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# *Midwestern Climate Center*

Illinois State Water Survey  
Miscellaneous Publication 118

A "missing link" in the delivery of climate information in the United States is now being filled by six federally funded regional climate centers. These centers collect and disseminate climate data and information and coordinate and conduct applied research

The Midwestern Climate Center, located at the Illinois State Water Survey, serves a nine-state region. Because both climate and the demand for climate information are regional by nature, the centers can focus on specific climate impacts on a regional scale and provide meaningful information on them.

In developing the programs and services of the Midwestern Climate Center, Water Survey scientists of national and international renown drew on many years of experience in operating the North Central Regional Climate Center as a demonstration project. Included in that project was the Climate Assistance Service (CLASS), a prototype computerized information system that provided near real-time climate information.

### *Primary Objectives*

The Midwestern Climate Center has three primary responsibilities: information delivery, development of specialized historical climate data sets, and applied research on climate issues.

**Information delivery.** A data delivery system collects real-time weather data and transmits them to users throughout the nine-state region on a subscription basis. The new system is similar to CLASS but much more sophisticated in scope and in the level of information it provides.

**Specialized climate data sets.** Special historical databases have been developed and assembled, and they are revised and expanded regularly. These data address specific problems and issues concerning the midwestern climate. Some examples include a daily precipitation

data set with no missing values for the period 1949-1988 and a data set consisting of estimated values of solar radiation and potential evapotranspiration.

**Applied research.** Projects are designed to define the key weather and climate factors that affect agriculture, water resources, and the production and use of energy. Research is intended to lead to the development of information products applicable to specific climate-related issues or problems.

### *Products and Services*

The Midwestern Climate Center is especially useful to the private agricultural sector, including chemical manufacturers and retailers, financial institutions, the food processing and canning industry, the grain trade, integrated pest management consultants, producers, professional farm managers, the rural insurance industry, and seed production companies.

How and why agriculturists use climate information was the subject of a comprehensive Water Survey study in 1982. Many products and services now available through the center are based on the needs identified in that study, although many products and services are of general use to all climate-sensitive sectors of the economy. The Midwestern Climate Center offers four different types of services to users in the public and private sectors:

- The Midwestern Climate Information System (MICIS), an interactive computer service that offers near real-time climate data and information tailored to regional and individual needs.
- Access to regional climate databases.
- Publications addressing regional climate issues.
- Expertise to coordinate and conduct regional and subregional research projects, including theoretical and practical inquiries, on a contract basis.

### *Organization and Affiliations*

Two advisory groups guide the center's operations and goals. One is composed of representatives of climate-sensitive industries in the region, and the other includes officials of federal agencies concerned with regional climate issues. The Midwestern Climate Center works closely with federal agencies concerned with climate issues, such as the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the U.S. Environmental Protection Agency. The center provides direct assistance to federal, regional, and state agencies and works with other federally sponsored regional climate, weather, water, and agricultural centers.

The center also works closely with the cooperating state climatologists in the midwestern region, serving as a source of climate expertise and assisting in planning and conducting research at the state level. Computer communications link the states and allow constant interchange of climate data and information with the center.

### *Midwestern Climate Information System*

Prominent among the features of the Midwestern Climate Center is the Midwestern Climate Information System (MICIS), a new interactive computer system that allows subscribers to access more than 100 forms of area-specific climate data that are tailored to individual needs.

Based on the prototype Climate Assistance Service, MICIS is unique in the extent of current and real-time climate information it provides. New information products are being developed constantly, and current products are updated daily or weekly. Many are available from no other climate information sources.