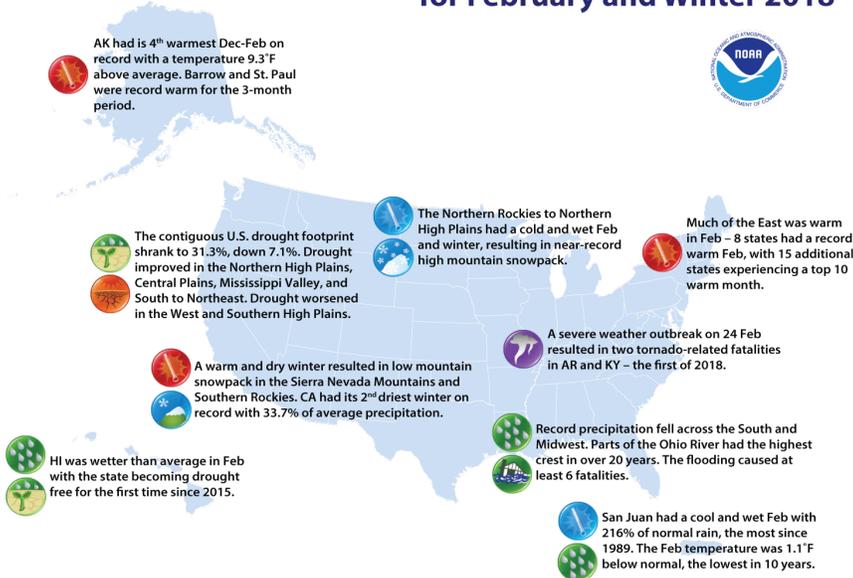




National – Significant Events for December 2017–February 2018

U.S. Selected Significant Climate Anomalies and Events for February and Winter 2018



Highlights for the Midwest

February was the wettest on record for the Midwest region and statewide in Illinois, Indiana, and Missouri. Ohio had its second wettest February while both Kentucky and Michigan ranked 3rd wettest.

Precipitation totals for the latter half of February were more than double normal for over half of the Midwest including nearly all of the southeastern two-thirds of the region. Totals of more than 400% of normal, and even some 500% of normal, stretched from southern Missouri to southwestern Michigan and along the Ohio River. More than 500 daily precipitation records were recorded in these two weeks.

Moderate to major flooding on the Ohio River in late February was the highest since 2011 on the lower stretches of the river and highest since 1997 on mid-sections of the river.

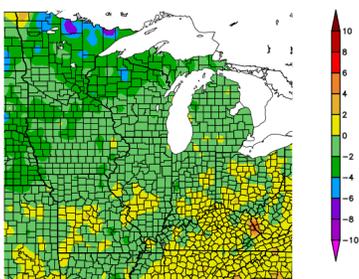
Flooding in northern Illinois and Indiana was enhanced by melting snow and frozen ground. Record flooding in some locations included the Yellow River at Plymouth, Indiana, where the old record was topped by over a foot.

The 14-day period around New Year's Day saw more than 2,300 daily record lows recorded in the Midwest.

Regional – Climate Overview for December 2017–February 2018

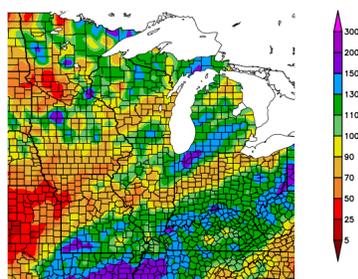
Temperature and Precipitation Anomalies

Departure from Normal (°F)
12/1/2017–2/28/2018



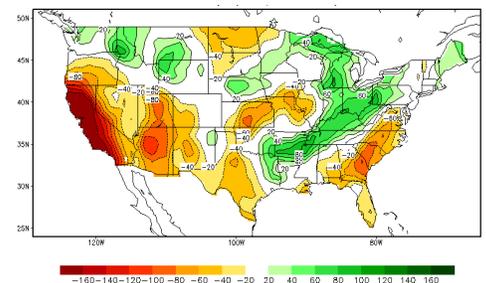
Winter temperatures were below normal in Minnesota, Iowa, Wisconsin, and the Upper Peninsula of Michigan. Temperatures were near normal for the remaining Midwestern states. Temperatures were coolest, compared to normal, in the northwestern third of the region with values running 3° to 8°F below normal. Temperatures for the season averaged out to within a couple degrees of normal for the rest of the region. February temperatures ranked as the 4th warmest on record in Ohio and 6th warmest in Kentucky. There were very warm periods and very cold periods during the winter which offset each other bringing seasonally averaged values close to normal.

Departure from Normal (%)
12/1/2017–2/28/2018



Winter precipitation in the Midwest was mixed. Drier-than-normal conditions were most common in the western parts of the region while wetter than normal conditions were most common in the southern parts, especially along the Ohio River. December was the 16th driest for the Midwest as a whole (Illinois 7th, Iowa 8th), and February was the wettest on record for the region as well as Illinois, Indiana, and Missouri. Ohio ranked 2nd wettest while Kentucky and Michigan ranked 3rd wettest in February. The heavy rains in the latter half of February brought drought relief to Missouri and neighboring states and flooding to the southern and eastern Midwest.

Modeled Soil Moisture February 28, 2018



Modeled soil moisture from the Climate Prediction Center indicated that the Midwest still had some drier areas even after the wet February. Drier than normal areas were modeled in northwestern Minnesota, southern Iowa, and northern and central Missouri. The Ohio River Valley and northward through Michigan were modeled as wetter than normal. Another swath from southern Minnesota to the Upper Peninsula of Michigan was modeled as slightly above normal. The heavy rains in late February, along with melting snow in some locations, saturated soils and led to flooding. Winter drought in Missouri and neighboring states showed improvements due to those same rains.



Regional Impacts – For December 2017–February 2018

Transportation

Barges on the Ohio River broke loose due to ice jams in January with some sinking. Barge traffic in late February was slowed considerably due to the high water on the Ohio River. Snow systems that tracked across the Midwest also affected highway transportation. Numerous multi-vehicle pile-ups, traffic fatalities, and road closures were due to the winter weather.

Agriculture

Low stock ponds and streamflows saw improvements in late February. Warmth in the southeastern Midwest has led to spring greenup running as much as 20 days ahead of normal, risking additional damage with a spring freeze still very likely. Wet soils and flood debris may affect spring planting.

Infrastructure

Water mains broke in Iowa due to cold temperatures. Frost was driven deep in areas lacking snow to insulate the ground.

Flooding

Moderate to major flooding on the Ohio River was the highest since 2011 in some locations and highest since 1997 in others. More than 1,000 structures were impacted by the Ohio River flooding. Record flooding hit areas in northern Indiana where flood waters are typically slow to recede. At least five deaths in the Midwest were blamed on the flooding. Kentucky was declared a statewide disaster and parts of Missouri, Illinois, Indiana, and Ohio were also declared disasters.



Flooding on the Ohio River at Cannelton, IN. Courtesy of USGS.



Flooding in Plymouth, IN. Courtesy of NWS-IWX.

The outlook for spring flooding is higher in the southern and eastern areas that were hit with the heavy rains in February. The chances of flooding are enhanced in these areas with the possibility of moderate or major flooding. In the northwestern part of the Midwest, the flood outlook is lower than normal. Sand deposited from levee breaks along the Kankakee River will need to be cleared from fields.

Regional Outlook – For Spring 2018

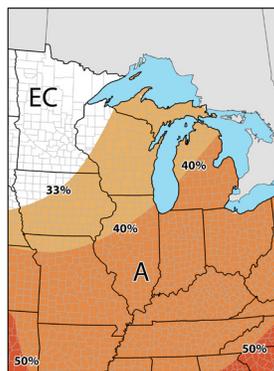
Outlook for April–June

There is an increased chance of above-normal temperatures for much of the Midwest. There are equal chances of above- and below-normal temperatures in the northwest and chances of above-normal temperatures increases to the southeast.

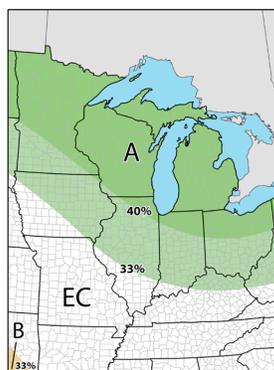
There is an increased chance of above-normal precipitation in the northern half of the region and equal chances farther south. The increased risk of wetter conditions covers the Great Lakes and surrounding areas.

Wet conditions in the southern and eastern Midwest, along with the chances of increased precipitation in the spring, have led to elevated risk of flooding in the eastern parts of the region.

A = Above-normal temperatures EC = Equal chances
B = Below-normal rainfall N = Normal



Temperature outlook for April through June 2018



Precipitation outlook for April through June 2018

Midwest Regional Partners

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USDA Midwest Climate Hub
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