Central Illinois Lincoln Logs

National Weather Service, Lincoln, IL

Spring 2009 **Volume 12, Number 1**

In This Issue

Change in Hail Criteria for Severe Thunderstorms

The Central Region offices of the National Weather Service, including the Lincoln office, will be making a change to the criteria for issuing Severe Thunderstorm Warnings. Effective April 1, the minimum hail size criteria was raised from ¾ inch to 1 inch. There will be no change to the wind speed criteria of 58 mph or higher.

Over the last 4 years, a demonstration project was held by the NWS offices that serve Kansas, testing this change. This experiment was based on feedback from local partners, as well as scientific research conducted by Texas Tech University which demonstrated that significant property damage does not occur until hailstone sizes reach 1" in diameter. There was also concern about the public becoming desensitized to Severe Thunderstorm Warnings, due to numerous warnings for penny or nickel size hail. Central Region, along with the NWS Office of Climate, Weather and Water Services (OCWWS), is now taking steps to expand the demonstration area to encompass all Central Region weather offices.

Customer responses from the Kansas test have indicated high satisfaction with adoption of the 1-inch hail criterion.

- Media partners said warnings are more meaningful because the public knows there is a genuine risk of damage when a Severe Thunderstorm Warning is issued.

- Emergency managers agree warnings carry more weight and credibility. Spotter activations concentrated on significant events alleviate the occasional decrease in spotter interest from over-activation for marginal storms.

The NWS will continue to track all thunderstorms very closely, but it is expected that fewer Severe Thunderstorm Warnings will be issued. For "sub-severe" or strong thunderstorms, the NWS will instead issue Special Weather Statements that detail threats of small hail, wind gusts of 40 mph or higher, and/or frequent cloud-to-ground lightning to the public.

2008 Climate Statistics:

Peoria:

- Average Temperature -- 50.6°F (0.2°F below normal)
- Extreme Temperatures -- 94 (8/4) and -8 (1/24)
- Precipitation – 46.57 inches (10.55 inches above normal; 8th wettest year on record)
- 24-hour Maximum: 4.72 inches on Sep. 13-14
- Snowfall – 33.1 inches (6.8 inches above normal)
- 24-hour Maximum: 5 inches on Feb 6

Springfield:

- Average Temperature – 51.6°F (1.1°F below normal)
- Extreme Temperatures – 93 (6/12 and 8/4) and -2 (1/24)
- Precipitation – 53.73 inches (18.17 inches above normal; 5th wettest year on record)
- 24-hour Maximum: 4.99 inches on June 2-3
- Snowfall – 28.1 inches (3.5 inches above normal)
- 24-hour Maximum: 6.5 inches on Feb 1

Lincoln:

- Average Temperature – 50.1°F (1.1°F below normal)
- Extreme Temperatures – 93 (8/4) and -11 (1/25)
- Precipitation – 56.25 inches (17.95 inches above normal; wettest year on record)
- 24-hour Maximum: 3.18 inches on July 12
- Snowfall – 23.7 inches (2.7 inches above normal)
- 24-hour Maximum: 4.7 inches on Jan 7

Storm Spotter Training Underway

Training of storm spotters is in wrapping up across central and southeast Illinois!

Storm spotters provide critical information for their communities and the NWS during severe weather events. Their observations field allow the NWS to correlate their interpretations of Doppler radar with what is occurring in the field, as these can change from event to event. Training is available annually, typically in the late winter and early spring, in order to prepare for the upcoming severe weather season.

The latest schedule of training is available on our web page at: http://www.crh.noaa.gov/ilx/?n=spotter

Anyone with an interest is welcome, unless the schedule specifically says otherwise. There are no fees – only an investment of 2 or 3 hours of your time.

Former Lincoln WCM Passes Away

Rod Palmer, the former Warning Coordination Meteorologist (WCM) for the Lincoln NWS, passed away on January 26.

Rod worked for the NWS for over 44 years, dating back to its time as the Weather Bureau. His first assignment was at the Weather Bureau office at Stampede Pass, Washington, in June 1958. The office was typically snowbound for 7 months each year, requiring people and supplies to come in via snowshoe or skis. He transferred to the office at Tatoosh Island, off the northwest tip of Washington State, in 1960. From there, he transferred to the Weather Bureau office in Fairbanks, Alaska, in 1963. After a brief stop in St. Louis in 1970, he arrived at the NWS office in Peoria in the spring of 1971. He spent 18 years there, conducting spotter training, working with the media, and setting up the amateur radio network that the Lincoln NWS still uses today. In 1988, he transferred to the Springfield NWS office, where he eventually became the Meteorologist in Charge.

In 1995, he was selected as the WCM for the new Lincoln office. During his time at Lincoln, he worked to expand the NOAA Weather Radio network for the state from 7 to 28 transmitters. He also worked on the StormReady program and on a weather preparedness and safety course for Illinois schools. Additionally, he served as the first president of the Central Illinois chapter of the American Meteorological Society. He retired from the NWS in November 2002.

“Rod was a good friend to all that knew him, and especially to those he worked with,” said Ernie Goetsch, the Lincoln NWS Meteorologist in Charge. “He always had a good joke or story. He will be missed!”

More Major Flooding on Area Rivers

Some rivers in central Illinois, which had experienced significant flooding in September, approached similar stages in March after heavy rainfall affected the area. The most significant flooding occurred along the Illinois and Spoon Rivers.

On the Illinois River, Henry reached its 3rd highest crest on record, with a stage of 31.52 feet on March 13th. This surpassed the mark of 31.10 feet that was set last September 19th. Peoria saw its 4th highest crest on record, with a stage of 27.94 feet on the 14th. Major flooding also occurred down the rest of the Illinois River.

The picture below shows flooding that affected the Bernadotte area of Fulton County.

StormReady: Is Your Community Ready?

By Patrick Bak, Senior Meteorologist &
Chris Miller, Warning Coordination Meteorologist

Ed Shimon, senior forecaster at the Lincoln NWS, presents a StormReady sign to Carolyn Hayes and Vicky Turner of the Peoria County Emergency Management Agency

The StormReady program helps communities with communication and safety skills needed to save lives and property – before and during an event. When the NWS designates a community or county as "StormReady" we are recognizing the planning and organizational skills that are in place in the event of a disaster.

In recent months, Peoria County and the community of Chapin have been declared StormReady. They join Piatt County and the communities of Champaign, Urbana, Savoy, Mahomet, Peoria, Tuscola, Flora, Taylorville, Pana, and Hoopeston that have the StormReady designation in central and eastern Illinois.

Across Illinois, there are 58 StormReady designations (details at http://www.stormready.noaa.gov/com-maps/il-com.htm):

- 43 communities
- 13 counties
- 3 corporate supporters
- 2 universities

What does your community need to be declared StormReady? Some of the items that need to be in place for a community to be declared StormReady include:

- Established communications with a 24 hour Warning Point and Emergency Operations Center
- Numerous methods for the community to monitor weather conditions, receive NWS warnings and disseminate the warnings to the public
- Community preparedness through weather safety presentations to schools, businesses and civic groups
- Severe weather training for storm spotters and dispatchers

For more information about the StormReady program visit our website at: http://www.stormready.noaa.gov/

Other new staff members:

- **Tom Raineri** is the new Information Technology Officer. He joins us after serving as the Electronics Systems Analyst (ESA) at the NWS office in Caribou, ME.
- **Ken Hunter** returns as our new Electronics Technician. Ken previously served our office in that position, and in the interim, was the ESA at the Amarillo, TX NWS office.

Focus on NWS Staff Members

Amy Becker is the Lincoln NWS's new meteorological intern.

Since an early age, I have been interested in the weather. When I was 3, a tornado blew through our neighborhood, damaging our home and setting fire to the property. My mom remembers trying to decide if we should stay inside with the fire, or go outside with the tornado. Since then, being able to "read the sky" was always a goal of mine. When I graduated high school in 1998, I started my college career at the University of Missouri – St. Louis. In December 2003, I transferred to the University of Missouri – Columbia (Mizzou) to pursue my meteorology degree. I graduated with my bachelor's degree in July 2005, and my master's degree in December 2007. During my academic career, I was involved with the Mizzou Meteorology Club, the Mizzou Storm Chase Team; I joined the atmospheric science honor society, Chi Epsilon Pi, and was involved in the local community outreach and weather education. During graduate school, I joined the Research on Convective Snows (ROCS) research group, which studied and forecasted convective snow across the central United States. My master's research investigated lightning activity associated with thundersnow.

In January 2009, I moved to Lincoln, IL to work for the National Weather Service. I am really excited to start my career working for NOAA! I've already gotten involved in the local COOP program, meeting new weather observers and setting up new observations sites. I'm proud to work for an organization that does its best to protect and serve the local community.

Cooperative Program News

By: Billy Ousley, Data Acquisition Program Manager

WxCoder (pronounced "weather coder") is the official web-based entry system for the National Weather Service (NWS) Cooperative Observer Program (COOP)! Combined with IV-ROCS, the telephone entry system, WxCoder offers the means for daily entry of weather records for COOP volunteers. WxCoder is sponsored by the National Oceanic and Atmospheric Administration (NOAA) through the National Weather Service, the Regional Climate Center Program and the National Climatic Data Center.

COOP consists of thousands of dedicated volunteers that take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The input data are truly representative of where people live, work and play. Since 1890, COOP has fulfilled key mission elements:

To provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour

precipitation totals, required to define the climate of the United States and to help measure long-term climate changes

To provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS.

The “Paperless Data Collection Initiative:”

Observers who have been using WxCoder have not been mailing observing forms for the office; instead, we have printed them off here using the database and then mailing them to NCDC. Beginning in March, NCDC is downloading the data directly. The following process will be utilized:

- A recent upgrade to WxCoder requires the observer to “close out” a month of observations. This is done on a month-by-month basis, and gives the observer a chance to make any last-minute changes. Observers have until the 10th of the new month to make any changes, then the system will automatically “close out” the month.

- After the observer is done, the NWS will go in and perform a similar review. We will then “close out” the month’s form for each site. At that point, no changes can be made on either end, and the data is sent to NCDC.

Additional recent changes to WxCoder:

- Precipitation time-of-occurrence entry has been enhanced. 48 hours are displayed on the entry form (two 24-hour lines), allowing observers to more easily enter times when they cross midnight.

- Observing forms B-92 and B-83A are now available as output formats. Previously the system only supported the standard B-91 form.

What does this all mean?

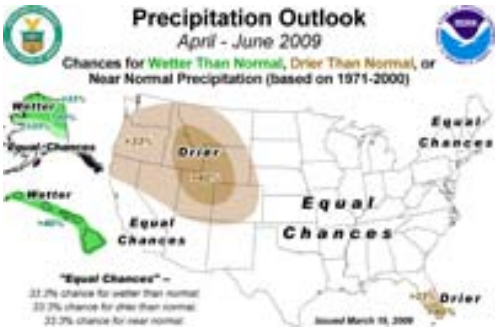
Beginning with the end of March Observation data, you will no longer be required to submit “hard copies” of your observation form. This will eliminate the need for you to submit B-91 forms by mail. Instead, you will have the ability to electronically certify (close-out) your observations at the end of the month for official submission to NWS and NCDC. You can print off the B-91 form through WxCoder for your own use throughout the month.

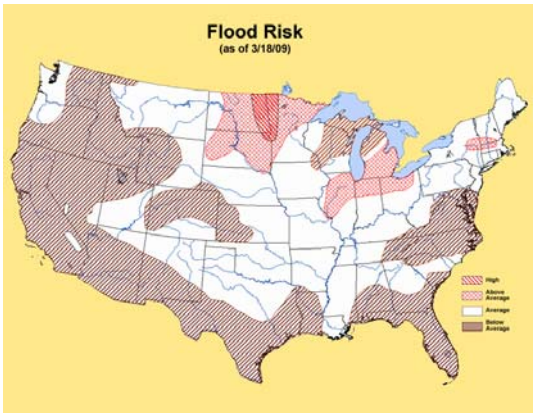
The benefits of electronic submission are numerous, and include ease of use, timeliness, and quality assurance and control feedback.

For more information on WxCoder or the COOP program, contact billy.ousley@noaa.gov .

Spring Weather Outlook

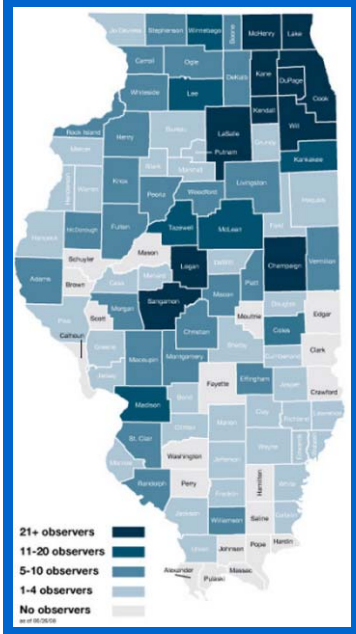
NOAA issued its spring weather outlook on March 19th, shown below. No particular trend in temperatures or precipitation is indicated for Illinois.





Flood risk (left) for central Illinois is indicated as being above normal. This was due to near-record flooding on portions of the Illinois River earlier in March. While this has been subsiding as this is being written, the saturated ground provides the risk of additional flooding with substantial rainfall.

Latest on CoCoRaHS



The CoCoRaHS network continues to grow!

CoCoRaHS stands for the Community Collaborative Rain, Hail & Snow network. It is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, snow and hail). The network originated with the Colorado Climate Center at Colorado State University in 1998, thanks in part to a devastating flood that occurred in the previous year. Since then, the network has expanded rapidly with over 12,000 observers in 39 states.

In the Lincoln NWS coverage area, observers are especially needed in several counties. This includes Clark, Crawford, Edgar, Mason, and Schuyler counties, which currently have few or no observers. However, interested people in other areas are more than welcome as well! More information is available at http://www.cocorahs.org

CoCoRaHS in Illinois is coordinated by the Illinois State Water Survey, the

National Weather Service, and the University of Illinois Extension - Natural Resources Management Team.

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 Editor:
Chris Geelhart, Meteorologist
chris.geelhart@noaa.gov

Why Some People Don't Heed Severe Weather Warnings

The National Weather Service recently issued a report that analyzes forecasting performance and public response during the second deadliest tornado outbreak in U.S. history. The report, *Service Assessment of the Super Tuesday Tornado Outbreak of February 5-6, 2008*, also addresses a key area of concern: why some people take cover while others ride out severe weather.

Dubbed the "Super Tuesday" outbreak due to the presidential primary elections held that day, 82 tornadoes raked nine states throughout the South, killing 57 people, injuring 350 others and causing $400 million in property damage.

Jack Hayes, director of the National Weather Service, included a researcher from the National Center for Atmospheric Research Societal Impacts Program on the assessment team to examine why many people did not take action to protect themselves.

In reviewing the public response, the team found:

- Two-thirds of the victims were in mobile homes, and 60 percent did not have access to safe shelter (i.e., a basement or storm cellar).
- The majority of the survivors interviewed for the assessment sought shelter in the best location available to them, but most of them also did not have access to a safe shelter.
- Some indicated they thought the threat was minimal because February is not within traditional tornado season.
- Several of those interviewed said they spent time seeking confirmation and went to a safe location only after they saw a tornado.
- Many people minimized the threat of personal risk through "optimism bias," the belief that such bad things only happen to other people.

"Protecting life and property is not as simple as issuing a forecast," Hayes said. "A number of barriers often deter people from making risk-averse decisions, and we want to learn all we can to determine if there is more the National Weather Service can do to change this."