

NWS Wilmington, Ohio October 2016 Regional Climate Summary



Regional Climate Summary

October 2016 will largely be remembered as a very warm month that included several stretches of late-Summer-like temperatures. Several stretches featured high temperatures in the upper 70s and even the lower 80s across the region. And even though it didn't rain very much through the month, a rainy 2 to 3 day stretch from the 19th through the 21st resulted in widespread 1.5 to 3 inches across the area. So despite the fact that it only rained on 7 or so days through the month, the total precipitation was not that far removed from what would usually be expected for October.

Temperatures

A large upper level low pressure system that meandered about the Ohio Valley through the final several days of September began to pull away from the region during the first couple days of October. As the upper-level low departed, temperatures began to trend above normal, with highs reaching into the 80s by the 4th. This stretch of unusually warm weather persisted for several days before a strong cold front moved through late on the 7th, allowing for cooler/more seasonable air to return to the region by the 8th and remained until the 11th.

Above normal temperatures returned for the 12th in advance of a system that moved through late on the 12th and into the 13th. Cooler more seasonable temperatures soon followed.

By the 15th, temperatures trended above normal once again and this began a stretch of well above normal temperatures. In fact, on the 18th, Columbus tied a record high temperature of 83°F that was originally set in 1938. Additionally, Columbus set a new record high minimum, dropping to only 69°F (breaking old record of 65°F set in 2007). Moreover, the low temp of 69°F was the first time the temperature stayed at or above 69°F in the month of October since 1941! Both Cincinnati and Dayton also set new record high minimums on the 18th, dropping to only 69°F (67°F – 1905) and 66°F (65°F – 1947), respectively.

After the extended stretch of record warmth, a front moved through on the 19th, bringing more seasonable air to the region. Several days of seasonable temperatures were soon followed by a quick warm-up before another cold front moved through on the 24th.

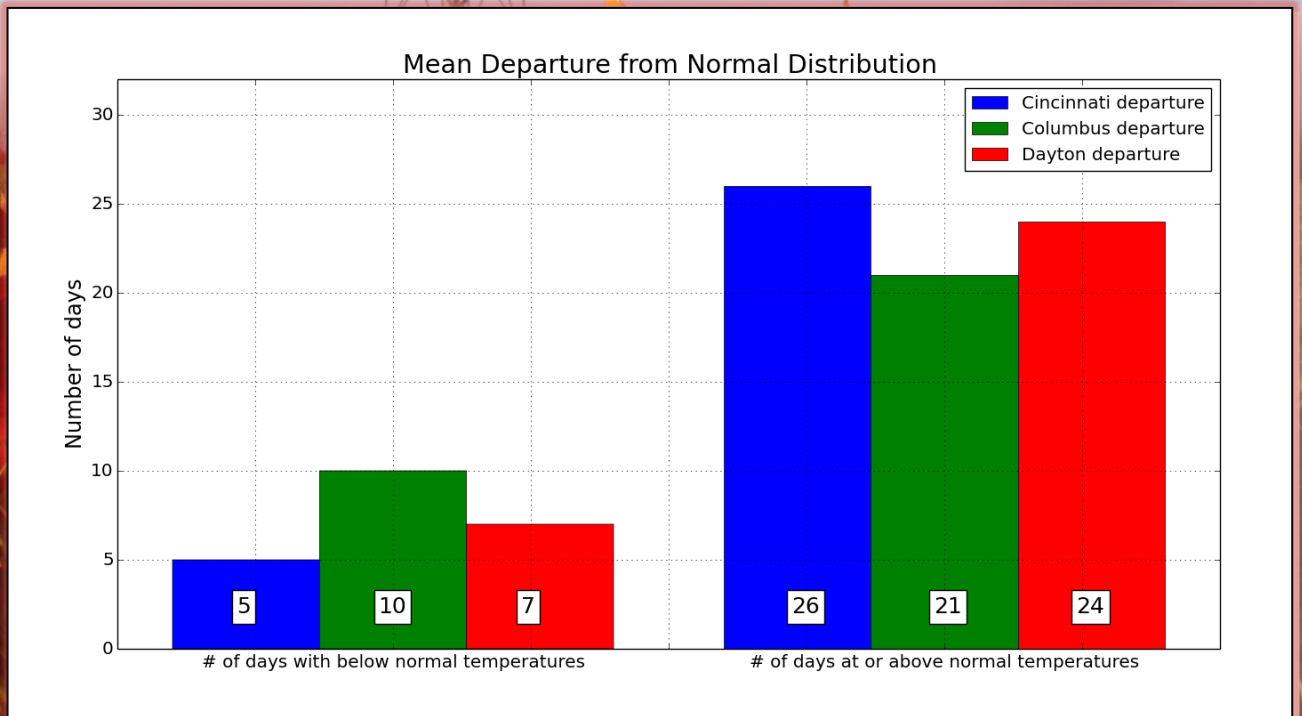
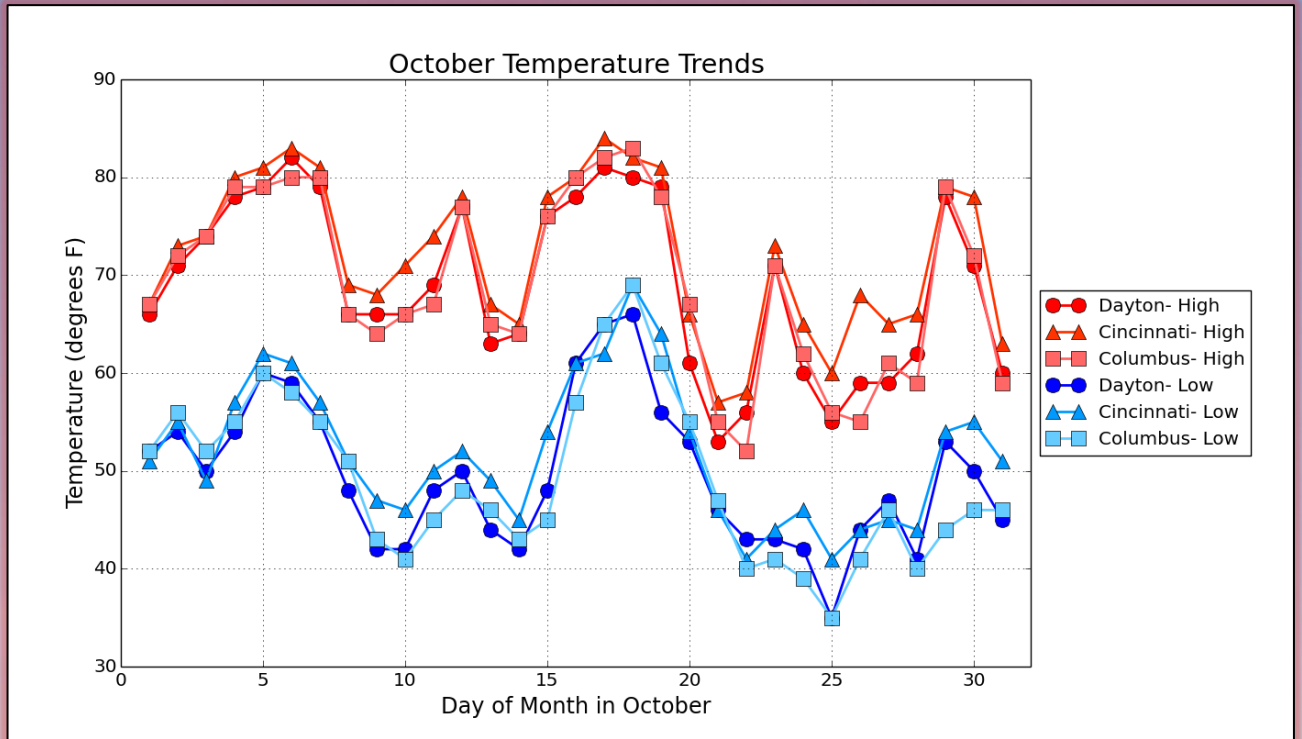
A cold front moved through early on the 27th, providing a reinforcing shot of seasonably cool air. However, above normal temperatures returned for the last couple of days of the month.

Cincinnati (CVG) finished with its 7th warmest October on record, with a daily average temperature of 62.0°F. Columbus and Dayton finished just outside their respective top ten warmest Octobers on record.

Site	Avg Temp (°F)	Avg High Temp (°F)	Avg Low Temp (°F)	Departure From Normal (°F)	Maximum Temperature (°F)	Minimum Temperature (°F)
Cincinnati (CVG)	62.0°F	72.1°F	51.8°F	+ 6.1°F	84°F (17 th)	41°F (Mult.)
Columbus (CMH)	59.2°F	69.3°F	49.1°F	+ 4.2°F	83°F (18 th)	35°F (25 th)
Dayton (DAY)	59.3°F	69.0°F	49.6°F	+ 5.4°F	82°F (6 th)	35°F (25 th)



Temperatures (Continued)



Precipitation

Rain showers associated with a departing upper level low occurred to start of the month. After the departure of this low, an extended stretch of dry weather followed. Although a couple of weak systems brought light precipitation to the area, precipitation values by the middle of the month were well below normal for most locations. Dayton had only received 0.28 inches, Cincinnati 0.08 inches, and Columbus received only 0.01 inches of precipitation at the halfway point in October.

After the abnormally dry first half of October, a stalled front and an area of low pressure brought two consecutive days of soaking rain to the region. In fact, many locations received over an inch of rain between the two days. Some locations, such as Cincinnati, received over 2.5 inches of rain on the 19th/20th combined. Most of the region erased the rainfall deficit that had developed over the first 15 days or so of the month.

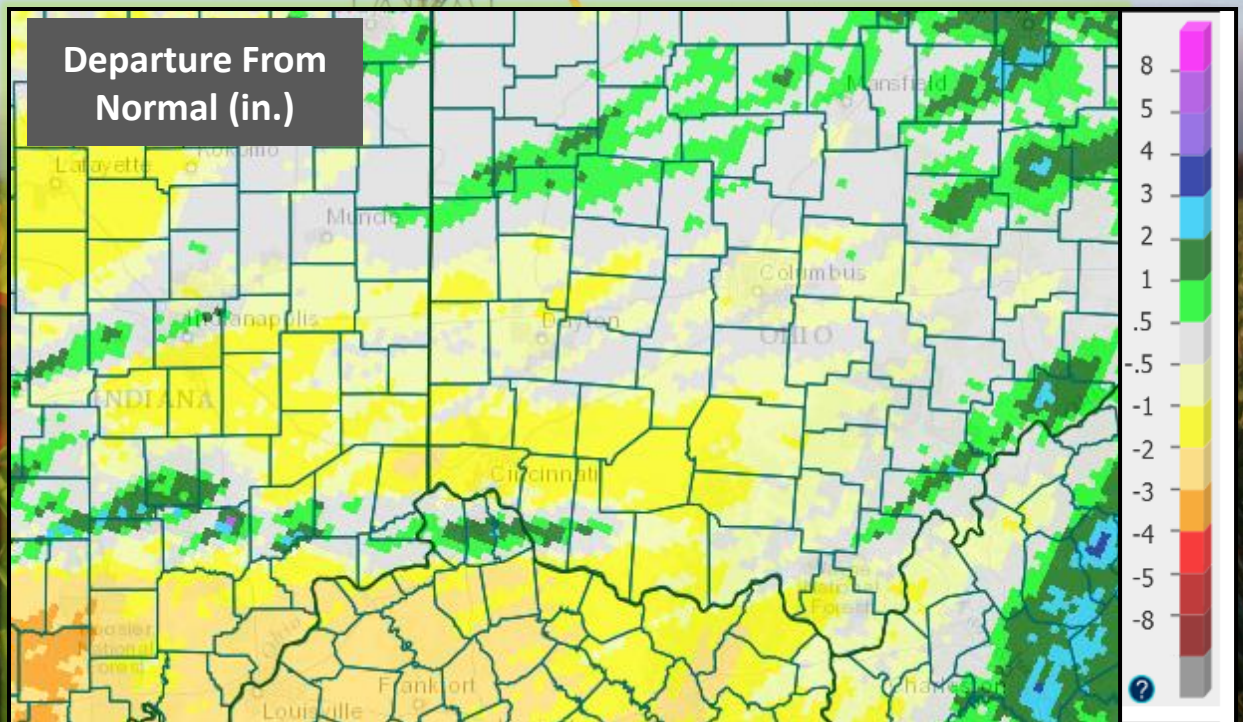
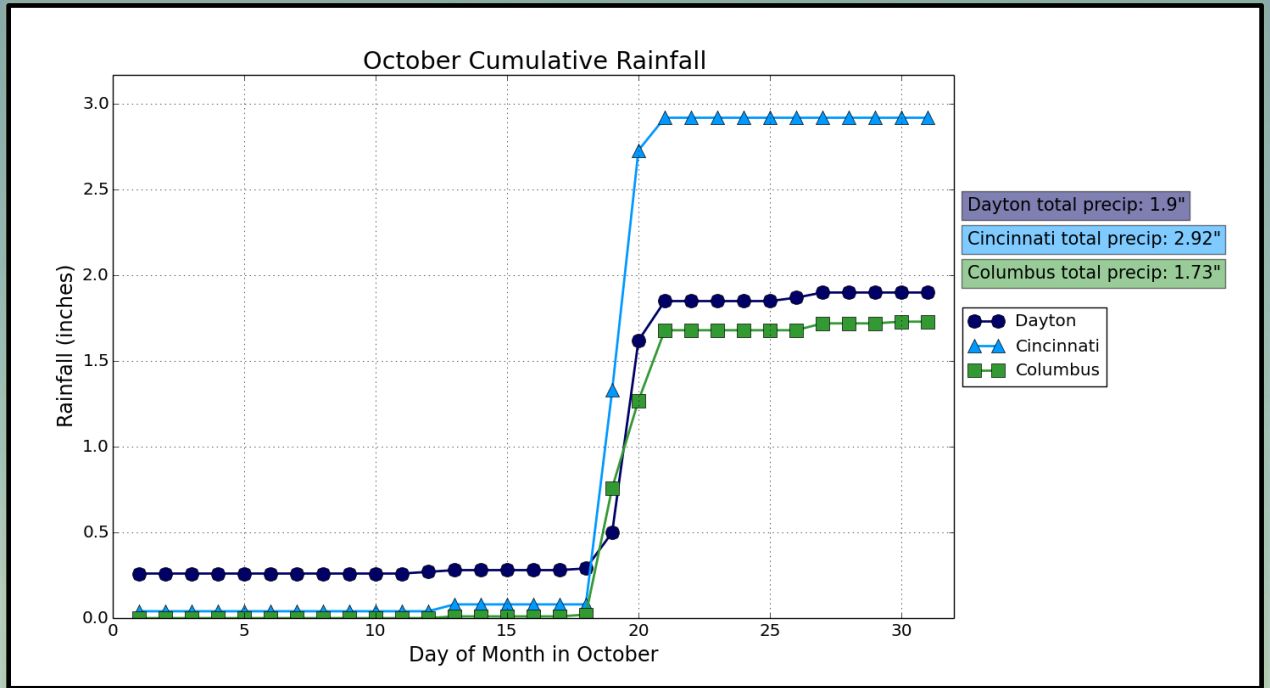
After a wet couple of days between the 19th and the 21st, dry conditions returned until late on the 26th into the 27th as a cold front moved through the region, bringing light rain showers to the area.

The month closed on a dry note, with most locations in the area ending the month with rainfall values of one half to one inch below normal.

Site	Total Precipitation (in.)	Departure From Normal (in.)	Max Daily Precipitation (in./date)		Total Snowfall (in.)	Max Daily Snowfall (in./date)	
Cincinnati (CVG)	2.92"	-0.38"	1.40"	10/20	--	--	--
Columbus (CMH)	1.73"	-0.88"	0.74"	10/19	--	--	--
Dayton (DAY)	1.90"	-1.03"	1.12"	10/20	--	--	--



Precipitation (Continued)



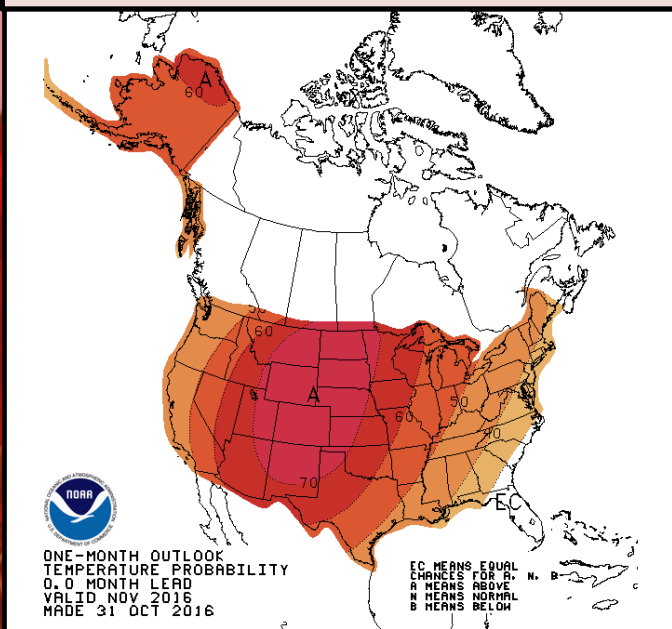
November Outlook

The latest outlook from the Climate Prediction Center (CPC) indicates favorable probabilities for above normal temperatures and below normal precipitation for the Ohio Valley in November.

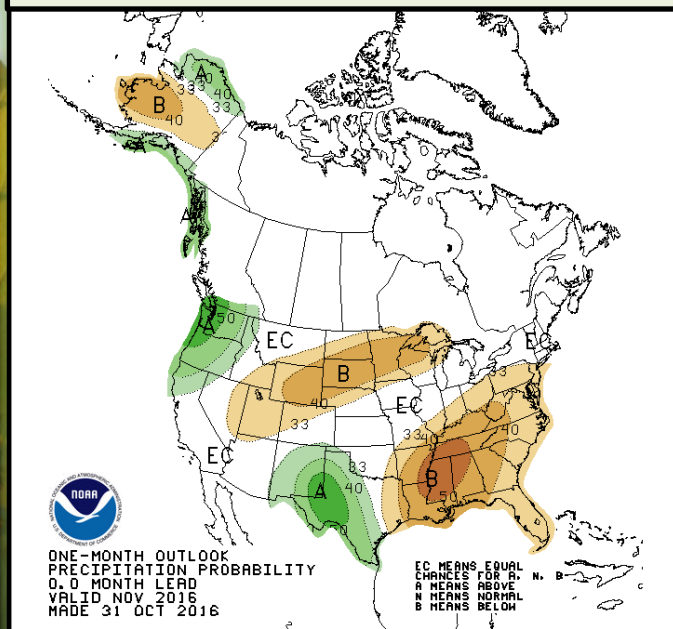
Site	Normal Avg Temp (°F)	Normal High (°F)	Normal Low (°F)
Cincinnati (CVG)	45.1°F	54.0°F	36.2 °F
Columbus (CMH)	44.4 °F	52.6°F	36.1°F
Dayton (DAY)	42.8°F	51.1 °F	34.6 °F

Site	Normal Precipitation (in.)	Normal Snowfall (in.)
Cincinnati (CVG)	3.43 "	0.4"
Columbus (CMH)	3.20 "	0.9 "
Dayton (DAY)	3.39 "	0.6"

Upcoming Temperature Outlook



Upcoming Precipitation Outlook

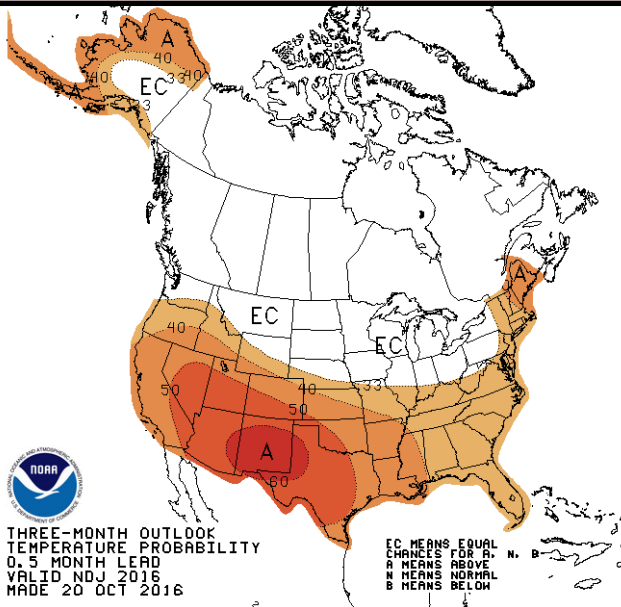


Late Autumn/Early Winter Outlook

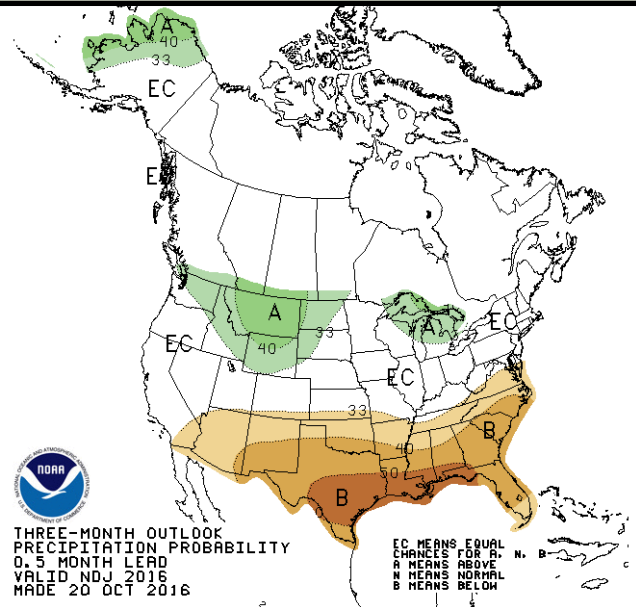
A La Niña watch has been issued. La Niña is favored to develop (70% chance) during the fall and slightly favored to persist (55% chance) during the winter months.

The extended outlook for November through January indicates that there are equal chances for above normal, normal, or below normal temperatures and precipitation across the region. Southern parts of the Ohio Valley may have slightly more favorable probabilities for above normal temperatures through the period. Overall, however, there is a lack of a clear signal for any one persistent weather pattern evolving between November and January.

Three-Month (NDJ) Temp. Outlook



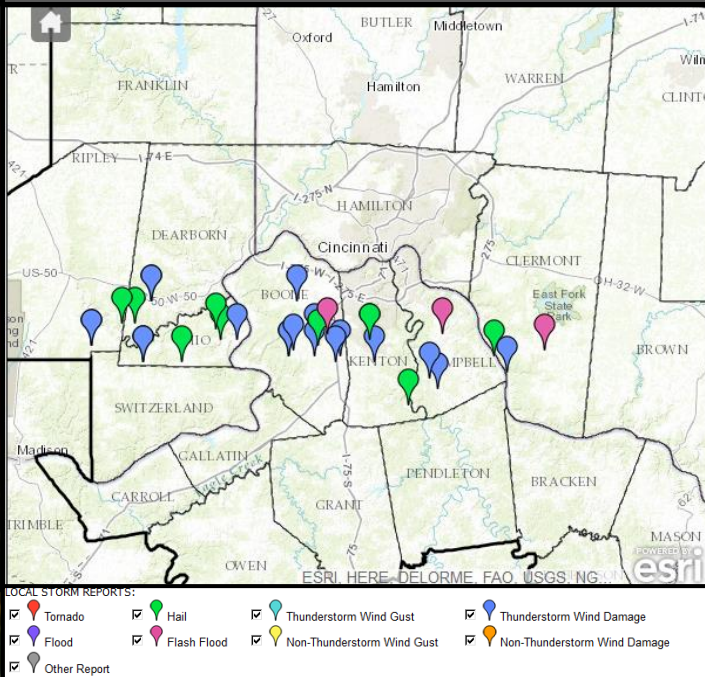
Three-Month (NDJ) Precip. Outlook



Severe Weather

On the 19th of October, several supercell thunderstorms developed in south-central Indiana and moved east along an east-west oriented boundary into southwestern parts of the area. These supercells (one in particular) had persistent deep rotation and a very strong updraft within its core. Radar data showed high reflectivities (>70dBz) above 33,000 ft. above ground level. This indicated the presence of very large hail within the updraft of the thunderstorm. Some of this large hail made it to the ground, producing several reports of tennis ball- to baseball-sized hail across southeastern Indiana and northern Kentucky. This sized hail is somewhat unusual for the area and demonstrates the strength of the storm that tracked through the area. More information on the dual pol products below can be found here: <http://www.wdtb.noaa.gov/courses/dualpol/Outreach/#nonmets>

10/19 Local Storm Reports



10/19 Supercell Radar Analysis

