NWS Wilmington, Ohio
April 2016
Regional Climate Summary

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April was a tale of two seasons: abundant cool conditions through the first half of the month followed by persistent summer-like warmth for the latter half. There were several instances of snow within the first 10 days of April, as well as numerous days with high temperatures exceeding 80°F near the middle of the month. The unseasonably warm conditions were coincident with an extended dry spell which resulted in 7-10 consecutive days without even a trace of precipitation for many locations in the area. The month, however, did end on a wet note as the last full week featured numerous weak low pressure systems and frontal boundaries moving through the region. This allowed for repeated rounds of shower/thunderstorm activity.

Temperatures

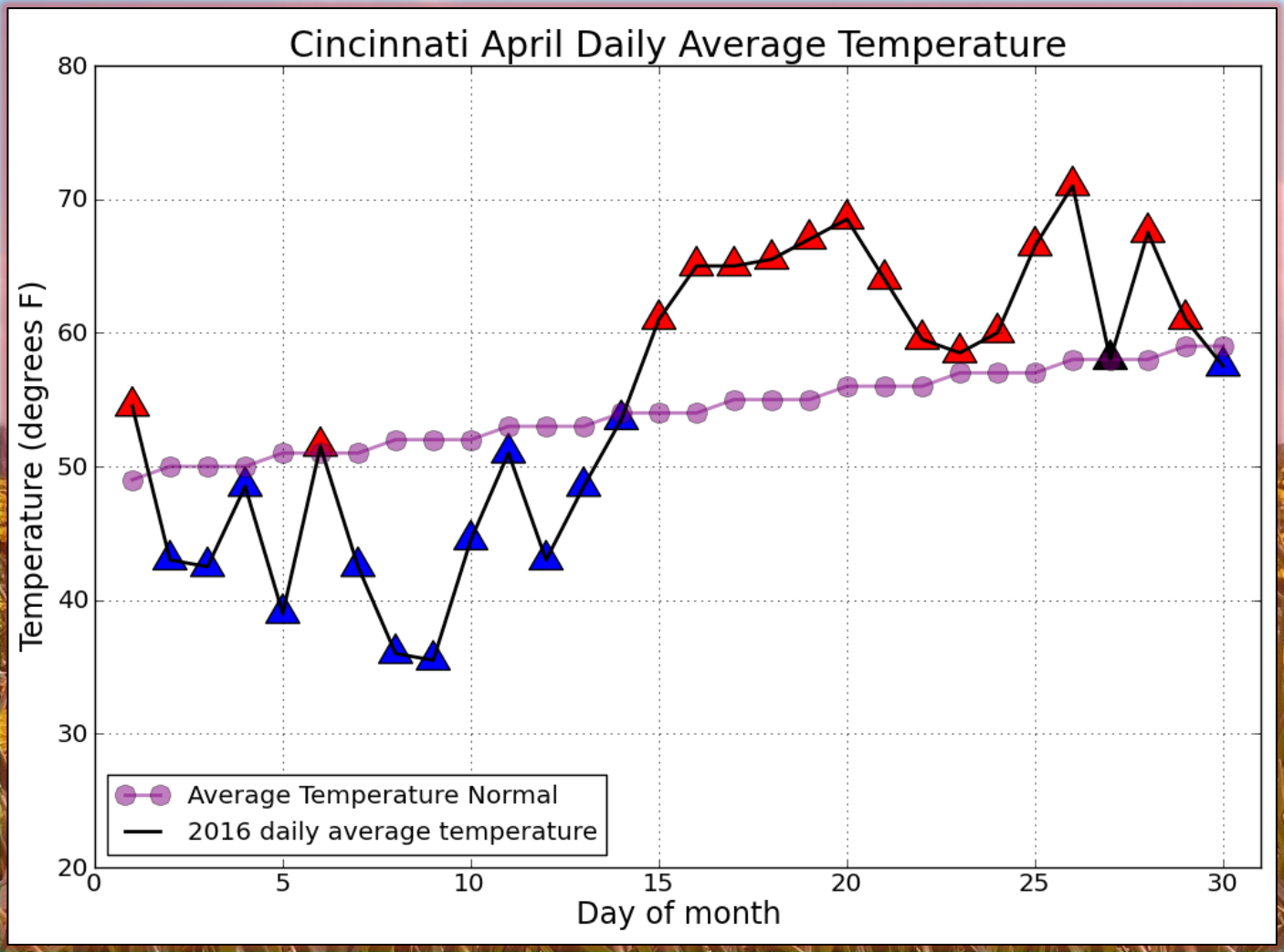
April started out a bit on the cool side, as temperatures trended mostly below normal to begin the month. With multiple frontal boundaries moving through the area during the first 11 days of the month, high temperatures fluctuated from the 30s to the 60s. Low temperatures often dropped to near or below freezing. This led to several nights of frost or freeze headlines across the region. This fluctuating temperature pattern also coincided with an unusually windy stretch across the area as multiple strong low pressure systems moved through the Ohio Valley.

A gradual warming trend began after the 12th as a blocking pattern with a ridge built into the region. By the 15th, high temperatures soared into the 70s and even the 80s for several consecutive days as high pressure continued to provide abundant sunshine and unseasonably warm temperatures (see figure on page 3). The extended stretch of much above normal temperatures finally came to an end around the 22nd, as a cold front brought more seasonable air back to the region.

However, the unseasonably warm air didn't stay away for long as an active weather pattern developed across the Ohio Valley towards the end of April. For the last full week of the month, several weak low pressure systems and their associated frontal boundaries provided scattered showers and thunderstorms across the area. As a result, there was a wide variety of temperatures across the region for the final part of the month.

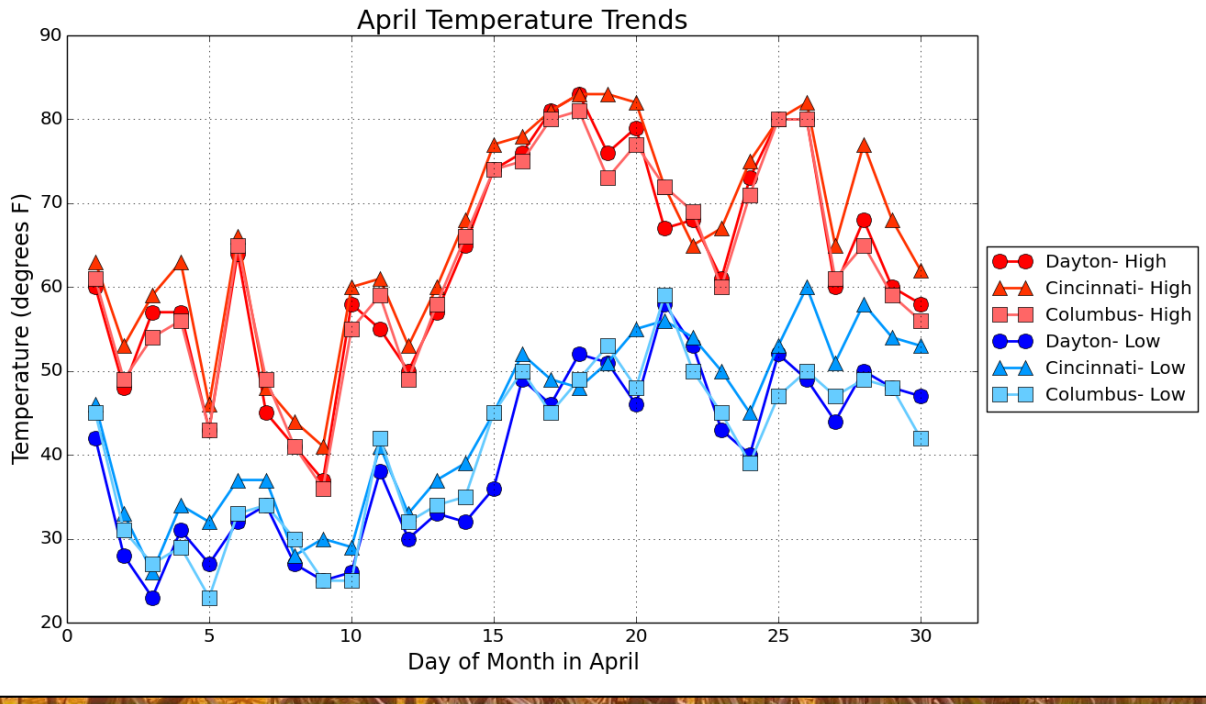
Site	Avg Temp (°F)	Avg High Temp (°F)	Avg Low Temp (°F)	Departure From Normal (°F)	Maximum Temperature (°F)	Minimum Temperature (°F)
Cincinnati (CVG)	55.0°F	66.1°F	43.9°F	+0.8°F	83°F (18th,19th)	26°F (3rd)
Columbus (CMH)	51.4°F	62.5°F	40.4°F	-1.7°F	81°F (18th)	23°F (5th)
Dayton (DAY)	51.2°F	62.7°F	39.7°F	-0.4°F	83°F (18th)	23°F (3rd)

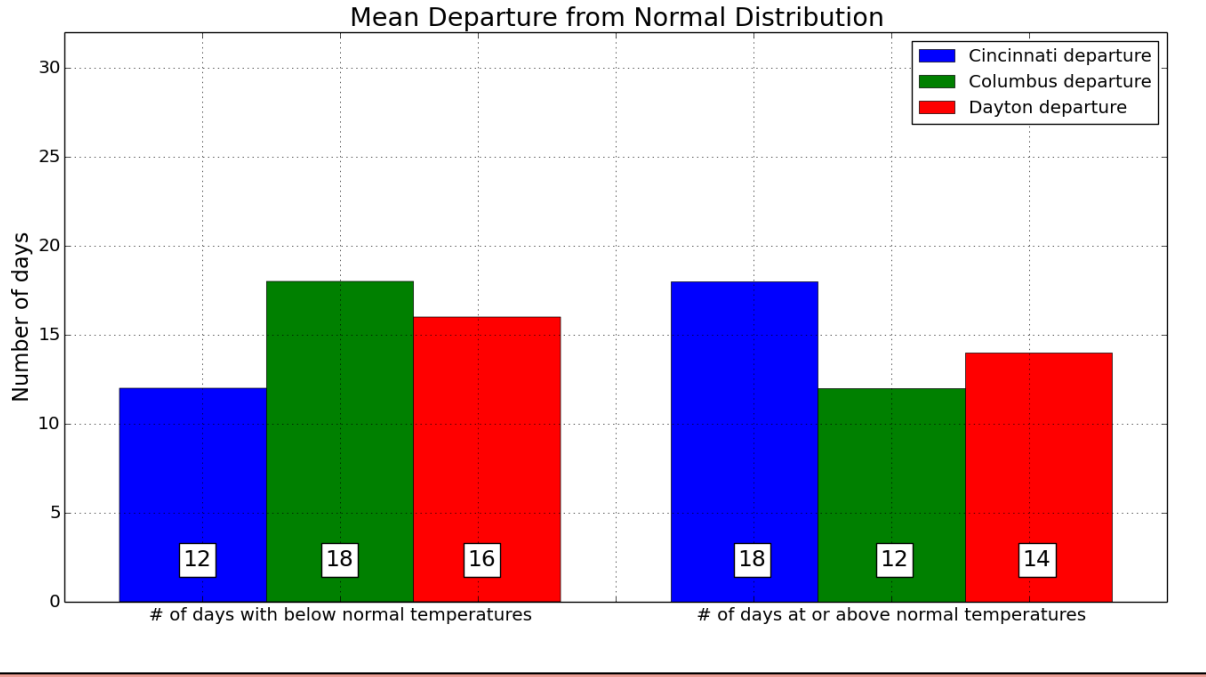
Temperatures



The above graph demonstrates the unbalanced temperature trends observed across the area (in this case, Cincinnati) during the month of April. The purple line represents the daily average temperature normal while the black line represents the April 2016 daily average temperature. Red triangles indicate daily temperatures that were above normal and blue triangles indicate daily temperatures that were below normal. Black triangles designate that the daily average temperature in April 2016 was identical to the daily average temperature normal.

Temperatures (Continued)





Precipitation

It was quite a wet start to the month with Dayton, Columbus, and Cincinnati reporting precipitation on 10 of the first 11 days of April. Some unseasonably cold air also provided several days of snow showers across the area.

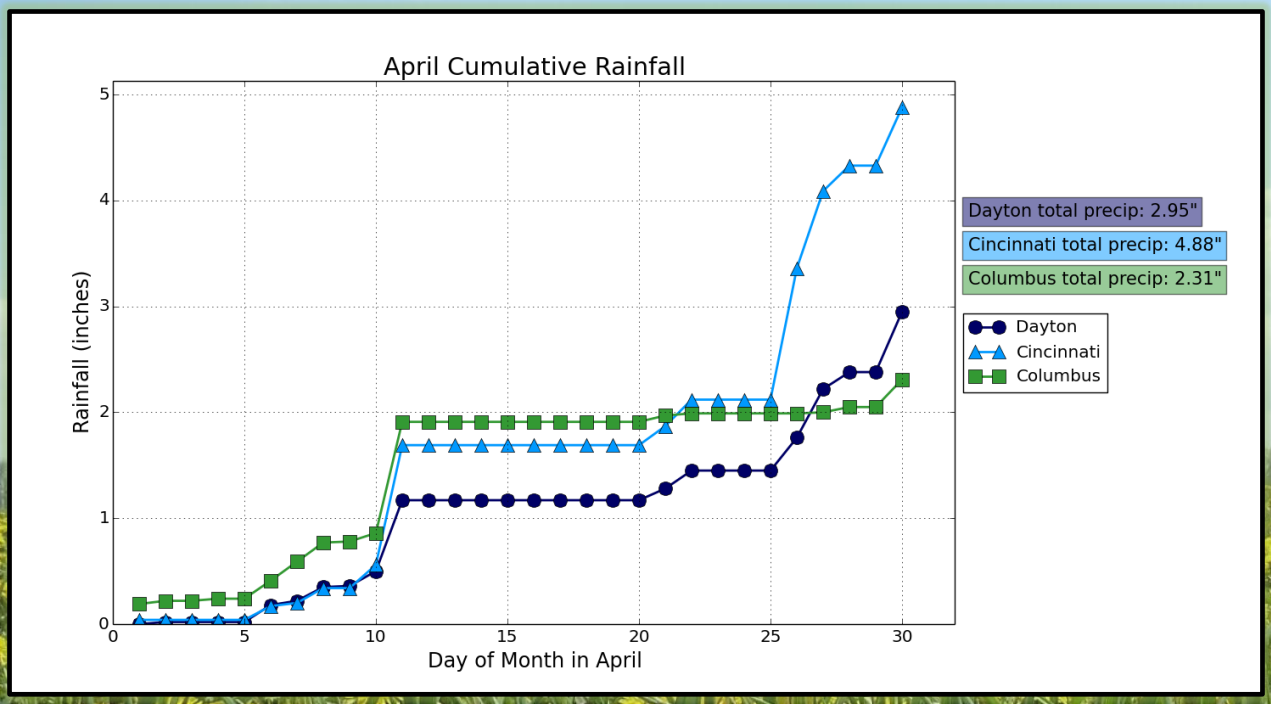
A weak disturbance brought shower activity to the region on the 1st. A strong cold front moved through on the 2nd and scattered rain shower activity transitioned to snow showers. Very windy conditions also accompanied the precipitation on the 2nd. High pressure briefly built into the region on the 3rd before another cold front moved through on the 4th. High pressure again briefly built in for the 5th before another cold front moved through on the 6th. An upper level trough with multiple disturbances kept cool conditions and multiple rounds of precipitation across the region for several days. Snow showers, which were heavy at times, also occurred on multiple days, including some accumulating snow on the 9th. Widespread rain, some heavy, moved through on the 11th with an area of low pressure and associated cold front. Many locations received over a half inch to an inch of rain on the 11th.

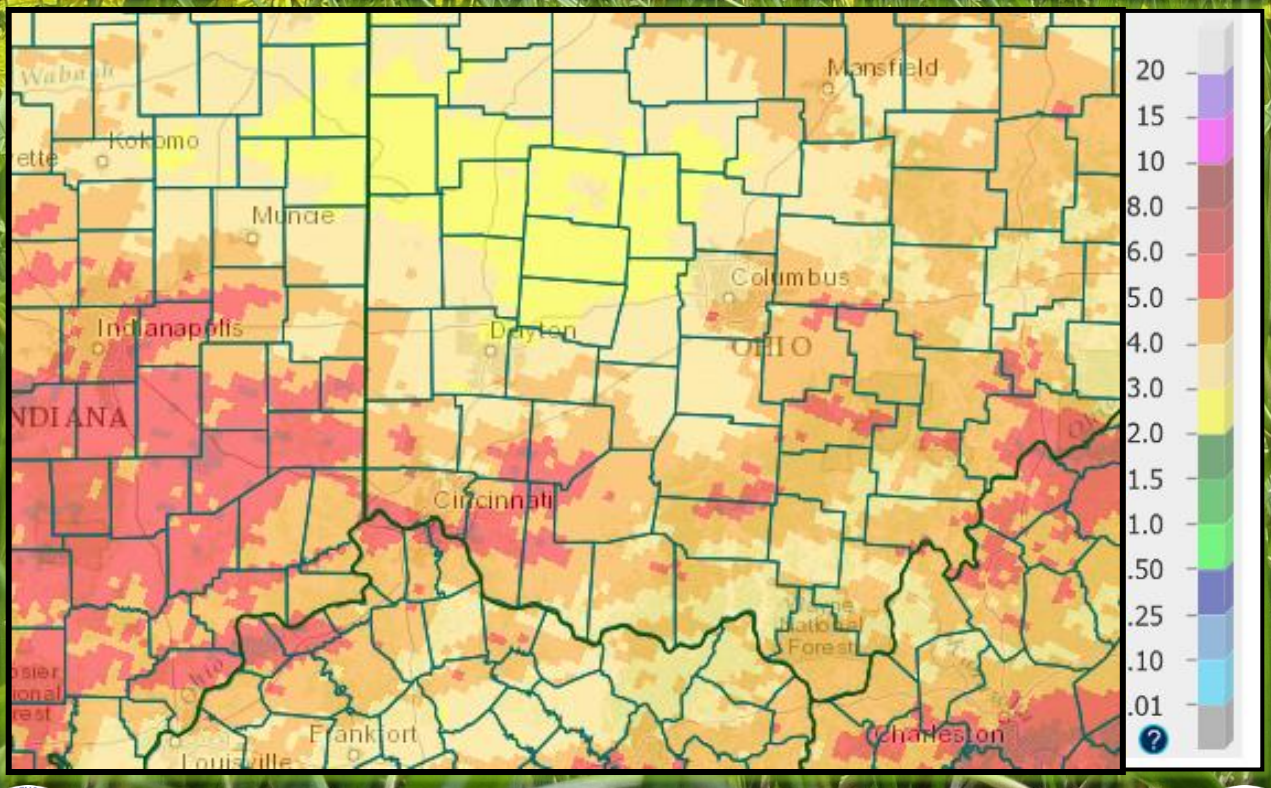
After the passage of a frontal boundary on the 11th, drier conditions moved in to the region. A large ridge kept dry conditions in place for several days from the 12th through the 20th across most locations. An area of low pressure brought a return of the precipitation on the 21st. An upper level disturbance brought showers and thunderstorms including some hail to the area on the 22nd. For the last full week of the month, several weak low pressure systems and their associated frontal boundaries provided persistent showers and thunderstorms, marking a very wet end to April.

For the month as a whole, however, southern parts of the area received significantly more rain than northern portions of the area, with Cincinnati (CVG) reporting around double what was reported at Columbus (CMH) and Dayton (DAY).

Site	Total Precipitation (in.)	Departure From Normal (in.)	Max Daily Precipitation (in./date)		Total Snowfall (in.)	Max Daily Snowfall (in./date)	
Cincinnati (CVG)	4.88”	+0.99”	1.24”	26th	Trace	T	5th, 7th, 8th, 9th
Columbus (CMH)	2.31”	-1.09”	1.05”	11th	0.3”	0.3”	9th
Dayton (DAY)	2.95”	-1.14”	0.67”	11th	0.3”	0.3”	2nd, 9th

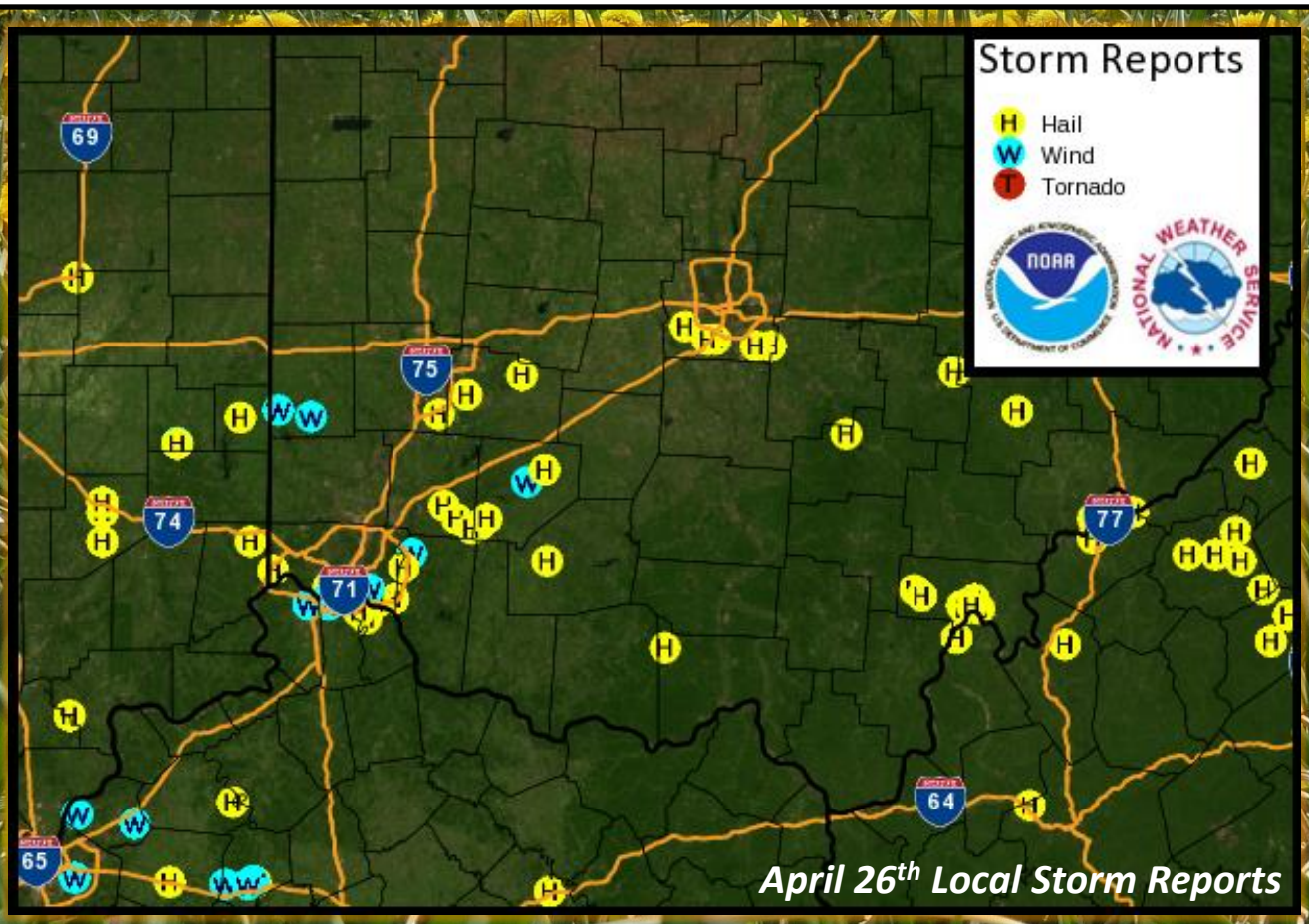
Precipitation (Continued)





Severe Weather

A slowly-moving east-west oriented frontal boundary moved south across the area on the afternoon of the 26th. Ample amounts of instability built into the area as mostly sunny skies resulted in rapid warming during the morning and early afternoon. Slowly-moving showers and thunderstorms began to develop rapidly across the area during the middle of the afternoon. Sufficient instability allowed for numerous reports of large hail (diameter ≥ 1 inch). Although there were some sporadic reports of thunderstorm wind damage, the large hail was the main story during this late April severe weather event across the Ohio Valley.



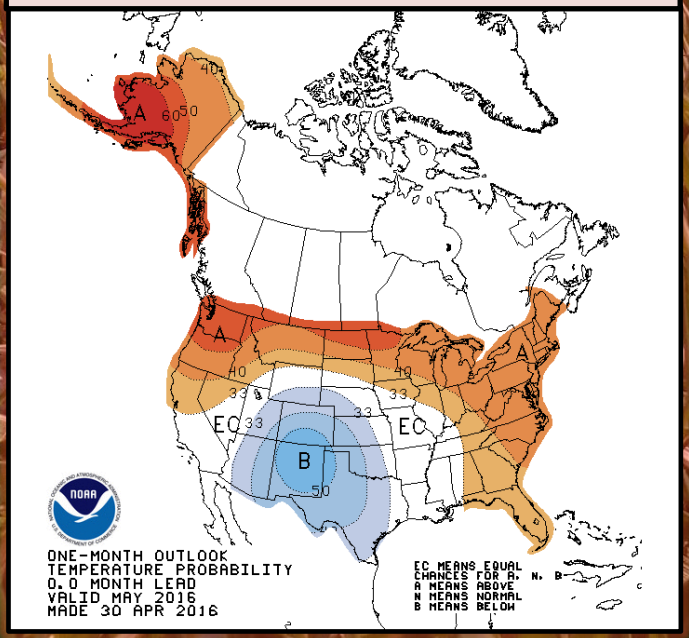
May Outlook

The latest outlook from the Climate Prediction Center calls for an increased likelihood of above normal temperatures and below normal precipitation across the Ohio Valley.

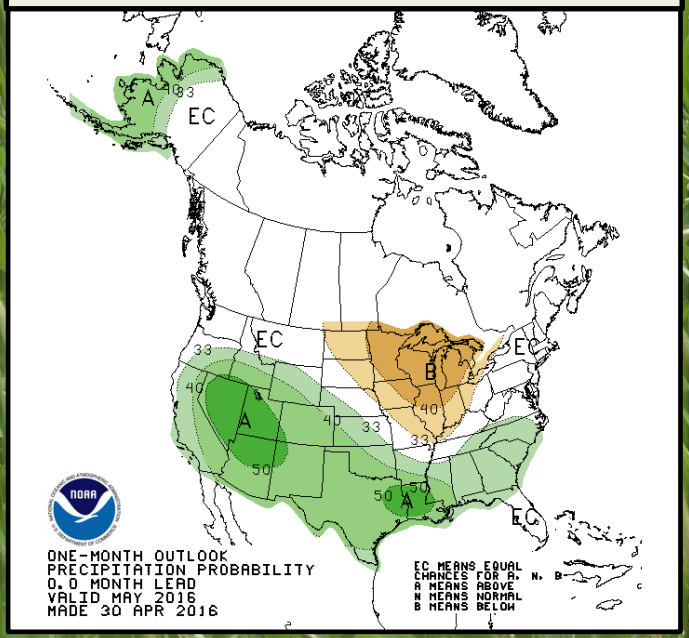
Site	Normal Avg Temp (°F)	Normal High (°F)	Normal Low (°F)
Cincinnati (CVG)	63.5	73.7	53.2
Columbus (CMH)	62.5	72.9	52.2
Dayton (DAY)	61.4	71.5	51.4

Site	Normal Precipitation (in.)	Normal Snowfall (in.)
Cincinnati (CVG)	4.93”	0.0”
Columbus (CMH)	4.17”	0.0’
Dayton (DAY)	4.66”	0.0”

Upcoming Temperature Outlook



Upcoming Precipitation Outlook

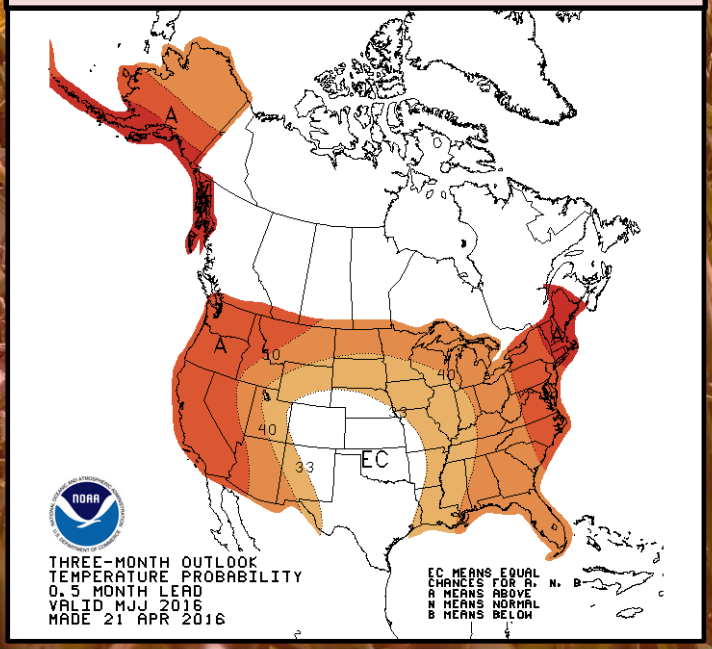


Late Spring & Early Summer Outlook

El Niño will continue to weaken this spring and there will be a transition to ENSO-neutral conditions this spring or early summer. There is an increasing chance for a transition to La Niña later during the second half of the year. Currently the El Niño advisory remains in effect and there is also a La Niña watch.

During the May-July timeframe there is an increased likelihood of above normal temperatures. There is not a clear signal for precipitation with equal chances of below normal, normal, and above normal precipitation across the Ohio Valley Region.

Three-Month (MJJ) Temp. Outlook



Three-Month (MJJ) Precip. Outlook