





# NWS Wilmington, Ohio May 2019 Regional Climate Summary

# **Regional Climate Summary**

May 2019 will largely be remembered for the tornado outbreak that occurred on May 27<sup>th</sup>-28<sup>th</sup>. In addition to the tornado outbreak, severe weather occurred on several other days throughout the month as well. Although some below normal temperature days occurred, two-thirds of the month was above normal. In addition, this year had an early end to frost and freezing temperatures. Temperatures at Dayton, Columbus, and Cincinnati had their lowest temperatures only dropping into the 40s.

## **Temperatures**

The month of May started off on an unseasonably warm note, with temperatures reaching into the 70s and 80s for most of the first 10 days or so of the month. Highs reached into the 80s on multiple days during this stretch before cooler temperatures settled in past the  $10^{th}$ .

From the  $10^{th}$  through about the  $15^{th}$ , a slow moving and deep upper level low pivoted across the region, providing a stretch of 5-6 days with extensive cloud cover and precipitation which kept high temperatures well below seasonal norms. In fact, highs only reached into the low to mid 50s on several days during this period, with lows in the 40s and even some upper 30s on the morning of the  $14^{th}$ . However, past the midpoint in the month, a return to a much warmer pattern evolved, with above normal temperatures filtering into the region by the  $16^{th}$ .

A cold front brought cooler temperatures in the 60s and 70s to the region for the 20<sup>th</sup> and 21<sup>st</sup> before widespread 80 degree temperatures returned by the 22<sup>nd</sup>. An extended stretch of above normal temperatures, with seasonably humid conditions evolved for the final week or so of the month. In fact, on the 25<sup>th</sup>, the temperature reached 90°F at Columbus, the first such instance of the year thus far.

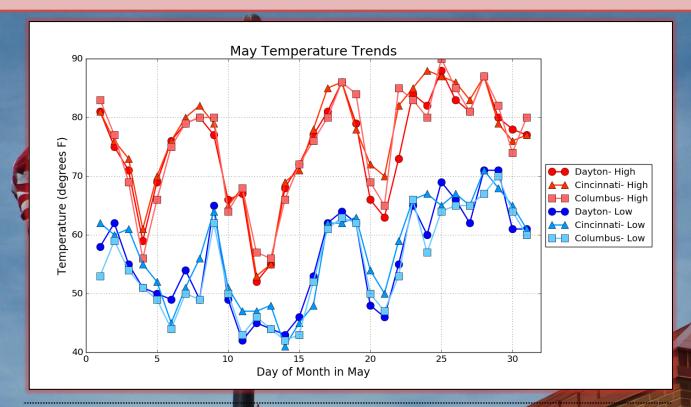
The low temperature of 71°F at Cincinnati (CVG) on May 28<sup>th</sup> tied the record high minimum temperature for the date set in 1888. The low temperature of 71°F at Dayton (DAY) on the 28<sup>th</sup> also tied the record high minimum temperature for the date set in 2012. The low temperature of 71°F on May 29<sup>th</sup> at Dayton (DAY) broke the old high minimum temperature for the date of 70 last occurring in 1987.

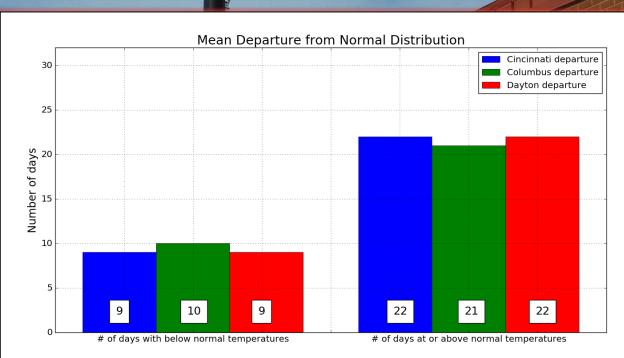
| Site                | Avg Temp<br>(°F) | Avg High<br>Temp (°F) | Avg Low Temp<br>(°F) | Departure From<br>Normal<br>(°F) | Maximum<br>Temperature<br>(°F) | Minimum<br>Temperature<br>(°F) |
|---------------------|------------------|-----------------------|----------------------|----------------------------------|--------------------------------|--------------------------------|
| Cincinnati<br>(CVG) | 66.7°F           | 76.1°F                | 57.4°F               | +3.2°F                           | 88°F on 24th                   | 41°F on 14th                   |
| Columbus<br>(CMH)   | 65.2°F           | 75.3°F                | 55.0°F               | +2.7°F                           | 90°F on 25th                   | 42°F on 14th                   |
| Dayton<br>(DAY)     | 65.3°F           | 74.6°F                | 56.1°F               | +3.9°F                           | 88°F on 25th                   | 42°F on 11th                   |





# **Temperatures (Continued)**









## **Precipitation**

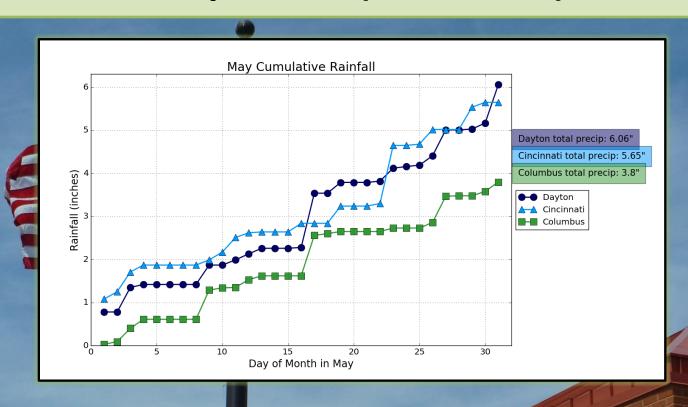


The wet pattern that has seemingly plagued the region every month in recent history continued for the start of May, with an active and summerlike pattern evolving for the first several days of the month before drier conditions returned from the 5<sup>th</sup> through the 8<sup>th</sup>. However, the dry stretch was rather short-lived as a slow moving upper level low pressure system pivoted over the Ohio Valley. This resulted in 5 straight days of isolated to scattered showers across the region, with little in the way of sunshine or warm air during this period. As a result, many locations in the local area received rainfall on 9 or even 10 of the first 13 days of the month.

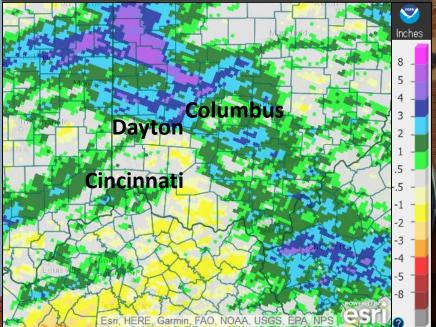
This wet stretch was followed by a few much-needed dry days before another active pattern evolved past the 16<sup>th</sup> of the month. After the passage of a cold front drier conditions entered the picture for the 20<sup>th</sup> and 21<sup>st</sup>. An active weather pattern returned for the latter parts of the month with precipitation and severe weather occurring almost every day.

|      | Site             | Total<br>Precipitation<br>(in.) | Departure From<br>Normal<br>(in.) | Precip           | Daily<br>itation<br>date) |        |
|------|------------------|---------------------------------|-----------------------------------|------------------|---------------------------|--------|
|      | Cincinnati (CVG) | 5.65 in.                        | +0.72 in.                         | 1.35 in.         | 23rd                      |        |
|      | Columbus (CMH)   | 3.80 in.                        | -0.37 in.                         | 0.94 in.         | 17th                      |        |
|      | Dayton (DAY)     | 6.06 in.                        | +1.40 in.                         | 1.26 in.         | 17th                      |        |
|      |                  |                                 |                                   | FIMENT OF COUNTY |                           | HHHH   |
| NORR |                  | 4                               |                                   |                  |                           | EATHER |

# **Precipitation (Continued)**











#### **Severe Weather**

Isolated severe weather occurred on the 2<sup>nd</sup> and flooding on the 3<sup>rd</sup>, however after this time severe weather did not occur across the region until the 17<sup>th</sup>. During the early morning hours on the 17<sup>th</sup> storms produced large hail before transitioning to a flash flood threat. Over 5 inches of rain caused severe flash flooding and led to water rescues. Flooding from this rainfall lasted for days in some areas. This system left a boundary in place that was the focus area for additional severe thunderstorms later on the day on the 17<sup>th</sup> that produced damaging wind gusts. Thunderstorms around the Columbus area on the 18<sup>th</sup> produced several reports of damage. The active weather pattern continued into the 19<sup>th</sup> when storms moved into the region during the evening hours. Damaging wind gusts and three tornadoes occurred with these storms. An EF1 occurred in Huber Heights, an EF1 occurred in West Alexandria, and an EF1 tornado occurred in Eaton, Ohio.

May 19<sup>th</sup>







## **Severe Weather**

The active weather pattern during the month continued on the 23rd, 25<sup>th</sup>, 26<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup>. The night of Monday May27th into the early morning hours of Tuesday the 28<sup>th</sup>, a large outbreak of tornadoes occurred across the region. 19 tornadoes occurred across the Wilmington forecast area and 21 total in the state of Ohio. These tornadoes included an EF4 tornado that occurred near Trotwood, Ohio, an EF3 across eastern Montgomery into western and central portions of Greene County, an EF3 in Celina in Mercer County, and an EF3 in West Milton, Ohio. Several EF2s, EF1s, and EF0s also occurred.



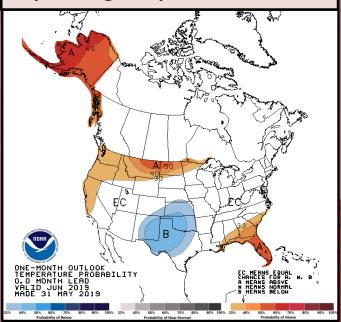
### **June Outlook**

The latest outlook from the Climate Prediction Center calls for equal chances of above normal, below normal, and normal temperatures and precipitation for the month of June. This indicates that there is not a clear and distinct signal for a particular direction above, below, or close to normal.

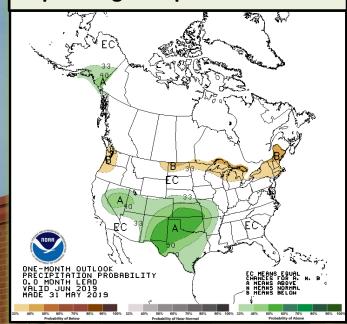
| Site                | Normal Avg | Normal<br>High (°F) | Normal<br>Low (°F) |  |
|---------------------|------------|---------------------|--------------------|--|
|                     | Temp (°F)  | 8 ( . /             | 2013 (11)          |  |
| Cincinnati<br>(CVG) | 72.1°F     | 82.1°F              | 62.0 °F            |  |
| Columbus<br>(CMH)   | 71.5°F     | 81.6°F              | 61.5°F             |  |
| Dayton<br>(DAY)     | 70.6°F     | 80.2°F              | 60.9°F             |  |

| Site                | Normal<br>Precipitation<br>(in.) | Normal<br>Snowfall<br>(in.) |
|---------------------|----------------------------------|-----------------------------|
| Cincinnati<br>(CVG) | 4.03"                            | 0.0"                        |
| Columbus<br>(CMH)   | 4.01"                            | 0.0"                        |
| Dayton<br>(DAY)     | 4.17"                            | 0.0"                        |

#### **Upcoming Temperature Outlook**



#### **Upcoming Precipitation Outlook**

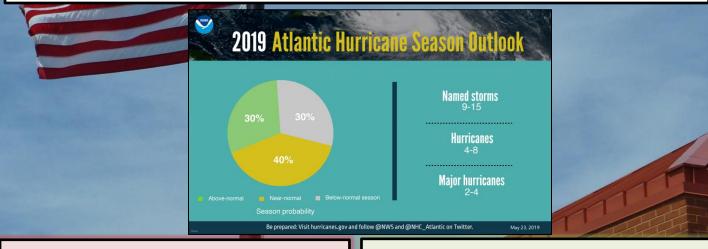




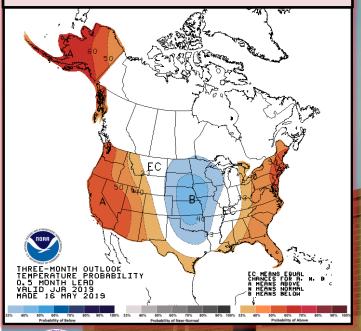


## **June-August Outlook**

There is an increased likelihood of above normal temperatures and above normal precipitation across a majority of the region for the June, July, and August timeframe. For those traveling to coastal areas this summer the 2019 NOAA Atlantic Hurricane Season Outlook is included below.



#### Three-Month (JJA) Temp. Outlook



#### Three-Month (JJA) Precip. Outlook

