

National Weather Service
Lincoln, Illinois

Central Illinois Lincoln Logs



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Late Season Tornadoes and Severe Weather: Not as Rare as You Think

By: Chris Miller, Warning Coordination Meteorologist

From October through December, the weather typically becomes cooler and our thoughts turn to the upcoming holidays and the potential for winter storms. When a warm day is forecast, many are thankful for "...one last nice day..." before winter sets in. However, meteorologists start concentrating on the potential for severe weather. Warm and humid days in the last three months of the year can be just as explosive for powerful thunderstorms as it is during the spring.

A look at severe thunderstorm and tornado statistics from past years indicates an increase in severe storm activity from late October into December. In fact, we are more likely to experience a tornado during November or December, in Illinois, than during the month of September!



This house was damaged by an EF-3 tornado which moved across the Lake Petersburg area of Menard County on New Year's Eve 2010.

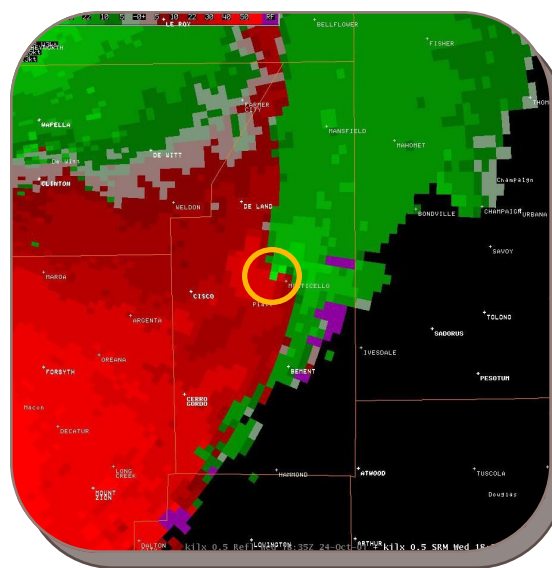
Some of Illinois' biggest – and deadliest – tornado disasters have occurred during the last part of the calendar year. Here is a listing of the top 10 tornado events from late October into December across central and south-east Illinois since 1950, in chronological order:

- 1) **Dec. 18, 1957:** 19 tornadoes were reported in Illinois, including two F4s in Mt. Vernon and Murphysboro, and an F5 in Perry County. A total of 13 people were killed, and 269 were injured. F3 tornadoes also affected Newton, Ste. Marie, and Clay City, with two F1 tornadoes in Mason City and Sidell.

(continued on page 2)

Late Season Tornadoes and Severe Weather (cont.)

- 2) **Nov. 26, 1965:** An F2 tornado in Olney caused damage to mobile homes and businesses on the south side of town, injuring 5 people.
- 3) **Dec. 15, 1971:** An F1 tornado tracked from Charleston to Bushton, damaging 80% of the homes in Bushton. There were 24 injuries.
- 4) **Dec. 4, 1973:** An F2 tornado in Murrayville injured one person, and caused extensive damage to houses and other buildings.
- 5) **Nov. 29-30, 1975:** A series of 4 late evening tornadoes impacted central Illinois. One F2 tornado tracked 19 miles from near Havana to Manito, causing extensive damage to farms and houses. F1 tornadoes in Elkhart and Pawnee each injured one person, and an F2 tornado moved from Decatur to Long Creek shortly after midnight, destroying the Long Creek fire station and damaging about 100 homes. Total losses were in excess of \$2.5 million.
- 6) **Nov. 10, 1984:** An F1 tornado on the north side of Decatur struck a mobile home park and auto dealership, damaging 18 trucks.
- 7) **Nov. 27, 1990:** Five tornadoes affected Illinois. They included an F2 tornado in Rushville which damaged 7 homes, F1 tornadoes near Forest City and Sumnum, and an F2 tornado which caused \$2.5 million to airplanes and hangars at Waddell Airport west of South Pekin.
- 8) **Oct. 24, 2001:** Five tornadoes occurred with a severe line of storms. They included an F2 which caused \$2.2 million damage in Monticello, and an F1 which injured two people in Champaign.
- 9) **Nov. 15, 2005:** An F1 tornado moved near Newton, damaging 3 houses and 11 outbuildings. Four other tornadoes occurred over southern Illinois that day.
- 10) **Dec. 31, 2010:** An EF3 tornado, one of 4 tornadoes to touch down on New Year's Eve in Illinois, caused \$12 million damage to numerous houses, garages and vehicles near Lake Petersburg.



Doppler radar signature of the tornado which affected Monticello on October 24, 2001.

Prepare for winter and enjoy the holidays as the year winds down. However, if the weather is unusually warm and humid, don't forget about the possibility of severe thunderstorms and tornadoes late in the season!

Severe weather and tornado preparedness information:

<http://www.crh.noaa.gov/ilx/?n=severe-prep>

Changes to River Flood Warnings

By: Darrin Hansing, Service Hydrologist

River flood warnings have always been a county-based product, alerting an entire county or group of counties about the threat of flooding, when really only those locations near a particular river are impacted. The National Weather Service office in Lincoln has forecast and warning responsibility for 17 points along 8 rivers in central and southeast Illinois. If all river forecast points are in flood, then 21 counties are warned. This has the impact of needlessly over-warning a large portion of the area. Not only that, but it also highlights these counties on the Watch, Warning, and Advisory (WWA) map on the front page of our website, www.weather.gov/ilx, potentially masking other weather hazards impacting the area.

In order to provide better, more defined river flood warning services, we have implemented a change from county-based river flood warnings to polygon-based warnings. This change went into effect on November 1st.

The river flood warning text products will not change much. The only difference is that there will be a string of latitude/longitude pairs at the bottom of each warning and follow-up flood statement. Each river forecast point has a set of these pre-defined coordinates which outline the warning polygon for their respective areas. Below is an example of what you might see at the bottom of one of these products:

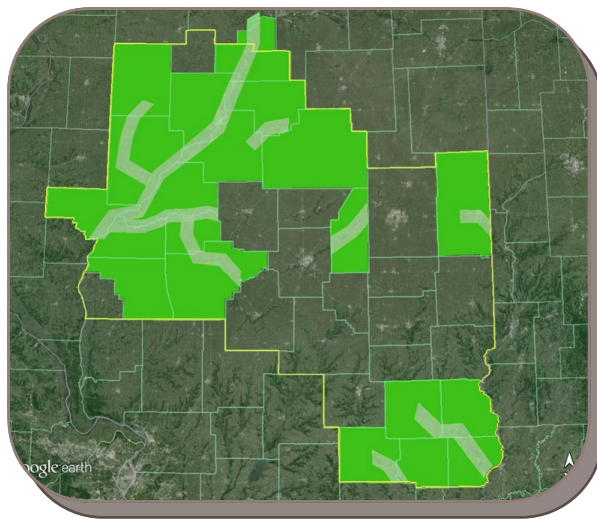
&&

LAT. . . LON 3878 8846 3871 8829 3960 8820 3860 8832
3867 8838 3870 8846

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As a result of this change, you will now see a more defined area highlighted on our WWA map. The graphic at right shows the difference between the old county-based river flood warnings (bright green color) vs. the new polygon-based warnings (gray color). It is important to note that these new polygons are **not meant** to signify areas of inundation. We are merely attempting to create a more defined warning area, to focus in on those people and businesses that are in proximity a particular river.

Similar changes have been made to warnings from the NWS offices in Chicago, St. Louis, Paducah, and the Quad Cities.



By the Numbers: Winter Weather

By: Chris Miller, Warning Coordination Meteorologist

- ⇒ **9:** Number of winter storms to impact Illinois between November 2012 & March 2013
- ⇒ **3:** Winter storms to impact Illinois between November 2011 & March 2012
- ⇒ **15:** Inches of snow, on average, in a typical southeast Illinois winter
- ⇒ **20 - 25:** Inches of snow, on average, in a typical central Illinois winter
- ⇒ **5:** Number of days that ice (freezing rain) occurs in central Illinois during the winter
- ⇒ **30:** Minutes until frostbite develops when the wind chill is -15°F to -30°F
- ⇒ **5 - 10:** Minutes until frostbite develops when the wind chill is colder than -30 °F
- ⇒ **135:** People who have died in Illinois since 1996 from exposure to cold
- ⇒ **-36°F:** Illinois' coldest temperature on record. Reported in Congerville (Woodford County) on January 5, 1999
- ⇒ **29,260:** Average number of vehicle crashes each year in Illinois due to winter weather (since 2000 – according to IDOT & the Illinois State Police)
- ⇒ **4,454:** Average number of injuries each year in Illinois due to winter weather related vehicle crashes
- ⇒ **51:** Average number of deaths each year in Illinois due to winter weather related vehicle crashes
- ⇒ **7:** Number of days in Winter Weather Preparedness Week in Illinois this year, November 17th – 23rd

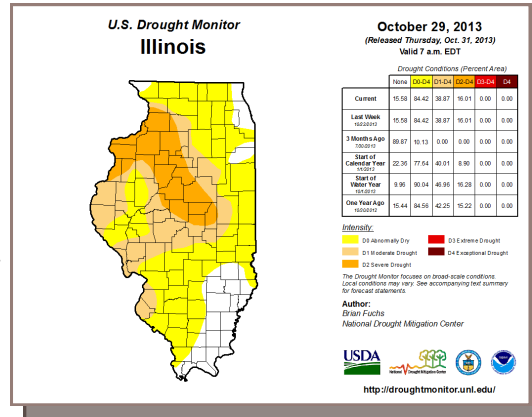


Take a few moments to prepare for winter weather conditions. Go to our Winter Weather Preparedness page for details:
<http://www.crh.noaa.gov/ilx?n=winter>

Severe Drought Develops over Central Illinois

By: Kirk Huettl, Meteorologist

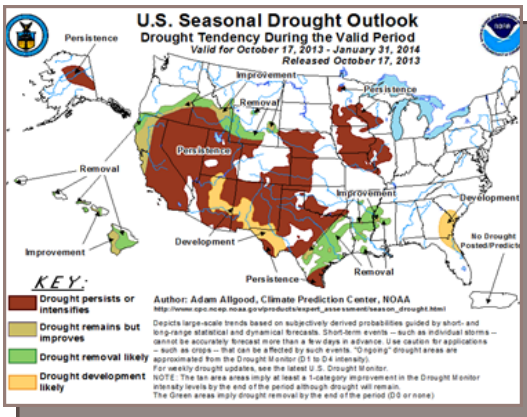
After a cool and very wet spring and early summer, dry weather taking hold of central Illinois in August and September, coupled with some extended periods of heat waves, led to rapid development of drought conditions over central and northwest Illinois by mid and late September. Severe drought conditions (D2 drought category) appeared as far southeast as Marshall and Stark counties by mid September, and expanded further southeast into De Witt, Logan, Macon, McLean, Peoria, Piatt, Tazewell and Woodford counties by September 26th. Moderate drought conditions (D1 category) encompassed Champaign, Christian, Fulton, Knox, Mason, Moultrie, Sangamon and Schuyler counties by late September. Southeast Illinois along and southeast of a Danville to Charleston/Mattoon to Shelbyville line which received above normal rainfall through July, has stayed out of the drought so far this year. More widespread heavier rains from October 3-5th along with below normal temperatures by the 2nd half of October, kept the drought from expanding further during October.



Rainfall amounts from August 1st through mid October were 3 to 6.5 inches below normal across much of central and southeast Illinois, with the driest areas including Champaign/Urbana, Charleston/Mattoon and Decatur. Peoria and Springfield each had only a third of an inch of rain in August making it their 2nd and 4th driest August on record respectively. Normally around 3.25 inches of rain fall in August. Beardstown and Mason City did not receive any rainfall in August 2013, while Decatur, Jacksonville, Prairie City and St. David had less than a tenth inch of rain during this month.

By September 26th, voluntary water restrictions had been requested in Bloomington, and Decatur enacted similar voluntary restrictions by the end of October. Soil moisture levels in the top 20 inches averaged 1 to 2 inches below normal on October 19th with the worst conditions over Clark, De Witt, Menard, Piatt and Stark counties. Central Illinois farmers indicate mixed results with corn and soybean harvest so far this fall. Yields have been better than initially feared a few weeks ago, and are better

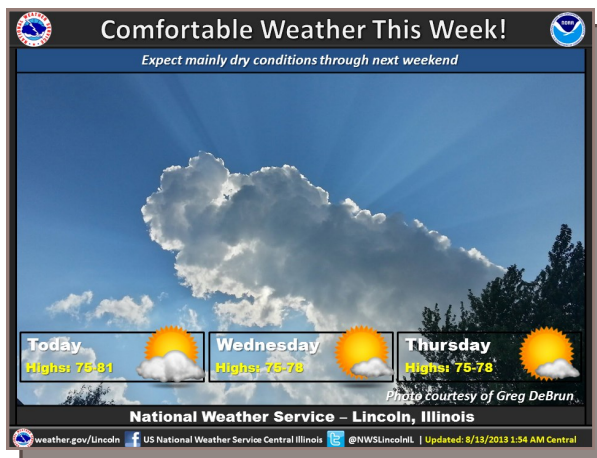
than last year's harvest when extreme drought conditions (D3 category) were common last summer.



The Climate Prediction Center (CPC) seasonal outlook for November through January is a greater than normal chance of above normal temperatures over Illinois with equal chances of above or below normal precipitation. The U.S. Seasonal Drought Outlook valid from October 17 through January 31 is forecast the drought over central and northwest Illinois to persist.

Wanted — Your Weather Pictures!

Earlier this year, we requested submissions of weather related pictures to help improve our Daily Weather Story product. We received about 6 dozen pictures via Facebook and E-mail, and they are much appreciated! We have been using these pictures over the last couple months for our Weather Stories (an example is to the right), and they have been greatly received by our fans and users.



However, we are always looking for more pictures, especially as we go into each new season. Pictures of photos, clouds, rain or snow, fog, scenery, are still desired. If you have any that you are willing to let us use for this purpose, or if you take any during the upcoming months, please post them to our Facebook wall (address below) or E-mail them to our Webmaster at w-ilx.webmaster@noaa.gov.

Social Media Addresses for the Lincoln NWS:

Facebook — [US National Weather Service Central Illinois](#)

Twitter — [@NWSLincolnIL](#)

Summer Climate Statistics (June 1 through August 31)

Peoria:

- 3rd driest summer on record
- Average temperature: 73.5°F (0.2°F below normal)
- Total rainfall: 4.31" (6.31" above normal)

Lincoln:

- Average temperature: 71.7°F (1.7°F below normal)
- Total rainfall: 7.98" (5.32" below normal)

Springfield:

- Average temperature: 73.3°F (0.9°F below normal)
- Total rainfall: 5.65" (5.99" below normal)

Avon Observer Receives Edward Stoll Award



Jim Mitchell, cooperative weather observer at Avon, was recently presented with the Edward Stoll Award, given to observers who reach 50 years of service. The award is named after the cooperative observer for Elwood, Nebraska, who served in the position for 76 years. Billy Ousley, Data Acquisition Program Manager, presented the award on September 27.

Jim took over the Avon weather station on April 26, 1963. He has decided to retire, and will be turning over the observing duties to his daughter.

Longtime Hoopeston Observer Passes Away

Audrey Mushrush, former weather observer for Hoopeston, passed away October 23 at the age of 92. Her late husband John had assumed responsibilities for the Hoopeston station in May 1951, and Audrey continued the reports after he passed away in 1999.

In the photo at right, Audrey was presented with the Helmut E. Landsburg Award in May 2006. This award is given for 60 years of service.

The NWS extends its condolences to Audrey's family.



15th Annual Skywarn Recognition Day Scheduled

The 2013 Skywarn Recognition Day has been scheduled to run from 6 pm Friday, December 6, to 6 pm Saturday, December 7. Skywarn Recognition Day was developed in 1999 by the NWS and the Amateur Radio Relay League, to celebrate the contributions that volunteer Skywarn radio operators make to NWS operations. During this event, ham radio operators at NWS offices around the country contact other radio operators around the world. Last year, our office made 875 contacts in 48 states, including 78 other NWS offices.

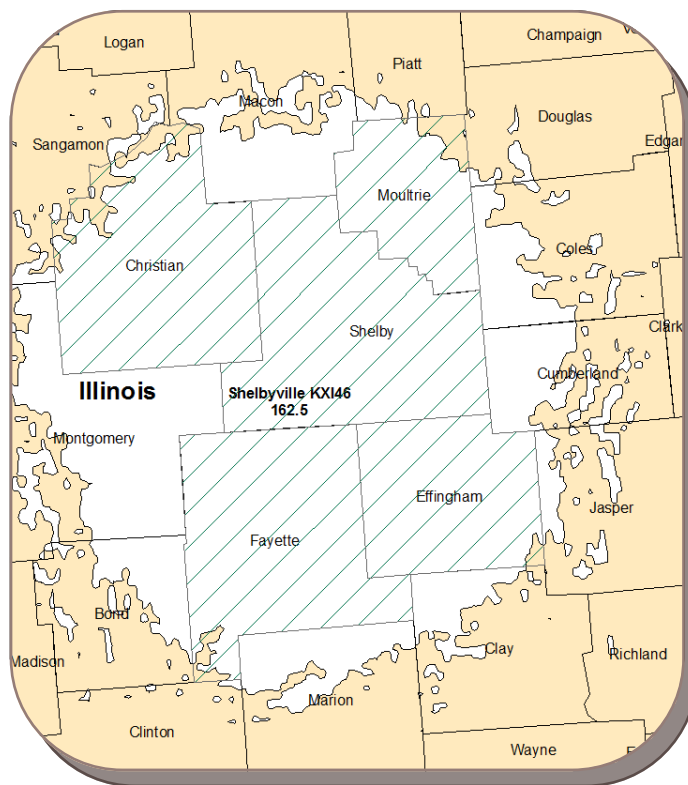
Ham radio operators should keep an eye on our homepage in the coming weeks for specific information on frequencies to monitor during the special event.

Moultrie County Added to Shelbyville NOAA Weather Radio Coverage

We have recently adjusted the coverage area for one of our NOAA Weather Radio stations. Moultrie County has been added to KXI-46 in Shelby County, operating on a frequency of 162.50 MHz. This means that watches, warnings, and advisories for Moultrie County will be aired, using signals to activate weather radio receivers that have alarm features.

Recent signal surveys, and listener reports, indicate that the signal over most of Moultrie County is strong enough to justify its inclusion on KXI-46. The approximate coverage area is highlighted in white on the image at right; the hatched areas indicate that the county is part of the listening area.

Moultrie County has also been included on WXJ-76 in Champaign for many years. Listeners in the county can thus tune their radio to whichever station comes in better in their area.



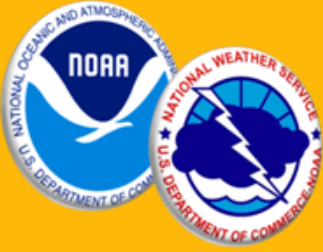
Lincoln NWS Conducts Food Drive



In response to the NWS National Week of Community Service, the Central Illinois WFO decided to do a local food drive. The ILX staff pitched in, bringing in donations that slowly overtook the break room! And although slightly delayed by the government shutdown, the food drive resulted in over 168 pounds of non-perishable food donated to the Lincoln location of the Central Illinois Foodbank.

Central Illinois Foodbank, established in 1982, distributes over 9.5 million pounds of food annually to over 150 food pantries, soup kitchens, residential programs and after-school programs in a

21 county region. Central Illinois Foodbank is a member of Feeding America, the nation's largest domestic hunger relief organization, and is a United Way certified agency.



Winter Weather Outlook

Central Illinois Lincoln Logs

National Weather Service
1362 State Route 10
Lincoln, IL 62656

Phone: (217) 732-3089
(8:30 am to 4 pm)

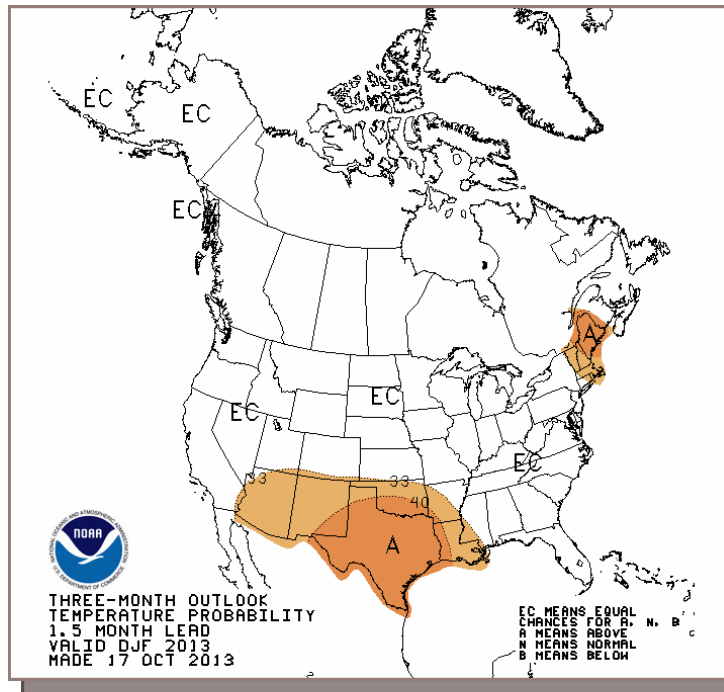
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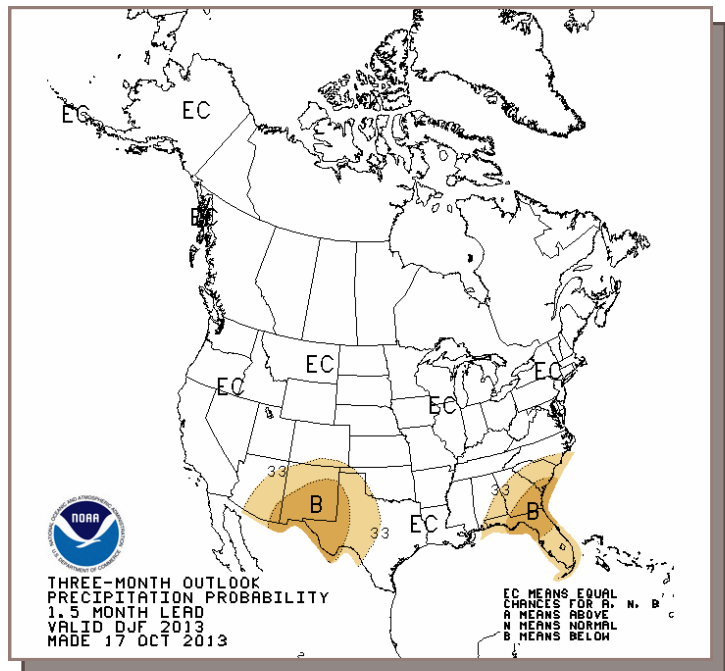
The NWS Climate Prediction Center outlooks for the winter months (December through February) are shown here. With neither El Niño or La Niña expected (i.e. a “neutral phase”), no significant trends are indicated over most of the country.

The top left image shows the temperature outlook. The most likely areas to be warmer than normal are the lower

Rockies and southern Plains, and also New England. In the image at right, which shows the precipitation outlook, the lower Rockies and the southeast U.S. are most likely to be drier than normal.

In the remainder of the country, equal chances of above normal, near normal, or below normal conditions are indicated.

The outlooks are general trends for the period, and do not directly address the character of the winter (e.g. stormy, snowy, icy, etc.). Total seasonal snow accumulations are not projected, as snow amounts are highly dependent on strength and track of winter storms, which are generally not predictable more than a week in advance.



Rockies and the southeast U.S. are most likely to be drier than normal.