

# Central Indiana

## June 2020

### Climate Summary

*Tied for 43<sup>rd</sup> Warmest on record at Indianapolis*

*Tied for 58<sup>th</sup> Wettest on record at Indianapolis*

#### Temperatures

June started warm and grew progressively warmer through the month to produce temperatures that generally averaged 1 to 3° above normal. After a mild first day of June and for many the coolest morning of the entire month, highs surged into the mid and upper 80s with lows in the 60s over the next 10 days or so with relatively dry conditions. Several locations would warm into the 90s on a few days during this period as well. Humidity levels would rise from the 8<sup>th</sup> through the 10<sup>th</sup> as the remnants of Cristobal passed to the west of the area but enabled tropical moisture to lift into the Ohio Valley and produce oppressively humid conditions.

Highs would slide back into the mid and upper 70s in the wake of a frontal passage and with an upper low positioned off to the northeast of the area. The cooler northeast winds would usher in lower humidities and provide a nice reprieve from the sultry conditions as Cristobal passes by. Beginning on the 16<sup>th</sup>, southerly flow would reestablish with the departure of the upper low and a return of warmer temperatures and higher humidity that would peak on the 19<sup>th</sup> and 20<sup>th</sup> with highs in the low 90s. A few cooler days in the upper 70s and lower 80s would provide brief breaks to an otherwise typical early summer regime with highs ranging from the mid 80s to lower 90s and lows in the mid 60s to lower 70s. One big exception was the 27<sup>th</sup> as thick cloud cover and periodic storms as a frontal boundary drifted into the region. Temperatures were kept down in the 70s in most places all day.

Indianapolis would get to 90° or warmer on 3 days during the month with the first occurrence on the 19<sup>th</sup>. The hottest temperatures recorded in June would be across western and northern sections of central Indiana, with 94° at Lafayette, Muncie and Terre Haute and 95° occurring in Vincennes. The coolest morning for much of the area

occurred on the 1<sup>st</sup> with mid and upper 40s common across much of the rural portions of central Indiana.

Site	June 2020 Avg Temp	June 2020 Difference from Normal	Highest Temperature	Lowest Temperature
Indianapolis	73.7	<b>+1.7</b>	91 on 20	50 on 15
Lafayette (*)	76.1	<b>+4.6</b>	94 on 8 and 20	50 on 1
Muncie	74.6	<b>+3.2</b>	94 on 20	48 on 1
Terre Haute	74.0	<b>+1.6</b>	94 on 20	49 on 1
Bloomington	74.0	<b>+2.6</b>	92 on 6 and 20	47 on 1
Shelbyville	75.6	<b>+4.1</b>	94 on 20	50 on 1
Indy – Eagle Crk.	73.6	<b>+1.3</b>	91 on 20	48 on 1

At Indianapolis, there were 18 days with above normal average temperatures, 10 days with below normal average temperatures and 2 days with normal average temperatures.

June 2020 was tied for the 43<sup>rd</sup> warmest in the Indianapolis area since 1871.

(\*) – Lafayette temperature data missing 6/17 through 6/19 and on 6/23.

## Precipitation

Overall June was a dry month for much of central Indiana, and this led to the designation of D0 drought across most of the state by the middle of the month. This was the first designation of any drought in the state since December. After very dry conditions for much of the month, June ended on a wet note with several rounds of showers and thunderstorms impacting the area, with the first round on June 21<sup>st</sup> – 23<sup>rd</sup> and then again June 27<sup>th</sup> through the 30<sup>th</sup>. Coverage was spotty, however, and some locations missed out altogether. The highest monthly observed amounts in excess of 5 inches occurred northeast of the Indianapolis metro over Madison and northern Hamilton Counties, near Rockville in Parke County and across parts of Knox County. An observer just northwest of Anderson measured 7.28 inches for the month, with over 5 inches of that occurring from the 27<sup>th</sup> through the 29<sup>th</sup>.

For the month, from north of Indianapolis to around Kokomo/Lafayette/Muncie, generally saw three to six inches of rain. A drier area stretching from Sullivan through Bloomfield and Bloomington to the south side of Indianapolis missed out on most of the rain in the month, with only one to just over two inches in that swath. South of there, generally saw about three to six inches from there to the Ohio River. These amounts,

however, were still running dry compared to normal for the month, with the aforementioned area from Sullivan to the south side of Indianapolis ending June one to four inches below normal, and most of the area half an inch to two inches below normal.

On June 3<sup>rd</sup> and 4<sup>th</sup>, a couple of upper level disturbances moving through a northwest flow pattern interacted with a frontal boundary that moved back and forth across central Indiana. This prompted the development of scattered showers and thunderstorms with locally heavy rainfall. There were a few flash flood warnings over western parts of central Indiana near the Illinois border where 2 to over 3 inches of rain fell over a short period of time.

A couple of upper short waves moved through cyclonic upper flow June 21<sup>st</sup> – 23<sup>rd</sup> to produce rainfall amounts of one to two inches across western and eastern parts of central Indiana, with only a quarter inch or so across middle parts of the area. Another frontal system set up to end the month, with a front meandering through central Indiana and a series of upper waves interacting with it, along with warm and humid air off the Gulf providing plenty of instability and sunshine helping to realize that potential. Several areal flood warnings and advisories were issued at times from June 27<sup>th</sup> through the 30<sup>th</sup>. Amounts of half an inch to an inch during this timeframe were common south of I-70, with one and a half to three inches spread across the area north of I-70.

Despite running a precipitation deficit for much of the month, a persistent and nearly stationary thunderstorm on the early morning of the 30<sup>th</sup> that dumped over an inch in about an hour and a half wound up pushing the monthly total at the Indianapolis International Airport with 4.44 inches, or 0.19 inches above normal. Interestingly, the rain gage at NWS Indianapolis which is just a mile or two from the airport gage measured almost 2 inches more in the same timeframe with the early morning thunderstorm on the 30<sup>th</sup>, highlighting the wide variations in totals over very short distances common with the late month storms.

Site	June 2020 Precipitation	June 2020 Difference from Normal	Wettest Day	Longest Dry Stretch
Indianapolis	4.44	<b>+0.19</b>	1.31 on 27	7 days 14-20
Lafayette (*)	2.86	<b>-1.24</b>	1.07 on 27	9 days 11-19
Muncie	4.00	<b>-0.66</b>	1.09 on 27	4 days 5-8 and 14-17
Terre Haute	3.06	<b>-1.38</b>	1.33 on 22	5 days 15-19
Bloomington	1.35	<b>-3.54</b>	0.36 on 29	6 days 15-20
Shelbyville	3.33	<b>-1.07</b>	0.88 on 21	4 days 5-8 and 14-17
Indy – Eagle Crk.	3.56	<b>-0.83</b>	1.12 on 29	7 days 14-20

June 2020 was tied for the 58<sup>th</sup> wettest in the Indianapolis area since weather records began in 1871.

(\*) – Lafayette precipitation data missing on 6/23.

## Severe Weather

Overall, it was another quieter month than normal for severe weather across central Indiana. Scattered severe thunderstorms occurred on multiple days through the month including June 3, 4, 10, 21, 22 and 27. Most of these storms produced wind damage. Additional strong storms occurred through much of the last several days in June as a boundary stalled out over the region.

For information on severe weather in other areas during June, visit the Storm Prediction Center “Severe Weather Event Summaries” website at <http://www.spc.noaa.gov/climo/online/>.

## Miscellaneous

The maximum wind gust at Indianapolis International Airport was 53 mph out of the west-northwest on the early morning of the 30<sup>th</sup> as a strong thunderstorm impacted the area. Fog or haze was reported at Indianapolis on 8 days during the month, including two days with dense fog. Thunder was reported on 6 days during the month.

## July 2020 Outlook

The official outlook for July 2020 from the Climate Prediction Center indicates a greater chance for above normal temperatures for central Indiana. At Indianapolis, the average temperature for the month is 75.4 degrees. The outlook also calls for an equal chance for near, above or below normal precipitation across central Indiana. The average precipitation for July at Indianapolis is 4.55”.

***Data prepared by the Indianapolis Forecast Office.***