



NWS Wilmington, Ohio May 2017 Regional Climate Summary

Regional Climate Summary

An unsettled and cool weather pattern started out the month. The area transitioned to a drier and warmer pattern for the middle of the month. Temperatures fluctuated above and below normal for the remainder of the month as an unsettled and variable weather pattern returned to the region.

Temperatures

Although the first day of the month experienced above normal temperatures, these temperatures were short-lived. An extended period of below normal temperatures occurred beginning on the 2nd through the 9th. Temperatures dropped down into the 30s overnight across many locations on multiple days including the 7th and the 8th. On these days, frost developed across portions of the region and some locations on the 8th even dropped to or below freezing. A record low temperature was tied at Cincinnati on the 8th of 30 degrees (ties 1947).

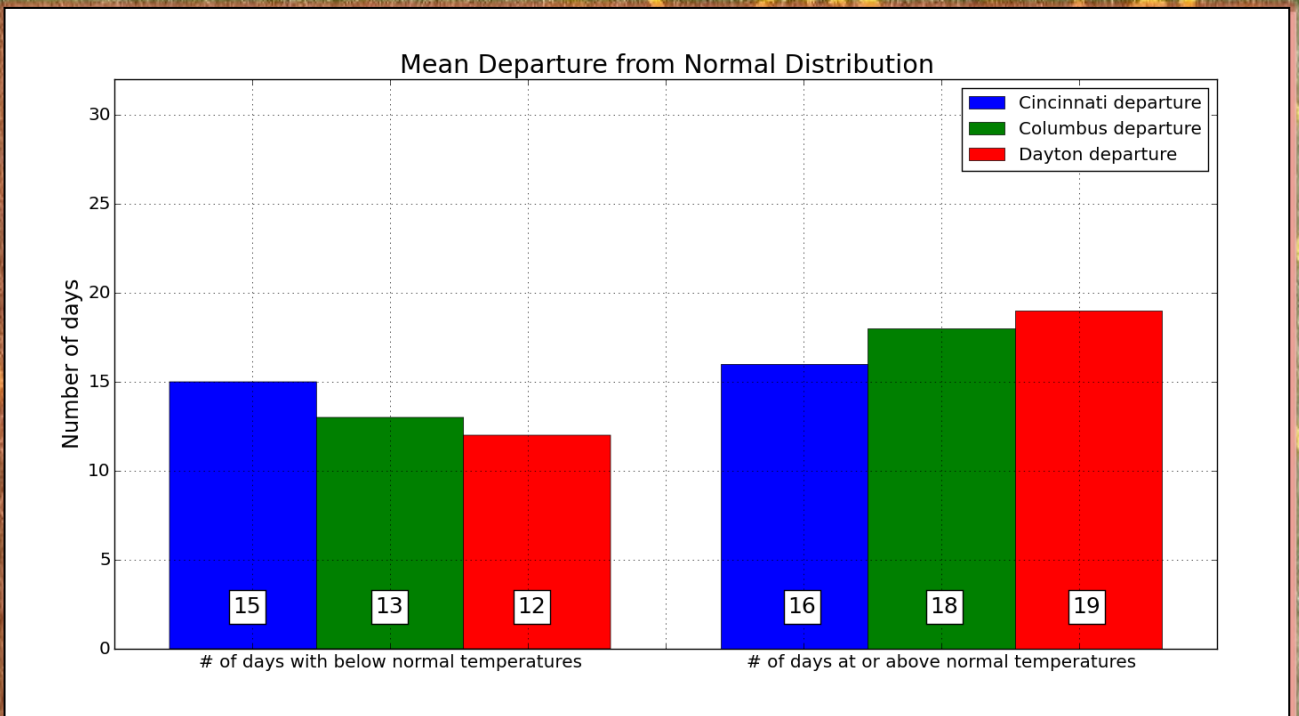
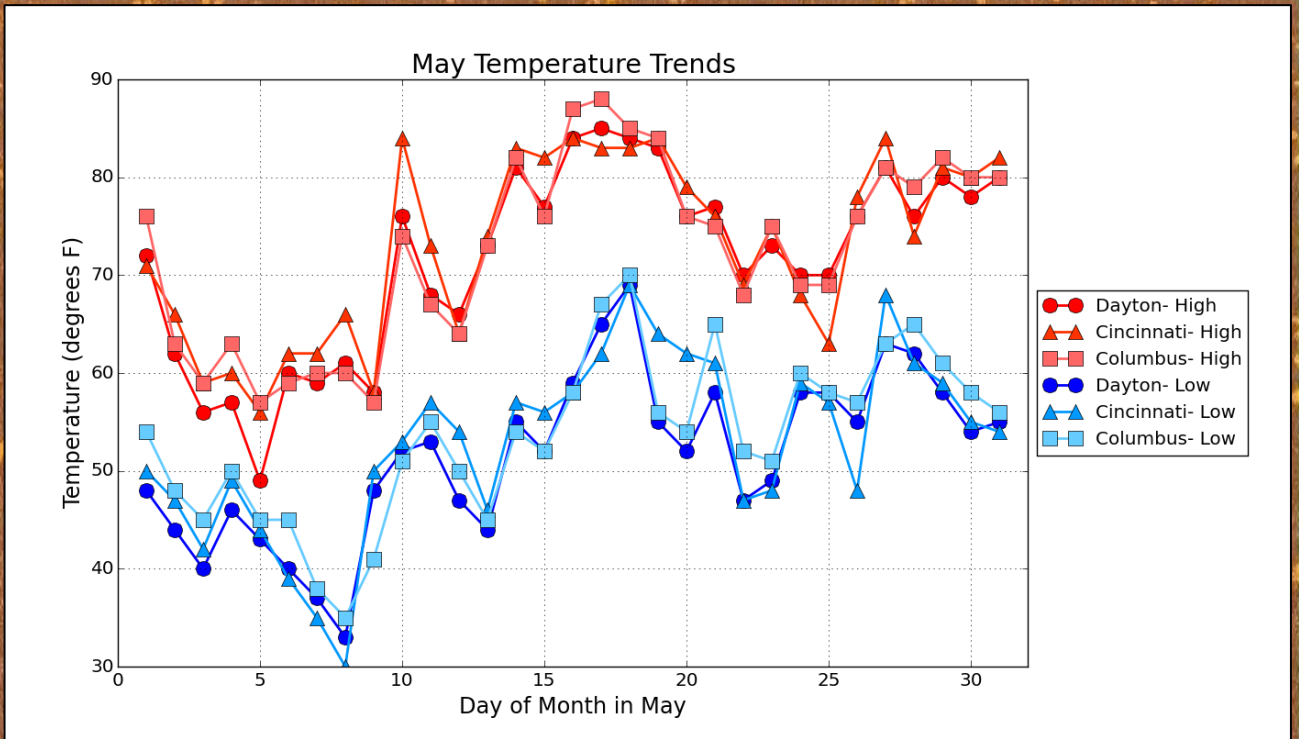
Past the 9th, an extended and pronounced warming trend developed in the Ohio Valley, with near to above normal temperatures through at least the 21st. Although highs reached into the 80s many of the days, no record high temperatures were met or exceeded at any of the 3 climate sites. However, a new daily record high minimum was set at Dayton (DAY) on the 18th, falling to only 69°F, breaking the old daily record of 66°F (1969).

For the final 10 days or so, although there were natural fluctuations in the temperature pattern across the Ohio Valley, temperatures were fairly close to normal for the time of the year. There were numerous days with highs in the 70s and 80s and lows in the 50s and 60s for the final part of May.

Site	Avg Temp (°F)	Avg High Temp (°F)	Avg Low Temp (°F)	Departure From Normal (°F)	Maximum Temperature (°F)	Minimum Temperature (°F)
Cincinnati (CVG)	63.0°F	73.0°F	52.9°F	- 0.5°F	84°F (Mult. Days)	30°F (05/08)
Columbus (CMH)	63.0°F	72.4°F	53.5°F	+ 0.5°F	88°F (05/17)	35°F (05/08)
Dayton (DAY)	61.6°F	71.6°F	51.6°F	+ 0.2°F	85°F (05/17)	33°F (05/08)



Temperatures (Continued)



Precipitation

An unsettled weather pattern evolved in the Ohio Valley over much of the month, resulting in numerous days with scattered showers and thunderstorms in the local area. In fact, for example, Cincinnati (CVG) only recorded 2 completely dry days in the first 12 of the month (with DAY at 3 and CMH at 4). Moreover, Dayton (DAY) received measurable rain on each of the first 5 days of the month.

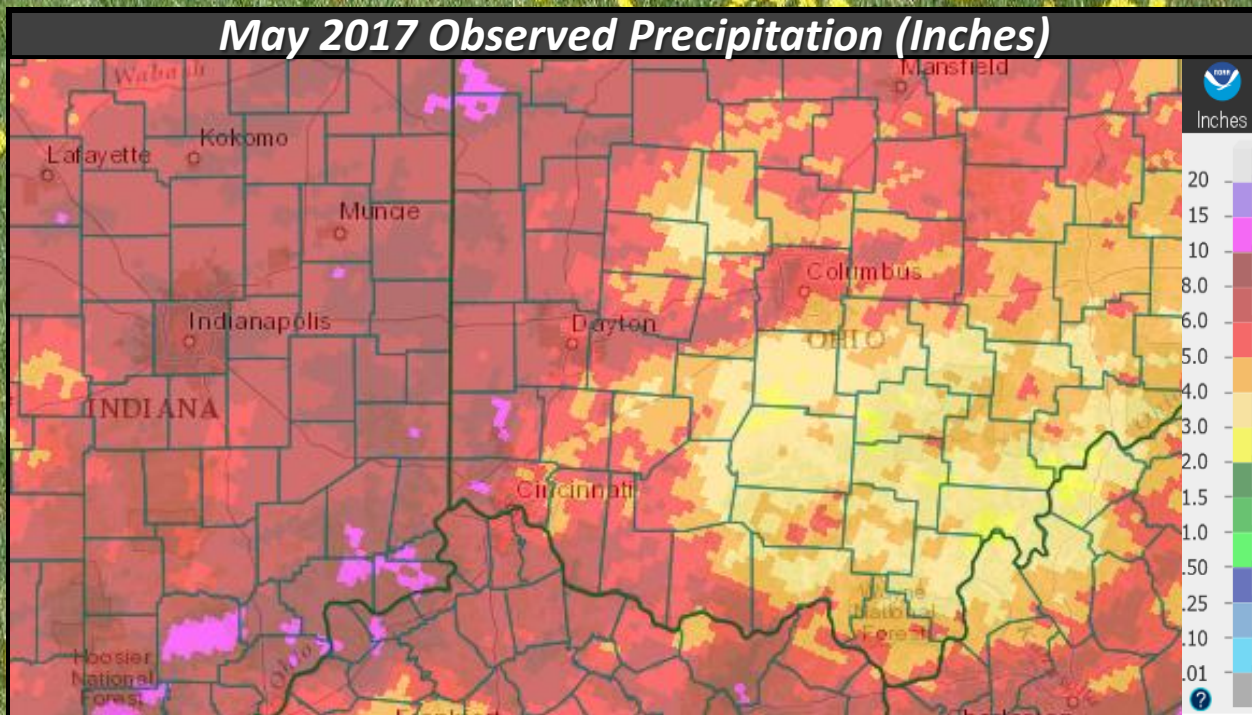
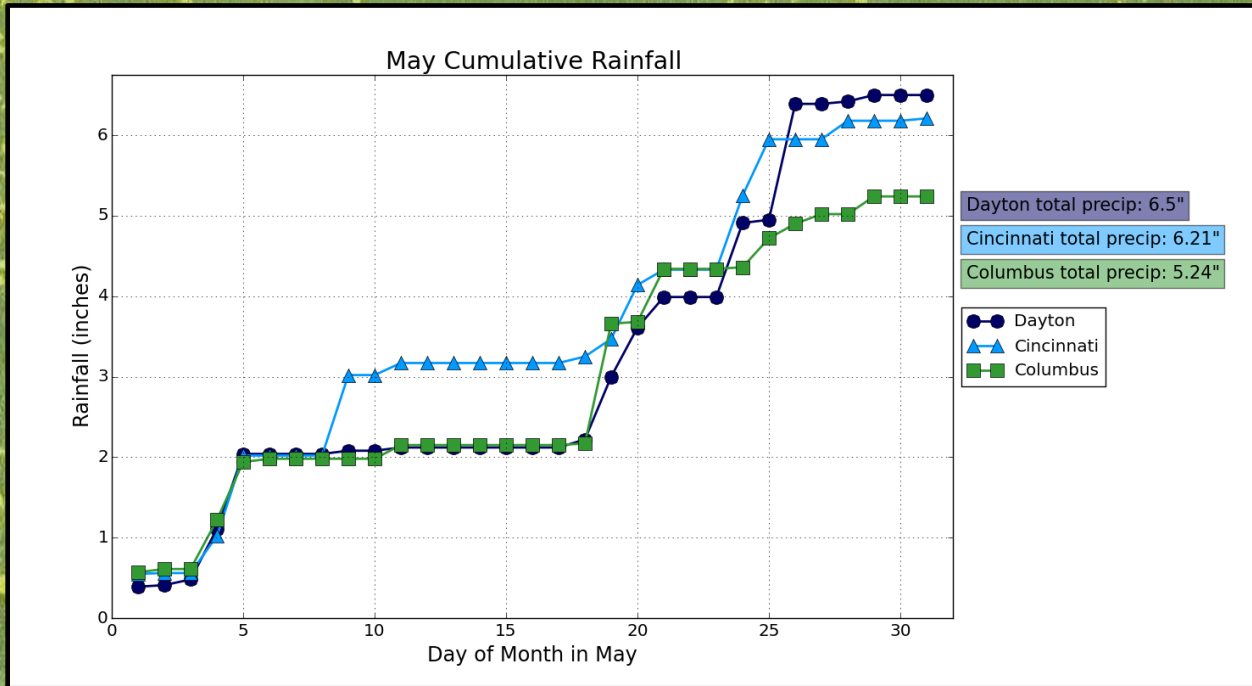
Although the first third of the month began on a rather wet note, a somewhat dry stretch developed towards the middle of the month. This stretch, however, was short-lived as additional rounds of showers and thunderstorms moved through the area from the 18th through the 22nd. After several more dry days, an active period developed once again from the 25th through the 28th. These active periods were characterized by a spotty and uneven rainfall footprint, with many areas receiving little to no precipitation and others receiving heavy and/or excessive rainfall.

Although spotty nature of showers and thunderstorms results in a naturally uneven rainfall footprint, the abundance of such activity throughout the month left most locations in the area with above normal rainfall for May. In fact, each of the 3 climate sites received at least 1 inch of rain more than normal for the month. Each recorded at least 5" of total rainfall for May before the calendar turned to June.

Site	Total Precipitation (in.)	Departure From Normal (in.)	Max Daily Precipitation (in./date)	
Cincinnati (CVG)	6.21"	+ 1.28"	1.00"	05/09
Columbus (CMH)	5.24"	+ 1.07"	1.49"	05/19
Dayton (DAY)	6.50"	+ 1.84"	1.44"	05/26



Precipitation (Continued)



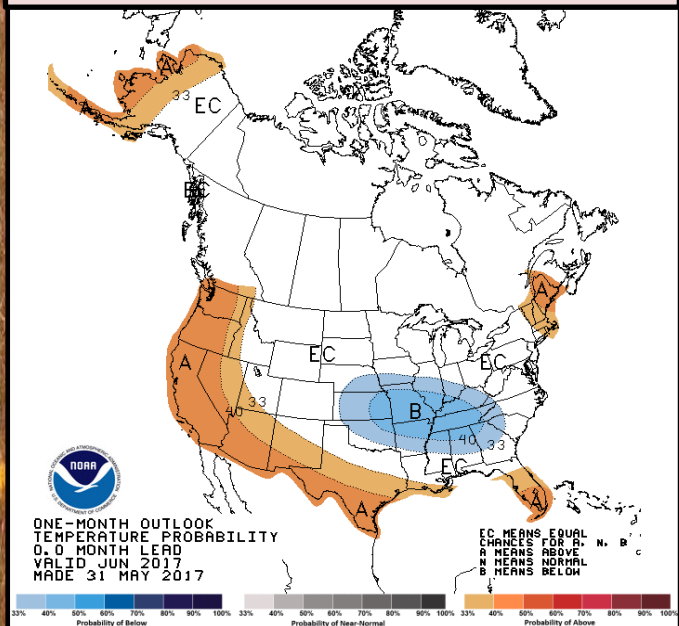
June Outlook

The latest outlook from the Climate Prediction Center calls for an increased likelihood of above normal precipitation. Most areas have equal chances of above, below, and normal temperatures although portions of Indiana and Kentucky are inclined to see cooler conditions.

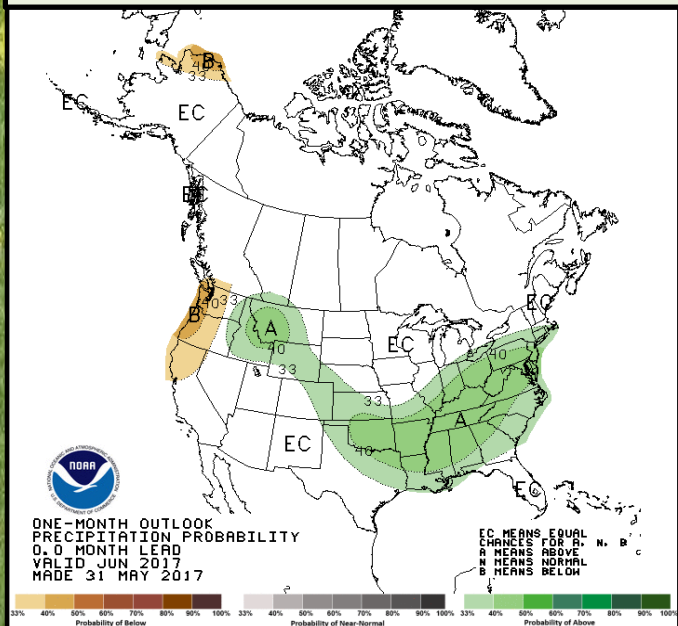
Site	Normal Avg Temp (°F)	Normal High (°F)	Normal Low (°F)
Cincinnati (CVG)	72.1°F	82.1°F	62.0°F
Columbus (CMH)	71.5°F	81.6°F	61.5°F
Dayton (DAY)	70.6°F	80.2°F	60.9°F

Site	Normal Precipitation (in.)
Cincinnati (CVG)	4.03"
Columbus (CMH)	4.01"
Dayton (DAY)	4.17"

Upcoming Temperature Outlook



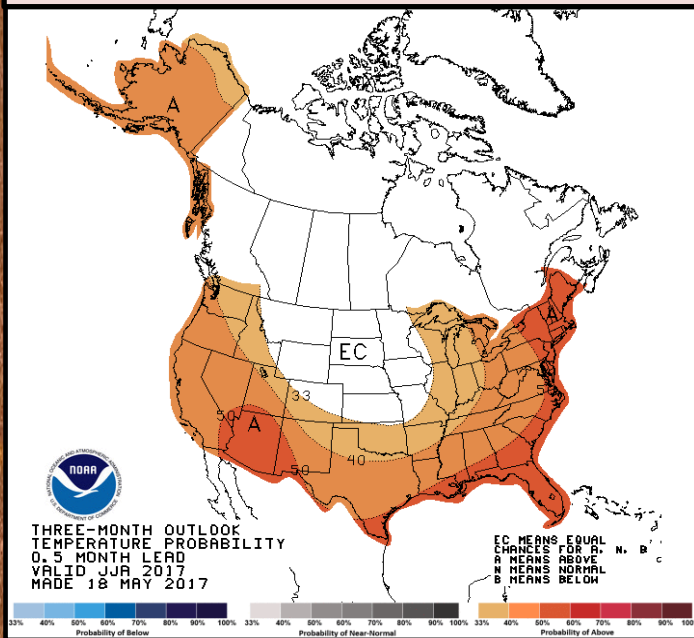
Upcoming Precipitation Outlook



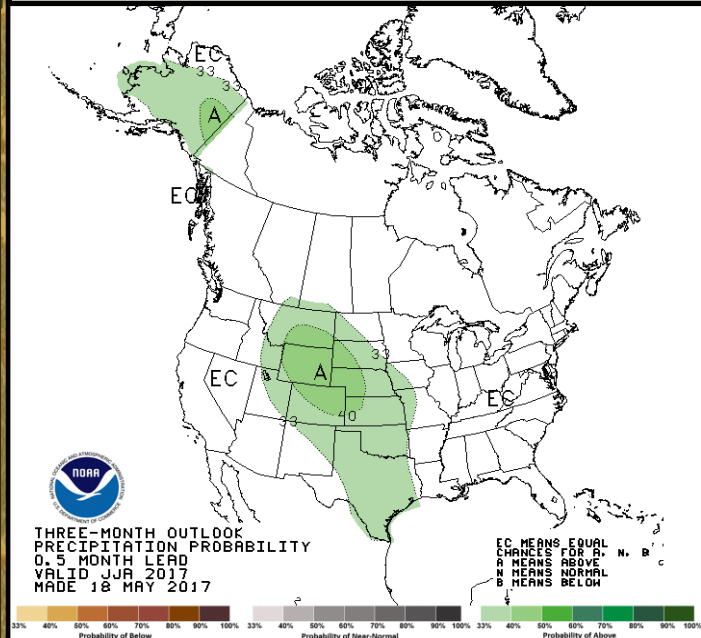
June-August Outlook

For the summer months there is an increased likelihood of above normal temperatures across the entire region. There is not a clear signal for precipitation with equal chances of below, normal, and above normal precipitation.

Three-Month (JJA) Temp. Outlook



Three-Month (JJA) Precip. Outlook



Severe Weather

A potent area of low pressure developed in the region during the afternoon and evening hours of May 24, 2017. This surface low, aided by a dynamic and digging upper-level low pressure system across the mid-Mississippi River Valley, helped produce and enhance an environment in which low-level turning of the winds (wind shear) was quite significant. Of the few storms that did develop, many of them began to rotate almost immediately, spawning numerous wall clouds, funnels, and even a handful of tornadoes. One storm in particular, which moved north-northwest through the lower Miami Valley, had consistent rotation through its life (including many “cycles”). This single storm (damage and radar velocity pictured below) is believed to be responsible for at least 4 tornado touch downs (2 EF1s and 2 EF0s). Two other EF0s made brief touch downs during the evening as well.

Before these tornadic storms developed, significant flash flooding occurred in southwestern Ohio, with numerous reports of rushing water over area roadways, particularly in Butler and Hamilton Counties.

