Coldest July on Record for the Midwest

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This was the coldest July on record for the nine-state Midwest region, based on preliminary temperature data. The average temperature for the region was 68.0°F, 4.7°F below normal. The previous record was 68.9°F in 1992. It was the coldest July on record for Indiana, Illinois, and Iowa; the second coldest on record for Michigan, Kentucky, Ohio, and Wisconsin; the third coldest in Minnesota, and the fourth coldest on record for Missouri according to Mike Timlin, Regional Climatologist with the NOAA Midwestern Regional Climate Center (http://mrcc.isws.illinois.edu). Records for the region date back 114 years.

Timlin says that more than 400 record low temperatures and 1,300 record low maximum temperatures were set during July across the nine-state region.

“Temperatures were below normal for most of July with two particularly cold periods. The first was July 1-9, and the second was July 17-23,” states Timlin. There were 370 record low maximum temperatures set during the period July 1-9, and 23 record low minimum temperatures. Temperatures ranged from 2°F below normal in southern Missouri to as much as 8°F below normal in the Michigan Upper Peninsula. During the period from July 17 to 23, temperatures were 10°F to 12°F below normal across Iowa, Missouri, much of Illinois, southern Indiana, and western Kentucky, and 6°F to 9°F below normal across the remainder of the region. 942 record low maximum temperatures and 337 record low minimum temperatures were established over this 7-day period.”
Many locations in the central Midwest did not reach 90°F at all during the month. Typically, the number of days 90°F or above ranges from 10 to 15 from southern Missouri eastward through Kentucky, and 3 to 5 days in the northern third of the region. Louisville, KY normally has about 12 days 90°F or above in July, and recorded none this July. St. Louis, MO normally experiences 16 days with temperatures 90°F or above, and only recorded four in July.

International Falls, MN did not report a single day 80°F or higher and experienced their coldest July on record with an average temperature of 58.8°F, breaking the old record of 59.4°F set in 1992. Other locations in the Midwest that had a record cold July include Madison, WI - average temperature of 65.7°F, old record 66.7°F in 1891; Grand Rapids, MI – average temperature 67.1°F, old record 67.2°F in 1992; Cedar Rapids, IA – average temp 66.2°F, old record 69.9°F in 2004; Rockford, IL – average temperature 67.0°F, old record 69.0°F in 1915; South Bend, IN – average temperature 68.3°F, old record 68.5°F in 1996; Cincinnati, OH – average temperature 70.1°F, old record 70.7°F in 1947; and Frankfort, KY – average temperature 71.5°F, old record 75.2°F in 1947. In Missouri, Columbia recorded its seconded coldest July on record with an average temperature of 72.3°F. The record is 72.2°F in 1924.

July precipitation was normal to above normal from southwestern Minnesota to southern Ohio and eastern Kentucky. Rainfall was less than 50 percent of normal from south-central Minnesota across much of Wisconsin. Parts of central Minnesota, much of the northern half of Wisconsin, and the western half of the Michigan Upper Peninsula remained in moderate to severe drought at the end of the month according to the U.S. Drought Monitor.

The MRCC is a program funded by the National Oceanic and Atmospheric Administration, and is located in the Division of Illinois State Water Survey in the Institute of Natural Resource Sustainability at the University of Illinois at Urbana-Champaign.