Central Illinois Lincoln Logs

National Weather Service, Lincoln, IL

Spring 2008 **Volume 11, Number 1**

In This Issue

2008 Preparedness Campaigns:

Severe Weather – March 2-9

Flash Flood – March 17-21

Lightning – June 22-28

Severe Weather Preparedness

Severe weather season is just around the corner! While there is a defined "season" for severe weather, that doesn't mean it can't occur at other times. There were 112 reports of severe weather in Illinois during January and February, including an EF3 tornado near the Wisconsin border on January 7 (only one other January tornado had been reported in that part of the state since 1950).

When severe weather strikes, time is of the essence to ensure your safety. There are 4 key points to follow:

- **PLANNING** is the first step. Think about the various scenarios you may be in when severe weather strikes (at home, work, school, etc.).
- **PRACTICING** is the second step. You need to practice what you would do in the scenarios above. Waiting until the severe weather strikes could prove disastrous.
- **MONITORING** is the third step. Have someone designated as a weather watcher. Use of a NOAA Weather Radio, computer, cell phone, commercial TV/radio, and sirens are ways to do this; however, you should rely on multiple sources to verify the threat.
- **ACTION** is the 4th step. Once the severe weather threat is imminent, take action and move to your designated shelter.

For more information, visit our severe weather preparedness section of our homepage at http://www.crh.noaa.gov/ilx/severe/svr-prep.php

Storm Spotter Training Ongoing

Training of volunteer storm spotters has begun for the 2008 season!

Severe weather spotters volunteer their time to assist their communities and the NWS in the severe weather warning process. They report of any occurrences of wind damage, hail, funnel clouds, or tornadoes that occur from the storms that pass through their area. This information is relayed to the local emergency managers and the NWS via phone calls and amateur radio.

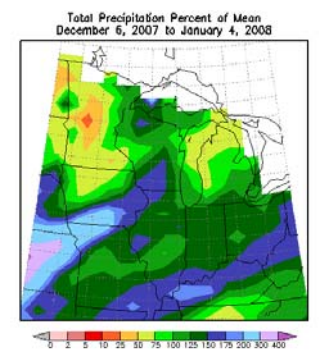
Each year, the NWS conducts storm spotter training classes. Anyone with an interest is welcome to attend one of these classes. There are no fees – only 2 or

3 hours of your time. Some of the topics we cover include proper positioning of storm spotters (in order to maintain their safety), development of thunderstorms and tornadoes, and spotting techniques.

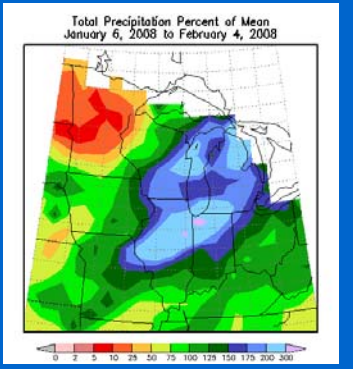
To see when these classes will be held in your area, check out the following page: http://www.crh.noaa.gov/ilx/?n=spotter

Precipitation Percentage of Normal *(dark green and blues above normal, light green and yellows below normal)*:

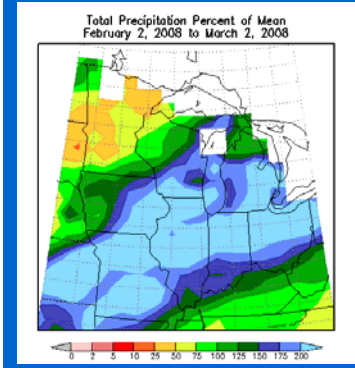
December:



January:



February:



Significant Precipitation and River Flooding this Winter

By: Darrin Hansing, Service Hydrologist

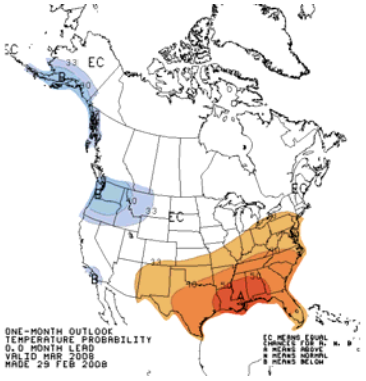
The winter of 2007-2008 has been a wet one across central and southeast Illinois. From December 1st through February 29th many locations saw near record precipitation. This was the second wettest winter on record for Lincoln, Bloomington-Normal, and Peoria. It was also the 3rd wettest for Champaign-Urbana and the 4th wettest for Springfield. Many of our Cooperative Observers also reported precipitation amounts that were within their respective top 10 wettest winters. In addition to near record seasonal totals, many locations set one day precipitation records during the winter months.

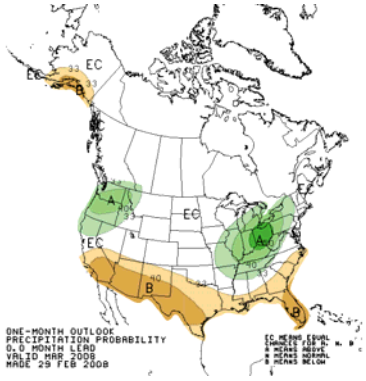
As one would expect, all this precipitation led to a roller coaster ride in river levels across central and southeast Illinois. Many areas across the ILX Hydrologic Service Area (HSA) experienced significant flooding along and near the following river locations...

Location	Minor Flood Stg	Moderate Flood Stg	Major Flood Stg	Highest Observed	Date
		Illinois River:			
Henry	23	23	31	26.91	Jan 14
Peoria	18	22	28	23.09	Jan 14
Havana	14	17	23	19.65	Feb 20
Beardstown	14	18	28	21.27	Feb 23
		Sangamon River:			
Monticello	13	17	20	17.86	Feb 6
Chandlerville	456.6	459	462	458.79	Feb 8
		Embarras River:			
Lawrenceville	30	37	41	34.30	Feb 14
Ste Marie	19	19	27	19.99	Feb 8
		Salt Creek:			
Greenview	16	16	20	16.21	Feb 7
		Vermilion River:			
Danville	18	22	28	26.20	Feb 7
		Little Wabash River:			
Clay City	16	22	25	21.22	Feb 7
		Mackinaw River:			
Congerville	13	13	20	18.22	Jan 9

The spring flood and water resources outlook shows that this trend of above normal precipitation will likely continue through March and into April. River levels are already swollen and soils across the area are saturated. Therefore, snowmelt and any heavy rain this spring will be mainly converted to runoff and will flow into area rivers and streams, potentially causing minor to moderate flooding.

North Fork Vermilion River near Bismarck

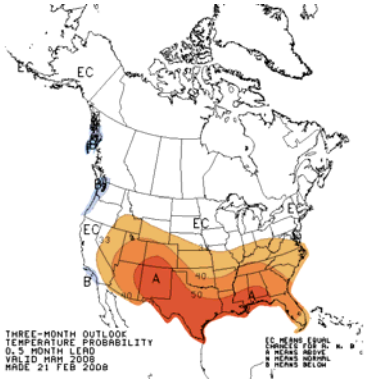


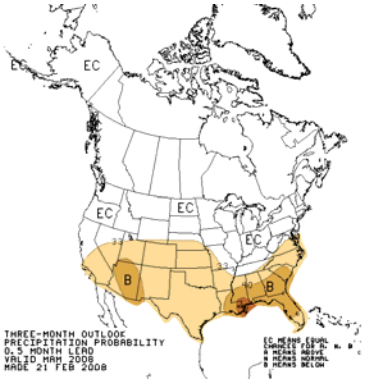


The 30 day outlook for the month of March indicates a greater that 33 percent probability of above normal temperatures (above left) with a probability of greater than 40 percent for above normal precipitation (above right).

The 90 day outlook shows that there are equal chances of above or below normal temperatures (lower left image) across the northern half of Illinois. A greater that 33 percent probability of above normal temperatures is forecast for the southern half of the state. The outlook also indicates equal chances for above or below normal precipitation (lower right image) throughout the period. More detailed temperature probabilities are available at: http://www.weather.gov/climate/calendar_outlook.php?wfo=ilx

Anderson Hill near Danville along the Vermilion River





Daylight Saving Time Begins March 9

As a reminder, Daylight Saving Time begins on March 9 at 2:00 am. Clocks are set ahead one hour, until November 2.

Winter 2007/08 (Dec-Feb) Climate Statistics:

Peoria: 2nd wettest winter and 3rd snowiest winter on record

- *Average Temperature 26.2°F (normal)*
- *Precipitation 10.56" (4.99" above normal)*
- *Snowfall 33.7" (12.8" above normal)*

Springfield: 4th wettest winter and 7th snowiest winter on record

- *Average Temperature 28.8°F (0.1°F above normal)*
- *Precipitation 12.11" (6.15" above normal)*
- *Snowfall 31.1" (12.2" above normal)*

Lincoln: 2nd wettest winter on record

- *Average Temperature 26.8°F (0.4°F below normal)*
- *Precipitation 14.01" (8.13" above normal)*
- *Snowfall 25.8" (9.7" above normal)*

Specific Climate Statistics for Area Cities:

Here are some statistics for area cities for the winter months (December 1 through February 29):

Location	Precip Total (vs normal)	Record	Snow Total (vs normal)	Record
Decatur	10.66" (+3.79")	16.10" (1949-50)	22.5" (+4.1")	48.8" (1981-82)
Lincoln	14.01" (+8.13")	15.57" (1949-50)	25.8" (+9.7")	37.0" (1981-82)
Normal	11.54" (+5.69")	15.60" (1949-50)	31.6" (N/A)	38.6" (1961-62)
Peoria	10.56" (+4.99")	13.18" (1949-50)	33.7" (+12.8")	42.5" (1978-79)
Springfield	12.11" (+6.15")	15.21" (1881-82)	31.1" (+12.2")	45.0" (1981-82)
Urbana	11.22" (+4.55")	16.33" (1949-50)	24.3" (+4.8")	49.6" (1977-78)

Statistics for 2007:

Location	Average Temperature	Precipitation	Snowfall
Decatur	56.5° (3.4° above normal)	30.31" (9.43" below normal)	26.5" (N/A)
Lincoln	52.8° (1.6° above normal)	33.06" (5.24" below normal)	32" (11.7" above normal)
Normal	51.7° (1° above normal)	38.07" (0.62" above normal)	33.5" (N/A)
Peoria	53.2° (2.1° above normal)	37.02" (1" above normal)	26" (0.3" below normal)
Springfield	54.4° (1.7° above normal)	31.72" (3.84" below normal)	29.3" (4.7" above normal)
Urbana	53.6° (1.9° above normal)	33.94" (7.11" below normal)	31.3"(5.1" above normal)

Did you know you can get climate statistics for many other locations across central and southeast Illinois? Visit the NOAA Online Weather Data page at http://www.weather.gov/climate/xmacis.php?wfo=ilx . You can access this by clicking on the "Climate" tab from the front of our homepage (http://www.weather.gov/lincoln), then selecting the "NOWData" tab.

Fire Weather Forecasting to Begin April 1

By: Patrick Bak, Senior Meteorologist/Fire Weather Program Leader

Central and southeast Illinois is not an area of the country one usually considers when thinking prescribed burning or wildfires. While much of this part of the state is covered with agricultural land, numerous state parks and forests, federal wildlife refuges, and prairie restoration areas exist. Prescribed burning is commonly used in natural areas to maintain the desired diversity and quantity of vegetation. In fact, some plants require burning to break their seed casings and propagate.

The National Weather Service in Lincoln will start a full Fire Weather Forecast program on April 1st to provide a valuable service to land management agencies. Our program will be seasonal in nature, with our active periods revolving around the primary spring and fall prescribed burning seasons in central and southeast Illinois. In most years, we expect the fire weather season to run from February 15th to May 1st and from October 1st to November 30th. The season start and end times will be coordinated with our primary fire weather user groups, including the Illinois Department of Natural Resources and U.S Fish & Wildlife Service.

- Routine Fire Weather Forecasts will be issued twice daily in season, around 6 AM and 3 PM, to assist land managers with planning and decision making with respect to prescribed burning.

- Fire Weather Watches and Red Flag Warnings will be issued as needed when the combination of dry fuels (grasses, trees, etc) and weather conditions support extreme fire danger.

- Spot Forecasts will be issued upon request from land management agencies to support prescribed burn or wildfire operations.

Check out the Fire Weather section on our website for more information:
http://www.crh.noaa.gov/ilx/firewx.php

Cooperative Observations Going into the Paperless Age

By: Chris Geelhart, Hydrometeorological Technician

The National Weather Service is beginning conversion of the cooperative observer (COOP) program to a paperless program.

There are approximately 11,000 COOP observers nationwide. They take daily readings of precipitation, snowfall, temperatures, and river stages. The data is logged onto a form, and mailed to the local NWS office for quality control, before final submission and archive by the National Climatic Data Center (NCDC). With that many stations, this is no small feat, and is subject to some problems:

- Transcribing hand-written forms can be lead to errors, either typographical or due to misinterpretation of sometimes poor handwriting.
- The observations themselves may have errors in them (for example, data being logged on the wrong day, temperature trends not matching up with adjacent days, etc.).
- The forms can occasionally get lost in the mail.
- Some observers only send in the forms once a month, instead of also relaying the daily observation to the NWS. This keeps this data from being used in real-time operations.

We began the first stage of this conversion about a year ago, when some observers using the WXCODER homepage for relaying daily observations stopped mailing in their paper forms; we downloaded the equivalent from WXCODER and mailed them to NCDC. The WXCODER program has built in quality control to help the observer identify errors at the time of entry, and the typed observation form helped eliminate the hand-writing issue.

In the second stage, which we have recently begun, this concept has expanded to others using WXCODER and also those using the automated IV-ROCS telephone system. A new version of WXCODER has allowed for interfacing of observations from these two systems into a single database, so we can create observation forms from the telephoned observations as well. Stage 3 will occur a bit later, when NCDC will directly download the data from these systems, and not use the paper forms at all.

Not all stations will be able to convert at this time; for example, those stations that have separate forms for soil temperatures, or have split observation times (e.g. temperature at one time and precipitation at another time), will need to keep mailing us the forms. However, we anticipate being able to convert about 2/3 of our 100+ observers to this new method.

Tornado Climatology Page

A new section was added to our homepage recently, presenting tornado climatology statistics for central and southeast Illinois. This page attempts to document every known tornado that has affected the Lincoln NWS's coverage area since 1950. Research has indicated at least 862 tornadoes across the 35 counties, although early tornadoes may have gone undetected due to the less organized spotter networks from the time.

The climatology page is located at: http://www.crh.noaa.gov/ilx/?n=tor-climo

The data was compiled using records from the National Climatic Data Center. Periodically, we did come across a few errors in their database, but there may be some that were missed. If you see an error or a missing tornado, please let us know by sending an E-mail to Chris.Geelhart@noaa.gov and we'll check it out!

Central Illinois Lincoln Logs

National Weather Service
1362 State Route 10
Lincoln, IL 62656

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

The *Central Illinois Lincoln Logs* is a quarterly publication of the National Weather Service office in Lincoln, Illinois. It is available on our Internet page at

www.weather.gov/lincoln

Newsletter staff:

Ernie Goetsch,
Meteorologist in Charge
(co-editor)
ernest.goetsch@noaa.gov

Chris Miller, Warning
Coordination Meteorologist
(co-editor)
chris.miller@noaa.gov

Chris Geelhart, HMT
(design and layout)
chris.geelhart@noaa.gov