



2006 Weather Year in Review

National Weather Service Quad Cities



Fred McClurg – North Liberty, IA

5/9/06

The National Weather Service in the Quad Cities has compiled a summary of notable weather events and records for Eastern Iowa, Northwest and West Central Illinois and Northeast Missouri for 2006. Included in this release are monthly statistics and records.

All photos provided by National Weather Service Quad Cities, except where credit is noted otherwise. We extend our thanks to those who provided photographs and other information for this summary.



6/20/06

National Weather Service, Quad Cities

January

Moline	Dubuque
<p>High: 58 / 19th Low: 16 / 10th, 23rd Average: 35.3 (14.2 above normal) Precipitation: 2.81 (1.23 inches above normal) Snowfall: 3.1 (7.1 inches below normal) Records: Warm minimum temperature tied on 3rd (38) High temperature on 19th (58) Warm minimum temperature on 28th (41) Daily precipitation on 28th (1.27) Warm minimum temperature on 29th (37)</p>	<p>High: 52 / 27th Low: 6 / 23rd Average: 31.6 (14.6 above normal) Precipitation: 1.32 (0.04 inches above normal) Snowfall: 2.1 (8.5 inches below normal) Records: Warm minimum temperature on 3rd (35) High temperature on 12th (51)</p>
Cedar Rapids	Burlington
<p>High: 56 / 27th Low: 9 / 10th Average: 32.6 (14.2 above normal) Precipitation: 1.55 (0.50 inches above normal) Snowfall: 2.0 (5.2 inches below normal) Records: High temperature on 12th (53)</p>	<p>High: 63 / 19th Low: 22 / 18th Average: 37.7 (14.9 above normal) Precipitation: 2.73 (1.42 inches above normal) Snowfall: 2.0 (6.3 inches below normal) Records: - none -</p>

The year started out extremely warm with the average monthly temperatures an amazing 14 to 15 degrees above normal. The average monthly temperature for Moline was 35.3 degrees, ranking it as the second warmest January on record. The record warmest January was 37.6 degrees set back in 1880. High temperatures throughout the month at Moline were at or above freezing for 29 of the 31 days, with the other 2 days having a high temperature of 31. Due to the mild temperatures, most of the precipitation that fell during the month was in the form of rain. Measurable snowfall was observed on only 2 days resulting in just over 3 inches for the month. The precipitation total of 2.81 inches for the month was nearly double the normal amount. This moisture was able to soak into the ground helping to alleviate the continuing drought conditions from June 2005.

On the 20th, a major winter storm brought a wintry mix of rain, freezing rain, sleet and snow to the region, and even a few thunderstorms. Significant ice accumulations of ¼ to ½ inch occurred over portions of Northeast Missouri, and Northwest and West Central Illinois. Snowfall totals generally ranged from 1 to 5 inches, with some locally higher amounts of 6 to 8 inches.

On the 24th, high winds buffeted the region, especially Eastern Iowa and Northwest Illinois. Winds increased rapidly after sunrise and were sustained at 35 to 45 mph by midday with gusts mostly in the range of 50 to 55 mph during the afternoon. A gust of 58 mph was measured in Washington, Iowa.

February

Moline	Dubuque
<p>High: 61 / 14th Low: -8 / 18th Average: 27.6 (0.7 above normal) Precipitation: 0.98 (0.53 inches below normal) Snowfall: 0.7 (6.3 inches below normal) Records: Cold maximum temperature tied on 18th (7)</p>	<p>High: 59 / 14th Low: -18 / 18th Average: 22.6 (0.5 below normal) Precipitation: 0.35 (1.07 inches below normal) Snowfall: 7.2 (1.5 inches below normal) Records: High temperature on 14th (59) Low temperature on 18th (-18) Low temperature tied on 19th (-13)</p>
Cedar Rapids	Burlington
<p>High: 63 / 14th Low: -16 / 18th Average: 23.9 (0.8 below normal) Precipitation: 0.39 (0.71 inches below normal) Snowfall: 1.6 (5.0 inches below normal) Records: High temperature tied on 14th (63)</p>	<p>High: 63 / 14th Low: -3 / 18th Average: 30.3 (1.9 above normal) Precipitation: 0.28 (1.26 inches below normal) Snowfall: T (5.6 inches below normal) Records: - none -</p>

On the 15th and 16th, a winter storm brought a wintry mix of rain, sleet and snow to the region, and even thunderstorms. On the morning of the 16th, thunderstorms moved across portions of the region producing numerous reports of small hail ranging from ¼ to ½ inch in diameter. In some locations the hail covered the ground and reached a depth of up to ½ inch. The storms were also responsible for localized glaze accumulations of 0.25 to 0.40 inch across Henry and Bureau counties in Illinois, and Des Moines County in Iowa. Due to temperatures at or below freezing, the hail froze into a thick layer of ice and caused power outages in Southeast Iowa. Snowfall amounts ranged from 4 to 6 inches along the Highway 20 corridor west of Dubuque, to an inch or less south of Interstate 80.

Arctic air settled over the Midwest in the wake of the winter storm for the next three days. Temperatures bottomed out on the morning of the 18th when Dubuque saw a low of -18 degrees, struggling to reach a high of just 1 degree that afternoon. The temperature in Cedar Rapids dropped to -16 degrees and managed a high of only 5 degrees. In addition to the very cold air, wind chills dropped to between -25 and -35 in many locations. The cold snap was short-lived though, with temperatures rebounding into the 40s and low 50s within the next week.

March

Moline	Dubuque
<p>High: 75 / 11th Low: 18 / 4th Average: 39.8 (1.1 above normal) Precipitation: 4.21 (1.29 inches above normal) Snowfall: 4.8 (0.1 inches below normal) Records: All-time peak wind gust on 12th (107 mph)</p>	<p>High: 68 / 11th Low: 18 / 15th, 4th Average: 35.7 (0.9 above normal) Precipitation: 3.59 (1.02 inches above normal) Snowfall: 7.8 (1.2 inches above normal) Records: High temperature on 11th (68)</p>
Cedar Rapids	Burlington
<p>High: 68 / 11th Low: 16 / 4th Average: 36.4 (0.1 below normal) Precipitation: 3.97 (1.74 inches above normal) Snowfall: 2.5 (1.0 inches below normal) Records: - none -</p>	<p>High: 79 / 11th Low: 17 / 22nd Average: 42.4 (2.3 above normal) Precipitation: 3.63 (0.67 inches above normal) Snowfall: 3.5 (0.2 inches above normal) Records: High temperature tied on 11th (79)</p>

Winter weather briefly returned to the area on the 5th when 4 to 6 inches of snow fell over parts of the highway 20 corridor. Elsewhere amounts ranged from just a trace near Burlington to around 4 inches at the NWS Office in Davenport, IA.

The 2006 severe weather season kicked off on the 8th, when some elevated storms north of a warm front in Missouri dropped large hail over parts of southeast and east central Iowa. A downburst descended from one of the storms in Mount Union, IA resulting in tree damage.

On the 11th, less than a week after parts of the area received snow, high temperatures were in the upper 60s and 70s as a strong cold front approached the area. The front moved through the region the following day sparking some severe thunderstorms which packed some damaging winds in addition to torrential rains of 1 to 4 inches and hail up to the size of tennis balls. The Quad City Airport in Moline, IL recorded an all-time record peak wind gust of 107 mph as the storms moved through the metro area. Due to the high rainfall rates the Downtown Davenport area experienced some flash flooding. In northeast Missouri, an F0 tornado struck a farm house damaging the roof.



March 12, 2006, Moline, IL



March 12, 2006, Whiteside Co, IL
Photo courtesy Whiteside County
Emergency Services Disaster Agency

Winter wasn't done with the region just yet though. On the 21st, a late winter storm moved across Missouri providing southeast Iowa, northeast Missouri, and west central Illinois with snowfall amounts of 2 to 6 inches.

April

Moline	Dubuque
<p>High: 86 / 13th Low: 29 / 26th Average: 55.7 (5.2 above normal) Precipitation: 5.08 (1.26 inches above normal) Snowfall: 0.0 (1.3 inches below normal) Records: High temperature on 13th (86) Low temperature on 26th (29)</p>	<p>High: 81 / 14th, 13th Low: 28 / 8th Average: 52.0 (4.5 above normal) Precipitation: 6.60 (3.11 inches above normal) Snowfall: T (3.2 inches below normal) Records: - none -</p>
Cedar Rapids	Burlington
<p>High: 86 / 13th Low: 27 / 8th Average: 53.5 (4.4 above normal) Precipitation: 3.17 (0.05 inches below normal) Snowfall: 0.0 (1.7 inches below normal) Records: High temperature on 13th (86)</p>	<p>High: 88 / 14th Low: 31 / 8th Average: 58.4 (6.1 above normal) Precipitation: 4.34 (0.73 inches above normal) Snowfall: 0.0 (1.2 inches below normal) Records: High temperature on 13th (87) High temperature on 14th (88)</p>

Although there were several severe weather events throughout the month, the weather highlights for the month were by far:

- 1) The Tornado Outbreak of April 13th
- 2) The April 2nd Tornado Outbreak of southeast Iowa and west central Illinois
- 3) The End of the 2005 Drought

By the beginning of the month, aided by a surplus of spring rainfall, the 2005 drought officially ended.

On the 2nd, a strong spring storm system moved from the Central Plains into the Great Lakes region. The storms developed into a squall line that raced northeast across northeast Missouri, southeast Iowa, and west central Illinois. The storms produced a lot of small hail with some larger hailstones greater than three quarters of an inch as well as eight tornadoes. A second line of storms moved over east central Iowa and northwest Illinois producing some wind and hail damage.



April 2, 2006, Van Buren County, IA

During the late afternoon hours April 13th, thunderstorms developed in Central Iowa, and moved east along a warm front. These thunderstorms became supercells as they moved toward Eastern Iowa. The supercells brought wind and hail to locations along and north of Interstate 80, before three storms intensified as they approached Johnson and Linn counties. One supercell moved east from southern Benton, through Linn, and into Jones county and produced 3 tornadoes. Another supercell moved southeast across Johnson, Muscatine, Mercer, and portions of extreme western Rock Island counties. This storm produced many tornadoes, including a strong F2, in Iowa City. A third supercell moved southeast across Johnson and Muscatine county behind the other storm, and produced a tornado in eastern Johnson county. In addition to the tornadoes, these supercells produced damaging wind, large hail, and heavy rain. Other severe thunderstorms occurred in Eastern Iowa and Illinois through the late evening and early morning hours, mainly producing large hail and strong winds.



April 13, 2006, Iowa City, IA



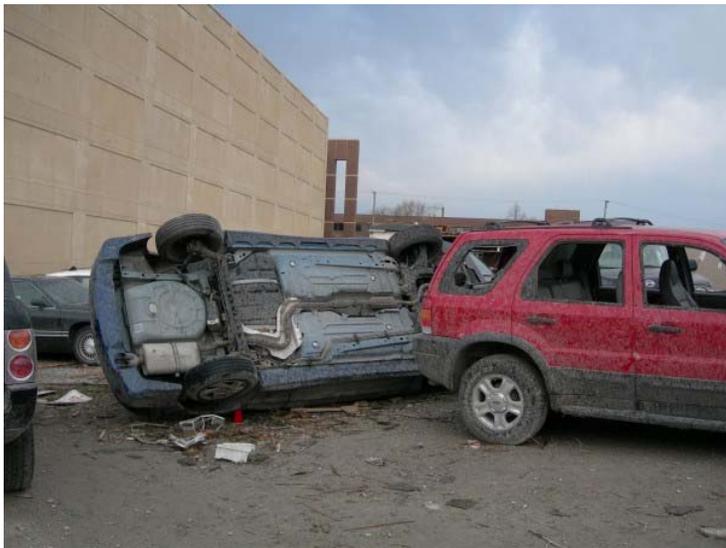
April 13, 2006, Iowa City, IA



April 13, 2006, Iowa City, IA
Photo courtesy Johnson County
Emergency Management



April 13, 2006, Iowa City, IA
Photo courtesy Johnson County
Emergency Management



April 13, 2006, Iowa City, IA
Photo courtesy Al Stillmunkes



April 13, 2006, Iowa City, IA
Photo courtesy Johnson County
Emergency Management

May

Moline	Dubuque
<p>High: 95 / 28th Low: 35 / 6th Average: 62.3 (0.6 above normal) Precipitation: 1.71 (2.54 inches below normal) Snowfall: 0.0 (T inches below normal) Records: Monthly warm minimum tied (74) Cold maximum temperature on 12th (46) High temperature tied on 27th (93) High temperature on 28th (95) Warm minimum on 29th (74)</p>	<p>High: 91 / 28th Low: 32 / 6th Average: 58.8 (0.3 below normal) Precipitation: 2.68 (1.44 inches below normal) Snowfall: 0.0 (T inches below normal) Records: Warm minimum temperature tied on 12th (44)</p>
Cedar Rapids	Burlington
<p>High: 92 / 28th Low: 31 / 6th Average: 59.8 (1.3 below normal) Precipitation: 1.67 (2.18 inches below normal) Snowfall: 0.0 (T inches below normal) Records: - none -</p>	<p>High: 94 / 28th Low: 35 / 6th Average: 64.2 (1.2 above normal) Precipitation: 0.96 (3.44 inches below normal) Snowfall: NA Records: High temperature tied on 27th (93) High temperature on 28th (94)</p>

Compared to April, most of the month of May was tame. No tornadoes occurred in the area, even though May is typically one of the higher tornado occurrence months of the year.



The last week of the month was rather unsettled when several rounds of severe thunderstorms producing flooding rains and large hail moved through the area. The hailstones ranged in size from that of a penny to the size of a quarter. The peak wind gusts associated with some of the storms were around 60 to 70 mph.

June

Moline	Dubuque
High: 93 / 16 th Low: 46 / 12 th Average: 70.9 (0.3 above normal) Precipitation: 2.14 (2.49 inches below normal) Snowfall: NA Records: Cold maximum temperature on 10 th (59)	High: 89 / 16 th Low: 45 / 10 th Average: 67.4 (0.9 below normal) Precipitation: 3.78 (0.30 inches below normal) Snowfall: NA Records: Cold maximum temperature on 10 th (59)
Cedar Rapids	Burlington
High: 90 / 8 th Low: 44 / 12 th Average: 69.0 (1.5 below normal) Precipitation: 2.48 (1.99 inches below normal) Snowfall: NA Records: - none -	High: 93 / 21 st , 16 th Low: 52 / 12 th , 10 th Average: 72.6 (0.4 above normal) Precipitation: 1.91 (2.54 inches below normal) Snowfall: NA Records: - none -

On the 6th, a cold front moved through eastern Iowa producing scattered thunderstorms. Large hail was the primary severe weather phenomena. Hailstones ranged from penny size to slightly smaller than a golf ball.

On the 21st and 22nd, an upper level disturbance initiated some severe storms, which produced mainly damaging winds.

Several other episodes of severe weather were reported the last week of June with little in the way of causing property damage.



June 20, 2006, Wave clouds over Cedar Rapids, IA.
Photo courtesy Heidi Haney.



June 25, 2006, Funnel cloud in Princeton, IL
Photo courtesy William Wedekind.



June 20, 2006, Wave clouds over NWS Quad Cities

July

Moline	Dubuque
High: 100 / 17 th Low: 55 / 7 th Average: 79.2 (3.9 above normal) Precipitation: 4.68 (0.65 inches above normal) Snowfall: NA Records: -none-	High: 92 / 31 st Low: 56 / 7 th , 8 th Average: 74.0 (1.7 above normal) Precipitation: 6.78 (3.05 inches above normal) Snowfall: NA Records: -none-
Cedar Rapids	Burlington
High: 95 / 17 th Low: 53 / 6 th Average: 75.2 (0.8 above normal) Precipitation: 3.18 (0.88 inches below normal) Snowfall: NA Records: -none-	High: 98 / 30 th , 31 st Low: 56 / 6 th Average: 79.0 (2.7 above normal) Precipitation: 2.58 (1.90 inches below normal) Snowfall: NA Records: -none-

With highs reaching into the middle 80s and 90s for all but three days of the month, it is no wonder why Moline tied for the ninth warmest July on record with a monthly average temperature of 79.2 degrees. The warmest July was back in the Dust Bowl year of 1936 when the average temperature was 85.0.

On July 7th, the National Weather Service recognized 5 Community Heroes who saved over 50 lives at St. Patrick's Church the night of the Iowa City tornado.



Lynn Maximuk (left), NWS Central Region Director, and Steve Kuhl (right) NWS Quad Cities Meteorologist in Charge, pose with StormReady Community Hero Award recipients in front of St. Patrick's Catholic Church at a ceremony in Iowa City.

On the 17th, an upper level disturbance initiated supercell thunderstorms ahead of a cold front in eastern Iowa, with additional storms developing on the outflow winds of those storms. Damage was widespread, with numerous reports of trees and branches down and large hail. Heavy rain also accompanied the storms creating some street flooding.

Another round of storms moved across the region on the 19th producing damaging winds of 60 to 70 mph.

August

Moline	Dubuque
<p>High: 98 / 2nd Low: 58 / 16th Average: 74.5 (1.3 above normal) Precipitation: 6.87 (2.46 inches above normal) Snowfall: NA Records: Warm minimum on 1st (79) Warm minimum on 2nd (79)</p>	<p>High: 91 / 1st Low: 52 / 31st Average: 70.8 (0.8 above normal) Precipitation: 1.97 (2.62 inches below normal) Snowfall: NA Records: -none-</p>
Cedar Rapids	Burlington
<p>High: 89 / 1st Low: 55 / 30th, 31st Average: 71.4 (0.5 below normal) Precipitation: 5.08 (0.85 inches above normal) Snowfall: NA Records: -none-</p>	<p>High: 98 / 2nd Low: 57 / 30th Average: 75.3 (1.0 above normal) Precipitation: 3.69 (0.17 inches below normal) Snowfall: NA Records: -none-</p>

On the 3rd, a line of storms moved northeast across the area downing trees and large branches.

On the 10th, the scattered thunderstorms move east southeast across eastern Iowa and northwest Illinois producing damaging winds, heavy rains and lightning. There were numerous reports of trees down and crops flattened.



August 10, 2006, Norway, IA
Photo courtesy Richard Percifield

September

Moline	Dubuque
High: 86 / 8 th Low: 38 / 20 th Average: 63.5 (1.5 below normal) Precipitation: 1.25 (1.91 inches below normal) Snowfall: NA Records: -none-	High: 81 / 6 th , 8 th Low: 34 / 20 th Average: 58.7 (3.1 below normal) Precipitation: 4.61 (1.05 inches above normal) Snowfall: NA Records: Daily precipitation on 10 th (1.52)
Cedar Rapids	Burlington
High: 84 / 16 th Low: 33 / 20 th Average: 59.7 (3.9 below normal) Precipitation: 2.81 (0.46 inches below normal) Snowfall: NA Records: -none-	High: 87 / 8 th Low: 34 / 20 th Average: 64.2 (2.3 below normal) Precipitation: 1.27 (2.33 inches below normal) Snowfall: NA Records: -none-

The first half of the month was just about normal, with a slightly below normal trend over the second half of the month. Overall, the region averaged out to be between 1.5 to 4 degrees below normal. Dense fog occurred during the first five days of the month with visibility being reduced to a quarter mile or less at several locations. Another bout of dense fog was experienced on the 14th.

On the 4th, an unseasonably strong upper level storm system moved over the area sparking some hail-producing thunderstorms over northwest Illinois. Copious amounts of small hail fell out of the storms, with one isolated report of hail the size of a quarter occurring near the Freeport area. High rainfall amounts were also common over the affected area, with totals over an inch causing some flooding concerns.

On the 11th and 12th, a line of storms developed along the Mississippi River and moved into parts of northwest and west central Illinois producing hail and heavy rain.

October

Moline	Dubuque
<p>High: 95 / 3rd Low: 25 / 24th Average: 50.2 (2.8 below normal) Precipitation: 2.32 (0.48 inches below normal) Snowfall: T (0.2 inches below normal) Records: Monthly high temperature (95) High temperature tied on 1st (89) High temperature on 3rd (95)</p>	<p>High: 88 / 3rd Low: 21 / 24th Average: 46.1 (4.3 below normal) Precipitation: 2.23 (0.27 inches below normal) Snowfall: T (0.1 inches below normal) Records: Low temperature tied on 14th (26) Cold maximum temperature tied on 23rd (38)</p>
Cedar Rapids	Burlington
<p>High: 90 / 3rd Low: 19 / 24th Average: 47.3 (4.5 below normal) Precipitation: 2.09 (0.12 inches below normal) Snowfall: T (0.1 inches below normal) Records: -none-</p>	<p>High: 95 / 3rd Low: 24 / 24th Average: 51.4 (3.7 below normal) Precipitation: 2.45 (0.46 inches below normal) Snowfall: 0.0 (0.1 inches below normal) Records: Monthly high temperature tied (95) High temperature tied on 2nd (93) High temperature on 3rd (95)</p>

October started out incredibly warm with records being set during the first 3 days of the month. Temperatures soared into the upper 80s to middle 90s on the 3rd, with Moline setting a new monthly all-time record high of 95 degrees. The temperature also topped out at 95 degrees in Burlington tying its monthly all-time record high. The remainder of the month was generally characterized by below normal temperatures.

On the 2nd, strong to severe thunderstorms erupted during the evening, mainly over Northwest Illinois, as a cold front pushed into unseasonably warm and humid air. The storms dropped large hailstones ranging from the size of nickels to golf balls.

Much of the area saw the growing season come to an end between the 11th and 15th.

November

Moline	Dubuque
<p>High: 73 / 8th Low: 16 / 3rd Average: 43.6 (4.5 above normal) Precipitation: 2.26 (0.47 inches below normal) Snowfall: T (3.0 inches below normal) Records: Warm minimum temperature on 27th (55) Warm minimum temperature on 28th (56) High temperature on 28th (67) Daily precipitation on 29th (0.94)</p>	<p>High: 70 / 8th Low: 13 / 3rd Average: 40.2 (4.5 above normal) Precipitation: 2.59 (0.10 inches above normal) Snowfall: 1.3 (3.2 inches below normal) Records: Warm minimum temperature on 28th (54)</p>
Cedar Rapids	Burlington
<p>High: 73 / 8th Low: 12 / 3rd Average: 39.7 (2.9 above normal) Precipitation: 1.78 (0.46 inches below normal) Snowfall: T (3.0 inches below normal) Records: -none-</p>	<p>High: 74 / 8th Low: 19 / 30th Average: 45.0 (4.4 above normal) Precipitation: 3.07 (0.35 inches above normal) Snowfall: 0.5 (1.6 inches below normal) Records: -none-</p>

Much of November was characterized by warmer than normal temperatures. Precipitation amounts varied greatly across the area ranging from well below normal in the north to near to slightly above normal in the south. Most of the monthly precipitation fell on the 10th, and 28th-29th.

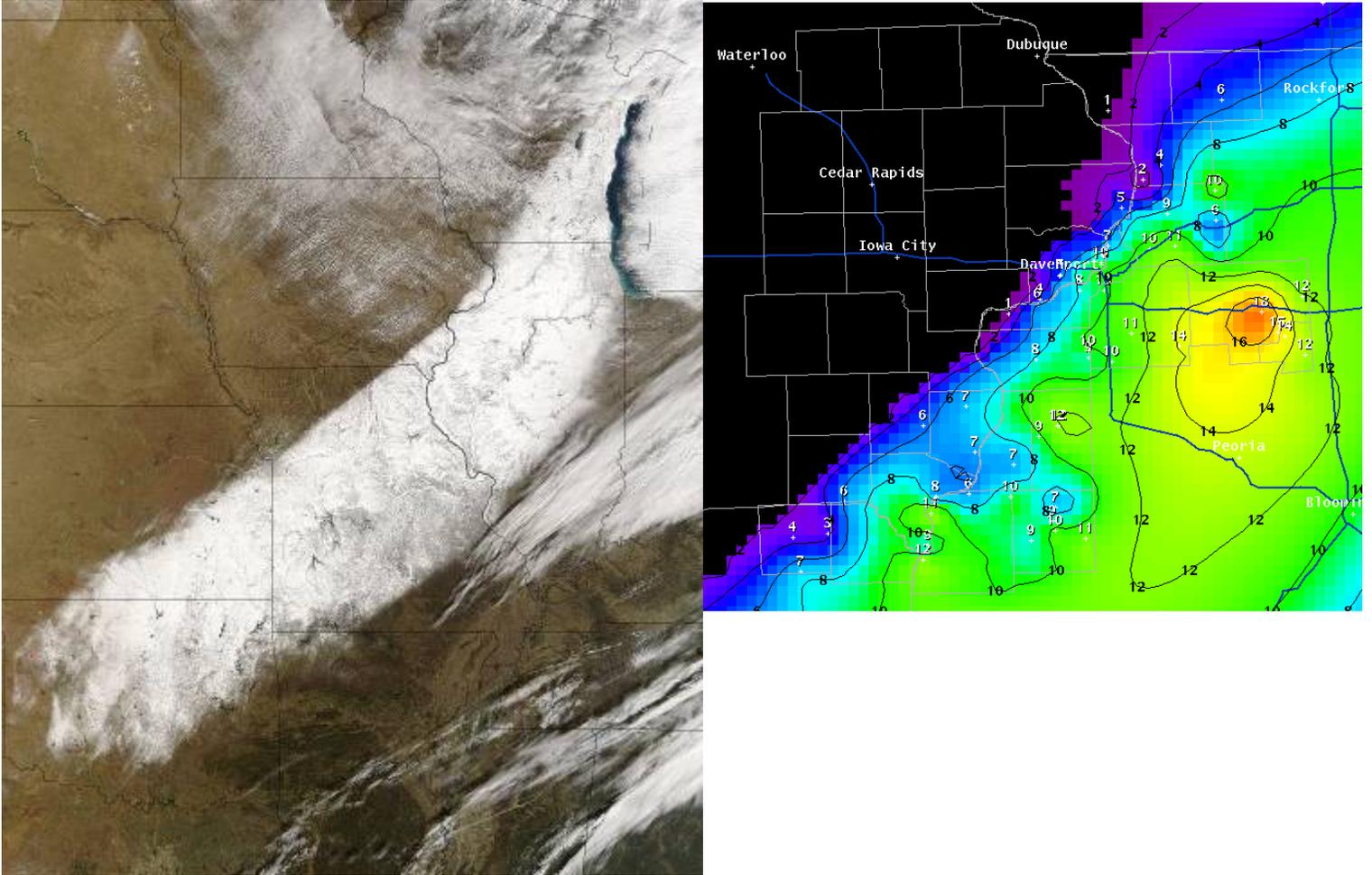
On the 10th, a strong storm system brought scattered thunderstorms with numerous reports of pea size hail, covering the ground in some locations. This strong storm system was responsible for some wild weather over the Midwest ranging from heavy snow to severe thunderstorms.

The unseasonable warmth peaked towards Thanksgiving Day and the days following. Record warm conditions were felt across the area the last few days of the month, just prior to an arctic outbreak, which sent temperatures plummeting 40 to 50 degrees over the last three days of the month. This arctic blast set the stage for a major winter storm for the first day of December.

December

Moline	Dubuque
<p>High: 59 / 14th Low: 2 / 8th Average: 33.9 (7.5 above normal) Precipitation: 3.03 (0.83 inches above normal) Snowfall: 8.3 (0.1 inches below normal) Records: Daily precipitation on 21st (0.69) Warm minimum temperature on 29th (41) Warm minimum temperature on 30th (45)</p>	<p>High: 53 / 14th Low: 2 / 8th Average: 30.8 (8.3 above normal) Precipitation: 1.63 (0.06 inches below normal) Snowfall: T (10.5 inches below normal) Records: Monthly low snowfall tied (T) Daily precipitation on 21st (0.51)</p>
Cedar Rapids	Burlington
<p>High: 58 / 14th Low: -1 / 8th Average: 30.9 (7.3 above normal) Precipitation: 2.29 (0.81 inches above normal) Snowfall: T (7.3 inches below normal) Records: High temperature on 14th (58)</p>	<p>High: 60 / 14th Low: 0 / 8th Average: 34.5 (6.7 above normal) Precipitation: 1.97 (0.13 inches below normal) Snowfall: 6.5 (0.2 inches above normal) Records: High temperature on 16th (59)</p>

A major winter storm dumped 15 to 18 inches of snow on portions of Northwest Illinois on the 1st. The snow was all gone ten days later.



Every day of the last three weeks of December was above normal, with monthly average temperatures winding up being anywhere from 6.5 to 8.5 degrees above normal. During this same period, no measurable snowfall was recorded at the six main climate stations across eastern Iowa and northwest Illinois.

The December 1st snowstorm missed the Dubuque and Cedar Rapids areas where monthly snowfall totals only amounted to a trace. This tied the record in Dubuque for the least snowy December.