

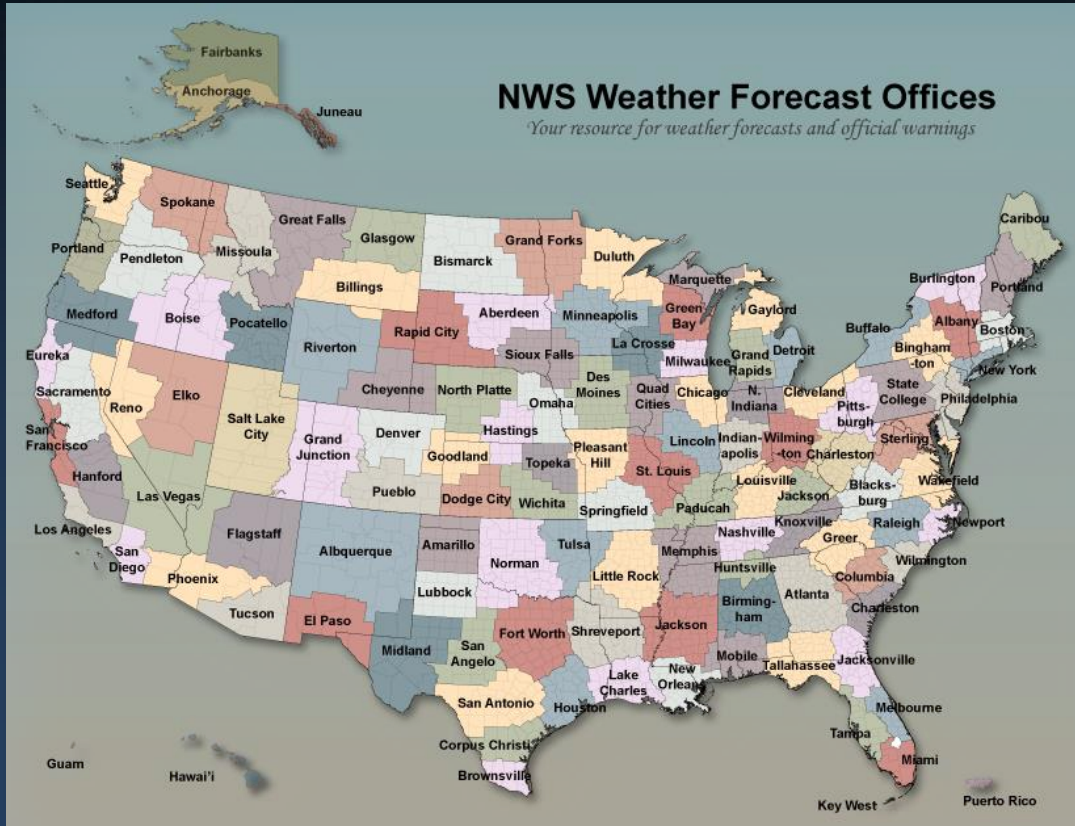


# NOAA's National Weather Service

Central Illinois Weather Forecast Office  
Lincoln, Illinois



# About the NWS



The NWS is made up of:

- 122 local Weather Forecast Offices
- 13 River Forecast Centers
- 21 Center Weather Service Units
- Smaller Weather Service offices in Alaska and the Pacific
- 2 Tsunami Warning Centers
- Nine specialized offices make up the National Centers for Environmental Prediction

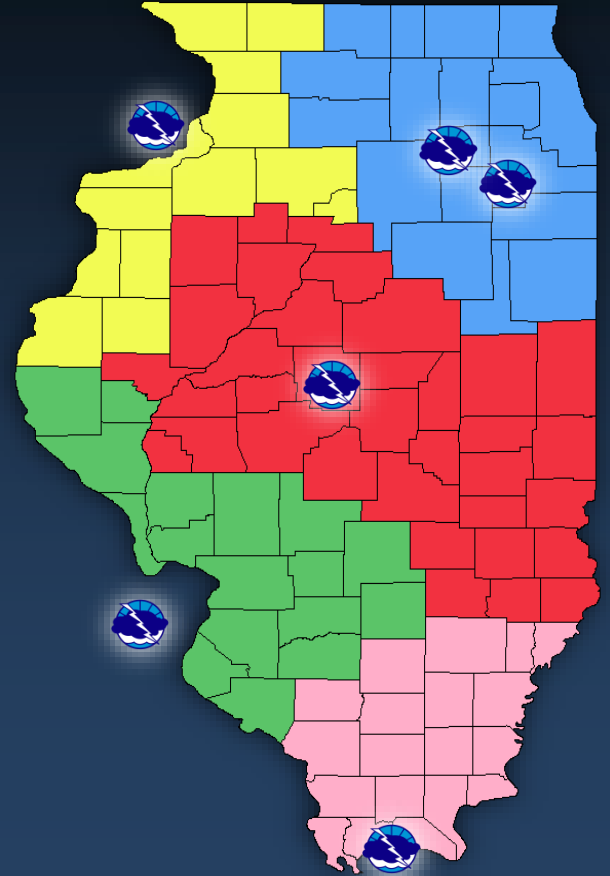


# Areas of Responsibility

5 Weather Forecast Offices serve portions of Illinois:

- Lincoln
- Romeoville (Chicago)
- Paducah KY
- St. Charles (St. Louis) MO
- Davenport IA

Additionally, a Center Weather Service Unit is located near Aurora.





# Our Office

The NWS office in Lincoln is on the south edge of the Logan County Airport.

- Opened in 1995
- Replaced existing offices in Springfield and Peoria
- Open 24 hours a day, 7 days a week, throughout the year





# Our Office

## The Lincoln NWS consists of 23 staff members:

- Meteorologist-in-Charge
- Warning Coordination Meteorologist
- Science & Operations Officer
- Senior Meteorologists (5)
- General Meteorologists (8)
- Observations Program Leader
- Electronic Systems Analyst
- Electronics Technicians (2)
- Information Technology Officer
- Service Hydrologist
- Administrative Support Assistant



# Our Mission



“Provide weather, water, and climate data, forecasts and warnings, and impact-based decision support services – for all of the United States, its territories and adjacent waters – for the protection of life and property and enhancement of the national economy.”





# Our Operations





# Doppler Radar

A Doppler radar, known as the WSR-88D, operates 24 hours a day. It is programmed with specific scan strategies, which allows for quick updates during severe weather, and a slower scan during quiet weather.

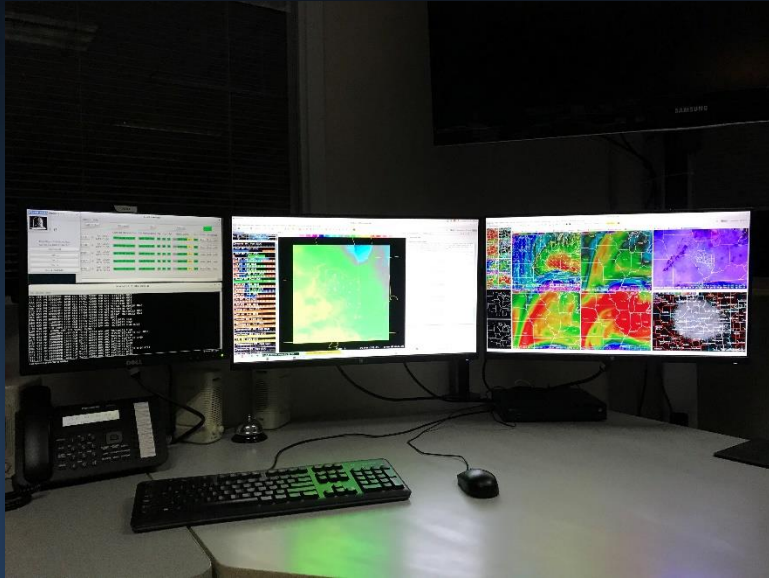


The Lincoln Doppler radar is one of 159 radars that operate as part of the nationwide WSR-88D network.





# AWIPS



- Advanced Weather Information Processing System
- AWIPS allows forecasters to view computer models, satellite information, weather observations, radar data, and more on a single workstation
- The displays consist of 3 screens, which can display text or graphical products
- PC's are next to each workstation, as information from the Internet is also used in the forecast process

Several identical AWIPS workstations are available. They can be used for any operational function, including severe weather operations and backup of neighboring offices.



# Weather Balloons

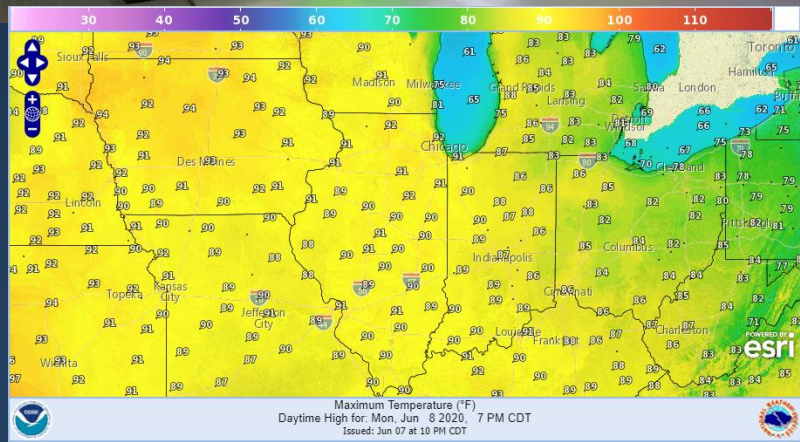
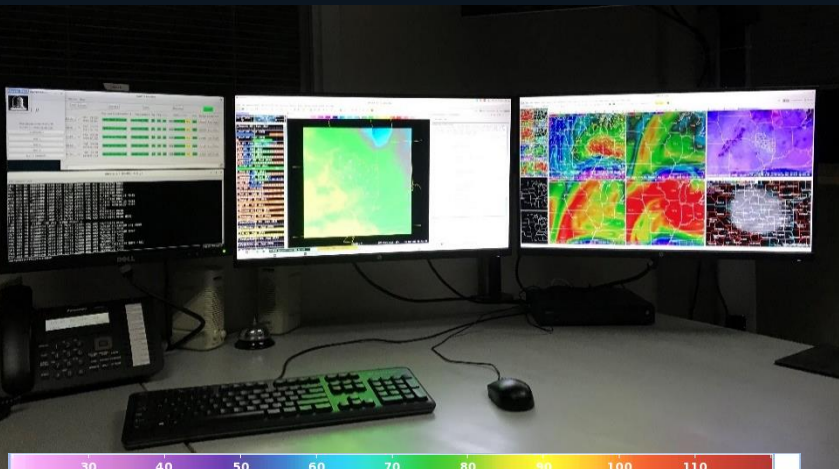
- Launched twice a day, at 5 am and 5 pm CST (one hour later in CDT)
- Instruments attached to the balloons measure temperature and relative humidity in the atmosphere
- Signals relaying the exact position of the balloon lead to calculations of barometric pressure, and wind speed and direction
- The data collected from these balloon flights is used as input to computer forecast models





# Forecast Operations

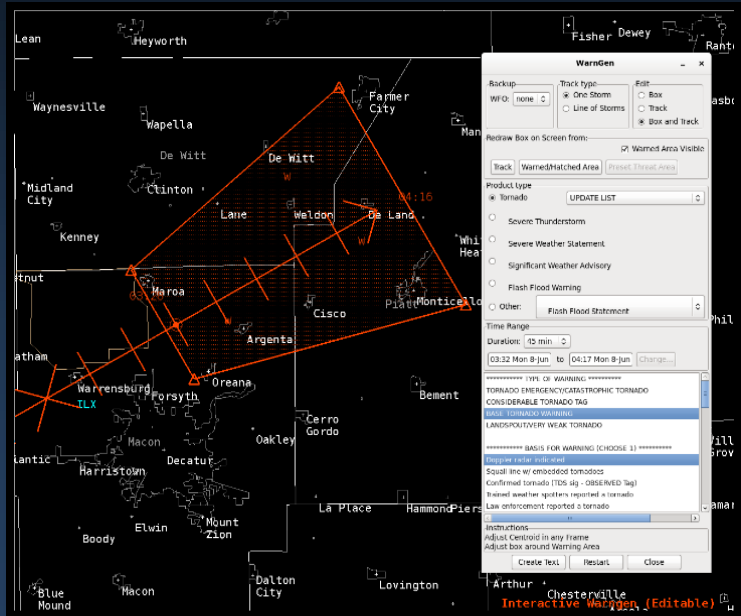
- Graphical and text forecasts are issued for the next 7 days
- We coordinate with neighboring NWS offices to ensure a seamless forecast across coverage areas
- Watches, warnings, and advisories are issued for winter weather, high winds, fog, and flooding
- Aviation forecasts for area airports
- Fire weather forecasts





# Severe Weather Operations

During severe weather, operations can be quite hectic. Several additional people are brought in to assist with specific functions:



- Issuing severe weather warnings and statements (may be divided among several people)
- Coordination with emergency managers and law enforcement
- Volunteer radio operators monitor amateur radio communications
- Special balloon launches, issuing Local Storm Reports, and monitoring social media

For a long outbreak, staff members may be working 12 or more hours in a row. These shifts may extend well into the night.





# Decision Support Services

Meteorologists will work with county and state emergency management agencies, for site-specific and event-specific forecasts.



- Distribute “heads-up” E-mails to relay notices of upcoming hazardous weather events
- Conduct webinars or conference calls with emergency managers for significant winter or severe weather
- In significant events, may be on-site to assist field personnel
- Work from the state Emergency Operations Center in Springfield on request





# Electronics Maintenance



## Maintenance of several systems:

- Automated Surface Observing Systems in Champaign, Decatur, Lawrenceville, Mattoon, Peoria, and Springfield
- WSR-88D Doppler radar in Lincoln
- Balloon tracking equipment in Lincoln
- NOAA Weather Radio equipment
- Office computer networks

Two electronics technicians, as well as an Electronics Systems Analyst and Information Technology Officer, are used for this purpose. The maintenance can be involve long travel days, heavy equipment parts, and working outdoors in extreme heat or cold.



# Cooperative Observer Network

We operate a network of approximately 80 volunteer weather observers. They may measure the following each day:



- High and low temperatures
- Precipitation
- Snowfall and snow depth
- Frost depth in season
- River stages

These observations are used to support forecast operations, climatological analysis, and research.

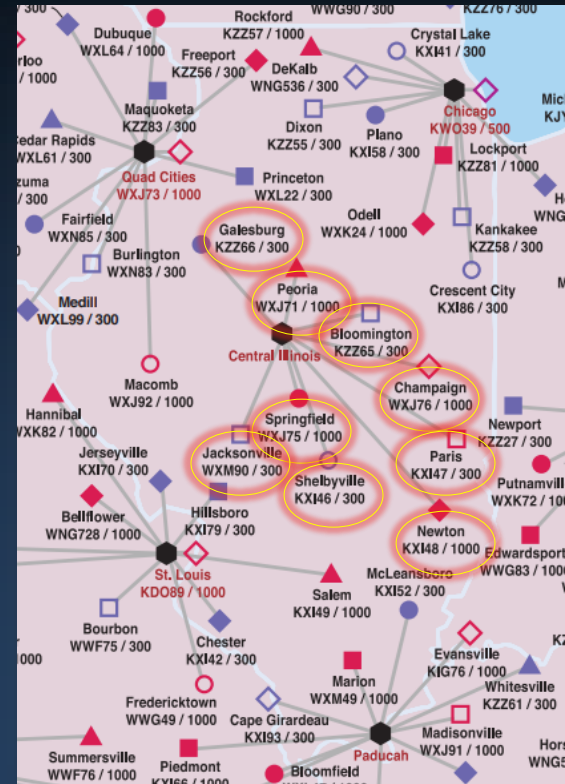


# NOAA Weather Radio

Over 1,000 NOAA Weather Radio (NWR) stations operate nationwide.

- The Lincoln NWS operates 9 NWR stations
- Text messages are processed on the AWIPS system and formatted with a synthesized voice for playback
- Messages are aired 24 hours a day, with the contents reduced during severe weather to broadcast the most critical information more frequently

In the event of computer failure, the staff can manually record messages as necessary.







# Outreach

Staff members conduct storm spotter training each year, visit schools and community gatherings, participate in media interviews, and conduct office tours.





# NOAA's National Weather Service

For more information:

Ed Shimon,  
Warning Coordination  
Meteorologist

[Edward.Shimon@noaa.gov](mailto:Edward.Shimon@noaa.gov)

