



NWS Wilmington, Ohio June 2017 Regional Climate Summary

Regional Climate Summary

Although June 2017 started off on a dry and seasonably warm note, the month will largely be remembered for a significant heavy rainfall event that impacted the area on the 23rd. This event, the result of the remnants of Tropical Cindy merging with a frontal boundary, produced widespread rainfall amounts of 2 to 4+ inches, much of which occurred in only a 6 to 8 hour time frame for any one location. As a result of this event, each of the 3 major climate sites recorded above normal precipitation for the month.

Temperatures

The month of June 2017 was a month which featured very little in the way of dramatic temperature swings. There were many days with near normal (+/- 5°F) daily temperatures for each of the 3 climate sites.

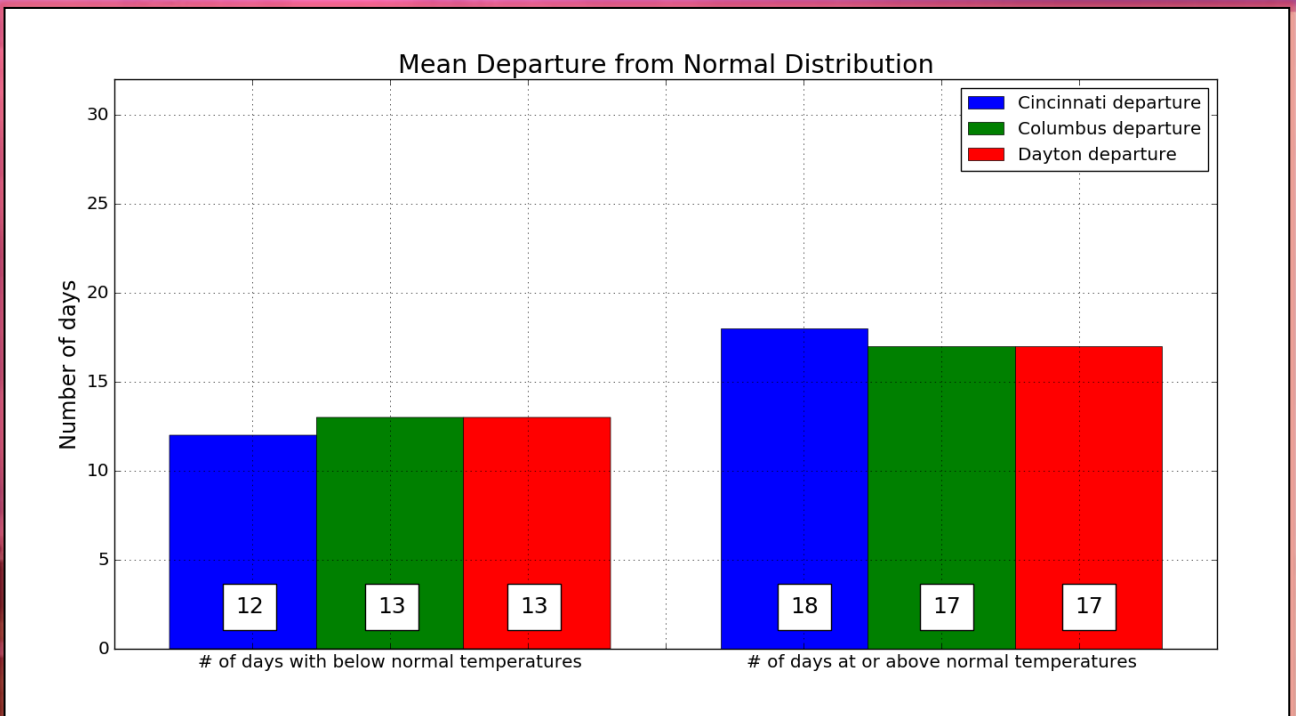
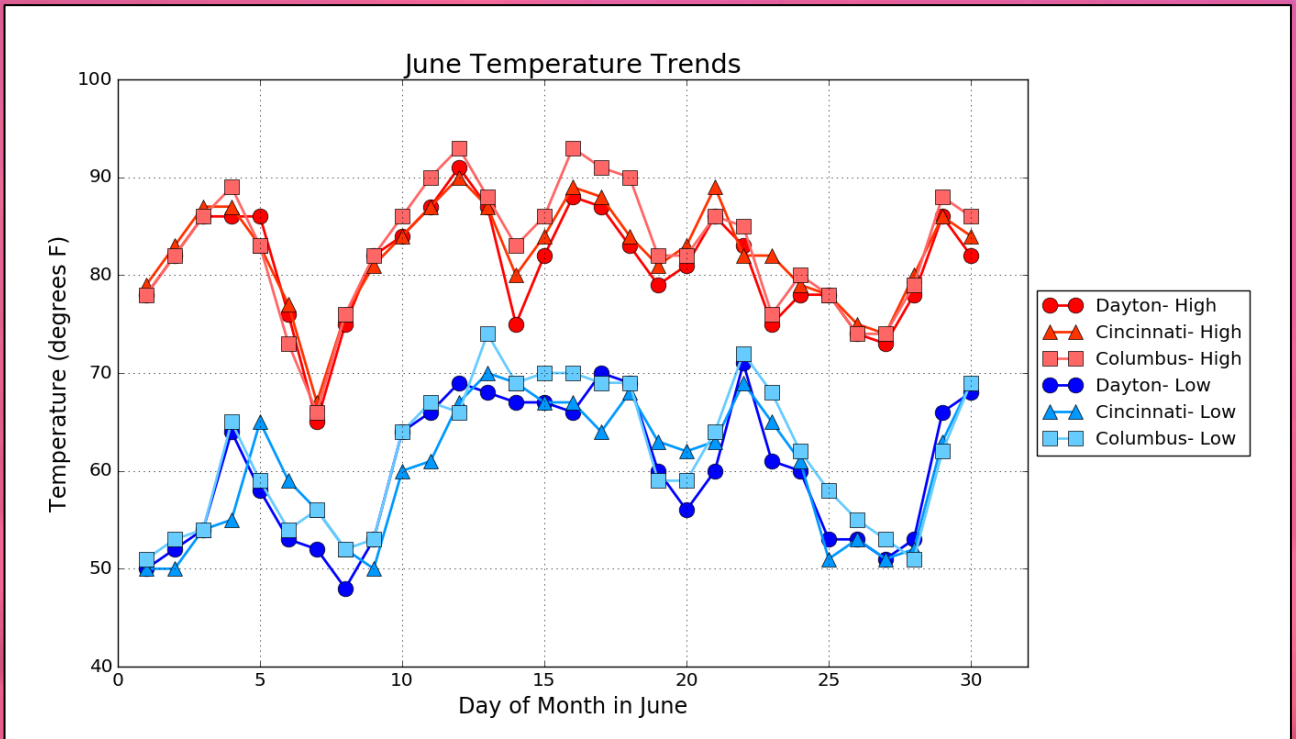
Although the temperature traces at each of the climate stations by themselves lacked many noteworthy tendencies, it is interesting to point out that Columbus (CMH) reached 90°F on five (5) different days during the month, compared to only one (1) for both Cincinnati (CVG) and Dayton (DAY). Moreover, through the period of record, Cincinnati usually reaches at least 90°F five (5) times during the month of June while Dayton usually achieves this feat four (4) times in June. In fact, the 1 time of 90°F+ at both Cincinnati and Dayton was the least amount in the month of June since 2010 for both sites.

The lack of daytime heat eventually translated to seasonably mild nights as well. In fact, Cincinnati (CVG) only stayed at or above 70°F one day in June (average over period of record in June: 4). This stat remains in stark contrast to the summer of 2016, where Cincinnati's low temperature stayed at or above the 70°F mark a total of 39 times (June through September), which was a record dating all the way back to 1936! Both Dayton and Columbus recorded two such nights during the month of June 2017.

| Site | Avg Temp (°F) | Avg High Temp (°F) | Avg Low Temp (°F) | Departure From Normal (°F) | Maximum Temperature (°F) | Minimum Temperature (°F) |
|------------------|---------------|--------------------|-------------------|----------------------------|--------------------------|--------------------------|
| Cincinnati (CVG) | 71.2°F | 82.2°F | 60.2°F | - 0.9°F | 90°F (06/12) | 50°F (Mult. Days) |
| Columbus (CMH) | 72.2°F | 82.8°F | 61.6°F | + 0.7°F | 93°F (Mult. Days) | 51°F (Mult. Days) |
| Dayton (DAY) | 70.6°F | 81.1°F | 60.1°F | 0.0°F | 91°F (06/12) | 48°F (06/08) |



Temperatures (Continued)



Precipitation

Although all 3 climate sites finished the month with above normal precipitation, the start of June certainly wasn't trending in that direction. In fact, during the first 12 days of June, Cincinnati (CVG) received only 0.06" of rain combined!

However, the weather pattern would dramatically shift for the second part of the month as seasonable warmth and humidity built into the Ohio Valley. Several days of spotty showers and thunderstorms resulted in locally heavy rain for the middle of the month (where DAY recorded a daily record rainfall on 06/14 of 2.68," breaking old record for date of 1.29" set in 1996). Although there were several dry days to follow this active period, the respite was brief.

On the 18th, an unsettled pattern developed for much of the Ohio Valley as daily showers and thunderstorms moved through parts of the area. Finally, on the 23rd, the remnants of Tropical Storm Cindy merged with an advancing cold front to produce several significant rounds of showers and thunderstorms. Both Cincinnati and Dayton recorded daily record rainfall totals of 2.29" (1.64" in 1896) and 2.86" (1.04" in 1896), respectively. Columbus, meanwhile, recorded 1.31."

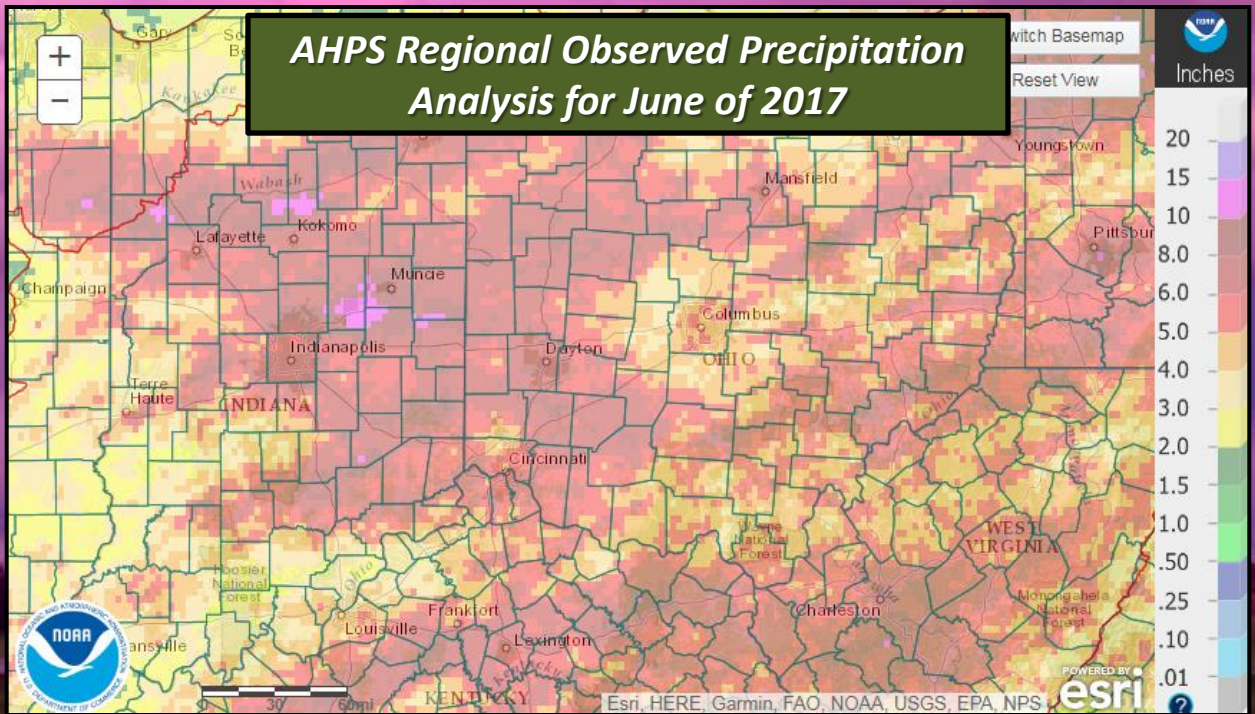
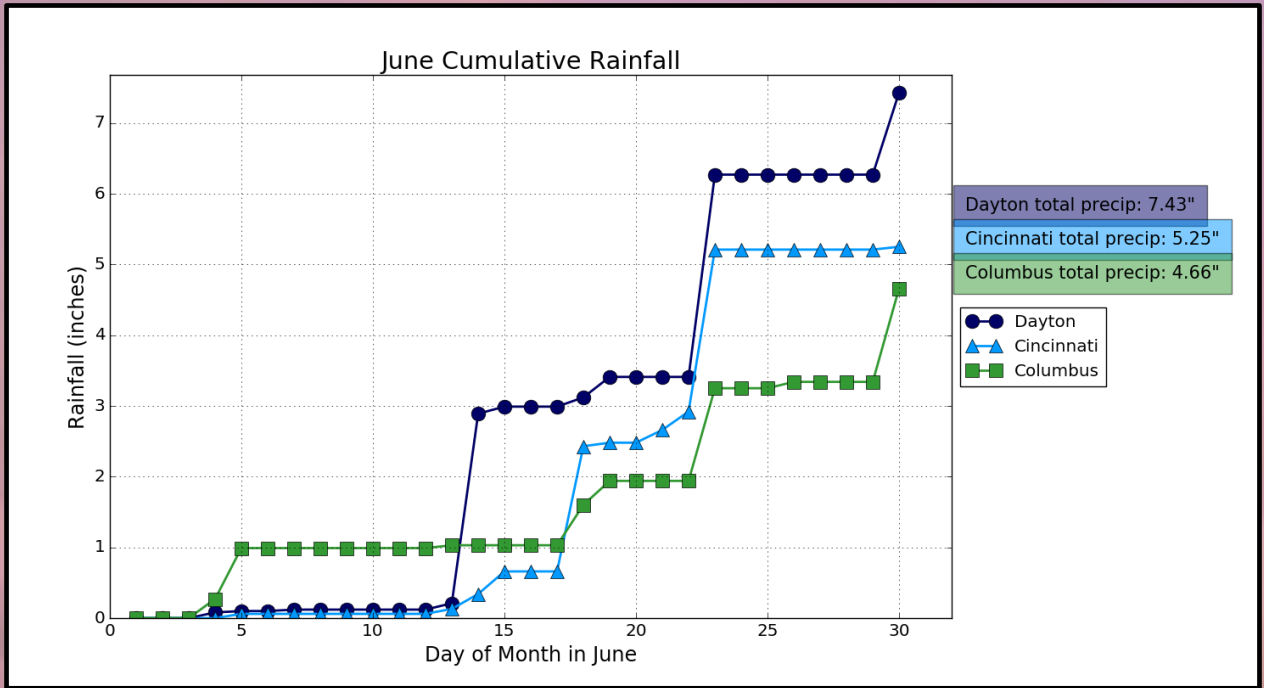
There are several rare rainfall feats that Dayton (DAY) achieved during the month of June that deserve a closer look. Firstly, the two single day rainfalls of at least 2.5" was the most in one month since June of 1958. The feat of at least 2.5" in one day had only been achieved once (in September of 2011) since September of 2005! It can be concluded from this stat that Dayton had more extreme rainfall days in a 10-day span in June than in the previous 11 years combined.

Dayton measured a total of 7.43" during the month of June, the 6th wettest June on record for the site.

| Site | Total Precipitation (in.) | Departure From Normal (in.) | Max Daily Precipitation (in./date) | | Total Snowfall (in.) | Max Daily Snowfall (in./date) | |
|------------------|---------------------------|-----------------------------|------------------------------------|-------|----------------------|-------------------------------|----|
| Cincinnati (CVG) | 5.25" | + 1.22" | 2.29" | 06/23 | -- | -- | -- |
| Columbus (CMH) | 4.66" | + 0.65" | 1.32" | 06/30 | -- | -- | -- |
| Dayton (DAY) | 7.43" | + 3.26" | 2.86" | 06/23 | -- | -- | -- |



Precipitation (Continued)



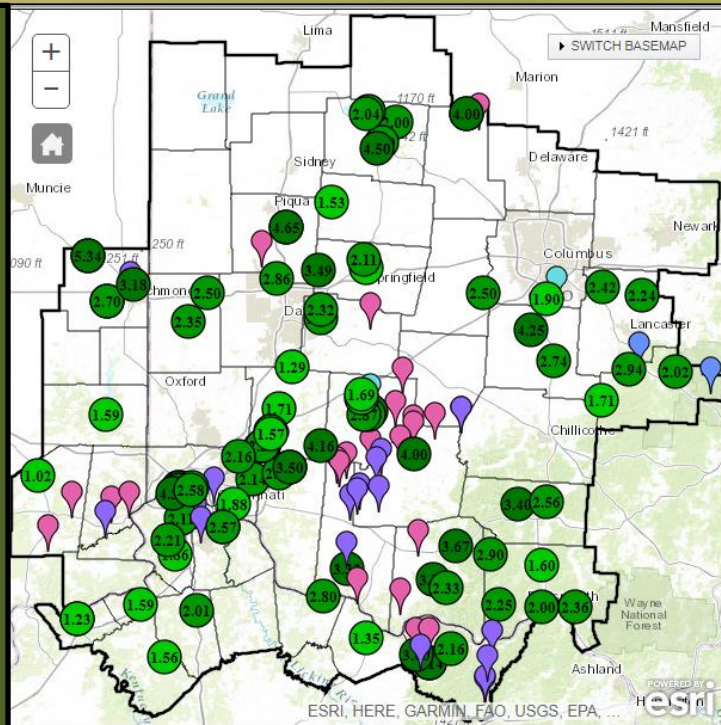
Precipitation (Continued)

On the 23rd of June, the remnant circulation of once-Tropical Storm Cindy became absorbed into the mid-altitude westerlies as a potent trough swung through the Great Lakes and Ohio Valley regions. In the several days prior, increasing tropical moisture was transported into the region on the western periphery of an expansive upper level ridge centered off the Carolina coast.

This influx of moisture set the stage for heavy to extreme rainfall rates as sufficient forcing finally moved into the region during the day on the 23rd. Several slow-moving bands of showers with embedded thunder developed in northern portions of the area before a second band developed as the remnant center of Cindy tracked across central Kentucky. These bands of showers and thunderstorms were generally oriented WSW to ENE, but were moving generally directly eastward, creating training storms and increasing the flash flood risk. Roughly 40 instances of flooding and flash flooding were reported to our office in the 18-hour span on the 23rd. Many locations received 2-4" of rain, with isolated amounts around 5"!

Check Out Our Detailed Summary For This Heavy Rain Event (Including Local Storm Reports From The Public and NWS Spotters):

<https://www.weather.gov/iln/20170623>



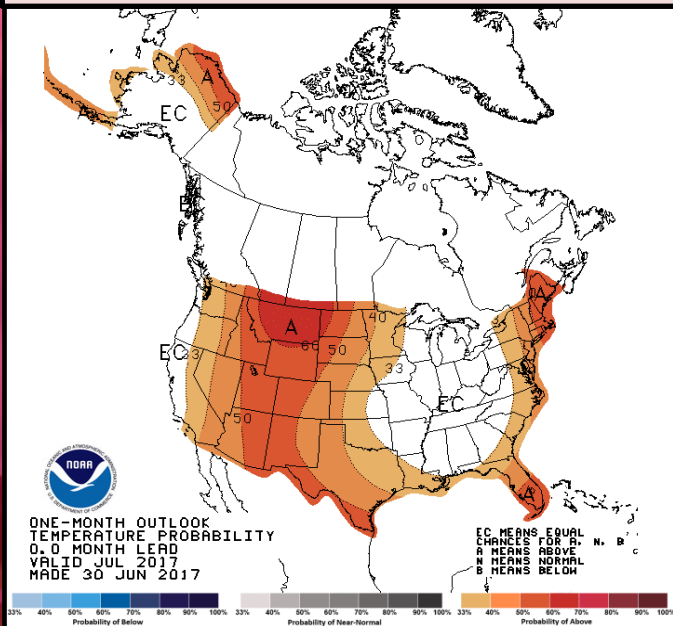
July Outlook

The latest outlook from the Climate Prediction Center (CPC) shows inconclusive signals for both precipitation and temperatures trends in July, with equal chances of above or below normal temperatures and precipitation. The lone exception suggests slightly favorable conditions for above normal precipitation across far southwestern portions of the area.

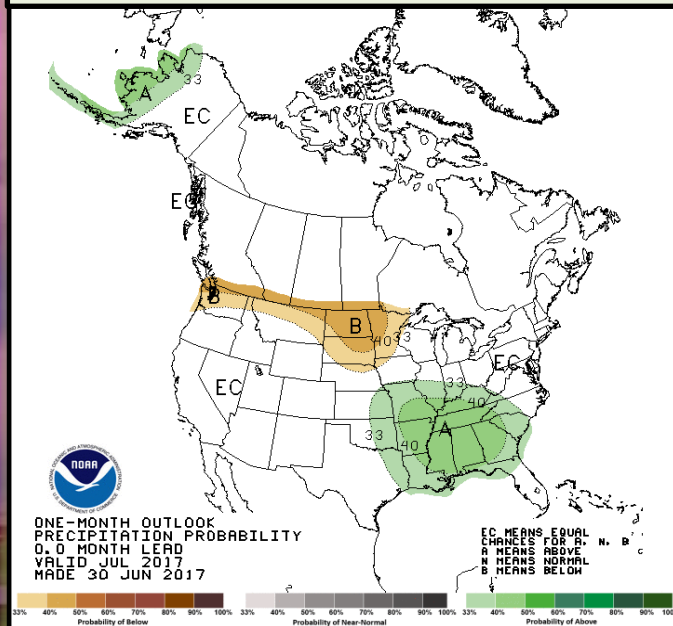
| Site | Normal Avg Temp (°F) | Normal High (°F) | Normal Low (°F) |
|------------------|----------------------|------------------|-----------------|
| Cincinnati (CVG) | 75.9°F | 85.6°F | 66.1°F |
| Columbus (CMH) | 75.2°F | 84.9°F | 65.5°F |
| Dayton (DAY) | 74.1°F | 83.8°F | 64.5°F |

| Site | Normal Precipitation (in.) | Normal Snowfall (in.) |
|------------------|----------------------------|-----------------------|
| Cincinnati (CVG) | 3.76" | -- |
| Columbus (CMH) | 4.79" | -- |
| Dayton (DAY) | 4.11" | -- |

Upcoming Temperature Outlook



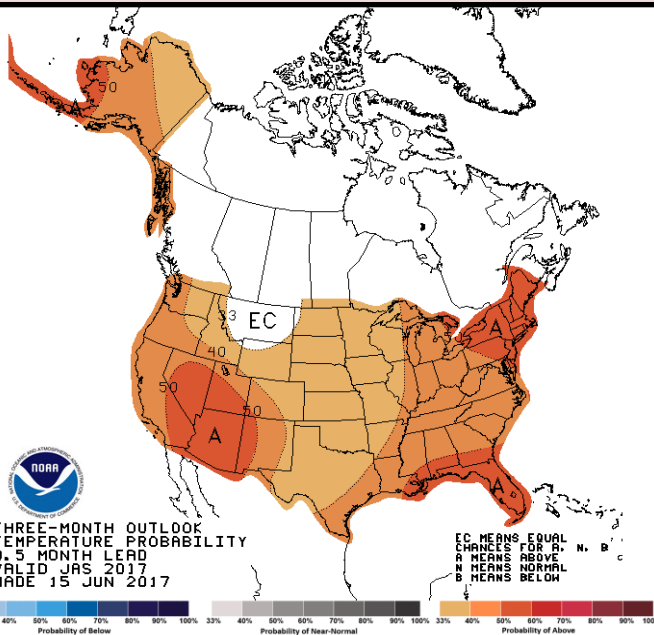
Upcoming Precipitation Outlook



Late Summer/Early Fall Outlook

The latest outlook for the late summer and early fall time period from the Climate Prediction Center (CPC) indicates increased probabilities for above normal temperatures across much of the eastern United States, including the Ohio Valley region. Currently, there is not a clear signal for either above normal or below normal precipitation during this time period anywhere across the eastern third of the country.

Three-Month (JAS) Temp. Outlook



Three-Month (JAS) Precip. Outlook

