# Central Illinois Lincoln Logs

National Weather Service, Lincoln, Illinois

**FALL/WINTER 2017 EDITION**

## National Weather Service Director Visits Central Illinois

On October 6th, the Lincoln NWS was visited by Dr. Louis Uccellini. He is NOAA's Assistant Administrator for Weather Services, which is also known as the Director of the National Weather Service. This was the first visit that an NWS director has paid to our office. Our office briefed him on the wide variety of work we do to serve the public and the emergency management agencies of central and southeast Illinois. In turn, he spoke to us on the latest regarding the evolution of the NWS's model of operations toward providing Impact-based Decision Support Services. While he was here, he participated in launching our evening weather balloon and radiosonde. (For the record, his balloon reached a height of 109,367 feet before bursting.)


**IN THIS ISSUE**


### Preparing for Winter

It's time to get ready for the hazards of snow and ice.

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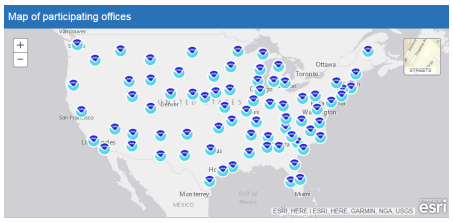


### SKYWARN Recognition Day

If you're an amateur radio operator, join us for SKYWARN Recognition Day on December 1st and 2nd.

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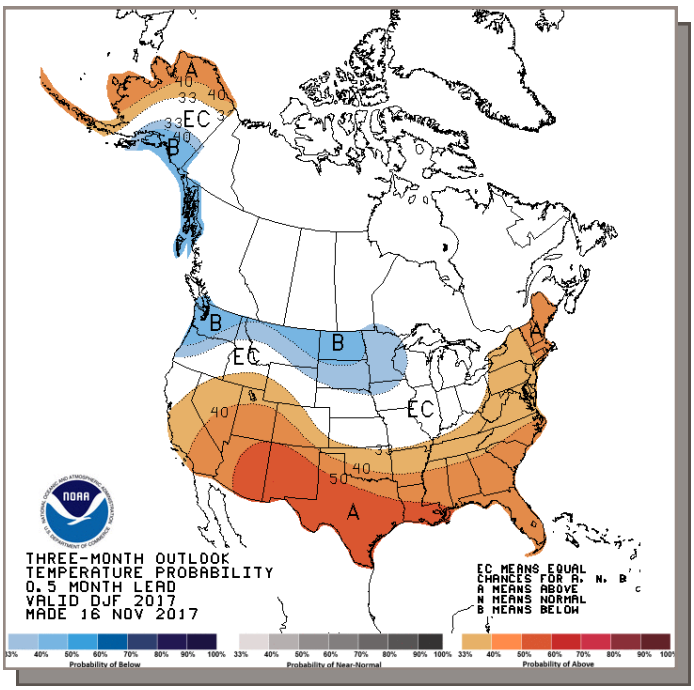
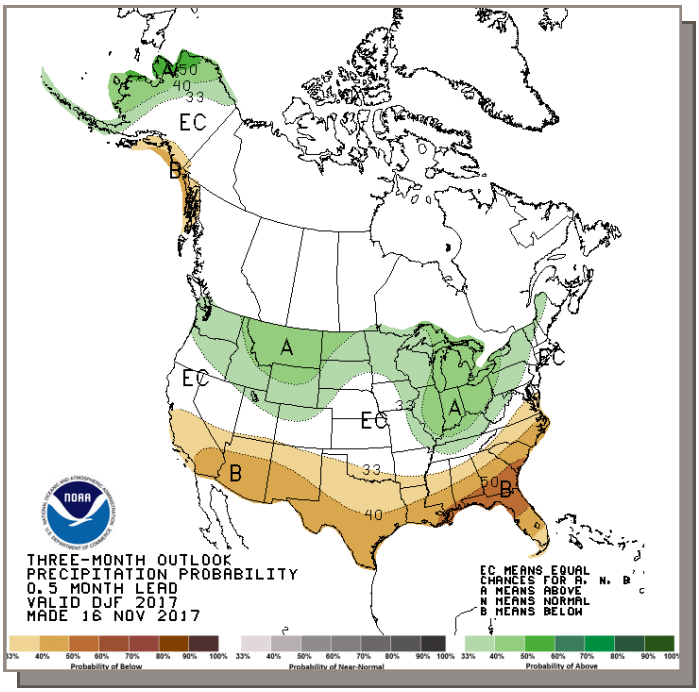
# Winter Weather Outlook

Forecasters at NOAA's Climate Prediction Center released their U.S. Winter Outlook, with La Niña potentially emerging for the second year in a row as the biggest wildcard in how this year's winter will shape up. La Niña has a 55% to 65% chance of developing before winter sets in.

"If La Niña conditions develop, we predict it will be weak and potentially short-lived, but it could still shape the character of the upcoming winter," said Mike Halpert, deputy director of the Climate Prediction Center. "Typical La Niña patterns during winter include above average precipitation and colder than average temperatures along the Northern Tier of the U.S. and below normal precipitation and drier conditions across the South."

Other factors that influence winter weather include the Arctic Oscillation, which influences the number of arctic air masses that penetrate into the South and is difficult to predict more than one to two weeks in advance, and the Madden-Julian Oscillation, which can affect the number of heavy rain events along the West Coast.




The left image shows the temperature outlook for meteorological winter (December 1 through February 28). Above normal temperatures are favored in the orange shaded areas, encompassing much of the southern 2/3 of the contiguous U.S., as well as the East Coast. Below normal temperatures are favored in the blue shaded areas from the Pacific Northwest to the upper Mississippi Valley. Here in Illinois, there is not a strong enough signal to favor the odds in one direction or another (meaning equal chances of it being warmer than normal, near normal, or colder than normal.)

In the right image, wetter than normal conditions are favored across much of the northern half of the continuous U.S., including here in Illinois, with drier than normal conditions across the southern U.S.

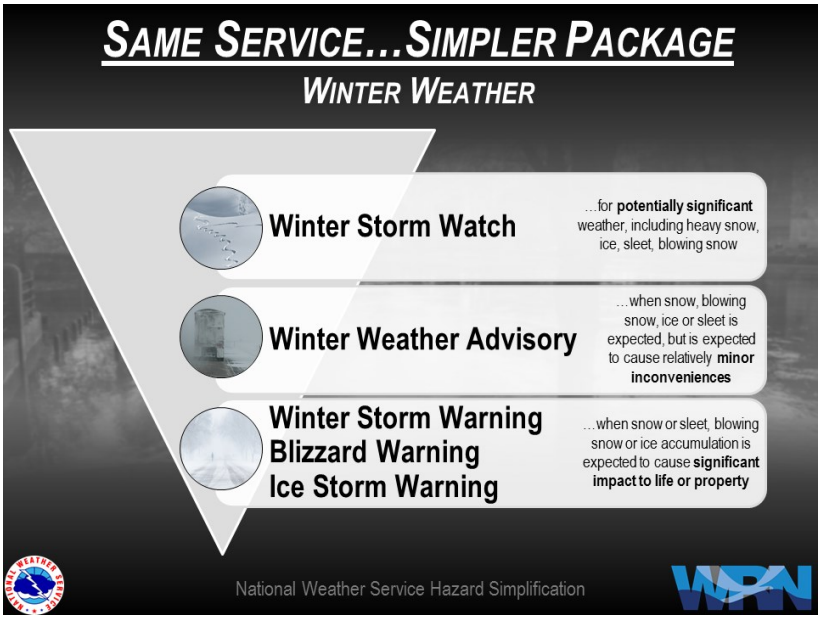
***Note that "wetter than normal" does not necessarily equal "snowier than normal,"*** as this outlook encompasses both rain and snow. NOAA's seasonal outlooks do not project seasonal snowfall accumulations. While the last two winters featured above-average temperatures over much of the nation, significant snowstorms still impacted different parts of the country. Snow forecasts are generally not predictable more than a week in advance, because they depend upon the strength and track of winter storms.

# Changes to Winter Weather Products

On October 2nd, the National Weather Service implemented changes to winter weather products. Feedback from core partners and the public indicated that there was confusion with some of the product types and wording. Based on this feedback, and with support from social and behavioral scientists, adjustments were made to the current products.

Here in central Illinois, the main changes are:

1. Winter Weather Advisories now also encompass the potential for minor accumulations of freezing rain (replacing the stand-alone Freezing Rain Advisory). Ice Storm Warnings will still be issued if at least 1/4" of ice accumulation is expected.
2. Winter Storm Watches now also encompass the potential for blizzard conditions (replacing the Blizzard Watch). While we had the ability to issue a Blizzard Watch before, our office has never actually issued one. Blizzard Warnings will continue to be issued as needed.
3. The text of the watch, warning or advisory has been reformatted to include "WHAT", "WHERE", and "WHEN" sections, to help clarify the important points of the message.




**Example of Old Format:**

...WINTER WEATHER ADVISORY IN EFFECT FROM 6 PM THIS EVENING TO NOON CST MONDAY...

The National Weather Service in Lincoln has issued a Winter Weather Advisory for snow, which is in effect from 6 PM this evening to 6 PM CST Monday.

- TIMING...Snow will develop west of the Illinois River this evening. The snow will be heaviest late tonight into Monday morning. Snowfall amounts of 3 to 4 inches are expected.
- MAIN IMPACT...Expect snow-covered and slick roads for the Monday morning commute. Motorists are advised to drive with caution, and plan on extra time to arrive at their destinations Monday morning.

**Example of New Format:**

...WINTER WEATHER ADVISORY IN EFFECT FROM 6 PM THIS EVENING TO NOON CST MONDAY...

- WHAT...Snow expected. Snow accumulations of 3 to 4 inches.
- WHERE...Areas west of the Illinois River, including Fulton, Knox, Marshall, Peoria, and Stark counties.
- WHEN...Tonight into Monday morning.
- ADDITIONAL DETAILS...Expect snow-covered and slick roads for the Monday morning commute.

## Preparing for Winter


Before a winter storm strikes, make sure your home, office and vehicles are stocked with the supplies you might need. Make sure farm animals and pets also have the essentials they will need during a winter storm. Know how to dress for varying degrees of cold weather.

### At Home and Work

Your primary concerns at home or work during a winter storm are loss of heat, power and telephone service and a shortage of supplies if storm conditions continue for more than a day. In either place, you should have available:

- Flashlight and extra batteries
- Battery-powered NOAA Weather Radio and portable radio to receive emergency information
- Extra food and water such as dried fruit, nuts and granola bars, and other food requiring no cooking or refrigeration.
- Extra prescription medicine
- Baby items such as diapers and formula
- First-aid supplies
- Emergency heat source: fireplace, wood stove or space heater, properly ventilated to prevent a fire
- Fire extinguisher, smoke alarm; test smoke alarms once a month to ensure they work properly
- Extra pet food and warm shelter for pets
- Review generator safety. You should never run a generator in an enclosed space
- Make sure your carbon dioxide detector is working detector and that the outside vent is clear of leaves and debris. During or after the storm, make sure it is cleared of snow.

Home fires are common each winter when trying to stay warm. Review ways to keep your home and loved ones safe.

### In Vehicles

Each year, on average, more than 6,000 people are killed and more than 480,000 are injured due to weather-related vehicle crashes. If you need to drive in snow or cold conditions, TAKE IT SLOW IN THE SNOW. Black ice can be difficult to see. If the temperature is near freezing, drive like you're on ice--you may be!

Before you leave the house, especially before a longer trip in winter, make sure all fluid levels are full and ensure that the lights, heater, and windshield wipers in proper condition. Keep your gas tank near full to avoid ice in the tank and fuel lines. Avoid traveling alone. Let someone know your timetable and primary and alternate routes. Call the state Department of Transportation for the latest traffic and road

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## Preparing for Winter *(cont. from page 4)*

incidents, including construction and weather conditions and restrictions. Every state offers this service. Call before you leave. It might change your plans!

Fully check and winterize your vehicle before the winter season begins. Carry a winter storm survival kit that includes the following:

- Mobile phone, charger, batteries
- Blankets/sleeping bags
- Flashlight with extra batteries
- First aid kit
- Knife
- High-calorie, non-perishable food
- Extra clothing to keep dry
- Large empty can to use as emergency toilet, tissues and paper towels for sanitary purposes
- Small can and waterproof matches to melt snow for drinking water
- Sack of sand or cat litter for traction
- Shovel
- Windshield scraper and brush
- Tool kit
- Tow rope
- Battery booster cables
- Water container
- Candle and matches to provide light and in an emergency, life saving heat.
- Compass and road maps

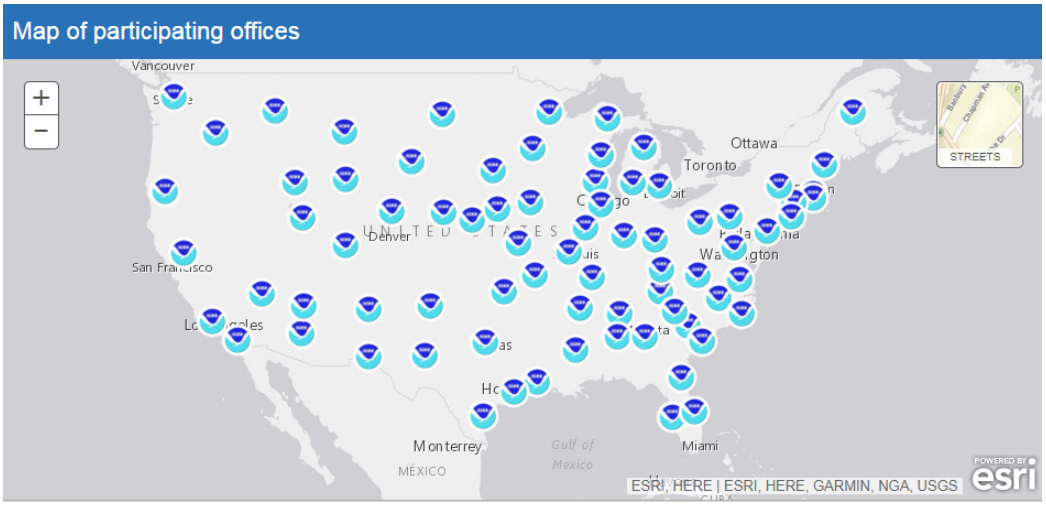
### On the Farm, Pet Owners

- Move animals to sheltered areas or bring pets inside. Shelter belts, properly laid out and oriented, are better protection for cattle than confining shelters, such as sheds.
- Haul extra feed to nearby feeding areas.
- Have water available. Most animals die from dehydration in winter storms.
- Make sure pets have plenty of food and water and a warm shelter.

## Road Condition Information for Illinois and Neighboring States

| State | Phone Number | Web Address |
|---|---|---|
| **Illinois** | 800-452-4368 | https://www.gettingaroundillinois.com/winterconditions/ |
| **Indiana** | 800-261-7623 | https://indot.carsprogram.org/ |
| **Iowa** | 800-288-1047 (or 511 within IA) | https://hb.511ia.org/ |
| **Kentucky** | 866-737-3767 (or 511 within KY) | https://transportation.ky.gov/sites/GoKY/Pages/ |
| **Missouri** | 888-275-6636 | http://traveler.modot.org/map/ |
| **Wisconsin** | 866-511-9472 (or 511 within WI) | https://511wi.gov/ |

# 19th Annual SKYWARN Recognition Day December 1st and 2nd




This year's SKYWARN Recognition Day (SRD) will be held from 6 pm CST Friday, December 1st, through 6 pm CST Saturday, December 2nd. (This period encompasses a single day, as it is from midnight to midnight GMT on December 2nd.)

SRD was developed in 1999 by the National Weather Service and the American Radio Relay League (ARRL). It celebrates the contributions that volunteer SKYWARN amateur radio operators make to our operations. During SRD, SKYWARN operators visit local National Weather Service offices, and try to contact other radio operators across the United States and the world. During the 2016 SRD, our office made 762 contacts in 46 states, including reaching 54 other NWS offices.

Our operating hours will be as follows:

- **Friday, December 1:** 6 pm CST to around midnight
- **Saturday, December 2:** 7 am CST to 6 pm CST

Our office, using the call sign **WX9ILX**, will be using the following bands: 80m, 40m, 20m, 15m, 10m, 2m, and 440 MHz. The modes we plan to operate include SSB, FM, and CW.

Several local repeaters frequencies are available for 2m and 440 MHz operations.

We will be offering QSL cards for this event. Send a self addressed, stamped envelope to:

**WX9ILX**
**Lincoln Weather Amateur Radio Club**
**1362 State Route 10**
**Lincoln, IL 62656**
**USA**

If you're on Twitter, follow along with the activities using the hashtag #skywarn17 .

WX9ILX Central Illinois Repeater Frequencies for Skywarn Recognition Day

| Repeater | Counties Covered |
|---|---|
| 146.655- | Effingham, Cumberland, Shelby, Coles, Macon, Douglas, Moultrie |
| 146.985- | DeWitt, Piatt |
| 146.940- | McLean |
| 444.400+<br>444.900+ | Menard & Sangamon UHF |
| 147.330+ | Peoria, Woodford, Tazewell, Stark |
| 146.685-<br>146.805- | Sangamon, Christian, Logan, Cass, Menard |
| 146.670-<br>146.910- | Peoria, Woodford, Tazewell, Fulton, Mason |
| 147.285+ | Fulton |
| 146.955- | Christian |
| 147.075+<br>147.255+ | Peoria, Woodford, Tazewell, Stark, McLean, Fulton |
| 442.250+<br>443.800+ (*) | Macon, Central IL UHF<br>(*) Multi-linked Repeater System |
| 146.730-<br>147.105+ | Macon |
| 146.775- | Cass, Morgan, Scott |
| 146.790-<br>147.015+ | McLean |

We will float and check any repeater we can hit.

We may also be floating around on 2m simplex near but not on the 2m calling frequency.

Also listen on Friday evening on any repeater…

**We will also be monitoring 147.345+ at all times.**

***In other words, these are starting points but if you hear WX9ILX, grab the opportunity!

## NOAA Weather Radio Information

# 40 Years of NOAA Weather Radio in Central Illinois

It has been 40 years since the debut of NOAA Weather Radio (NWR) in central Illinois. On August 12, 1977, station WXJ-75 in Springfield went on the air. This was followed on December 1 by station WXJ-76 in Champaign, and on December 21 by WXJ-71 in Peoria.

The seeds of NWR were planted as early as 1915, when Clarence Root, the Meteorologist in Charge of the Springfield Weather Bureau office, suggested to national headquarters that "wireless telegraph" messages would be a good way to disseminate forecast information. The idea was tested using experimental station 9ZK in Illiopolis, from a station operated by Harry J.E. Knotts of the State-Center Record newspaper.

Weather Bureau offices eventually began to do routine broadcasts on local commercial radio stations. Dedicated weather radio stations were tested in New York City and Chicago in the early 1950's, airing aviation information for pilots. In 1958, the Meteorologist in Charge of the Chicago office suggested switching their broadcast to marine information instead, which became an immediate success. Later in the 1960's, weather information for the general public was added as the network was slowly expanded.

The major expansion of NWR was driven by the April 1974 "Super Outbreak" of tornadoes, and the designation by the White House that NWR was the sole government-operated radio system to provide direct warnings into private homes, for both natural disasters and nuclear attacks. By the late 1970's, the network had expanded to over 300 stations. Another large tornado outbreak, occurring over the southeast U.S. on Palm Sunday 1994, resulted in another renewed expansion. The network currently has over 1,000 transmitters across the U.S. and associated territories, and nearly all of Illinois is able to receive a NOAA Weather Radio broadcast.

NWR messages were originally manually recorded onto magnetic tapes, and placed into a sequential loop. During severe weather, the loop would be interrupted with a live broadcast of the bulletin. In 1998, this labor-intensive method was updated using a synthesized voice and a computer-based console, which helped support a larger number of stations. The latest version of the synthesized voice was installed in July 2016. However, we still have the ability to do manual broadcasts (live or recorded) if the computer fails.

Our office currently operates 9 transmitters in central and southeast Illinois. To learn more about their coverage areas and broadcast schedules, visit the NOAA Weather Radio section of our home page.

## Technology Update

# GOES-16 On the Move

Our new GOES-16 satellite has been in orbit for a year now, and has undergone checkout and validation since then. Despite that, it has provided extensive usage in the active weather that has occurred since last fall.

The satellite has been operating at a longitude of 89.3°W. However, as it will be replacing the existing GOES-East satellite, it will be drifted eastward to a position of 75°W, beginning on November 30th. During this time, the satellite will be placed in a safe mode, with no images available. The process will take about two weeks, and the data distribution is expected to resume around mid December.