Storm spotter

National Weather Service
Wichita, KS
Spring 2006 Newsletter

In this Issue

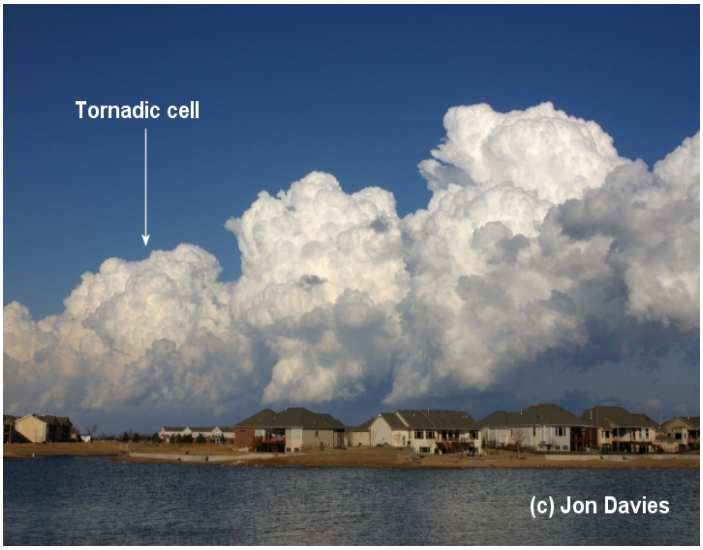

Figure 1. This photo was taken looking northeast towards Newton on January 28th. You can see a line of cumulus with some vertical development. The tornadic cloud is on the far left.

First January Tornado Since 1950 Strikes Forecast Area

By: Rob Cox, Lead Meteorologist

January has been in rare form this year with mild temperatures and very dry conditions. It even brought forth a rare tornado which affected the east side of Newton around 320 pm on January 28th. Not only was this a rare event by January standards, it was a very unique tornado. This tornado actually did not have a thunderstorm associated with it. In fact, it was most likely a cloud with a strong updraft as seen in figure 1. Believe it or not, this tornado damaged 50 cars at Conklin's car lot, and blew over a light pole. The tornado then traveled to NE 12th and Hillside where it threw a wheelbarrow into a home. At the end of its path, which was about 4 miles, it blew some shingles off a home 2 miles southwest of Walton. See figure's 2 and 3 (next page).

Figure 2. Map of Harvey county

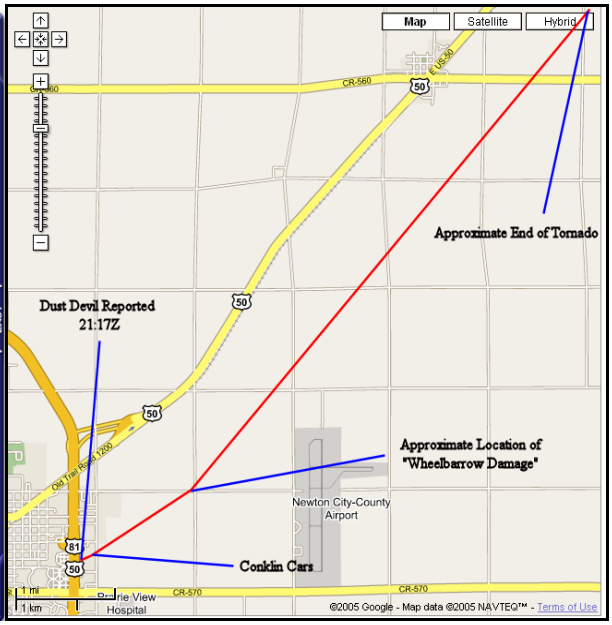

Figure 3. Path of the tornado.

The radar certainly did not show any evidence of a developing tornado. However, the radar did show some boundaries in the vicinity of the tornado that could have contributed to its development. These type of tornadoes are sometimes given the term landspout or dust devil, because they usually form from the ground and stretch their way up into the cloud. The wind speeds of this landspout/dust devil tornado was up to 70 mph which classifies it as an F0. The width of the tornado was about 50 yards.

Here are a couple of images that shows damage from the tornado.

Figure 4. Broken car window at Conklin's

Figure 5. Light pole blown over at Conklin's

Seven Tornadoes Hit Forecast Area in November

by Andy Kleinsasser, Meteorologist

On November 27th, 2005, a powerful late fall storm system spread a wide variety of weather across the central plains, ranging from heavy snow to severe thunderstorms. Seven tornadoes touched down that afternoon across East-Central and Southeast Kansas. These were the first November tornadoes to strike the Wichita forecast area since 1998. This was also the first November since 1988 that an F1 or greater tornado struck the Wichita forecast area. Between 1950 and 2005, the Wichita forecast area has experienced November tornadoes a total of eight years. Only one tornado has ever been reported in December since 1950.

Thunderstorms first developed along a surface boundary shortly after 12 pm from roughly Wichita to Arkansas City, and strengthened as they moved rapidly northeast at nearly 50 mph. Shortly before 2 pm, one such thunderstorm over Marion County strengthened to supercell status, producing the first November tornado since 1998 across the Wichita forecast area. The supercell produced four relatively small tornadoes, all rated F0 (winds less than 73 mph) from roughly Marion to Lincolnville to Lost Springs. For the most part, the tornadoes remained over open country. However, minor damage did occur to outbuildings roughly eight miles northeast of Marion. One of the tornadoes tracked 13 miles, touching down northwest of Marion and dissipating just northwest of Lost Springs. Fortunately, no one was injured.

About an hour later, another series of supercell thunderstorms developed across Southeast Kansas along a surging dryline moving northeast. Two supercells accounted for three separate tornadoes across Montgomery, Neosho and Allen counties. The fifth tornado of the day touched down just northeast of Cherryvale in Montgomery County at roughly 2:45 pm. It was a short-lived (F0) and produced no damage. Another small tornado (F0) occurred just before 4:30 pm roughly two miles southeast of Elsmore in Allen County.

The strongest tornado of the day touched down two miles northeast of Erie in Neosho County shortly after 4 pm. This tornado was rated F1 (winds 73-112 mph), producing an estimated $120,000 in damage to homes and outbuildings shortly after touchdown approximately two miles northeast of Erie. Thereafter, the tornado weakened to F0 intensity. It remained on the ground for six miles before dissipating just west of the town of Stark. Fortunately, no one was injured.

Seven tornadoes touched down across the Wichita forecast area on the afternoon of November 27th, 2005. Most were relatively small and short-lived, producing only minor damage and no injuries. However, an F1 in Neosho County did produce damage to homes and outbuildings. In terms of the number of reported tornadoes, this was the largest November tornado outbreak to occur across the Wichita forecast area since 1950.

South Central and Southeast Kansas Weather Summary

By Eric Schminke, Meteorologist

For the 2nd consecutive year, the atmosphere put on a 4th of July weekend fireworks display that overshadowed any of the man-made variant. During the afternoon and evening of the July 3rd,

severe thunderstorms broke out across Central and South-Central Kansas, unleashing 75-100 mph winds and hail as large as softballs.

The convective barrage started when a severe thunderstorm dropped nickel-sized hail on south Hutchinson at 2:10 pm. The event quickly escalated when super-cellular severe thunderstorms erupted over Barton, Rice, Reno, and McPherson counties between 3:30 and 5:30 pm. During this time, 2-4 inch diameter hail affected parts of southwest McPherson County at 4:00 pm. Most of this hail, pummeled rural areas 4 miles northwest of Inman, and 6 miles south-southwest of McPherson. No damage was ever reported.

Between 6:00 and 7:00 pm, one of the super-cellular severe storms in Reno County unleashed its power and caused disastrous and tragic results. The storm produced 80-100 mph winds on its southern end which raked south and southeast Reno County. This storm then took aim at Cheney Lake and State Park. The damage at the state park was major, and included the marina, around 125 boats, 35 campers, and an unspecified number of mobile homes. One mobile home was leveled. Total damage estimated around 12.5 million dollars. Six people were injured, all of whom required transport to Wichita hospitals. One man was killed when his fishing boat was overturned.

Figure 6. Cheney Lake storm damage

On June 30th, severe thunderstorms also proved how deserving they are of one's respect, when Southeast Kansas was hit by destructive winds and hail that reached the size of baseballs. The baseball-sized hail hit parts of Woodson County around 7:35 pm, causing around $415,000 damage to crops. As the evening progressed, the severe thunderstorms, evolved into squall lines that unleashed 80-100 mph winds. Hardest hit was Neosho County. In Chanute, large trees were uprooted with many falling onto homes and businesses. Other homes and businesses were completely unroofed. Numerous barns and sheds were destroyed. The towns of Erie and St. Paul experienced nearly identical fates. In Erie, one home was destroyed. In St. Paul, a church steeple was completely removed. Obviously, many power lines and power poles were blown down, severing power to all three towns. This round of atmospheric mayhem was responsible for $2.873 million damage to crops and property.

Severe thunderstorms are not to be taken likely. As has been stated many times at severe storm spotter talks, severe thunderstorm winds can cause considerably greater damage than many tornadoes. The events of June 30th and July 3rd proved this point in dramatic fashion.

Another product of severe convection that drew considerable attention in 2005 was the flash flood. The first major event occurred June 8th and 9th from around 8:00 pm the evening of the 8th thru the early afternoon of the 9th. Hardest hit were Butler, Harvey and Sedgwick counties.

In Butler County, two families required rescues from their homes 4 miles north of Whitewater. Numerous streets were barricaded in and around El Dorado, and creeks overflowed. The most

notable occurred 2 miles northeast of Elbing, where Henry Creek overflowed, closing 150th Street as well as the 150th Street Bridge. In Harvey County, widespread 12-15 inch rainfalls in approximately 10 hours resulted in evacuations in Newton, where most streets were barricaded. Perhaps the worst flooding in this event occurred in Sedgwick, where an estimated 147,515 acres of farmland were inundated totaling an estimated $1.5 million damage.

In Sedgwick County, 19 homes were flooded, of which 12 were mobile. These homes were completely surrounded by flooding; which isolated their occupants from the outside world. In Mt. Hope, people required rescue from their homes. Many streets and highways were barricaded, especially across Northern Sedgwick County, where flash floods reached 6 foot depths. The flooding inundated around 75,000 acres of farmland. Total property damage was estimated at $150,000.

Nearly rivaling the June 8th-9th flash flood event was one that occurred on August 25th, when slow-moving thunderstorms drenched much of South-Central and Southeast Kansas with 6-10 inch rains in a 12-hour period. The higher amounts occurred in Butler, Wilson, and Woodson counties.

In Butler County, the most serious flash flooding occurred in El Dorado, where much of the town required evacuation with many others requiring rescues from stranded vehicles. In Wilson County, all roads and highways leading into Coyville (located in Northwest Wilson County) were flooded, preventing all access into or out of town. In Woodson County, 10 miles south of Yates Center, the flash flooding caused 9 horses to disappear. Two families required rescues from nearby homes.

Relatively speaking, it was a quiet year from a tornado standpoint. As of December 12th, 40 tornadoes occurred in the Wichita County Warning Area. Of this total, the strongest was an F3 which occurred on April 21st. This tornado possessed a lifespan of 11 minutes from 5:54-6:05 pm, rotational velocities of 160-220 mph, a path 5 miles long and around 200 yards wide. The tornado touched down in Neosho County, 3 miles south of Galesburg. The tornado destroyed two mobile homes, two barns, two out-buildings, one garage, one shed, unroofed one home (collapsing two walls in the process), and dislodged one home from it's foundation. The tornado caused about $200,000 damage.

Winter 2005-2006: A Season of Temperature Extremes

By Eric Schminke, Meteorologist

So far, winter 2005-06 has been a study in extreme temperatures across Central, South-Central, and Southeast Kansas.

Although astronomical winter in 2005-06 commenced on December 21st at 12:35 PM CST, meteorological winter "jumped the gun" by just over 3 weeks when, on November 28th, the first blast of cold air invaded Kansas, sending temperatures into the 10-20 degree range across the area by the morning of the 29th. This first "Arctic invasion" persisted nearly 2 weeks, a situation exacerbated by northwest winds that occasionally reached 40 to 50 mph. In fact, this first Arctic

invasion played a vital role in uncharacteristic November convection that produced 7 weak tornadoes and 1.00-1.75 inch diameter hail on the 27th.

On December 5th, a reinforcing shot of Arctic air surged across Kansas. This Arctic intrusion would be more potent, and would generate considerable attention from a climatic viewpoint in that a few areas experienced their first sub-zero temperatures since early February, 1996 – nearly ten years earlier. One such location was Wichita where, on the morning of December 8th, the mercury dropped to 1 below zero. It was the first time Wichita had experienced temperatures venturing into sub-zero territory since February 4th, 1996, when the city chilled out with a low of 7 below.

The region would thaw fairly quickly, for deepening low pressure along the northern high plains would push the Canadian high pressure east, enabling warm, westerly winds to return to Kansas. Just three days later, on the 11th, under sun-drenched skies, the mercury soared into the lower 60s. However, the "spring" thaw would be short-lived, for on the 14th, a strong cold front would invade Kansas, and this time, a winter storm would result that would achieve, in some instances, record-setting proportions.

In the wake of the cold front, Canadian high pressure settled southeast into the Northern Plains. As the high pressure moved east of the region, abundant moisture migrated north from the Southern Plains, and with a slow-moving weather system approaching from the southwest, the stage was set for significant snows across the region for the weekend of December 17th and 18th.

On the 17th, snow accumulated to 3-5 inches across Central and South-Central Kansas. At Wichita's Mid-Continent Airport, 5.5 inches was measured. This would bring the December monthly snowfall total to 7.5 inches, enabling 2005 to gain admission into the top-10 snowiest Decembers on record. Later that night, we had more flurries, which produced a tenth of an inch of additional snowfall. This brought the final monthly total to 7.6 inches, which became the 8th greatest December snowfall on record.

The freshly fallen snow played a vital role in what would be a string of 5 days of gloomy weather. A low pressure trough developing near the Front Range enabled much warmer air to override the much colder, sub-freezing air beneath, shrouding the region in fog and very low clouds.

On December 22nd, the gloomy weather finally broke, as the deepening low pressure trough draped across the High Plains induced south winds across the area. The wind speeds increased markedly into the 20 to 30 mph range. This marked the beginning of a prolonged warm spell, during which all of Central, South-Central, and Southeast Kansas saw afternoon temperatures ranging from the mid 50s to the mid 60s and early morning lows generally ranging from the upper 20s to the lower 30s thru New Year's Eve. This combined in an average temperature around the mid 40s, which was about 10 and 20 degrees above normal during this final 10-day stretch of 2005. Little did anyone know that the atmosphere over Kansas was just getting "warmed up" for what would be a historic January in 2006.

Typically, January is the coldest month of the year, but not in 2006. In fact, it seemed more like spring, as Southeast Kansas soared into the lower 70s on New Year's Day, while most of Central and South-Central Kansas warmed into the 60s. Chanute set a record high for January 1st when the mercury reached 73 degrees. With a low of 41, this produced an average temperature of 57 degrees, a staggering 26 degrees above normal. Chanute would record above-normal average temperatures every day except on the 10th, when a strong cold front surged south across the state. However, Wichita, Salina, and Russell would experience above-normal temperatures the entire month.

Monthly average temperatures for January were amazing. Wichita averaged 43.2 degrees, the warmest January on record since climate record-keeping began on July 1st, 1888. The previous warmest January was in 1933, when the average temperature was 42.5 degrees, which is when the Dust Bowl Era was about to begin. Surprisingly, Wichita set only one temperature record, when the high reached 69 degrees on the 3rd. Therefore, the key was persistence. Wichita reached highs between 60 and 70 degrees 13 times, including six times in an eight-day span from the 24th thru the 31st. Wichita reached between 50 and 60 degrees 13 times as well, and reached a high of 40 degrees each day, and recorded a low colder than 20 degrees only once, when a low of 17 was recorded on the 21st.

Salina's January temperature statistics were equally impressive, averaging an even 43.0 degrees for the month. Salina reached highs of 60 degrees or greater 13 times, including a record-setting 72 degrees on the 7th, which shattered the mark of 65 set in 1965. Salina set a second record high temperature on the 3rd, when 67 degrees was reached; bettering the mark of 65 set in 1997. A third record high was tied on the 14th, when a high of 64 equaled the mark set in 1986. Salina also set five warmest minimum temperature records, including three on consecutive dates. The records were: 34 degrees on the 4th, 38 on the 8th, 42 on the 26th, 38 on the 27th, and 42 on the 28th.

Russell's average temperature was 41.8 degrees in January. It set four record high temperature marks: 77 degrees on the 3rd, which burned the previous record of 67 degrees set in 1955; 60 on the 6th, which broke the mark of 54 degrees set in 1955; 72 on the 7th, which edged out the mark of 71 set in 1965; and 69 degrees, which shaded the mark of 68 set in 1999. Like Salina, Russell also set five warmest minimum temperature records: 33 degrees on the 2nd, 35 on the 4th, 36 on the 8th, 35 on the 18th, and a balmy 40 degrees on the 26th.

With temperatures this warm, it shouldn't be surprising that precipitation was scarce in most areas. Wichita measured only 0.11 inch, narrowly missing admission into the top 10 driest Januaries by a mere 0.01 inch. Salina measured only 0.14 inch, and Russell a 0.10 inch. The exception was Chanute, where just over 1 inch (1.01) was measured. However, this total was deceiving in that 0.90 inch occurred on the 10th when a winter storm buried much of southeast Kansas with 10-15 inches of snow. In fact, the snow was so intense that thundersnow was reported in Coffeyville.

The prolonged warm, dry weather posed fire hazards for many areas, especially in Central and South-Central Kansas. The situation was magnified considerably by winds that frequently reached 30 to 40 mph, with occasional gusts to 50 mph.

After starting off very warm, February has seen winter return to the region. This has been a result of a very deep area of low pressure entrenched over the eastern half of the country which has enabled Canadian cold fronts to venture into the neighborhood. So far, the cold fronts have traversed the region in such rapid succession that gulf moisture hasn't been able to migrate sufficiently north to produce any precipitation in Kansas.

Any questions regarding climate statistics (especially the proper interpretation of outlooks, may be brought to the attention of the author of this article.

New Graphical Hazardous Weather Outlook Coming

by Jim Caruso, Lead Meteorologist

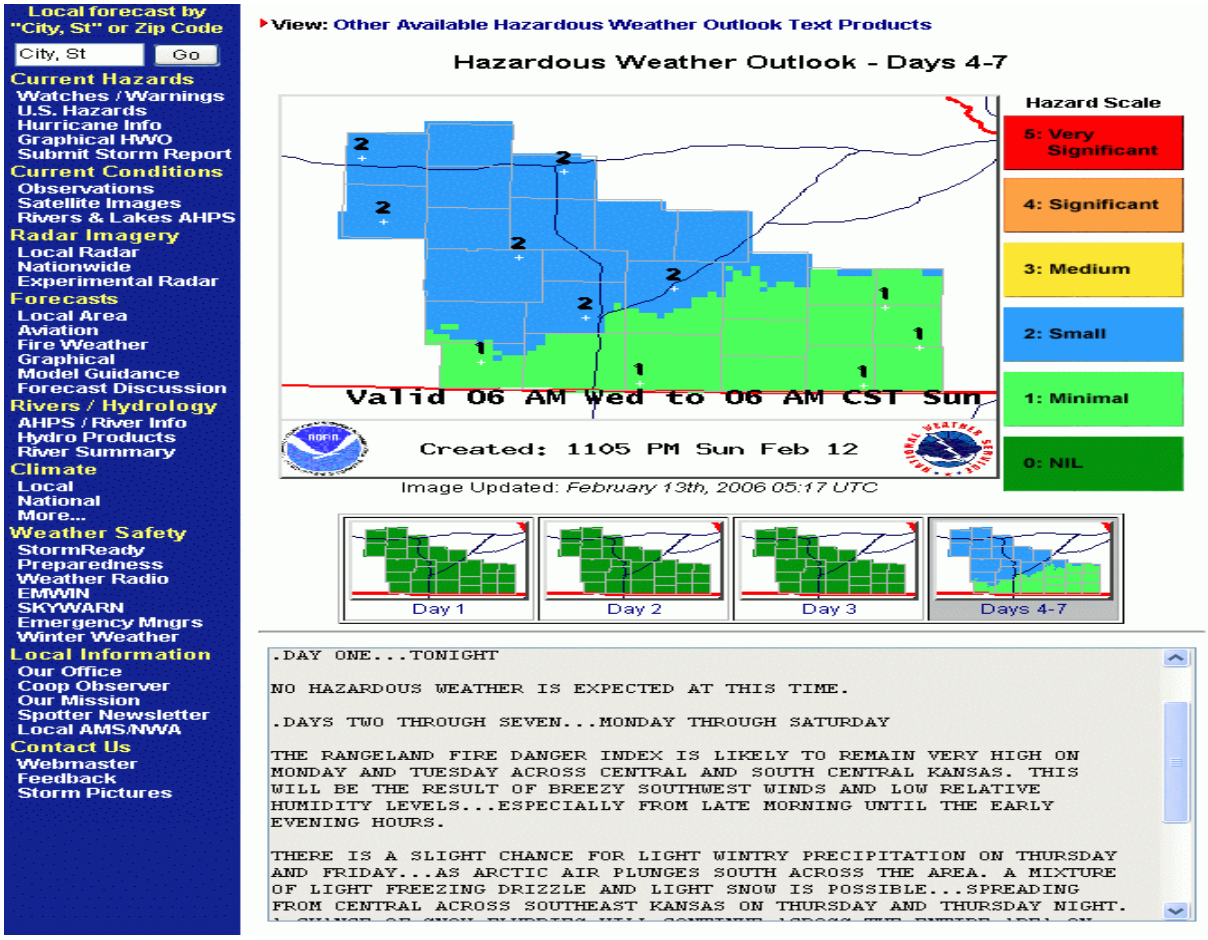

Figure 7: Test Snapshot of the new Graphical Hazardous Weather Outlook issued on Sunday evening, February 12, 2006.

In Mid March 2006, the National Weather Service in Wichita plans to introduce a new Graphical Hazardous Weather Outlook to its website. We are streamlining the generation of our graphics for the Hazardous Weather Outlook to our webpage from our Graphical Forecast Editor database. In addition, our new Graphical Hazardous Weather Outlook (Figure 7) will now contain 4 different graphics for the following days: Day 1, Day 2, Day 3, and Days 4 through 7.

Each image will contain a color shading(s) across our county warning area corresponding to a Hazard Level Scale, which will represent the overall threat to life or property on the given day. The Hazard Level Scale (see legend in Figure 7) will range from NIL (or no hazardous weather expected) to Very Significant on any given day. If the user clicks on any of the Hazard Level buttons within the legend to the right of the main image window, it will take them to a page that contains a large table which shows the definitions of each hazard level and the weather conditions which trigger each level.

The Text Discussion below the graphic images will contain the What, When, and Where of any hazardous weather threat(s) which may include the following:

- **Convective Weather**: thunderstorms, large hail, damaging winds, or tornadoes. May also be issued for strong storms that may approach severe limits.
- **Winter Weather**: Snow, sleet, freezing rain, or a mixture of these elements, blizzard conditions, or ice storms.
- **Non Precipitation**: strong winds, excessive heat or cold, dense fog or blowing dust
- **Flooding**: When flooding, flash flooding or river flooding is possible.

A Spotter Activation Statement will continue to be located at the bottom of the text discussion. This statement is an estimate of whether or not spotter activation will be necessary, mainly for the Day 1 outlook. It alerts County Emergency Managers to be ready to mobilize spotters if necessary and gives him/her a subjective idea of the threat involved.

This product is issued on a daily basis year-round. The entire seven day Hazardous Weather Outlook is issued at 530 am cst/cdt. This product may also be updated as needed. The Hazardous Weather Outlook is issued for the 26 counties that encompass the National Weather Service Wichita county warning area. It is intended to give users in Central and Southeast Kansas an idea of possible hazardous weather during the next 7 days. The product is designed primarily as a planning tool for decision makers potentially impacted by hazardous weather. The target audience includes: state/local emergency managers, storm spotters, government agencies, media, schools, business managers, and the general public.

One Inch Hail Field Evaluation Extended into 2006

by Chance Hayes, Warning Coordination Meteorologist

The one inch hail field evaluation was deemed a success across the state of Kansas. Therefore, National Weather Service Headquarters has given the offices that serve the state of Kansas the green light to continue the evaluation during the 2006 severe weather season. This means that you will not receive a severe thunderstorm warning until the NWS feels hail of one inch in diameter is possible. However, for hail events that fall between ¾ and 1 inch, you can expect to see a Significant Weather Alert issued.

By raising the hail criteria, we are trying to decrease the number of warnings you receive during a given severe weather event. We are anticipating that you will then pay closer attention to the warning, since it has a higher likelihood to produce injuries and damage. If you have any thoughts on this subject, please feel free to send them to; Chance.Hayes@noaa.gov or the following address: Chance Hayes, 2142 S. Tyler Rd., Wichita, KS 67209.

Significant Weather is Occurring What Do You Do?

By Dick Elder, Meteorologist in Charge

Over the years, as we go out and give Severe Weather Spotter Talks, I have had the opportunity to visit with many of you face to face. Then working severe weather events, I have had the opportunity to talk with many more of you on the phone, as we call to find out "what's going on" where you live. During these conversations, I hear the same thing over and over. When I see you at Spotter Talks, conversations typically turn to big storms that happened in the past, and folks say "I was surprised you didn't call." I have also heard you say, "one of your folk's called," and then you go on about what was reported. During events we will be tracking storms and see they are approaching you, we will occasionally make the call to you, and then we receive comments like "I figured you would be calling." As I hear these comments, I think to myself, why don't folks call us if they see something significant?

As I think about this, I figure the reason people are hesitant to call us is 1) They are afraid they will be bothering us, or 2) They figure we already know what's going on, or 3) They don't think their report matters. I call these "The 3 Myths about Weather Spotting" and want to address each.

Myth #1 – If I call the Weather Office with a report, I am bothering them. Please remember you are NEVER bothering us when you call. As a matter of fact, if you call us, it makes our operation that much more efficient and we increase our ability to protect life and property. When you call us, it saves us from having to see what observers we have under a particular storm, then look up the name of that person and telephone number, and then dial it. We appreciate when you call us. Please keep the telephone number **1-800-367-5736** close by the phone and call anytime that significant weather is occurring. Besides seeing a tornado, remember we want to know about high winds (try to guess the speed), Hail (penny size or larger), very heavy rain, and flooding. In the winter, snowfall and depth reports are always information we need. Don't forget that.

Myth #2 – They figure we already know what is going on. Please don't ever think this. As you all know we utilize a very powerful weather radar, but like anything, it has its limitations. It can show us storm structure at the level the beam penetrates the storm. The radar beam goes straight and the earth curves, when one gets about 70 miles from the radar we are looking through the storm at about 10 thousand feet above the ground. As far as knowing what's going on at the ground we are clueless unless we hear from one of you. We need your information. It gives the warning person here validation as to what the radar is showing. The real time reports you provide is what gets people to take action to protect life and property. If you see significant weather, give us a call. We will ALWAYS appreciate the report.

Myth #3 – They don't think their report matters. Nothing could be further from the truth and to illustrate this, I want to explain to you how your report is used. Whenever we get a report from any of you, we immediately enter it into what is called a "Local Storm Report." This report includes the county you live in, along with your location, what the weather event was that you reported, then the date and time that it occurred. We send this out so the media has access to this information. In addition, all the insurance companies maintain archives of these reports. Why do you think they do that? It's so they have documentation of where significant weather occurred. Then when people file weather related insurance claims, they compare the claim to what was

reported in that area to determine whether or not the claim is valid. With these things in mind, I think you can see just how important your report is.

So this severe weather season when thunderstorm clouds are headed your way, please be sure you have our telephone number handy and whenever you see something significant give us a call. If a storm blows through overnight and you wake up the next morning and see tree limbs down or hail damage to a field when driving around, give us call. We appreciate the reports and together we will do our best to protect life and property.

2005 Cooperative Observer Awards

By Gloria Dill, Administrative Assistant

The following Cooperative Observers were presented 2005 Length of Service Awards by the National Weather Service. We would like to thank and congratulate them for their dedication and volunteering their time in providing us with climatic data. It is greatly appreciated!!

Observer	Station	Years	Service	Given By	Date Presented
Scott Gutsch	Lincolnville	10	Precipitation	Joe Rosner	2/8/06
Richard & Karen Fulk	Hesston	10	Precipitation	Joe Rosner	2/10/06
Michael Gillen	Willowdale 1SW	10	Precipitation	Joe Rosner	4/27/05
June Carsons	Parsons 8 E	10	River	Leon Wasinger	6/16/05
Larry Vierthaler	Zenda	10	Precipitation	Joe Rosner	3/25/05
Darla Sue Loyd	Sedan	20	Precipitation Temperature	Leon Wasinger	12/14/05
Norma Jean Patton	Peabody	20	Precipitation	Dick Elder & Joe Rosner	9/24/05
Richard Robbison & Staff	Halstead 3SW	20	Precipitation	Joe Rosner	7/27/05
Billie Heitzenrater	Beaumont	40	Precipitation	Dick Elder Leon Wasinger	9/24/05
Vernon Hickman	Barnard	40	Precipitation River	Dick Elder Joe Rosner	6/8/05
Mary Wilson	Lincoln 1 ESE	45	Precipitation Temperature	Dick Elder Joe Rosner	7/23/05

On Saturday, September 24, 2005, the National Weather Service (NWS) office in Wichita, KS held a Cooperative Observers Appreciation Day where our observers and their families were invited to our office to meet and ask questions. The NWS Staff members demonstrated how our data was used, and gave a tour of our office. Two Length of Service Awards were also presented. Refreshments were served to the 35 guests in attendance. NWS staff members present were: Meteorologist in Charge (MIC) Dick Elder, Data Acquisition Program Manager (DAPM) Joe Rosner, Hydro Meteorological Technician (HMT) Leon Wasinger, Administrative Assistant Gloria Dill, Service Hydrologist Janet Spurgeon, Lead Met. Kevin Darmofal, Met. Tim Sedlock, and Met. Intern Chris Bowman.

Heat Index Chart

Air Temperature (F)	Relative Humidity (%)																
↓	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
115	111	115	120	127	135	143	151										
110	105	108	112	117	123	130	137	143	150								
105	100	102	105	109	113	118	123	129	135	142	149						
100	95	97	99	101	104	107	110	115	120	126	132	138	144				
95	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136		
90	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122
85	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102
80	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88

Apparent Temperature (what the air feels like in the shade with light wind condition)

Exposure to full sunshine can increase Heat Index values by up to 15 degrees. Also, strong winds, particularly with very hot, dry air, can be extremely hazardous. **Drink a lot of water!**

Heat Index / Heat Disorders

105-130 degrees... Sunstroke, heat cramps, or heat exhaustion **likely**, and heatstroke possible with prolonged exposure and/or physical activity.

90-105 degrees... Sunstroke, heat cramps and heat exhaustion **possible** with prolonged exposure and/or physical activity.

Comments and suggestions are always welcome.
Please phone, e-mail or mail us at:
National Weather Service
2142 S. Tyler Rd.
Wichita, KS 67209
316-942-8483
w-ict.webmaster@noaa.gov
You can also view this newsletter on-line at:/www.crh.noaa.gov/ict

Editor and Layout: Rob Cox