

A huge, lingering ridge of high pressure over the eastern half of the United States brought summer-like temperatures to North America in March 2012. The warm weather shattered records across the central and eastern United States and much of Canada.

The unseasonable warmth broke temperature records in more than 1,054 locations between March 13-19, as well daily lows in 627 locations, according to Hamweather. Cities as geographically diverse as Chicago, Des Moines, Traverse City (Michigan), Myrtle Beach, Madison (Wisconsin), Atlantic City, New York City, and Duluth, (Minnesota) all broke records for high temperatures in recent days.

The intensity and scope of the heat wave is clearly visible in this map of land surface temperature anomalies. Based on data from the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument on the Terra satellite, the map depicts temperatures compared to the average of the same eight day period of March from 2000–2011. Areas with warmer than average temperatures are shown in red; near-normal temperatures are white; and areas that were cooler than the 2000–2011 base period are blue.

Land surface temperatures are distinct from the air temperatures that meteorological stations typically measure. LSTs indicate how hot the surface of the Earth in a particular location would feel to the touch. From a satellite vantage point, the "surface" includes a number of materials that capture and retain heat, such as sand in the desert, the dark roof of a building, or the pavement of a road. As a result, daytime land surface temperature are usually much higher than air temperatures—something that anyone who has walked barefoot across a parking lot on a summer afternoon knows instinctively.

Records are not only being broken across the country, they're being broken in unusual ways. Chicago, for example, saw temperatures above 26.6°Celsius (80°Fahrenheit) every day between March 14–18, breaking records on all five days. For context, the National Weather Service noted that Chicago typically averages only one day in the eighties each in April. And only once in 140 years of weather observations has April produced as many 80°Fahrenheit days as this March. Meanwhile, Climate Central reported that in Rochester, Minnesota, the overnight low temperature on March 18 was 16.6°Celsius (62°Fahrenheit), a temperature so high it beat the record high of 15.5°Celsius (60°Fahrenheit) for the same date.

References

Climate Central. (2012) A Broken Record of Heat-Breaking Heat. Accessed March 20, 2012. NOAA. (2012) Historic & Unprecedented March Warmth Continues. Accessed March 20, 2012. Ham Weather. Records Events Map. Accessed March 20, 2012.

This marks Chicago's 9th (and last) straight record high in an unbelievable stretch of March warmth that began more than a week ago on March 14.

The new records...

March 14 81

March 15 81

March 16 82

March 17 82

March 18 81

March 19 78 (tied)

March 20 85

March 21 87 (City's warmest ever for so early in the season and 1 degree shy of all-time March record high of 88 reached on March 29, 1986)

March 22 83

Today's high of 83 marked the 8th day this March that the mercury has reached at least 80 degrees far exceeding the previous record of 2 March 80-degree days recorded in 1986.

Far most interesting is that this March's eight days in the 80s ties the record for the most 80-degree plus days in any April. April 1977 logged eight 80s.

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Another record falls before clouds, rain invade March 23, 2012 1:11 AM

By Meteorologist Paul Dailey

Clouds and scattered showers and thunderstorms spread over the Chicago area by afternoon Thursday, but not before another record-high temperature was recorded at the official O'Hare International Airport site. The 83-degree reading broke Chicago's previous record high of 79 set in 1938. Midway hit a high of 84. By about 4 p.m., however, temperatures had dropped to 71 degrees at O'Hare and 72 degrees at Midway, as clouds and showers moved in.

Record highs were set over the northeast quarter of the nation Thursday including locations in 19 states and the District of Columbia.

Temperatures will be 12 to 15 degrees cooler Friday as low pressure moves into Illinois, with clouds and scattered showers and thunderstorms likely.

ASK TOM WHY: Is Chicago the warmest of all the main cities in the continental U.S.?

March 22, 2012 11:45 PM

Dear Tom,

I just looked at the current temperature maps and noted that Chicago is the warmest of all the main cities in the continental United States. Is this a first?

-- Andrew Myers, Leicester, England

Dear Andrew,

As measured at O'Hare International Airport, Chicago's official high temperature March 21 was a stunning 87 degrees (31 C), a reading that shattered the city's previous record high for the date, 77 degrees, in 1938. Chicago's temperature certainly ranked among the nation's highest readings on March 21, but it was not the highest. In the Midwest, Grand Rapids, Mich., and Fort Wayne, Ind., also reached 87 degrees, but the nation's high temperature was set 1,083 miles to the southeast of Chicago, in Punta Gorda, Fla., where it reached 91 degrees (33 C). Among the country's larger cities, only Tampa, Fla., with 88 degrees, was warmer than Chicago.