillo, Texas.

Through junior high and high school, I took all the math and science I could to prepare myself for college. In August 1998, I enrolled at the University

See **Weatherman** on Page 2

## Laverne Cooperative Observer Given Prestigious Holm Award

By Karen Trammell, Meteorologist Intern  
Forrest Mitchell, Operations Program Leader

George W. Armor of Laverne, Oklahoma was awarded the National Weather Service's John Campanius Holm Award for outstanding service as a cooperative observer in a ceremony held November 8, 2004. Armor was one of 26 recipients of the award, given annually to deserving observers across the United States. In attendance at the ceremony were David Andra, Forrest Mitchell, and Karen Trammell from the NWS.

A 33-year observer for the NWS, Armor has taken more than 12,000 observations in support of NWS operations, rarely missing an observation. By his own admission, Armor has been interested in weather his entire life, and he became the official weather observer following the state's worst snow storm in



George and Keith Ann Armor pose with the John Campanius Holm Award presented to George on November 8th, 2004.

history, which occurred in February 1971. Although Armor has participated

See **Holm Award** on Page 7

## Weather in Review: The January 4th and 5th Ice Storm

By Kevin Brown, Senior Forecaster

The ice storm that struck northern and central parts of Oklahoma on January 4<sup>th</sup> and 5<sup>th</sup> of 2005 is reminiscent of the ice storms that occurred on December 25<sup>th</sup>-27<sup>th</sup>, 2000, and January 29<sup>th</sup>-31<sup>st</sup>, 2002. Although this latest round of ice did not produce as much widespread damage as the previously mentioned storms, it did create power outages and disruptions to travel across northern and central Oklahoma, particularly over northwest sections of the Sooner state.

During the morning hours of January 4<sup>th</sup>, ice began accumulating on vegetation, vehicles, bridges and overpasses, and many other elevated objects, near Buffalo, eastward to Alva, and southward to Watonga. Since surface air tem-

peratures were near or just a degree or two below freezing, the ice was not accumulating on main roadways due to relatively warm ground temperatures. However, as the day progressed, temperatures dropped into the 20s over the northwest one-quarter of Oklahoma, which yielded substantial ice accumulations.

By afternoon, locations in and near Laverne and Woodward began seeing tree limbs break and power lines snap under the weight of the ice. Roads became slick and hazardous.

During the early morning hours of January 5<sup>th</sup>, the persistent light rain activity over areas further south began to

See **Weather in Review** on Page 2

## Weatherman: From Page 1

of Oklahoma to officially begin my quest to become a meteorologist.

Although the meteorology program at OU was definitely challenging, it also provided many opportunities to practice meteorology outside the classroom. During my sophomore year, I began volunteering at the NWS office in Norman, and I was also hired as an undergraduate research assistant at the National Severe Storms Laboratory. That summer, I was offered a Student Trainee position at the NWS office in Norman, which I held through my last two years of undergraduate study, as well as my graduate years. I graduated Summa Cum Laude from OU with a B.S. degree in Meteorology and a Minor in Mathematics in May 2002.

After taking a little advice from mentors, I decided to continue my education at OU by studying for my M.S. degree. I was hired as a graduate research assistant on a grant that was jointly funded by OU and the National Climatic Data Center. The grant funded my graduate research on heat bursts. I completed my M.S. in July 2004 and was now ready to fully begin my career.

During May 2004, I was hired as a Meteorologist Intern at the NWS office in Norman. In addition to my regular public service duties, such as quality controlling climate data and answering phone calls, that I had already performed in my Student Trainee position, I began training to become a forecaster and served as the Upper Air team leader.

Aside from the weather, I have many interests to occupy my days off from work. I am an avid sports fan and enjoy watching or playing football, basketball, baseball, and hockey. It comes as no surprise that I follow OU sports very closely. I also like to sing, travel, watch movies, go to amusement parks, and play with my puppy Radar.

Although I have enjoyed my time in Norman immensely and have learned a great deal from my coworkers, I will be leaving the Southern Plains for the Great White North, where I will be a Forecaster at the NWS office in Chanhassen, Minnesota. Of course, my promotion means that, after this issue, you will have a new editor of *The Southern Plains Cyclone*. It has been a pleasure to serve the citizens of Oklahoma and Texas, and I know I will miss the area greatly.

## Tales, Legends, and Other Sayings

By Mike Branick, Senior Forecaster

Weather-related sayings and stories have been commonplace in many cultures since the beginning of time, many of which have been passed down through the years. Are they truth, or are they myth? Can they really be used to predict the weather? This column will examine a different popular weather saying in each issue, exploring its origins and whether or not there is any real meteorological truth upon which it might be based.

If you have heard of a particular weather-related story or saying that you've always wondered about and would like us to look into it, please e-mail your questions and requests to [Jennifer.Palucki@noaa.gov](mailto:Jennifer.Palucki@noaa.gov).

**This Issue's Topic – Can it get too cold to snow?** No! It is never too cold to snow. In polar regions, snow has fallen at temperatures as low as 40 below zero (Fahrenheit and Celsius since they are equal!). Since the lowest temperatures on record in the Oklahoma and north Texas area are -20 degrees Fahrenheit, there is no need to be concerned about it getting too cold to snow around here anytime soon!

The mythical low temperature threshold for snow derives from a matter of moisture availability - the colder the air, the less water vapor (or moisture) can be present within it. However, there is no point at which *no* moisture can be present, except at a temperature of absolute zero: -459 degrees F. (Again, no need to worry about this for awhile!). As long as there is some water vapor present, all it takes is for the temperature to drop below the saturation temperature for ice. That is the point at which water vapor condenses to form ice crystals. One additional requirement is that the air below the ice crystals be humid enough that the ice crystals survive to the ground without sublimating (the equivalent of evaporation for rain drops).

It is true that the likelihood of a given amount of snowfall decreases as the temperature decreases, since the amount of available water for precipitation is likely to be less. But in fact, there is no minimum temperature below which it becomes impossible for it to snow.

Reference: *Weatherwise*, December 1985.

## Weather in Review: From Page 1

change over to a wintry mix of freezing rain and sleet as colder air surged to the south, affecting the Altus, Elk City, Hobart, Weatherford, and Oklahoma City areas. Ice accumulations this far south were generally near or slightly below one-quarter inch, which caused only sporadic power outages, but fairly widespread hazardous driving conditions, especially on bridges, ramps, and overpasses.

What were the weather features that caused this ice storm? The features actually started coming together several days before the storm. After unusually warm conditions to end the year 2004 and start 2005, a strong cold front moved southward through most of Oklahoma and western north Texas late on January 2<sup>nd</sup> and became stationary over north central Texas and southeast Oklahoma on the 3<sup>rd</sup>. As a strong upper level storm system intensified to our west, Gulf moisture

collected near this frontal boundary. The persistent influx of moisture yielded widespread rainfall on the 3<sup>rd</sup>, some of which was heavy enough to produce minor flooding over southern, central, and eastern Oklahoma, and parts of north Texas. In addition to the moisture and approaching upper level storm system, an even stronger cold front, associated with a surge of Arctic air, was poised just north of Oklahoma.

During the early morning hours of January 4<sup>th</sup>, the Arctic air began filtering into northern Oklahoma. Although the National Weather Service issued winter weather warnings and advisories well ahead of time, we needed to answer a few important questions before determining how far south, and how long, wintry weather would be seen. First, as the main storm system moves through the

See **Weather in Review** on Page 3

## Norman Forecast Office Notebook

By Rick Smith, Warning Coordination Meteorologist

## Weather in Review: From Page 2

### Severe Weather Awareness Week.

Severe weather season is just around the corner, and to help you prepare for the upcoming springtime storms, the National Weather Service, in cooperation with the state emergency management agencies in Oklahoma and Texas, will observe the week of March 6<sup>th</sup> through March 12<sup>th</sup> as Severe Weather Awareness Week. We will provide special information during the week to help you learn more about the threats we will face this spring and ways you can protect yourself from dangerous storms. Watch the NWS Norman website for more details.

### New Coding in NWS Products.

You will see some new codes in a few National Weather Service products this year. We are implementing the Valid Time Event Code (VTEC) in Tornado and Severe Thunderstorm Warnings, as well as Severe Weather Statements. This new code is designed to help those customers who use automated procedures to collect, read and transmit NWS messages and includes more detailed information on the type of message, the beginning and ending times, etc. The coding becomes operational in tornado and severe thunderstorm warnings, as well as severe weather statements on February 8, 2005.

If you would like to see more details about VTEC, visit the VTEC website at [www.nws.noaa.gov/om/vtec](http://www.nws.noaa.gov/om/vtec).

**New NWR transmitter in Throckmorton, Texas.** Western North Texas has a new NWS Weather Radio transmitter. It is located in Throckmorton, Texas and is broadcasting on 162.425 MHz. The new transmitter will serve the counties surrounding Throckmorton County with continuous local weather information direct from forecasters at the National Weather Service.

**National Severe Weather Workshop.** The National Severe Weather Workshop is coming up March 3<sup>rd</sup> through March 5<sup>th</sup>. This year's workshop will be held at the Reed Center in Midwest City, Oklahoma, and will again feature three days of speakers, presentations and workshops on a variety of topics related to severe weather.

You can see the agenda, along with all the specific details about the workshop

at [www.norman.noaa.gov/nsww2005](http://www.norman.noaa.gov/nsww2005).

**Storm Spotter Training.** Storm spotter training is well underway and will continue across the area through the end of March. Meteorologists from the Norman Forecast Office provide spotter training at the invitation of local emergency managers to help local spotters observe severe storms safely and report their observations to local officials. In many cases, spotter training is open to the public. If you are interested in attending a storm spotter training session in your area, check the calendar at [www.srh.noaa.gov/oun/skywarn/spottertalk.php](http://www.srh.noaa.gov/oun/skywarn/spottertalk.php).

**Reporting Severe Weather.** Even with all the technology in a modern NWS office, forecasters still rely on people to let us know what is actually occurring. Even if you are not an official storm spotter, you can help us by sending us information on severe storms in your area.

There are a variety of ways to reach us:

By phone, 7am to 8pm every day – 405-360-5928

By e-mail – [sr-oun.spotter@noaa.gov](mailto:sr-oun.spotter@noaa.gov)

Web reports – [www.srh.noaa.gov/oun/stormreport](http://www.srh.noaa.gov/oun/stormreport) (These reports are instantly sent to forecasters, and are very valuable!)

We would also appreciate any pictures, images or even video you get of significant weather anytime of year!

area, which allows the continued formation of precipitation, how far south would the Arctic air move before the precipitation ends? As was seen with this event, and many others like it, the Arctic air did surge farther south, and perhaps a little quicker, than the numerical forecast models thought it would. This resulted in light accumulations of ice further south than previously anticipated. Secondly, once this Arctic air spreads over the region, how deep will it be? The depth of the cold air is critical in any winter weather situation, as it helps determine in what form the precipitation will fall. As is usually the case, the Arctic air-mass was relatively shallow to begin with, which increased the chances for receiving freezing rain, as opposed to sleet and snow. As more and more cold air filtered into the region during the 5<sup>th</sup> and 6<sup>th</sup> of January, it cold air deepened, which allowed the freezing rain to transition to sleet, and eventually light snow before ending.

Selected Ice Accumulations	
Woodward	1.50 Inches
Alva	1.00 Inch
Fairview	0.75 Inch
Taloga	0.75 Inch
Cherokee	0.75 Inch
Enid	0.50 Inch
Fort Supply	0.50 Inch
Watonga	0.50 Inch
Oklahoma City	0.25 Inch

## New Southern Plains Cyclone Editor

With Karen Trammell's departure to the Minneapolis Forecast Office, Jennifer Palucki will become the new editor of *The Southern Plains Cyclone*. Jennifer is a student meteorologist for the Norman Forecast Office and is a graduate student in the Master's program at the University of Oklahoma. She has worked in Norman for four years and previously worked in the Albuquerque Forecast Office. Welcome her to the *Cyclone* staff!

### Did You Know?

**5,444 people have attended spotter training classes over the past 3 years!**



**2002 – 1,458  
2003 – 2,068  
2004 – 1,918**

## Cooperative Observer Notes

### Holm Award: From Page 1

in many activities outside of his weather observing, in addition to raising four children and working as an attorney, he rarely missed an observation, due in large part to help from his family and friends. If an occasion arose where he or a family member could not observe and report the weather, he would hire and pay someone five dollars per morning observation to take the report for him. His dedication has been critical to keeping a continuous and reliable climatological record for the city of Laverne.

Although the NWS is the primary user of the observations he submits, many other individuals and organizations within his area also use the data. Each week, Armor writes a column for Laverne's newspaper, *The Leader Tribune*. "My editor tells me that it is one of the favorite items mentioned especially by non-residents who still own farms in the area," Armor said. Local farmers and other residents call on Armor for information about recent rains and other weather-related events. In his legal practice, he also used his weather reports as evidence in some of his cases.

In addition to his regular precipitation observations, he has contributed countless real-time spotter reports to the Norman forecast office during severe thunderstorms and winter weather events. When asked what his most memorable weather event since becoming an official NWS observer, Armor responded, "It was the Laverne tornado of May 1991...I called the weather bureau and stayed on the line with them describing the storm, until in my opinion, the tornado was getting fairly close."

Armor sees his extra spotter reports as his most important contribution to the NWS. "When one lives 180 miles from the radar site, there is a lot that can happen that is not visible to the meteorologists watching the radar," Armor said.

While Armor and his precipitation and spotter reports are invaluable to NWS operations, serving as a cooperative observer has also helped Armor. "It has given me a great deal of satisfaction in my life. I feel that it is a worthwhile endeavor, and I get a joy out of helping."

His favorite part of being a cooperative observer is having the opportunity to become personally acquainted with the people that represent the NWS, as well as having the opportunity to contribute observations in the pursuit of early weather warnings. On the other hand, the most difficult part, in his opinion, is finding a substitute observer at a moment's notice. In the event of sudden illnesses, "you need to have a person who can immediately step up to take your readings when you are gone."

Armor was born in August 1931 and raised on a farm west of Canton, Oklahoma. After graduating from high school, he attended the University of Oklahoma, where he earned a B.A. in History and a Minor in Government. He went to law school and was admitted to the bar in 1955. Armor served three years in the Air Force as a judge advocate and was stationed in overseas bases in Germany and Greece. After returning to the United States, he was an Assistant City Attorney for Oklahoma City. In 1959, Armor moved to Laverne, along with his wife, Keith Ann, and set up his own legal practice. He and Keith Ann raised four children.

The John Campanius Holm Award was created in 1959 to honor deserving cooperative observers for outstanding accomplishments in weather reporting. The award is named for a Lutheran minister who was the first known person to take regular weather observations in the American Colonies. To be eligible, observers must have served at least 20 years as a cooperative observer.

### New Observers

The NWS staff would like to welcome Billy Bankston and Bob Burgdorf to the NWS Norman cooperative observer program. We look forward to working with this new observer for many years to come.

### Award Recipients

The following observers have recently received Length of Service awards:

Letha Crispin – 35 years  
Roy Germany – 30 years  
Glen Harris – 10 years

Thank you for the hard work and valuable meteorological data you have collected. We look forward to working with all of you for many more years.

### Observers Needed

Are you interested in weather? Do you live in Apache, Arnett, Canton, Custer City, Munday, or Purcell? Call 405-360-5928 for more information about becoming an official NWS cooperative observer.

### Snow Totals

Much of northern and central Oklahoma saw snow on January 27th and 28th. Northwest Oklahoma received the most snowfall with Buffalo and Fort Supply measuring 6 inches. Totals ranged from 0.5 inch in Chickasha to 5.6 inches at Laverne.

**Remember to mail the previous month's cooperative observer forms and recording rain gage tapes by the 5th of the month!**

### The Norman NWS Cooperative Observer Program Team:

**Daryl Williams**

**Forrest Mitchell**

**Karen Trammell**

**Ty Judd**

**John Pike**

**Jennifer Palucki**



### **In This Issue:**

- ⇒ Laverne Cooperative Observer Given Prestigious Holm Award
- ⇒ The January 4th and 5th Ice Storm
- ⇒ Meet Your Weatherman
- ⇒ Tales, Legends, and Other Sayings
- ⇒ Norman Forecast Office Notebook
- ⇒ Cooperative Observer Notes

## **National Weather Service Forecast Office Norman, OK**

**Phone Number:**  
405-360-5928

**Web Page:**  
[www.srh.noaa.gov/oun](http://www.srh.noaa.gov/oun)

**Meteorologist-in-Charge:**  
Mike Foster

**Warning Coordination Meteorologist:**  
Rick Smith

**Science and Operations Officer:**  
David Andra

**Editor:**  
Karen Trammell

National Weather Service Forecast Office  
1200 Westheimer Drive, Room 101  
Norman, OK 73069

---

Check out our text-based and graphical  
forecasts for your county at  
[www.srh.noaa.gov/oun](http://www.srh.noaa.gov/oun).

---

Please share this with friends, relatives, and colleagues. Comments and suggestions are always appreciated, by phone at 405-360-5928 or by e-mail at [Karen.Trammell@noaa.gov](mailto:Karen.Trammell@noaa.gov).