The month of September broadly featured above normal temperatures and below normal precipitation. This was especially true for many Ohio locations and all three climate sites. After a very hot start to the month, the temperatures for the rest of the month were fairly moderated due to the lack of significant weather pattern changes. A slow moving system that moved through the region during the last week of the month provided some locally heavy rainfall across portions of northern Kentucky, southeast Indiana, and southern Ohio.
Temperatures

The first week of September kicked off the month with a hot start. Several 90°+ degree days occurred before a more seasonable pattern moved in for the second week of the month. The longest period of below normal temperatures occurred from the 12th through the 19th, and this was largely due to below normal temperatures at night. Several nights in the upper 40s and lower 50s provided pleasant fall mornings.

To wrap up the month, temperatures were a few degrees above normal, ultimately contributing to the above normal results for September. There simply were not enough below normal days to cancel out the warm start to the month.

<table>
<thead>
<tr>
<th>Site</th>
<th>Avg Temp (°F)</th>
<th>Avg High Temp (°F)</th>
<th>Avg Low Temp (°F)</th>
<th>Departure From Normal (°F)</th>
<th>Maximum Temperature (°F)</th>
<th>Minimum Temperature (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati</td>
<td>70.0</td>
<td>80.6</td>
<td>59.4</td>
<td>1.9</td>
<td>93 on 4th and 5th</td>
<td>48 on 19th</td>
</tr>
<tr>
<td>Columbus</td>
<td>68.9</td>
<td>78.7</td>
<td>59.0</td>
<td>1.7</td>
<td>92 on 5th</td>
<td>48 on 19th</td>
</tr>
<tr>
<td>Dayton</td>
<td>68.6</td>
<td>79.7</td>
<td>57.6</td>
<td>0.9</td>
<td>93 on 5th</td>
<td>47 on 15th, 16th and 23rd</td>
</tr>
</tbody>
</table>
Temperatures (Continued)

September Temperature Trends

Temperature (degrees F)

Day of Month in September

Mean Departure from Normal Distribution

Number of days

Cincinnati departure
Columbus departure
Dayton departure

# of days with below normal temperatures
10
9
13

# of days at or above normal temperatures
20
21
17
Precipitation

All three climate sites observed less than 1” of total rain which is well below normal precipitation for the month, however, these data do not tell the whole story for rainfall amounts across the area.

Rainfall chances were few and far between through the first 3 weeks of September with only a few tenths falling area wide. For the last week of the month, a slow moving low pressure provided multiple opportunities for rain. Despite these opportunities, the highest rainfall amounts fell across northern Kentucky and some southern Ohio & southeast Indiana locations.

Rainfall amounts the last week of September provided some locations 2-4”. However, other locations across west-central and central Ohio were left with less than 0.5” for the entire month.

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Precipitation (in.)</th>
<th>Departure From Normal (in.)</th>
<th>Max Daily Precipitation (in./date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati (CVG)</td>
<td>0.94 in.</td>
<td>-2.17 in.</td>
<td>0.37 in. 26th</td>
</tr>
<tr>
<td>Columbus (CMH)</td>
<td>0.77 in.</td>
<td>-2.37 in.</td>
<td>0.47 in. 28th</td>
</tr>
<tr>
<td>Dayton (DAY)</td>
<td>0.54 in.</td>
<td>-2.77 in.</td>
<td>0.20 in. 28th</td>
</tr>
</tbody>
</table>
Precipitation (Continued)

September Cumulative Liquid-Equivalent Precipitation

Dayton total precip: 0.54*
Cincinnati total precip: 0.94*
Columbus total precip: 0.77*

Dayton
Cincinnati
Columbus

September Precipitation Departure From Normal (In.)

Dayton
Columbus
Cincinnati
Precipitation (Continued)

September Precipitation Total (In.)

Dayton
Cincinnati
Columbus

Legend:

0.5 1 1.5 2 2.5 3 3.5 4 4.5 5
The latest outlook from the Climate Prediction Center is forecasting higher chances for observing above normal temperatures and below normal precipitation across the region.

<table>
<thead>
<tr>
<th>Site</th>
<th>Normal Avg Temp (°F)</th>
<th>Normal High (°F)</th>
<th>Normal Low (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati (CVG)</td>
<td>56.2</td>
<td>66.7</td>
<td>45.7</td>
</tr>
<tr>
<td>Columbus (CMH)</td>
<td>55.2</td>
<td>65.5</td>
<td>44.8</td>
</tr>
<tr>
<td>Dayton (DAY)</td>
<td>56.0</td>
<td>66.2</td>
<td>45.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Normal Precipitation (in.)</th>
<th>Normal Snowfall (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati (CVG)</td>
<td>3.35</td>
<td>0.2</td>
</tr>
<tr>
<td>Columbus (CMH)</td>
<td>2.90</td>
<td>0.2</td>
</tr>
<tr>
<td>Dayton (DAY)</td>
<td>2.95</td>
<td>0.2</td>
</tr>
</tbody>
</table>
The Climate Prediction Center maintains an El Nino Advisory. Equatorial sea surface temperatures (SSTs) are above average in the central and eastern Pacific Ocean, which are consistent with El Nino conditions. There is now a greater than 95% chance that El Nino conditions continue through January – March 2024.

The latest three month outlook (October through December) does not favor any notable signals that would provide increased chances for above/below normal temperatures or above/below normal precipitation. This means there are equal chances for above, below, and near normal conditions expected for both temperature and precipitation.