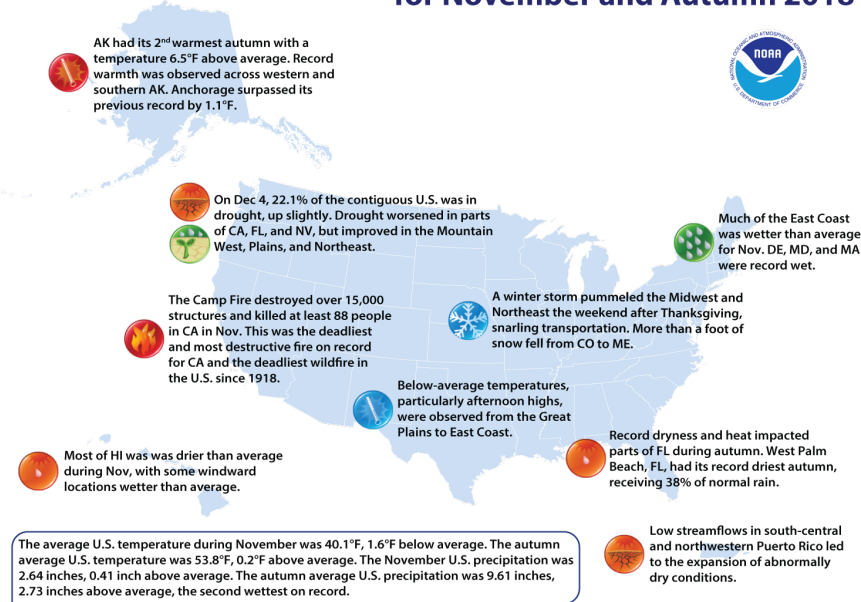




## National – Significant Events for September–November 2018

### U.S. Selected Significant Climate Anomalies and Events for November and Autumn 2018



Please Note: Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: <http://www.ncdc.noaa.gov/soc>

Significant events for September through November 2018 across the United States.

### Highlights for the Midwest

The fall of 2018 ranked as the 5th wettest for the Midwest as a region, dating back to 1895.

Year-to-date precipitation totals for the region ranked as the 2nd wettest. Dozens of long-term stations (85+ years), spread over eight states, had already set annual precipitation records with a month remaining in the year.

Temperatures were above normal in the early fall for most of the region and then quickly swung to below normal for the latter half of the season. For many, the transition around October 11th was a 30°F drop in just two days.

Two early winter storms struck in November. An ice storm hit the southern Midwest on the 14th and then a blizzard on the 25th spread from Kansas City to Chicago.

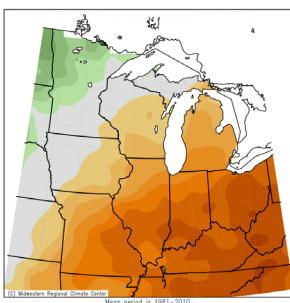
## Regional – Climate Overview for September–November 2018

Fall began with a warm September (15th warmest for the Midwest and record warm in Ohio since 1895) with the warmth continuing through early October for the southeastern two-thirds of the Midwest. There was then a rapid transition to cold weather in just a couple days. Cold temperatures remained in place for the remainder of October and through November. November ranked as the 11th coolest for the Midwest, and 4th coolest for Missouri. The quick transition made for a very short fall-like season for much of the region.

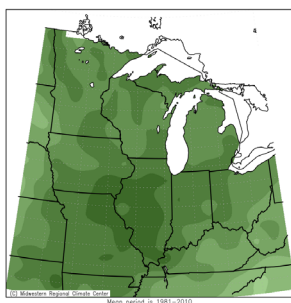
Precipitation was particularly abundant from Iowa to Wisconsin and in the Ohio River Valley. Kentucky had its 2nd wettest fall on record (since 1895), while both Ohio and Iowa ranked 3rd, and Wisconsin ranked 9th. The region as a whole ranked as the 5th wettest on record. The fall began with 16% of the region in drought including some exceptional drought

### Temperature: Departure from Normal

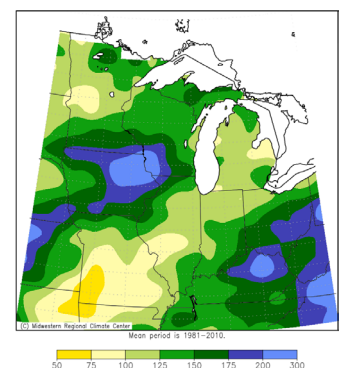
**Early Fall**  
Sep 1–Oct 10



**Late Fall**  
Oct 12–Nov 30



### Fall Precipitation % of Normal



in Missouri (per the U.S. Drought Monitor). Wet fall conditions led to the removal of all drought across the region by the middle of November.

Year-to-date, January to November, precipitation totals had already topped annual records at dozens of long-term stations (period of record: 85+ years) despite having another month to accumulate precipitation. Among the dozens of stations with new annual precipitation records, there was at least one station in every Midwest state except Missouri. Five stations with long histories, two in Wisconsin, two in Iowa, and another in Ohio, had 11-month totals exceeding their previous record annual precipitation totals by 6 to 9 inches.



## Regional Impacts – September–November 2018

### Drought Relief

Drought showed rapid improvement with abundant fall rainfall. Although the heaviest rains fell elsewhere, drought stricken areas received enough to alleviate the drought. From mid-August (when exceptional drought existed), to mid-November (when all drought was gone from the region), abundant rains and then cooler temperatures quickly eased drought conditions.



Southwestern Ohio ice storm on November

15th. Credit: Frozen Cocorahs, Elizabeth Hawkins, Frozen Rose, Kat Bledsoe

### Agriculture

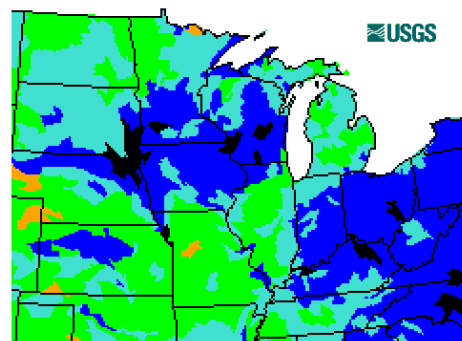
The wet fall had negative impacts as well. Streamflows were well-above average and soils were very wet with standing water in some fields during what would have otherwise been harvest time.

In parts of Kentucky, degraded pasture and feedlot conditions required livestock producers to feed animals in barns. The U.S. soybean harvest, largely centered on the Midwest, was reported to be the least complete as November came to a close (USDA records go back to 1995). The wet conditions led USDA-RMA to extended harvest end dates for crop insurance.

### Transportation

Winter storms in November affected travel on roads and in the air. The blizzard had particularly bad timing coming at the end of the Thanksgiving holiday weekend.

### Map of monthly-average streamflow November 2018



Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	No Data

Streamflow in November

### Fall Leaves

Colorful fall foliage was delayed where warm temperatures prevailed into October. With the sudden shift to cold conditions, many trees failed to drop their leaves. The scientific name for this is *marcescence*.

## Regional Outlook – January–March 2019

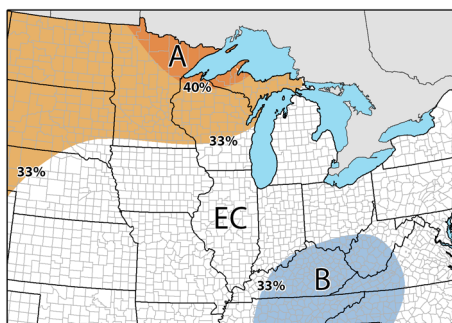
The outlook for January through March shows an increased chance of above-normal temperatures for much of Minnesota, Wisconsin, and Upper Michigan. In the southeastern Midwest, Kentucky and the southern edges of Indiana and Ohio, there is an enhanced chance of below-normal temperatures.

The precipitation outlook shows an enhanced chance of below-normal precipitation centered on Indiana and extending into neighboring states.

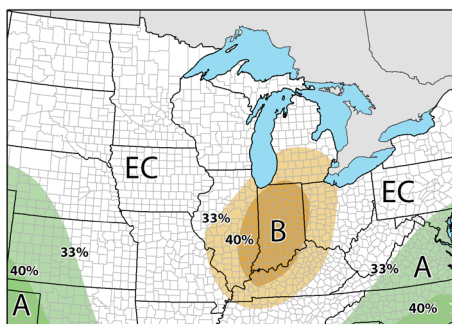
The El Niño Watch continues with weak El Niño conditions expected through winter and into the spring.

Wet soils for much of the Midwest will provide a good source of moisture for next year's crops but could also lead to problems with field work if rainfall is heavy in the spring. The abundant moisture could also increase flooding risk if heavy spring rains develop.

### Temperature



### Precipitation



A = Above normal    N = Normal  
B = Below normal    EC = Equal chances

## Midwest Region Partners

**Midwestern Regional Climate Center**  
[mrcc.illinois.edu](http://mrcc.illinois.edu)

**State Climatologists**  
[www.stateclimate.org](http://www.stateclimate.org)

**National Oceanic and Atmospheric Administration**  
[www.noaa.gov](http://www.noaa.gov)

**NWS Climate Prediction Center**  
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

**National Centers for Environmental Information**  
[www.ncei.noaa.gov](http://www.ncei.noaa.gov)

**National Weather Service Central Region**  
[www.weather.gov/crh](http://www.weather.gov/crh)

**North Central River Forecast Center**  
[www.weather.gov/ncrfc](http://www.weather.gov/ncrfc)

**Ohio River Forecast Center**  
[www.weather.gov/ohrfc](http://www.weather.gov/ohrfc)

**National Drought Mitigation Center**  
[drought.unl.edu](http://drought.unl.edu)

**National Integrated Drought Information System**  
[www.drought.gov](http://www.drought.gov)

**USDA Midwest Climate Hub**  
[www.climatehubs.oce.usda.gov/midwest](http://www.climatehubs.oce.usda.gov/midwest)