

# STORM FURY!

OCTOBER 2008

## 2008 SEVERE THUNDERSTORM SEASON HIGHLIGHTS

BY: ANDY KLEINSASSER, GENERAL METEOROLOGIST

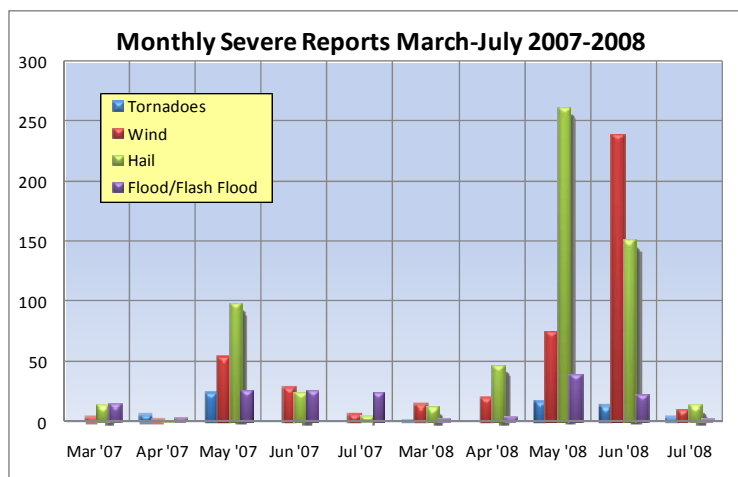
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The spring/summer 2008 severe weather season proved very active across Wichita's County Warning Area (CWA), which encompasses portions of central, south-central and southeast Kansas. Tornadoes, large hail, damaging winds and flooding/flash flooding inflicted nearly \$5 million in property damage from March-July across the area. There were two severe weather peaks: one from late April through early May, and another from late May through roughly mid June.

The 2008 season was much more active than 2007, especially during the months of May and June, as the graph to the left illustrates. For instance, 361 occurrences of severe weather were reported from March-July 2007, while a whopping 945 occurrences of severe weather were reported from the same time period in 2008. Over 60% of those 945 severe reports occurred during a very active period from roughly May 20<sup>th</sup> through June 20<sup>th</sup>, 2008, when numerous strong upper level disturbances and associated fronts passed over the area. For the



**Dramatic shelf cloud associated with a bow echo as it passed over Great Bend during the afternoon of May 6th, 2008. Photo courtesy of KSNW Television. The storm produced 60 mph winds.**



**Monthly severe weather reports March-July 2007-2008. Notice how much more active 2008 was compared with 2007, especially during the months of May-June.**

most part, large hail and damaging wind reports dominated each severe weather episode in 2008.

Eight severe thunderstorm-related injuries were reported from March-July 2008, a very low number considering the amount of severe weather that occurred. There were no known fatalities. It would be nearly impossible to cover all the numerous significant severe weather events from March-July 2008 in this article, so a sampling of pictures with captions from the more

significant events will be provided throughout this newsletter.

## SPRING & SUMMER PROVE WET & WILD

BY: ERIC SCHMINKE, GENERAL METEOROLOGIST  
& MARY-BETH SCHRECK, GENERAL METEOROLOGIST

“When it rains, it pours.” That ages-old expression has been proven most emphatically this year. Due primarily to monthly record-setting rainfalls in May and September, Wichita is on pace to experience their wettest year on record!

After a rather uneventful March and April, during which the Air Capital measured a somewhat mediocre 4.90 inches of rain at Mid-Continent Airport during the 2-month period, nature began to “shower” Wichita with all kinds of attention. Atmospheric mayhem erupted in May, when a record-swamping 13.14 inches of rain inundated the Air Capital, breaking the previous May record of 11.22 inches set way back, surprisingly enough, in 1935, when the Dust Bowl had hit full stride. Thus 2008 had become the 2<sup>nd</sup> wettest spring on record with 18.04 inches; being only surpassed by 1944 during which 19.01 inches swamped the city.

Summer arrived in a foul mood, when 7.42 inches doused Wichita, and although this wasn’t enough to enable 2008 to gain admission into the “Top-10” wettest Junes, the May/June total of 20.56 inches had sump pumps working triple overtime. Nature then eased up on the throttle with 3.82 and 3.00 inches of rain measured in July and August, respectively.

Then September arrived and suddenly, it appeared Niagara Falls had moved to South-Central Kansas. Showers and embedded thunderstorms produced 1.43 inches total on the 5<sup>th</sup> and 6<sup>th</sup>, but all this did was ‘wet’ nature’s appetite for more rain; *much* more rain. After numerous showers produced 0.49 inch on the 11<sup>th</sup>, the faucet was turned on *full-throttle* on the 12<sup>th</sup> and left in that position throughout the day and night. By the time the 12<sup>th</sup> had handed off the baton to the 13<sup>th</sup>, a *colossal 10.31 inches* of rain had overwhelmed Mid-Continent Airport. Rainfalls across West and Northwest Wichita frequently reached between *7 and 11 inches*. Lake Wichita had started to form.

This staggering storm surge had already made 2008 the wettest September on record with 12.41 inches to that date, leaving the previous September record-holder, 1999 with 10.69 inches, in it’s wake by 1.72 inches, and the month was *only 40% completed*. The stupendous rainfall obliterated the previous 24-hour record of 7.99 inches set *way back* on September 6<sup>th</sup> & 7<sup>th</sup> 1911, a record that had stood for *97 years*. The following is a ‘Water Log’ of the historic September rainfall:



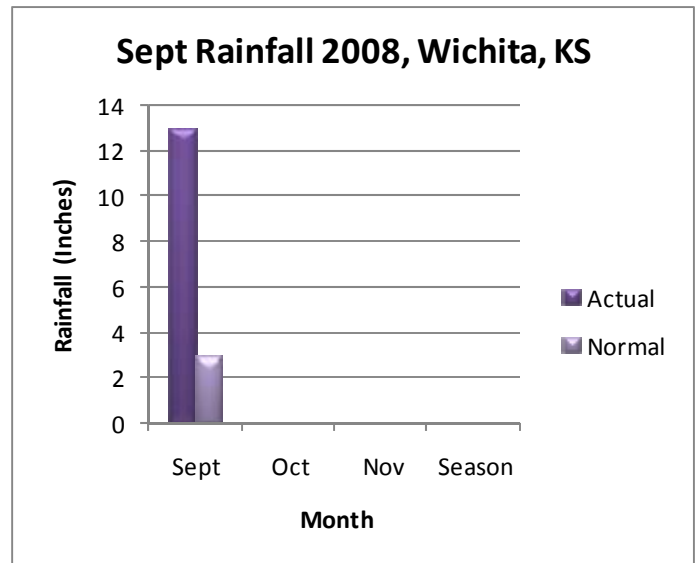
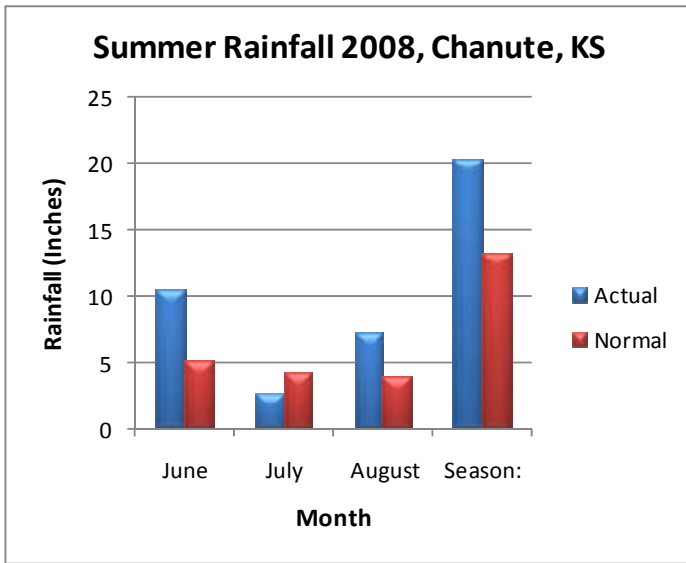
**A strong cold front erupted numerous strong to severe storms over portions of south-central and southeast Kansas on June 12<sup>th</sup>, 2008. Pictured above is damage from an EF1 tornado that touched down northeast of Winfield in Cowley county during the evening hours. Additionally, hail as large as baseballs and winds to 80 mph affected portions of southern Sumner county during the early morning hours of the 13<sup>th</sup>.**

**GREATEST 24-HOUR RAINFALL:** 10.31 INCHES ON THE 12<sup>TH</sup>. (Previous record: 7.99 inches on September 6<sup>th</sup> & 7<sup>th</sup>, 1911)



**GREATEST SEPTEMBER RAINFALL:** 12.96 INCHES. (Previous record: 10.69 inches in 1999).

**Powerful thunderstorms, some of which were supercells, ravaged central Kansas during the late afternoon and evening hours of June 11<sup>th</sup>. Several tornadoes touched down, the strongest of the season being an EF3 that affected locations just south of Salina through just south of Solomon (left figure). Additionally, hail as large as baseballs and softballs pummeled the city of Salina, as well as portions of Ellsworth county.**



**4<sup>TH</sup> WETTEST MONTH EVER:** 12.96 INCHES. Surpassed by June, 1923 (14.43 inches), July, 1950 (13.37 inches), and *May, 2008 (13.14 inches)*.

**4<sup>TH</sup> WETTEST FALL:** 12.96 INCHES. Surpassed by 1998 (15.87 inches), 1973 (13.80 inches), and 1985 (13.15 inches).

The 0.53 inch measured on the 13<sup>th</sup> had sandbagged 2008’s lead over 1999 for ‘Raining’ King of all Septembers by a 12.94 inch to 10.69 inch margin, a 2.25 inch differential, *and the month wasn’t even half over*. However, the spigot was turned off, as only 0.02 inch was measured the rest of the month. However, when September had signed off, 47.16 inches of rain had been measured at Mid-Continent Airport in 2008 through September 30<sup>th</sup>. This is 0.44 inch *ahead* of the current rainfall record-holder, 1951, during which 46.72 inches had been measured through September 30<sup>th</sup>.

Nature ‘showered’ Southeast Kansas with ample attention as well. In late spring and early summer, a May filled with atmospheric mayhem produced a storm surge of Hurricane Katrina proportions, inundating Coffeyville with 12.11 inches (the greatest 1-month total based on available climate records) and Chanute with a 7.09 inch soaking. June was a 10-karat gem for both towns when another 10.45 inches drenched Chanute (their 5<sup>th</sup> wettest June on record) while 10.05 inches swamped Coffeyville. The 2-month totals for both towns: Coffeyville: *22.16 inches*. Chanute: *17.54 inches*. By now a 6<sup>th</sup> Great Lake had formed in Southeast Kansas.

Central Kansas compiled quite water log, too. Strong-severe thunderstorms romped through Russell often this summer, with 6.83 inches and 8.07 inches soaking the town in July and August, respectively. It was the 2<sup>nd</sup> wettest August on record, being surpassed only by 1969 during which Russellites were thrilled by 13.30 inches of rain. Salina was able to crack the “Top-10 Wettest Septembers” on record by measuring 5.02 inches, an 8<sup>th</sup> place ranking.

In Southeast Kansas, Coffeyville experienced their wettest September on record with 5.82 inches, however their available climate record only dates to March, 2003.



**Numerous severe thunderstorms developed across south-central and southeast Kansas during the afternoon and evening hours of May 1<sup>st</sup>, 2008, ahead of a strong dryline and cold front. Hail up to the size of tennis balls and several relatively weak tornadoes occurred across south-east Kansas. Furthermore, winds up to 100 mph caused considerable damage across northern Greenwood county. To the left is a photo of the southern end of that same storm as it approached Eureka in Greenwood county. Photo courtesy of Jim Reed.**



**Flooding near 20th and Maize Road in West Wichita on September 8th, 2008. Photo courtesy of Brad Ketcham.**

Although temperature statistics didn't draw nearly the attention as their precipitation cohorts, seven September records were tied or set nonetheless. The first week of September was unusually cool, especially from a high temperature standpoint. On the 3<sup>rd</sup>, Russell only reached 64 degrees, bettering the mark of 65 set for the date in 1972. The wet weekend of the 5<sup>th</sup> and 6<sup>th</sup> produced the following record coolest high temperatures:

**On the 5<sup>th</sup>:** Wichita only reached 63 degrees, breaking the previous record of 68 set in 1962. Salina's high of 68 tied the record also set for the date in 1962.

**On the 6<sup>th</sup>:** Salina only reached 61 degrees, shattering the previous record of 69 set in 1996. Russell only reached 61 degrees, shattering the previous record of 67 degrees set in 1993. Chanute only reached 62 degrees, shattering the previous record of 68 set in 1993. Wichita only reached 62 degrees, breaking the previous record of 66 set way back in 1920.

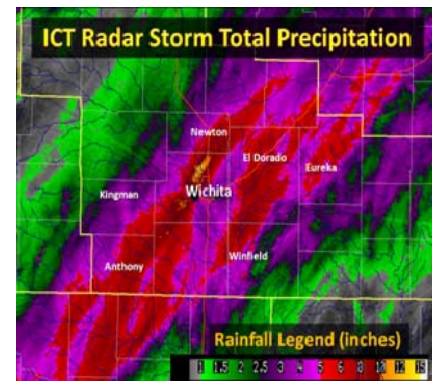
## SEPTEMBER 12TH RECORD DELUGE

BY: JERILYN BILLINGS, METEOROLOGIST INTERN

A record amount of rain fell on the Wichita area September 12<sup>th</sup>, 2008. The National Weather Service (NWS) office at the Wichita Mid-Continent Airport measured 10.31 inches of rainfall in 24 hours. This broke numerous records, including the rainfall record for the day, and the most rainfall in a 24-hour period, which was 7.99 inches set on September 6-7, 1911.

All of the right ingredients came together to create this record event. A stationary boundary draped northeast to southwest over the state interacted with the remnants of Tropical Storm Lowell that were streaming northeast from the Baja, Mexico coast. This interaction worked together and allowed enough moisture and lift to keep showers training along in one location. Unfortunately this location was centered over Sedgwick County, with the highest rainfall totals recorded over the flood prone west side of Wichita.

Wichita and surrounding communities' city street sewers could not keep up with the deluge of rain, and many area roads were closed because of high water. The height of the flood waters peaked during Friday morning rush hour in Wichita, causing a headache for many area motorists. Over 100 vehicles were stranded due to the high water. There were also many homes flooded during the event, many of which were located along the Cowskin Creek and other small creeks located on the west side of Wichita. According to the Wichita Eagle, over 3 million dollars of property damage occurred in the city of Wichita alone. The flooding caused area schools to dismiss early, and other educational and community activities were cancelled or postponed.



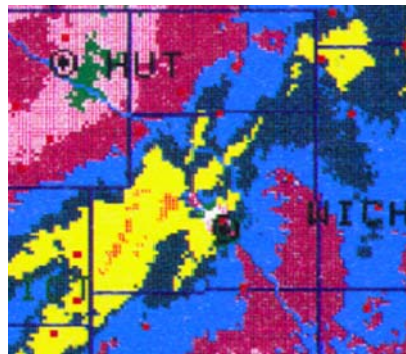
**Radar-derived storm-total September 12th, 2008.**

In addition to the street flooding that many areas saw, numerous rivers throughout the county warning area (CWA) also

experienced flooding including the following rivers/creeks: Cowskin, Arkansas, Ninnescah, Chikaskia, Cottonwood, Whitewater, Walnut and Neosho. The Walnut River went into the major flood category, cresting near 32 feet, forcing visitors attending the Walnut Valley Festival held near the Walnut River in Winfield to seek higher ground.

Needless to say, September 12<sup>th</sup>, 2008 will be a day that residents in south-central Kansas will not soon forget.

**The image to the right, centered on Sedgwick County, is a view of the 6 to 9 inch totals that fell just west of the radar during the Halloween 1998 Flood. The highest rainfall totals were concentrated over the Cowskin Creek Basin.**



## THE INFAMOUS HALLOWEEN FLOOD OF 1998

BY: JANET SPURGEON, HYDROLOGIST

The evening of October 30th, 1998 was the start of a long weekend of widespread flooding rains impacting central, south-central and southeast KS. Common in the minds of most people was the question, "When was it going to stop raining?" By November 1st, rainfall amounts of 4-8 inches were common in central Kansas, with 6-10+ inches being recorded across south-central and southeast parts of the state.

### Rivers in Flood

As a result, record flooding took place on the Whitewater, Cottonwood, Walnut, Cowskin and Arkansas Rivers. The following indicates area river crests:

#### Whitewater River

|            |                     |
|------------|---------------------|
| At Towanda | 30.53 ft on 11/1/98 |
| At Augusta | 34.95 ft on 11/1/98 |

#### Arkansas River

|                  |                     |
|------------------|---------------------|
| At Derby         | 16.60 ft on 11/1/98 |
| At Arkansas City | 28.89 ft on 11/3/98 |

#### Walnut River

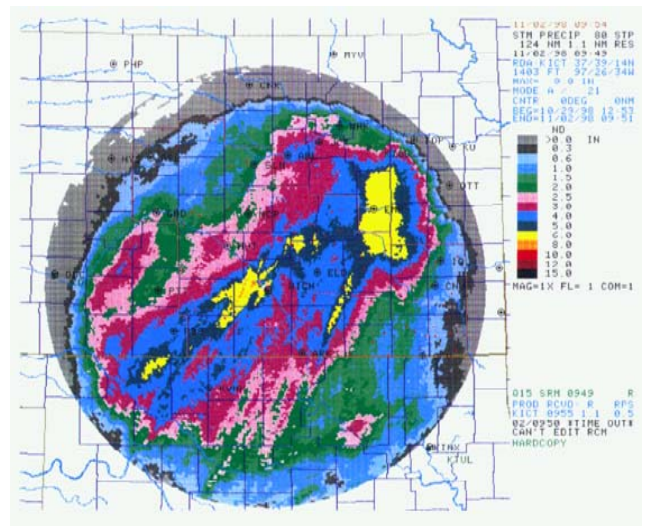
|                  |                     |
|------------------|---------------------|
| At Arkansas City | 32.45 ft on 11/3/98 |
|------------------|---------------------|

#### Cottonwood River

|             |                     |
|-------------|---------------------|
| At Florence | 28.67 ft on 11/1/98 |
| At Plymouth | 36.77 ft on 11/1/98 |

#### Cowskin Creek

|                                 |                      |
|---------------------------------|----------------------|
| At 119 <sup>th</sup> St Wichita | 22.00 ft on 10/31/98 |
|---------------------------------|----------------------|



The above image is the storm-total radar-derived precipitation ending the morning of November 2<sup>nd</sup> 1998 over the Wichita county warning area. Notice the high precipitation values of 6+ inches (yellow) covering western Sedgwick, eastern Kingman, northeastern Harper, northwestern Butler, and northern Greenwood. Near the center of the image

Many other rivers and tributaries rose above flood stage across central and southeast Kansas, including the Chikaskia, Ninnescah, Walnut, Little Arkansas, Neosho, Verdigris, Fall Rivers, and a section of the Smoky Hill River from Lindsborg to New Cambria. The expanse on the Arkansas River from Derby down to Arkansas City incurred flooding.

### Precipitation Totals

The highest storm total rainfall amounts from National Weather Service Cooperative Observers and KSNW WeatherLab sites include:

|                      |                                 |
|----------------------|---------------------------------|
| Brooks Middle School | 12.66 inches (Wichita)          |
| West Elementary      | 12.30 inches (Valley Center)    |
| Cheney Middle School | 10.96 inches (Cheney)           |
| Thrall               | 10.55 inches (southeast KS)     |
| Anthony              | 10.47 inches (south central KS) |
| Runnymede            | 10.17 inches (south central KS) |
| Madison              | 10.15 inches (southeast KS)     |
| Sedgwick             | 10.06 inches (south central KS) |
| Elbing               | 10.01 inches (south central KS) |

**Impacts**

The record flooding resulted in 1 fatality and 2 injuries. The one death occurred when a 50 year old female drove into a flooded roadway in Harvey County, and then attempted to wade through the flood waters. The two injuries in Sumner County incurred hypothermia.

Over 5,300 evacuations took place in the counties of Cowley, Butler, Chase, Sedgwick, Greenwood, Sumner, and Wilson. Three-thousand of those occurred in and around Arkansas City, when parts of the levy that protects the east side of Arkansas City from the Walnut River failed on November 3<sup>rd</sup>. In and around Augusta, 1,800 residents had to be evacuated, many of which lived in the Meadowview Acres neighborhood that did not take heed of the warnings, and later had to be rescued by boat.

The swollen Whitewater River over-topped the levee system in two areas. The first occurred south of Augusta by mid-afternoon November 1<sup>st</sup>, and by that evening the water topped the levee just north of US 54 on the west side of town.

Across West Wichita, 100 people were evacuated when the Cowskin Creek flooded.

The approximate dollar damage to crops, roadways, property and soil erosion totaled a whopping \$32 million, accounting for over 12 counties in South Central and Southeast KS. The most significant damage occurred in and around Augusta, where 565 homes, 230 mobile homes, and 100 businesses sustained damage. Approximately \$10 million damage was assessed in Butler County due to structure, crop and road damage. Cowley County was the 2<sup>nd</sup> hardest hit area with \$8 million damage assessed, including 479 structures, both residential and business. Most of this damage was centered around Arkansas City. In Sedgwick County, flooding from the Cowskin Creek caused \$4 million damage to homes, businesses, roads, and crops.

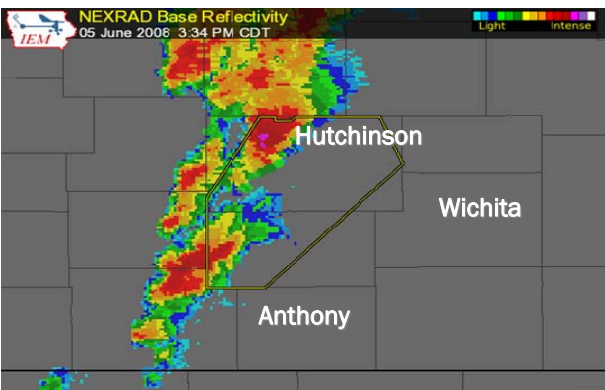
**Looking Forward**

What changes have been made over the last 10 years? Within the Cowskin Creek Basin, a series of 3 satellite gages called Data Collection Platforms (DCPs), installed by the USGS in cooperation with the city, transmit real-time data of river stage and rain-fall amounts located along the Cowskin Creek. Also, a network of ALERT gauge sites scattered across the Cowskin Creek Basin monitor river levels on the upper end of the Cowskin Creek and Dry Creek. This informs the Wichita Storm Water Management of any potential problems. This information can also be inputted into hydrologic models to come up with more accurate forecasts of river crests.

Because of the 1998 Halloween Flood, a new river forecast point was established on the Cowskin Creek at 119<sup>th</sup> St. The National Weather Service in Wichita will now be able to closely monitor the Cowskin Creek in real-time, and issue flood warnings and statements to warn the public of any impending hazard. The established flood stage along this site is 18 ft. The USGS has dedi-



**EF3 tornado damage from the June 11<sup>th</sup> tornado just southeast of Salina. The damage shown above occurred near the intersection of East Schilling Road and South Holmes Road. Wide-spread damage was noted to several homes, businesses, and trees along the tornadoes 16-mile path. Total property damage was estimated at roughly 2.63 million dollars. Amazingly, no injuries were reported. The same storm system went on to produce the strong and deadly Chapman and Manhattan tornadoes.**



**An unseasonably strong late spring storm system sparked numerous severe thunderstorms during the afternoon and evening of June 5<sup>th</sup> across central, south-central and southeast Kansas. This was one of the most widespread and numerous severe weather events of the year, with an estimated 80 severe weather reports across the area. Winds of 90-100 mph drove golfball size hail for western portions of Kingman county (corresponding radar image to the left). Countless other large hail and damaging wind occurrences ravaged much of the area, top-ping numerous power poles and trees, and inflicting some structural damage to homes, sheds and businesses.**



A bow echo raced across south-central and southeast Kansas during the evening hours of June 3<sup>rd</sup>, 2008, producing numerous reports of 60-80 mph wind gusts. The severe winds toppled trees, downed power poles and caused some structure damage. Pictured above are two destroyed 80,000 bushel grain bins near Winfield. Photo courtesy of Brian Stone.

cated a website to monitor river levels on the Cowskin Creek called “The Cowskin Creek Flood Watch page.” It can be accessed at: <http://ks.water.usgs.gov/waterwatch/cowskin.floodwatch/index.shtml>

Other river information can be found at the Advance Hydrologic Prediction Service homepage: <http://www.crh.noaa.gov/ahps2/index.php?wfo=ict>

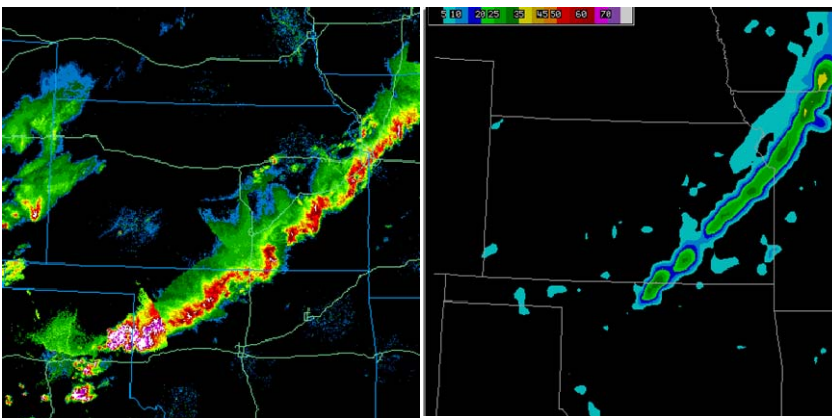
Since floods kill more people each year than any other severe weather phenomenon, we at the National Weather Service have made an emphasis to educate the public on the dangers of flood waters. Did you know that six inches of fast moving water can sweep you off your feet, and 18 to 24 inches of water can float a car? Yes, it’s true. So remember, if you encounter a water covered roadway, “Turn Around Don’t Drown.”



Numerous strong to severe thunderstorms pummeled portions of south-central and southeast Kansas with hail up to softball size during the early morning hours of May 31<sup>st</sup>, 2008, including golfball size hail over portions of Wichita. Pictured above is one of many grapefruit-size hailstones that pummeled the community of Dexter in Cowley county. Photo courtesy of Yvonne Stone.

## WEATHER COMPUTER MODELS—WHERE ARE WE HEADING?

BY: KEN COOK, SCIENCE & OPERATIONS OFFICER



June 8th observed radar data

June 8th forecast radar data

produce forecasts of what you might see on radar. To the left is an example of the conditions observed and forecast at 8 pm on June 8<sup>th</sup>. As you can see, the computer model did a somewhat decent job of forecasting the squall line stretching from northern Missouri, southwest into northern Oklahoma.

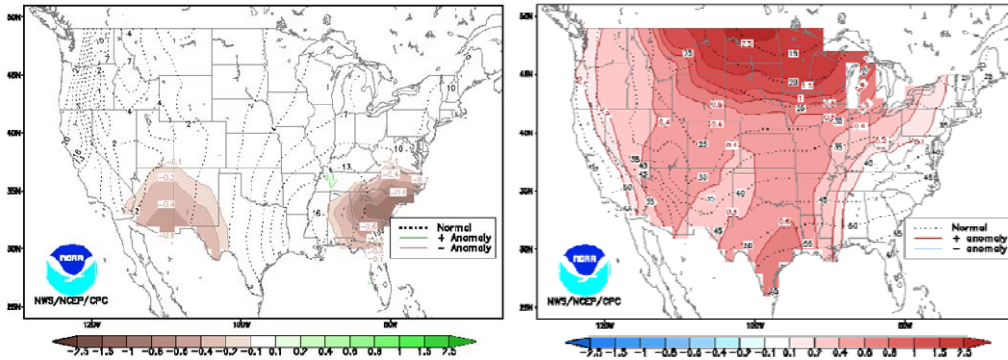
As both computer power and our understanding of the atmosphere increases, so will the accuracy of our forecasts and warnings. In the future, enough computer power may eventually lend itself to producing model forecasts down to the storm level, but that may be a decade or more away.

Many have heard of or know that the National Weather Service uses computer models to help with weather forecasting. These are run on very large and powerful super computers housed in the Washington, DC area. These model forecasts are produced several times per day, and cover a large area (North America or larger). Over the last 10 years, we have gone from using systems that contained less memory than what exists on a cell phone, to systems that have several hundred gigabytes of memory, just within our office.

These improvements have allowed us to begin developing and utilizing local models within our office. Some advantages of this include forecasts with greater detail and precision. Now, we are able to

## WHAT CAN WE EXPECT FOR THIS UPCOMING WINTER?

BY: CHANCE HAYES, WARNING COORDINATION METEOROLOGIST



According to the Climate Prediction Center, slightly warmer than normal temperatures are expected this winter (December-February) statewide. This will coincide with near normal amounts of precipitation. Keep in mind this does not rule out various drastic cold or wet spells during the time frame; it is an average over the whole three month period. We will just have to wait and see what the woolly worm or persimmon nut

Near normal precipitation expected this winter.

Above normal temperatures expected this winter.

shows for the winter. These are both old tales of lore that try and determine what one could expect before meteorologists were around. In regards to the persimmon nut; if the formation is shaped like a fork, a mild winter is in the outlook; if it shaped like a knife, a bitterly-cold winter is coming; and if it is shaped like a spoon, there will be a lot of snow. For the woolly worm, the typical woolly worm is colored with black bands on both ends and a brown band in the middle. The legend says the wider the brown band, the milder the winter. A narrow band is believed to be a prediction of a harsh winter.

## NOAA “ALL HAZARDS WEATHER RADIO” — EXPANSION AND ENHANCEMENTS

BY: DICK ELDER, METEOROLOGIST IN CHARGE

NOAA’s “All Hazard Weather Radio” network is continuing to grow as we work to fill in the gaps where the reception is weak. This past spring, weather radio station WZ2511 began broadcasting from a tower site near Sharon, Kansas in extreme north-east Barber County. This station gave residents in the Gypsum Hills area of south central Kansas and northern Oklahoma service. By the end of this year another station, KPS511, will go in just north of Great Bend in Barton County. This will serve all of Barton County and the surrounding area. On top of that, a new transmitter antenna and cable was installed on the Wichita station KEC-59, which certainly improved its reception. With these additions and enhancements, most everyone across Central and Southeast Kansas has, or will soon have, a strong Weather Radio Signal. Several locations can even “Pick and Choose” the Weather Radio station they want to listen to because they have access to more than one.

The Weather Radio Stations that reach into the Wichita Weather Service area of responsibility include:

| <u>Weather Radio Location</u> | <u>Call Sign</u> | <u>Frequency</u> |
|-------------------------------|------------------|------------------|
| <b><u>Central Kansas:</u></b> |                  |                  |
| Abilene, KS                   | WXL71            | 162.525          |
| Concordia, KS                 | WXX94            | 162.550          |
| Ellsworth, KS                 | WXX92            | 162.400          |
| Hays, KS                      | WXM35            | 162.450          |
| Great Bend, KS (coming)       | KPS511           | 162.500          |



**South Central Kansas:**

|                |        |         |
|----------------|--------|---------|
| Belvidere, KS  | WNG534 | 162.525 |
| Sharon, KS     | WZ2511 | 162.400 |
| Wichita, KS    | KEC-59 | 162.550 |
| Ponca City, OK | WWF42  | 162.450 |

**Southeast Kansas:**

|                       |        |         |
|-----------------------|--------|---------|
| Beaumont, KS          | WWH22  | 162.500 |
| Burlington, KS        | KGG98  | 162.425 |
| Erie, KS              | WXK95  | 162.400 |
| Bartlesville, OK      | WNG644 | 162.425 |
| El Dorado Springs, MO | KZZ30  | 162.475 |
| Joplin, MO            | KXJ61  | 162.425 |

Remember, Weather Radio broadcasts National Weather Service warnings, watches, and forecast information 24 hours a day, 7 days a week. During times of life threatening weather, NWS forecasters interrupt routine broadcasts and send a special tone, activating local weather radios and alerting you to the threat. In addition, we have teamed up with the Department of Homeland Security and the County Emergency Management Community so that Weather Radio can alert residents to other significant events such as Amber Alerts, chemical releases, oil spills, nuclear power plant emergencies, and national emergencies. Weather Radio is truly an all-hazards network, making it the most comprehensive weather and emergency information source to the public. For more information on Weather Radio, including station locations throughout the United States and Canada, along with a list of county and territory code numbers for those that have the Specific Area Message Encoding (SAME) radios and need to program them, go to the web-site [www.weather.gov/nwr](http://www.weather.gov/nwr). Weather radio is truly your local source for essentially any type of emergency. With the holidays just around the corner, they make a wonderful gift.

**“STORMS OF 2008” DVD!**

Order your DVD copy of **“Storms of 2008”**, produced by the National Weather Service in Wichita Kansas. This exciting video takes a look at five of the most significant events to impact the area covered by, and surrounding, the National Weather Service in Wichita KS. Included on this DVD will also be **“How to Create a Weather Disaster Safety Kit”**. This DVD is **FREE** for Kansas residents. To order, visit **[“weather.gov/wichita”](http://weather.gov/wichita)**.



## WINTER WEATHER PRODUCTS & THEIR DEFINITIONS!

The National Weather Service office in Wichita, KS will be utilizing a simplified weather approach this upcoming winter season. We will be issuing winter weather advisories and winter storm warnings instead of individual advisories/warnings for the different winter hazards. For example, instead of issuing a snow advisory for amounts in a 2 to 5 inch range, we will issue a winter weather advisory. This simplification should help to alleviate any confusion that may exist in times when multiple advisories or warnings might exist. The below table illustrates this simplified approach.

| Winter Weather (WSW)                     |  |  |
|--|--|--|
| TYPE OF EVENT                            | Winter Weather Advisory  | Winter Storm Warning   |
| <b>BLOWING SNOW</b>                      | Visibility is intermittently reduced to 1/4 mile with winds of 25-34 mph. The term near blizzard conditions may be used with winds 30-34 mph.                            |  |
| <b>SNOW</b>                              | Snow accumulations with a midpoint of 2-5 inches   | Snow accumulations with a midpoint of 6 inches or more.  |
| <b>SLEET</b>                             | Not normally issued unless accumulation between 1/4 and 2 is expected. This is more likely to be mentioned in combination with other elements in a Winter Storm Warning. | Not normally issued unless with a rare instance of 2 inch or more accumulation expected. This is more likely to be mentioned in combination with other elements in a Winter Storm Warning. |
| <b>FREEZING RAIN or FREEZING DRIZZLE</b> | When ice accumulations causes driving or walking problems but no damage to trees or power lines.   | A significant accumulation of ice. Normally 1/4" if winds are 15 mph or more or 1/2" with lesser wind.   |
| <b>WIND CHILL</b>                        | Wind Chill index <-15 for 3 hours or more and winds of at least 10 MPH   | Wind Chill index <-25 for 3 hours or more and winds of at least 10 MPH   |

Please let us know if we can send you this semi-annual newsletter through email instead of through regular mail. Contact Chance Hayes at [chance.hayes@noaa.gov](mailto:chance.hayes@noaa.gov), or call him at [316-942-8483](tel:316-942-8483) extension 726.

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