



NWS Wilmington, Ohio December 2016 Regional Climate Summary

Regional Climate Summary

Although the month of December started off with below normal temperatures and precipitation for many in the Ohio Valley, the weather pattern for the final 2 weeks of the month trended both towards normal across the region. Although a snow event developed in central parts of the area on the 13th, there were few opportunities for accumulating snow in the area, especially as temperatures trended above normal for the last part of the month.

Temperatures

The month of December began with a fairly normal temperature pattern across the Ohio Valley. With high temperatures generally in the lower 40s and lows in the 20s and 30s, the temperature range in the region remained fairly small through the first full week of the month.

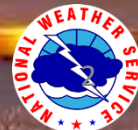
By the 8th, a cold front ushered a winter chill into the area, and delivered the first measurable snow of the season for each of the Big 3 climate sites. A gradual warm-up evolved past the 10th, but another sharp cold front brought much colder air into the area past the 13th. The coldest air of the season thus far settled into the region, with low temperatures dipping to around 0°F by the 15th. High temperatures failed to get out of the teens on the 15th.

A quick and brief warmup developed on the 17th, but more seasonably cold air returned for the next week or so. However, near the Christmas holiday, a strong low pressure system across the central part of the country helped usher much warmer air into the Ohio Valley. In fact, by the 26th, temperatures soared into the 60s and even the 70s across parts of the area. All three climate sites shattered previous daily record highs for the 26th. Cincinnati (CVG) hit 71°F (breaking the old record of 64°F set in 2015). The 71°F temperature was the 6th warmest ever recorded in the month of December at CVG. Meanwhile, Dayton (DAY) hit 66°F (old record was 60°F set in 2015) and Columbus (CMH) reached to 69°F (old record was 62°F, originally set in 1982).

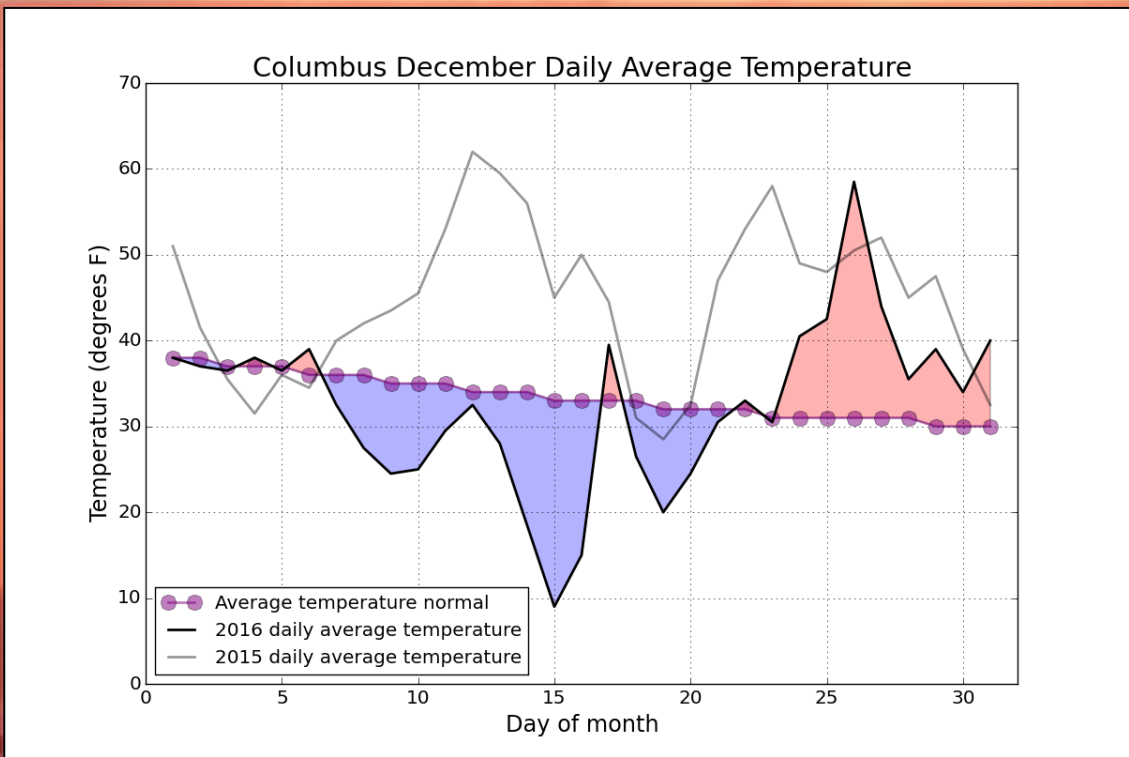
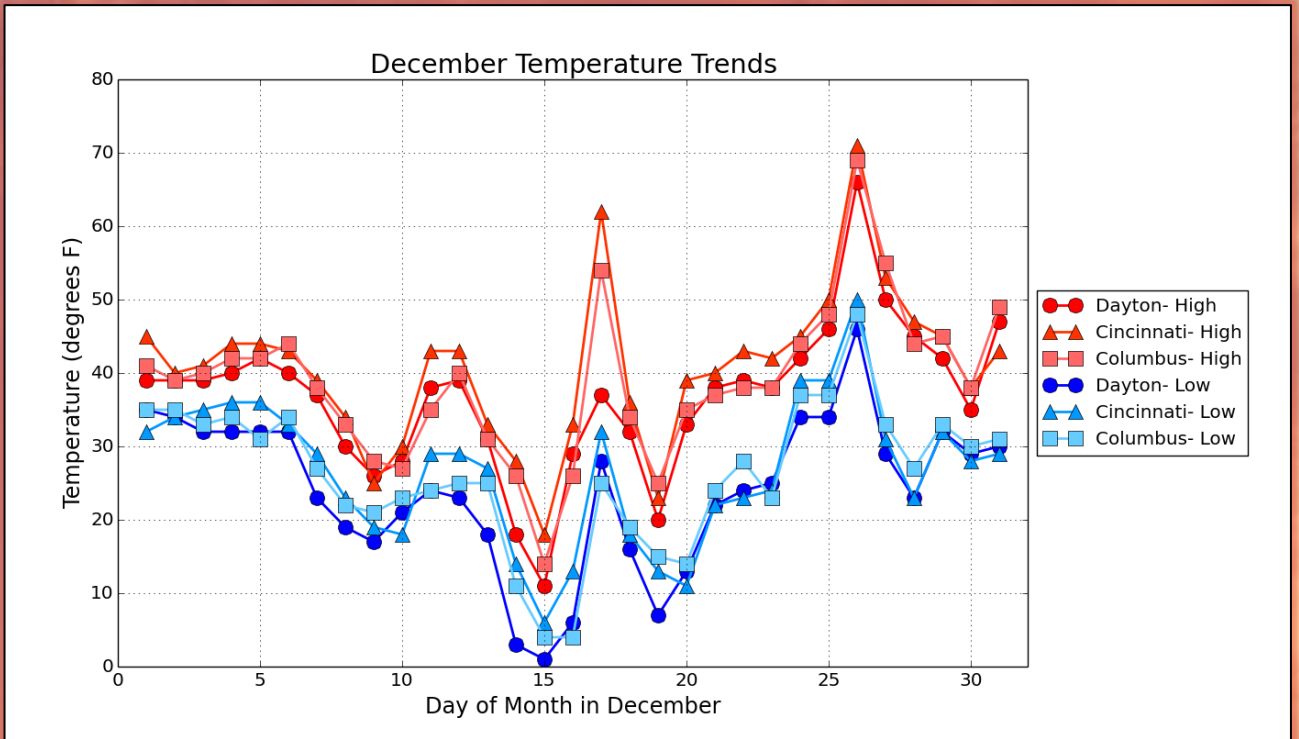
Past the record warmth of the 26th, cooler air did return to the region, but temperatures remained mostly above normal through the end of the month.

Even though the first half of December was unusually cold for the area, the second half was nearly equally warm. Therefore, average temperatures trended near normal by the end of the month.

Site	Avg Temp (°F)	Avg High Temp (°F)	Avg Low Temp (°F)	Departure From Normal (°F)	Maximum Temperature (°F)	Minimum Temperature (°F)
Cincinnati (CVG)	33.7°F	40.7°F	26.7°F	-0.4°F	71°F (12/26)	6°F (12/15)
Columbus (CMH)	32.4°F	38.7°F	26.2°F	-1.1°F	69°F (12/26)	4°F (4 th /5 th)
Dayton (DAY)	30.3°F	36.7°F	24.0°F	-0.9°F	66°F (12/26)	1°F (12/15)



Temperatures (Continued)



Precipitation

Although there was no significant precipitation within the first several days of December, spotty precipitation lingered in the area for several days, with numerous reports of very light rain and/or drizzle. However, by the 6th, a system brought widespread rain to the area, with totals generally between 0.50-0.75".

A colder pattern evolved past the first full week of December, which allowed for several days of scattered snow showers or a rain/snow mix. Snow allowed for light accumulations on the 11th, but a more substantial and widespread accumulating snow occurred on the 13th (with totals ranging from an inch or less along/south of the Ohio River, to as much as 4-6" along and just south of the I-70 corridor).

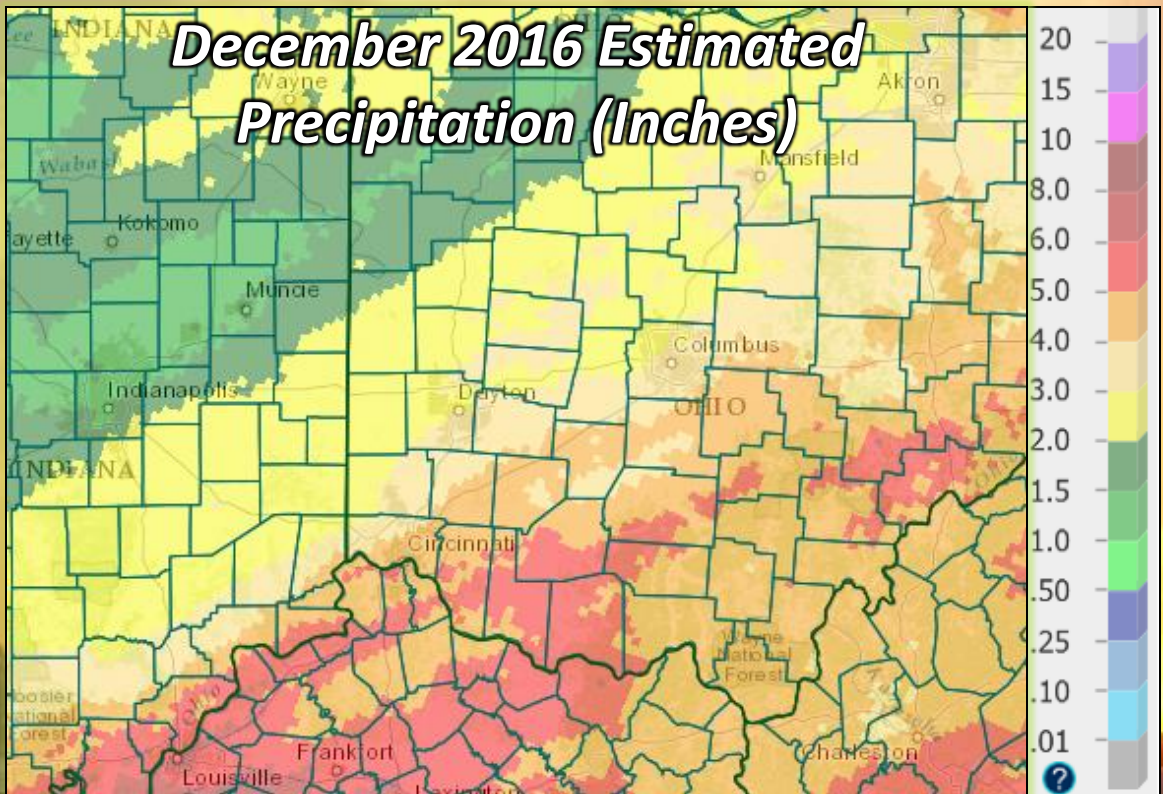
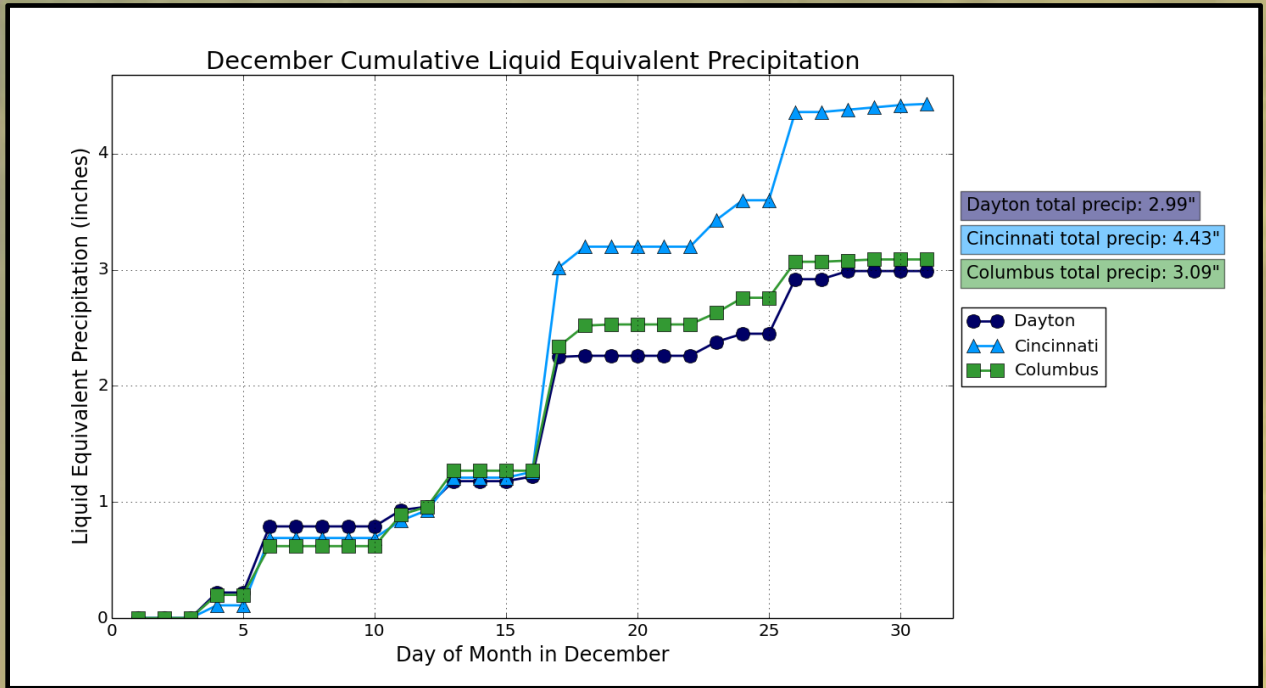
Past the middle of the month, a wetter pattern evolved as a widespread steady rain event moved through the region on the 17th into the 18th, bringing rainfall of at least 1 inch to many locations in the local area. Cincinnati (CVG) set a new daily record precipitation on the 17th, recording 1.76" of rain (breaking the old daily record of 1.20" set in 1933).

Several other systems brought rainfall to the area through the final 2 weeks of December, although snowfall was still hard to come by. While there were scattered snow showers late on the 29th into the 30th, many locations received very little snow in the 2nd half of the month. While both Columbus and Dayton ended with near normal precipitation for the month, Cincinnati trended a bit above normal by the final day of 2016.

Site	Total Precipitation (in.)	Departure From Normal (in.)	Max Daily Precipitation (in./date)		Total Snowfall (in.)	Normal Snowfall (in.)	Max Daily Snowfall (in./date)	
Cincinnati (CVG)	4.43"	+ 1.06"	1.76"	12/17	2.2"	4.8"	1.0"	12/13
Columbus (CMH)	3.09"	+ 0.12"	1.07"	12/17	5.4"	5.0"	3.2"	12/13
Dayton (DAY)	2.99"	- 0.13"	1.03"	12/17	4.1"	4.5"	3.3"	12/13



Precipitation (Continued)



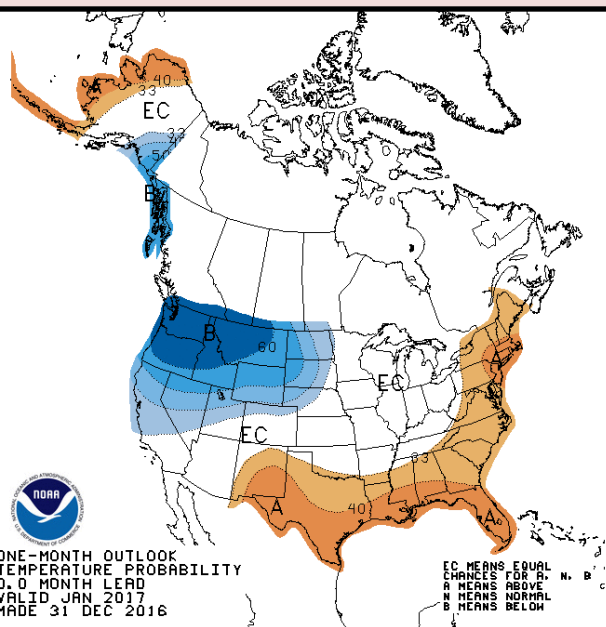
January Outlook

The latest outlook from the Climate Prediction Center (CPC) indicates a lack of a clear signal for either above normal or below normal temperatures or precipitation for the Ohio Valley.

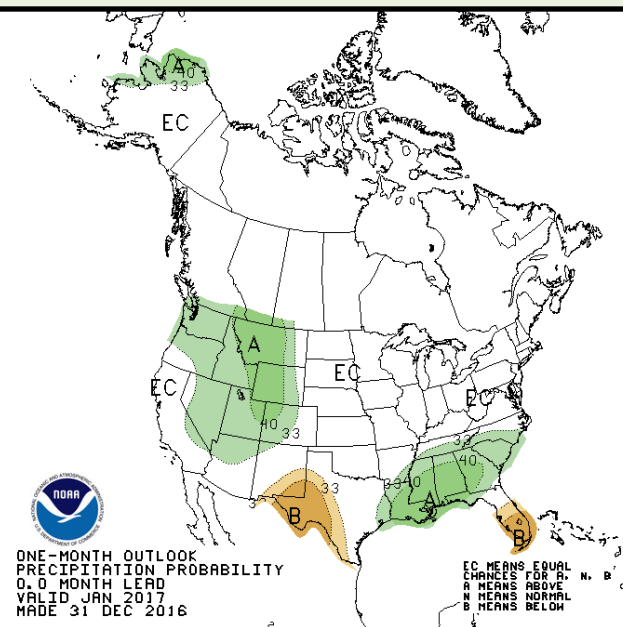
Site	Normal Avg Temp (°F)	Normal High (°F)	Normal Low (°F)
Cincinnati (CVG)	30.8°F	38.7°F	23.0°F
Columbus (CMH)	29.6°F	36.5°F	22.6°F
Dayton (DAY)	27.5°F	34.7°F	20.3°F

Site	Normal Precipitation (in.)	Normal Snowfall (in.)
Cincinnati (CVG)	3.00"	6.5"
Columbus (CMH)	2.73"	9.2"
Dayton (DAY)	2.71"	7.9"

Upcoming Temperature Outlook



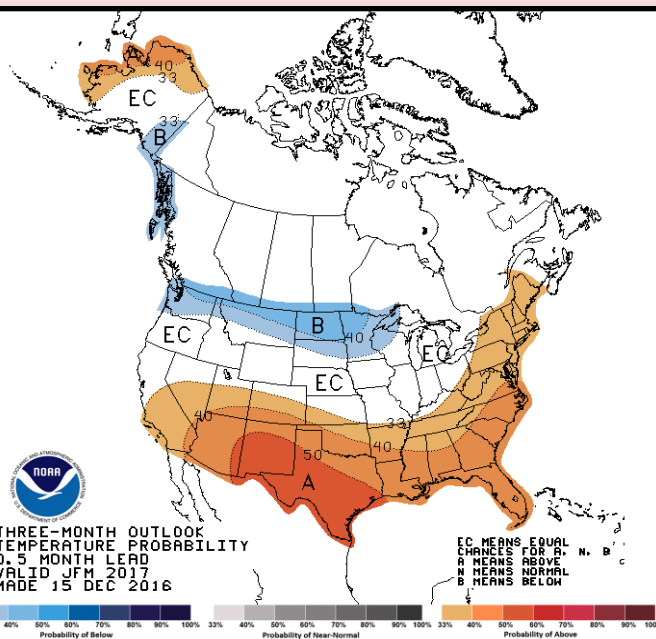
Upcoming Precipitation Outlook



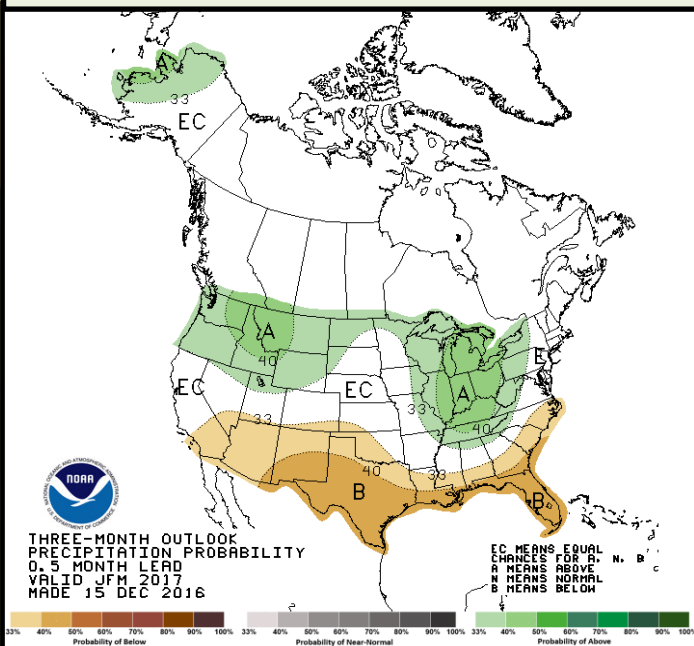
Late Winter & Early Spring Outlook

The latest outlook from the Climate Prediction Center (CPC) indicates slightly favorable probabilities for above normal temperatures for southeastern portions of the Ohio Valley in the January through March time frame. Current data/trends continue to suggest favorable probabilities for above normal precipitation for the final 2 months of meteorological winter into the first month of meteorological spring.

Three-Month (JFM) Temp. Outlook



Three-Month (JFM) Precip. Outlook



Winter Weather

During the morning and afternoon hours on the 13th, a weak upper level disturbance allowed for a band of rain and snow to spread northward into the area. While there was ample cold air at the surface, warm air advection allowed for precipitation to change to a rain/snow mix (and eventually to all rain) along and south of the Ohio River. However, a bit farther north, the warm air advection was not strong enough to overcome the antecedent cold conditions, and the precipitation remained mostly/all snow. Even with surface temperatures in the lower to middle 30s, a band of snow set up across central parts of the area, allowing for accumulations of 3-5" (and as high as 6") near the Dayton and Columbus metro areas.

