Central Indiana
May 2022
Climate Summary

27th Warmest May on record at Indianapolis

76th Driest / 77th Wettest May on record at Indianapolis

Temperatures

May 2022 was quite warm, with most locations averaging 2.5 to 3.5 degrees above normal across central Indiana. Record heat within the **11th-15th** and additional brief unseasonable warmth during the **20th-21st** and **30th-31st** led this trend. 18 of the remaining 22 days were within 5 degrees of normal at Indianapolis; the month was devoid of any substantive polar air or prolonged chill. Daily temperatures at Indianapolis averaged 10 or more degrees above normal **7** times - the **10th-14th**, **20th**, and **31st**; with no days relatively colder than the **5th** or the **23rd** which were both 6 degrees below normal. May 2022 reversed the below-normal temperature pattern seen during May 2020 and May 2021. Upper level troughs were most frequent over western, and occasionally central portions of the continental US, which favored southerly to southwesterly flow into Indiana, as well as frequent opportunities for rain.

May's first eight days were generally cool, although few locations dropped below 40F. The **2nd**'s morning was the coldest of the month for most locations, especially central and southern counties. Several sites were as cold as **41F**, including the COOP stations at New Castle 3 SW (Henry Co.) and Perrysville 4WNW (Vermillion Co.), while 42F was observed as far south as North Vernon 2 ESE (Jennings Co.) and the Oolitic Purdue Farm (Lawrence Co.). The month's lowest daily maximum temperatures occurred on the **4th-6th**. The **5th** had the lowest highs for most locations, ranging from **55F** at Crawfordsville 6 SE (Montgomery Co.) to 62F at the Southwest Purdue AG Center, 5 miles NE of Vincennes (Knox Co.), while Indianapolis was 56F. Other monthly low maximums included 60F on the **4th** for a couple southern sites along I-65, and 54F on the **6th** at Kokomo 3 WSW (Howard Co.). The **8th** brought another chilly morning, with **39F** reported at the Davis Purdue AG Center, 5 miles NNW of Farmland (Randolph Co.) and 42F as far south as Jamestown 2 E, while Indianapolis dropped to 47F.

Anomalous warmth then followed around May's second week. The **9th** was a transitional day amid low humidity, with temperatures rising from 49F to 81F (for a change of +32 degrees) at

Rockville (Parke Co.). The **10th** then saw unseasonably high humidity (see Miscellaneous section below for details), with highs in the mid to upper 80s common across central Indiana, and the region's first **90F** reported at the Shoals 8 S (Martin Co.) COOP Station. The **11th** was the hottest day of the month for most locations, with widespread upper 80s and ~30% of the region peaking in the low 90s: **93F** was reached at Perrysville 4 WNW and Vincennes 5 NE, while 92F was observed at Shoals 8 S and Washington 1 W (Daviess Co.), with low 90s common across southwestern zones and 91F recorded as far north as the Beck Agricultural Center, 6 miles NW of West Lafayette (Tippecanoe Co.) and Tipton 5 SW (Tipton Co.). While only hitting 89F, Indianapolis tied the Area's daily **record high** from 1896. The **11th**'s morning lows were also unprecedented: Indianapolis' **72F** was a new record (surpassing 69F on this date in 1881) and marked only the fourth time in the 152-year record that it failed to drop below 70F so early in the year; Farmersburg TV-2 (Sullivan Co.) also observed **72F**. The **12th**-**15th** then saw four more very warm days, generally in the mid- to upper-80s, with morning lows in the mid-50s to low-60s. Low 90s continued through the **13th** at both Perrysville 4 WNW and Washington 1 W.

A transition back to seasonably mild conditions occurred late on the **15th** as a cold front crossed Indiana, dropping readings by as much as 88F to 52F (for a change of -32 degrees) at Vincennes 5 NE. Near normal temperatures followed through the **18th**. Albeit brief, another warm spell graced the region within the **19th**-**21st**. The **19th** trended warmer, with Shelbyville Municipal Airport peaking at **85F**, while Farmersburg TV-2 reached 84F. The **20th** was the warmest day of the third week, as south-southwest flow brought moderate humidity and temperatures as high as **91F** at Shoals 8 S and 90F at Shelbyville, while Indianapolis reached 87F; the Rushville COOP station (Rush Co.) recorded its highest daily low of the month, 72F. The **21st**'s morning lows were again mild – in the mid to upper 60s ahead of an approaching cold front; while daytime highs reached the upper 80s for the areas that avoided thunderstorms through midday – with **87F** recorded at both Shakamak State Park (Sullivan Co.) and the Columbus COOP station.

Rather cool conditions followed on the **22nd**-**24th**. High temperatures were lowest on the **22nd**, with a few locations only reaching 63F, including Jamestown 2 E. The **23rd** was the coldest morning of this period, with **46F** at three of the region's traditional cool spots: Crawfordsville 6 SE, New Castle 3 SW, and Rockville...as well as Lafayette 8 S (Tippecanoe Co.). Upper 40s were observed at several locations again on the **24th**, Indianapolis observed 50F and 51F over the two mornings. The **25th**-**28th** were on the whole seasonable, while trending from rather warm to slightly below normal: the **25th** was as warm as **86F** at Shoals 8 S, Tipton 5 SW, and the Shelbyville Airport; while the **28th** was as cold as **46F** at Lafayette.

May ended on a warm note, with diurnal spreads commonly ranging from the 60s to the 80s during the **29th**-**31st**. The **31st**'s morning low was the month's highest at Muncie (71F) and Farmland 5 NNW (72F), while afternoon highs ranged from 86F to **93F** at the Shelbyville Airport, with Indianapolis reaching 88F. Most of the region did not record their first-90F by month's end, yet a few sites had hit 90F on several occasions – on 4 days each at Shoals 8 S, Vincennes 5 NE, and Washington 1 W, while the Shelbyville Municipal Airport reached 90F+ on 7 days.

At Indianapolis, May 2022's daily average temperatures were above normal on 17 days, below normal on 12 days, and at normal twice. It was the 27th warmest May for the Indianapolis Area since weather records began in 1871, placing it in the 82nd percentile of all recorded Mays.

Site	May 2022 Average Temp	May 2022 Dep from Nml	Highest Temperature	Lowest Temperature
Indianapolis Int'l Airport	66.1	**+2.5**	89 on 11th	43 on 2nd
Lafayette	64.9	**+3.3**	89 on 11th	**41** on 2nd
Muncie	67.1	**+2.7**	91 on 31st	42 on 8th
Terre Haute	67.0	**+3.0**	90 on 11th, 31st	42 on 2nd
Bloomington	66.9	**+3.1**	90 on 11th	**41** on 2nd
Shelbyville	68.8	**+3.7**	**93** on 11th, 31st	45 on 2nd, 8th
Eagle Creek Airpark	67.3	**+3.5**	90 on 11th	45 on 2nd

May 2022's above normal temperatures were in contrast to both the below normal readings in May 2020 and May 2021, as well as the rather cool April 2022.

Precipitation

Following the release of the new 30-year climatological normals (1991-2020), May is now the second-wettest month for four of central Indiana's seven 1st-order airports - those in the Indianapolis Metro and points east. At Terre Haute, May ties April for wettest month of the year; Lafayette is normally wetter in both June and July; and Bloomington is normally wetter in April, June and July. May has trended noticeably drier since the previous 30-yr normals (1981-2010), with normal monthly precipitation down about 0.50" at most sites, while normal precipitation has trended up at all 1st-order sites in April and especially June. The region's typical north-south precipitation gradient is usually much less prominent in May, with this trend continuing into early summer. Normal values range from 4.04" in Lafayette to 4.75" at Indianapolis, with the three southern airports normally totaling 4.47-4.71".

Following **April 30th**'s rain, **minor flooding** occurred for 5 to 12 hours on the **1st** along several smaller rivers and creeks across northeastern counties, including Cicero Creek at Tipton (Tipton Co.) and Pipe Creek at Frankton (Madison Co.). Showers and a few thunderstorms occurred across the region from late evening of the **2nd** through late morning of the **3rd**. Rainfall totals through dawn on the **3rd** included scattered patches of 0.25-0.90" along and south of Interstate 70, with **1.13"** near Seelyville (Vigo Co.) and **1.12"** south of Harrodsburg (Lawrence Co.). The **3rd**'s afternoon and early evening hours saw a few lines of isolated thunderstorms, with additional 1-day totals, through dawn on the **4th**, greatest over central and northern counties, with as much as **1.42"** in Kempton (Tipton Co.). 2-day precipitation ranged from ~0.25" in far southeastern zones to around **1.00"** for north-central counties and several areas near I-70; greatest combined reports were **1.56"** in Riley (Vigo Co.), **1.51"** at Kempton, and **1.30"** southwest of New Castle.

The **5th**'s mainly midday to afternoon showers led to generally moderate rainfall totals, as great as 0.84" near Montmorenci (Tippecanoe Co.). The **6th** saw scattered midday to evening showers and thunderstorms, with **1.21"** near McCordsville (Marion Co.) being the greatest

report. Observations totaled 0.40-**1.20"** for most locations over the two days, with **1.54"** in Muncie, several combined reports around **1.50"** in far northeastern Marion County, and **1.41"** in Bloomington. **River flooding** occurred on the Wabash River from Lafayette (where it started late on the **4th**) down to Riverton (the last site to fall out of flood, early on the **14th**). Flooding lasted for about 6 to 7 days at each site, with the crest passing Lafayette late evening of the **7th** and at Riverton pre-dawn on the **12th**. Wildcat Creek at Lafayette reached bankfull on the morning of the **7th** yet never flooded. Flooding was isolated in other basins, occurring on the White River at Edwardsport over the **4th**-**7th**; on the Mississinewa River at Ridgeville for 11 hours on the night of the **6th**; and briefly on Cicero Creek in Tipton on the evening of the **6th**.

May's second week was mainly dry, with most locations observing no rain on the **8th** through the **13th**; a rather active second half of the month then followed. The **14th**'s afternoon thunderstorms dropped heavy rains as the cells slowly tracked southward, finally ending during the evening; a wide variance in rainfall reports inluded greatest totals across north-central and southwestern counties, with **3.12"** near Battle Ground (Tippecanoe Co.), **2.53"** near Plainville (Daviess Co.), and **2.15"** in Kokomo. The **15th**'s late afternoon storms over northwestern zones transitioned into a widespread light to moderate rain, before tapering off after midnight on the **16th**. Additional 1-day totals were highest in Covington (Fountain Co.) and near Seelyville (Vigo Co.) as both reported **1.45"**. 2-day totals ranged from 0.10-0.50" in and east of Indianapolis, to mainly **1.00-3.00"** over western zones, with **3.97"** near Battle Ground and **3.10"** near Plainville.

The **18th**'s widespread light to moderate rain fell from early morning through late day; generally 0.25-0.75" totals were recorded, with greatest reports found west to east across the Indianapolis Metro. Two rounds of late-day to early-evening storms on the **19th** dropped locally very heavy rains along and south of the I-70 corridor, before another complex of cells crossed the same counties from late evening through dawn on the **20th**. Just after midnight, Eagle Creek Airpark collected 0.49" in just 8 minutes; totals ranged from near-zero across the region's northwest to a broad swath of **1.00-3.00"** along and near the US-50 corridor, including **3.40"** near Mitchell (Lawrence Co.) and **3.18"** at the Elliston-Bloomfield COOP site (Greene Co.); less-torrential heavy rainfall measurements farther north included **2.21"** in Plainfield (Hendricks Co.) and **2.01"** in Rushville. 2-day totals for the **18th**-**early 20th** were as great as **3.80"** near Mitchell and **3.75"** in Brownstown (Jackson Co.).

The **21st**'s strong to severe, yet fast-moving thunderstorms dropped a quick 0.50-**1.00"** for several counties along a broad swath just south of I-70, with greatest observations from 0.97" in Howesville (Clay Co.) to **1.44"** at the Shelbyville Sewage COOP station. 8-day precipitation totals from dawn on the **14th** through dawn on the **22nd** ranged from around **1.00"** across many far northern counties to several **4.00-6.00"** sums over mainly southern zones, with **6.22"** north of Mitchell and **4.87"** in far north-central Tippecanoe County. **River flooding** then followed over southwestern portions of the region. The lower White River entered minor flood at Edwardsport on the afternoon of the **20th**, and at Petersburg and Hazleton on the **21st**; flooding ended after ~1.5 days at Edwardsport while the downriver points both remained in minor flood for about 3 days. More noteworthy was Beaver Creek at Shoals, which despite only flooding for 23 hours, did reach the threshold for **moderate flood** on the early afternoon of the **20th**; Salt Creek near Harrodsburg (Monroe Co.) also flooded for most of the **20th**.

Several more days of showers and thunderstorms occurred over the **24th** through **27th** as an approaching closed upper low focused Gulf moisture into the region, with each day's rainfall amounts increasing up to the widespread storms on the **26th**. The **24th** saw a few areas report 0.25-0.40" south of I-70. The **25th**'s general 0.25-0.75" reports surrounded several isolated **1.00"+** observations, including up to **1.09"** near Anderson (Madison Co.) and **1.40"** near Scipio (Jennings Co.). The **26th** then had numerous 1-day totals of **1.00-1.75"**, with greatest reports ranging from **2.61"** west of Goshen (Vigo Co.), to **2.47"** east of Shoals, while **2.25"** fell near Oolitic. 3-day sums were in the **1.00-2.00"** range for the vast majority of central Indiana, with combined reports as great as **3.46"** near Williams (Martin Co.) and **3.42"** at Shoals 8 S, and also as far north as the **2.26"** near New Castle and **2.09"** west of New Market (Montgomery Co.). The **27th** was the final day of (lighter) rain showers, although isolated heavier rainfall occurred over northeastern portions of the Indianapolis Metro – from 0.75" in Williams Creek (Marion Co.) to **1.07"** near Fortville (Hamilton Co.).

Isolated **river flooding** occurred once more, led by the lower White River: Petersburg entered minor flood on the morning of the **27th**, and Hazleton following that night, with minor flooding continuing for about 3 days at both sites. The East Fork of the White River flooded at Seymour from late day on the **28th** through late evening on the **29th**. The Flatrock River near Raleigh (Rush Co.) also flooded for ~9 hours during the **27th**.

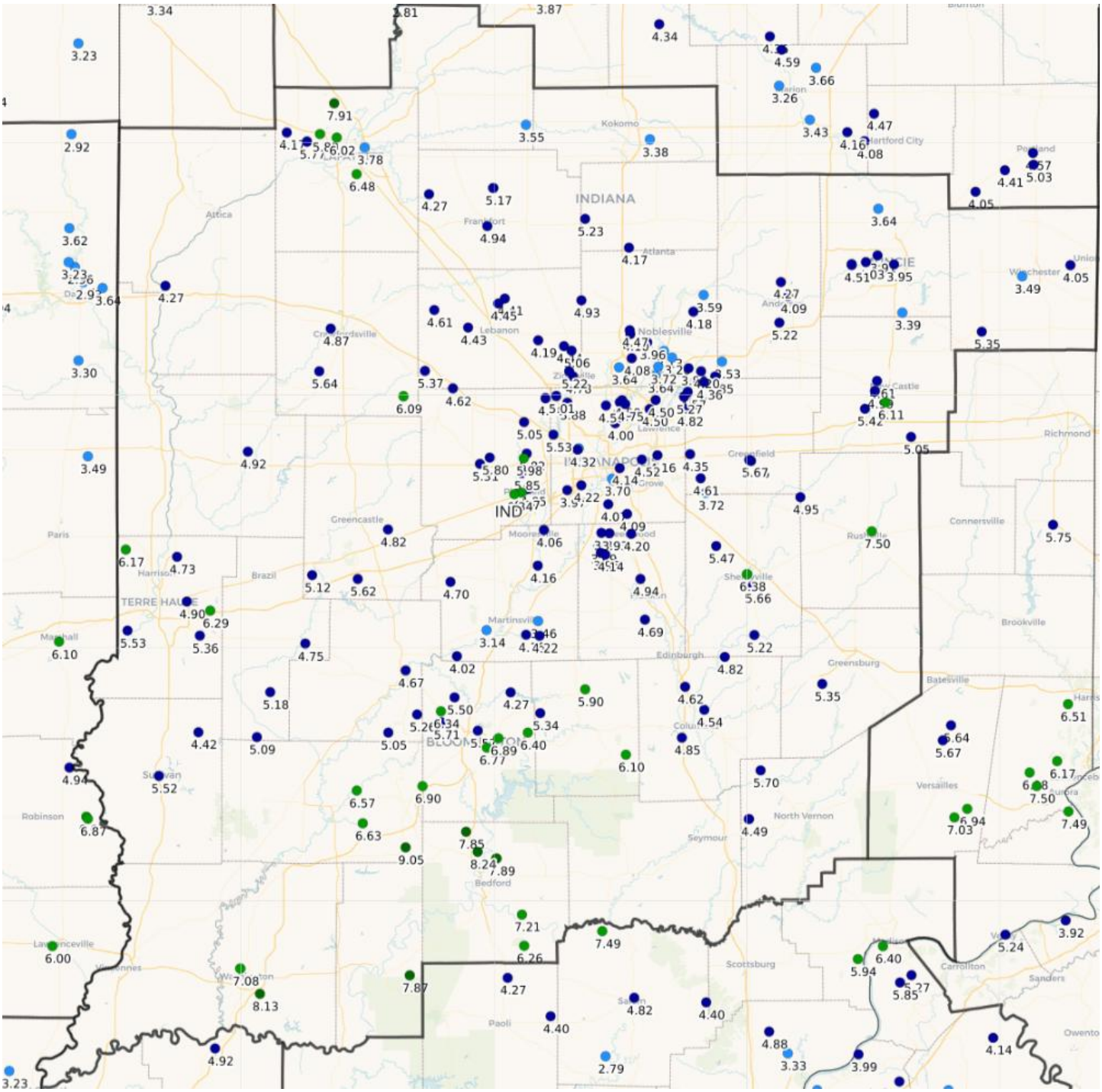
In summary, outside of a dry second week, May 2022's precipitation was frequent; and despite a high variance due to numerous thunderstorms, totals were mainly near to well above normal. May 2022 continued April 2022's pattern of above normal rainfall frequency led by light rains. However, unlike April, most airports observed above normal precipitation. **3.77"** fell at Indianapolis International Airport, which was below normal. Three of the last six Mays at Indianapolis saw either anomalously high (2017, 2020) or unseasonably low (2018) rainfall, although 2022 continued the slightly below normal pattern from both May 2019 and May 2021. The year-to-date total at Indianapolis rose to **18.57"**, which decreased the surplus to **0.69"** above normal.

Site	May 2022 Precipitation	May 2022 Dep from Nml	Wettest Day	Longest Dry Stretch
Indianapolis Intl AP	3.77	−0.98	0.89 on 26th	6 days, 8-13th
Lafayette (*)	3.93INC (*)	M	1.39 on 26th	7 days, 7-13th
Muncie	4.10	−0.26	0.98 on 6th	3 days, 11-13th
Terre Haute	5.36	+0.65	1.17 on 3rd	6 days, 8-13th
Bloomington	**5.77**	**+1.30**	1.31 on 14th	6 days, 8-13th
Shelbyville	5.13	+0.51	**1.43** on 20th	6 days, 8-13th
Eagle Creek Airpark	5.37	+1.05	1.04 on 19th	6 days, 8-13th

(*) Lafayette's observed precipitation was incomplete

May 2022 had essentially the median total precipitation of all recorded Mays at Indianapolis – finishing as both the **76th driest** and **77th wettest** since weather records began in 1871.

May 2022 Total Precipitation, Through the Morning of 6/1/2022
As Reported By Central Indiana CoCoRaHS Observers



For the period 700 AM EDT 5/1/2022 -to- 700 AM EDT 6/1/2022. Data is unofficial.

Several days of thunderstorms led highly-variable precipitation totals from 3.00-4.00” across several north-central and northeastern counties to 7.00-9.00” measured south and southwest of Bloomington. Most locations saw near to above normal rainfall.

Severe Weather

May 2022 was active with severe weather, mainly during the latter portions of the month and especially on the **19th**-**20th**, **21st**, and **25th**. Seven days included over 50 reports of damaging winds and/or large hail, as well as **6 tornadoes** that occurred over 3 days.

The **6th**'s isolated thunderstorms across southern counties led to a brief **landspout tornado** between Bobtown and Rockford (Jackson Co.). On the **14th** an approaching, weakening cold front generated numerous slow-moving storms, two of which produced marginally large hail: there were enough hailstones up to **1.00"** to cover a roadway near Stinesville (Monroe Co.), while hail up to **1.25"** fell within a torrential downpour in Monrovia (Morgan Co.).

The **19th**'s approaching warm frontal zone promoted numerous afternoon supercell t-storms; reports included **2.00" hail** just north of Sandborn (Knox Co.); **1.75" hail** south of Newberry (Daviess Co.) that destroyed corn, soybeans and fully headed wheat, stripping 1,000 acres to stubs; while additional reports of large hail came from Mitchell (Lawrence Co.), and near Loogootee (Martin Co.) where hail as large as **2.75"** fell. Several hours later, a rotating cluster of thunderstorms brought wind damage to mainly far southern zones. An **EF1 tornado** led this cluster, entering Indiana and tracking along the Knox-Gibson County line before finally ending west of Monroe City (Knox Co.), some 32 miles after spawning in Keensburg, Illinois; through Knox County the tornado caused ample tree and utility pole damage, especially in the town of Decker, blew over 7 irrigation sections, and destroyed a large barn (just before lifting), scattering debris several hundred feet across adjacent fields. Additional wind damage late on the **19th** included a tractor-trailer blown over on US-41 just north of the tornado track; and over a dozen trees blown over in Hazelwood (Hendricks Co.). Going into very early on the **20th**, straight line winds estimated at 85 mph caused damage to stadiums at Kasting Park in Seymour (Jackson Co.), before winds downed numerous trees and utility lines northeast of North Vernon.

The **21st**'s approaching cold front produced a line of afternoon severe storms south of the I-70 corridor. The first straight line wind damage reports ranged from a grain bin being blown onto a house in Arney (Owen Co.) to damaged buildings across Lawrence County, while winds also downed trees in Monroe and Morgan Counties. The line strengthened and spawned **four** weak, mainly brief **tornadoes**: an **EF0** north of Taggart (Brown Co.), an **EF0** on Camp Atterbury grounds (Johnson Co.), a long-track **EF1** from north of Edinburgh to west of Waldron (across southern Shelby Co.), and finally a brief **EF1** in the Auburn Hills subdivision east of Edinburgh (Shelby Co.). The brief tornadoes caused mainly tree damage, although the Camp Atterbury twister blew off a church steeple and lifted several vehicles. The Shelby County long-track EF1 skipped along its 15-mile track, downing or uprooting many trees, with damage maximized in Mt. Auburn, before it completely destroyed a barn and then 3 of 5 silos (with estimated **110 mph** winds – the strongest so far for central Indiana in 2022) as it approached Indiana Route 9. Much straight line wind damage also surrounded the four tornadoes. The squall line remained potent, with further straight line winds producing widespread downed large trees in Decatur County, and a **71 mph** gust measured at the Columbus Municipal Airport (Bartholomew Co.), as well as estimated 75-80 mph winds northwest of Greensburg (Decatur Co.).

The **25th** found numerous early evening thunderstorms track quickly northward over counties north of the I-70 corridor. Scattered straight line wind damage occurred across Boone, Clinton and Madison Counties. Later, estimated **70 mph** winds snapped a large tree in Frankfort, before winds blew off a large metal garage roof west of Sharon (Carroll Co.).

Several very strong thunderstorms occurred during the late day and early evening hours of the **26th** from the Lafayette area, down across west-central counties. Severe weather reports were limited to a brief **landspout tornado** just north-northeast of the I-74 interchange with IN-25. The tornado was rated EF-Unknown (EFU) per lack of any observable damage.

For info on severe weather in other areas during May, visit the Storm Prediction Center "Severe Weather Event Summaries" website at spc.noaa.gov/climo/online

Miscellaneous – Winds, Thunder, Fog & More

May 2022's severe weather did not intersect with any of the seven 1st-order airports, although these sites did record a few strong wind gusts. 49 mph was observed at both Lafayette on the **14th** and Bloomington on the **21st**, while Shelbyville recorded 47 mph on the **21st**. Indianapolis' peak wind gust for the month was 46 mph from the west on the **3rd**. While very strong gusts were not common, the majority of 1st-order sites recorded wind gusts of 30 mph or greater on 13 days, continuing the breezy trend from April 2022.

Fog was quite common, with frequency ranging from 14 days at Muncie and Indianapolis-Eagle Creek to 18 days at Bloomington. All 1st-order airports observed fog on the **3rd-6th**, **18th**, **19th**, **22nd**, and **25th-27th**, with fog also common on the **1st**, **7th**, **15th**, **16th**, **20th**, and **21st**. Dense fog was observed on the **6th** at Indianapolis and Terre Haute, on the **15th** at Lafayette and Terre Haute, on the **18th** at Bloomington and Shelbyville, at **all sites** on the **19th**, and Lafayette again on the **28th**.

Thunder frequency ranged from 4 days at Lafayette to 9 days at Muncie, with most 1st-order sites reporting thunder on 5 or 6 days. Thunder was common on the **1st**, **14th**, **15th**, **19th**, and **20th** and reported at all sites on the **21st**.

Unseasonably high humidity was seen across the region late on the **10th**, when robust southerly winds boosted dewpoints into the low 70's for many locations, including Indianapolis, which had not been so humid this early in the year since 2001. Relative humidity then reached 20% or less over most locations on the **12th**, with Muncie and Shelbyville recording the lowest values (16%). Muncie's relative humidity also dropped as low as 20% on the **15th**, and 25% on the **16th**.

Central Indiana's many COOP observers provided several noteworthy remarks with their daily reports. Lebanon 6 W (Boone Co.) noted "cool, gloomy" each day during the **4th-6th**; Bob

McLain at Castleton 2 S (Marion Co.) also reported a relative minimum barometer reading of 29.55" on the **6th**. On the **10th**, the Oolitic Purdue Farm commented "heavy dew on grass", while Lebanon 6 W remarked "hot and more humid with hazy sun most of the day". "Sunny. Hot." was mentioned by Elnora (Daviess Co.) on each day during the **10th**-**13th**. The **14th** brought "pea-sized hail" at Elnora, and a "45 mph wind gust in afternoon" at the Oolitic Purdue Farm. On the **19th**, Perrysville 4 WNW remarked, "dense fog, visibility less than ¼ mile, calm to light winds at observation", while Castleton 2 S recorded their minimum barometer reading of the month at 29.54". The **19th**'s thunderstorms were active over southwestern counties – Elnora noted "high winds and sporadic 1-inch hail", Vincennes 4 E (Knox Co.) observed "hail ranging from dime to quarter sized occurred 3 times within 25min, and was fast-melting due to accompanying heavy rain", and Vincennes 5 NE noted there was enough "white, irregular-shaped marble size hail 545-550P to cover the ground". On the **21st**, Spencer (Owen Co.) reported "dime-sized hail and trees down at 301P". The month closed with Elnora mentioning "Sunny. HOT." on May **31st**.

June 2022 Outlook

The official outlook for June 2022 from the Climate Prediction Center indicates equal chances of above, below, or near normal temperatures for central Indiana. The normal June temperature at Indianapolis **72.5** degrees.

The outlook also indicates equal chances of above, below, or near normal precipitation for the region. The normal June precipitation at Indianapolis is **4.95**".

Data prepared by the Indianapolis Weather Forecast Office's State Climate Team
Questions should be referred to nws.indianapolis@noaa.gov