

## Illinois State Climatologist

The Illinois State Climatologist is located in Champaign, Illinois, at the Illinois State Water Survey (ISWS). The ISWS, a division of the Illinois Department of Natural Resources Office of Scientific Research & Analysis and an affiliated agency of the University of Illinois at Urbana-Champaign, is the primary agency in Illinois for research and information on surface water, groundwater, and the atmosphere.

Like all states, Illinois is sensitive to weather and climate. Long-term changes and short-term fluctuations in climate can result in significant positive and negative effects. Particularly noteworthy for their serious effects on Illinois residents are extreme events. Notable recent examples include the 1995 heat wave, the 1993 Mississippi River flood, and the 1988 drought.

The State Climatologist promotes the use of climate information in areas crucial to the economic and environmental benefit of Illinois by disseminat-



*State Climatologist Jim Angel frequently provides weather information to the public through statewide press releases and interviews aired by local television and radio stations.*

ing climate information, monitoring climate events, conducting applied research, and making presentations to community organizations, individuals, and the media.

Additionally, the State Climatologist conveys information to the public on the impacts of climate change and variability on climate-sensitive systems such as agriculture and water resources, and on the characteristics and impacts of severe events (heavy rainstorms, tornadoes, ice storms, and snowstorms).

## Help on Understanding Climate

There are several ways in which the State Climatologist helps Illinois residents understand climate so that they can better cope with its impacts.

- *Using historical data to understand past events.* Knowledge acquired is applied to reduce vulnerability to future climate events.
- *Monitoring current climate conditions.* Potential problems are identified before they occur, allowing time to plan and implement the most effective actions.
- *Providing information services.* The State Climatologist is the primary source for climate data and information in Illinois. Individuals, groups, private companies, public institutions, and the media have ready access to the latest data and information on the State Climatologist's Web site. Responses to information requests are by phone, letter, fax, and e-mail. Presentations on climate topics to groups are also a large component of information services.

## Illinois Records

Climate data available in both digital and paper form include:

- *Daily climate data* for nearly 400 Illinois stations, of which 200 stations are currently active. Parameters reported are high and low



*Ice covers an electronic temperature sensor, widely used to collect temperature data across Illinois.*

temperatures, precipitation, and snowfall occurrence and snow depth. Many of these stations date back to the 1940s and a few even to the late 1800s. Limited pan evaporation and soil temperature data are also available.

- *Surface hourly data* for Chicago, Peoria, Rockford, Springfield, Moline, and St. Louis. Parameters reported are air temperature, air pressure, humidity, and wind speeds.
- *Hourly and 15-minute precipitation data* for nearly 150 Illinois stations.
- *Official local climatological data* for Chicago, Peoria, Rockford, Springfield, Moline, and St. Louis from the National Oceanic and Atmospheric Administration.

State-averaged data and storm data are provided upon request. If extensive data are requested, there may be a charge to recover costs.

As a result of frequent interactions with various local, state, and federal agencies, the State Climatologist can guide users to additional data sources—including the Midwestern Regional Climate Center also located at the ISWS.

## Digital Archives for Illinois

The following records were collected from the available digital archives of the official climate records. It is possible that some earlier paper records of observations may beat the records presented here. However, they are harder to obtain and process. A majority of the official climate data comes from a large network of volunteer observers with official training and equipment.

- The highest temperature reported in Illinois was 117°F in East St. Louis on July 14, 1954.
- The lowest temperature reported in Illinois was -36°F in Congerville on January 5, 1999.
- The most rainfall from a single event was 16.94 inches in Aurora during a 24-hour period spanning July 17-18, 1996.
- The most precipitation in a year was a virtual tie between New Burnside in 1950 (74.58 inches) and Carbondale in 1945 (74.50 inches).
- The most snow from a single event was Astoria on February 27-28, 1900 with 37.8 inches.
- The most snow for a single winter was 105.1 inches at Antioch during the winter of 1978-1979.

## Applied Research

The State Climatologist conducts research on climate topics that affect Illinois. Research results appear in ISWS publications or on the State Climatologist's Web site.

Topics include:

- Climate trends
- Drought
- El Niño and La Niña
- Rainfall frequencies
- Summer heat waves
- Tornadoes
- Winter storms

### For more information, contact:

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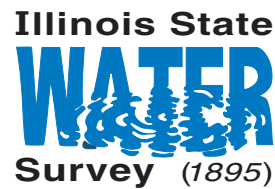
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# ILLINOIS CLIMATE



Equal opportunity to participate in programs of the Illinois Department of Natural Resources (IDNR) and those funded by the U.S. Fish and Wildlife Service and other agencies is available to all individuals regardless of race, sex, national origin, disability, age, religion, or other non-merit factors. If you believe you have been discriminated against, contact the funding source's civil rights office and/or the Equal Employment Opportunity Officer, IDNR, One Natural Resources Way, Springfield, IL 62702-1271; 217/785-0067; TTY 217/782-9175.