

The Hoosier Observer Indiana CoCoRaHS monthly e-newsletter

March 2025

TREND	STATISTIC	TOTAL
	TOTAL OBSERVERS REPORTING	475
	OBSERVERS WITH NO MISSING REPORTS	306
	PERCENT OF TOTAL	64
	AVERAGE DAILY REPORTS PER DAY	385
	MAX # DAILY REPORTS AND DAY	406/6
	# DAYS WITH 400+ REPORTS	5
	# DAYS WITH 500+ REPORTS	0
	SIGNIEICANT WEATHED DEDADTS	8
V	SIGNIFICANT WEATHEN NEFUNTS	

The trend section in the graphic above compares this month's data to the same month from the previous year. A change of 10 or more is necessary for a trend arrow to be displayed as either pointing up or down. If the change is less than 10, a white dash is used to indicate that the data is similar to that of the previous year.

Coordinator Update

Andrew White, NWS Indianapolis

Temperatures are warming across central Indiana, and the frequency of sub-freezing nights is continuing to decrease. If you took the winter off from reporting, now is a great time to get back into the swing of things, especially as the Climate Prediction Center is highlighting a wetter-than-normal spring. Your reports are valuable in helping us better predict river/stream

levels and understand current drought conditions.

Now is also a great time to think about that friend or family member who might be interested in becoming an observer. With spring right around the corner, it's a great time to set up a new station, especially since we have large data gaps.

We'd also like to recognize the 6 new Indiana observers (Cass, Gibson [2], Hamilton, Hancock, Marion) who joined CoCoRaHS last month. Thanks for joining the team!

Quick Survey

Indiana CoCoRaHS would like to determine if you would participate in a closed Facebook group. This survey will take less than 2 minutes to complete.

TAKE THE SURVEY

Indiana's Precipitation Report Austin Pearson, Indiana State Climate Office

In February 2025, Indiana received 2.02 inches of precipitation, which was 0.46 inches below normal, or 81 percent of the typical amount. The trend of above-normal precipitation in the south and below-normal precipitation in the north has continued. Southern Indiana saw the highest precipitation totals, with areas south of Indianapolis receiving more than 1.5 inches throughout the month (Figure 1). The heaviest totals were observed along the Ohio River, where some areas received up to 7.5 inches of precipitation leading to flooding in southern Indiana. In contrast, areas in west-central Indiana experienced much drier conditions, with

total precipitation for the month falling below 1 inch.



Figure 1: Left - February 2025 accumulated precipitation from NWS COOP network only. Right - February 2025 accumulated precipitation including both NWS COOP and CoCoRaHS.

During the month, the northern two-thirds of Indiana faced below-normal precipitation levels (Figure 2). This region experienced significant precipitation deficits, with departures exceeding 2 inches below the average or totaling less than 75 percent of the normal monthly amount. Benton and Newton Counties were particularly affected, with precipitation totals falling below 25 percent of the normal amount, underscoring severe dryness in these areas. The brief respite from drought conditions in January was short-lived, as the persistent below-normal precipitation, low stream and pond levels, and inadequate soil moisture—especially deeper in the soil profile—led to an expansion of abnormally dry and moderate drought conditions throughout the month.



Figure 2: Left - February 2025 accumulated precipitation represented as the departure from the 1991-2020 climatological normal. Right - February 2025 accumulated precipitation represented as the percent of the 1991-2020

climatological normal.

The heaviest snowfall totals in Indiana were observed in both the northern and southern parts of the state, while central Indiana received significantly less snow (Figure 3). In northern Indiana, snowfall totals reached nearly 15 inches in some areas, yet most locations still ended up more than 2 inches below the normal monthly amount. Central Indiana experienced notable snowfall deficits, with totals ranging from 2 to 4 inches below normal for the month. Southern Indiana, however, experienced above-normal snowfall, with some locations receiving up to 10 inches. This region generally recorded higher-than-average snowfall totals.



February 2025

Highest Precipitation Totals

New Albany 4.6 I	NE Floyd Co	6.72"
Galena 4.3 ENE	Floyd Co	6.25"
Jeffersonville 0.	8 NW Clark Co	6.12"
Lowest I	Precipitation	Totals
Valparaiso 2.0 W	SW Porter Co	0.40"
De Motte 5.9 S	Jasper Co	0.52"
Rensselaer 1.9 S	SW Jasper Co	0.53"

Stations considered had 100% daily precipitation reports.

February 2025 Highest Snowfall Totals

Valparaiso 2.0 WSW	Porter Co	14.5"
La Porte 1.6 SW	LaPorte Co	10.6"
Chesterton 3.9 ESE	Porter Co	9.2"
Porter 0.6 S	Porter Co	9.2"
Valparaiso 0.9 NNW	Porter Co	8.4"
North Webster 2.3 N	Kosciusko Co	8.2"
Goshen 3.0 WSW	Elkhart Co	8.1"
Lagrange 9.6 ESE	LaGrange Co	8.1"
Chesterton 1.4 ENE	Porter Co	8.0"
Goshen 0.3 NE	Elkhart Co	8.0"

Stations considered had 100% daily precipitation reports.

A Quick Recap of Winter 2024-2025

Austin Pearson, Indiana State Climate Office

March 1 marked the end of meteorological winter. Although we experienced a few periods of pleasant, spring-like weather, winter temperatures have intermittently returned. The winter of 2024-2025 (Dec, Jan, Feb) was slightly colder than usual, averaging 1.3°F below the 1991-2020 climatological average (Figure 1). Specifically, southern and central Indiana were between 1.5°F to 2°F below normal, while northern Indiana was about 1°F below normal.

cember 2024 to Fe	ebruary 2025							
ownload 🛓							N 3	
	Prcp 🗘	Prcp Normal	Prcp Dep 🌲	Prcp Norm % 🗘	Temp 🗘	Temp Normal 🗘	Temp Dep 🌻	1
Indiana 1	4.47	6.66	-2.19	67	26.7	27.7	-1	
Indiana 2	5.65	7.15	-1.5	79	26.9	27.8	-1	
Indiana 3	5.87	6.92	-1.05	85	26.7	27.7	-1	
Indiana 4	6	7.92	-1.92	76	28.6	30.1	-1.5	4 5
Indiana 5	6.84	8.42	-1.58	81	29.1	30.3	-1.1	47 84
Indiana 6	7.06	8.21	-1.15	86	27.8	29.7	-1.9	5-17-1
Indiana 7	11.62	10.03	1.59	116	32.7	34.1	-1.4	
Indiana 8	11.75	10.53	1.22	112	32.3	33.8	-1.5	2 8
Indiana 9	10.70	10.12	0.58	106	31.8	33.4	-1.6	SIL
tatewide Indiana	7.74	8.44	-0.7	92	29.3	30.5	-1.3	1. 1.2

Figure 1: Winter 2024-2025 temperature and precipitation broken down by Indiana climate division.

During the winter, total precipitation was 7.74 inches, which was 0.7 inches below normal, or 92% of the average (Figure 1). Notably, southern Indiana received the most precipitation, with totals ranging from 1 to 2 inches above normal for the season (Figure 2). In contrast, northern Indiana experienced significant deficits, with some areas being more than 2 inches below normal.



Figure 2: Left - Dec 2024 - Feb 2025 accumulated precipitation. Right - Dec 2024 - Feb 2025 accumulated precipitation represented as the departure from the 1991-2020 normals.

Regarding snowfall, areas south of Indianapolis experienced above-normal amounts, while

northern Indiana saw snowfall totals that were more than 10 inches below normal for the winter (Figure 3). Notably, LaPorte County recorded only 26.5 inches of snow, a remarkable 26.3 inches below the typical winter snowfall. Conversely, Elliston, located in Greene County, recorded 16.6 inches of snow, which was 9.9 inches above the 1991-2020 climatological average.



Figure 3: Left - Dec 2024 - Feb 2025 accumulated snow. Right - Dec 2024 - Feb 2025 accumulated snow represented as the departure from the 1991-2020 normals.

Concerning drought conditions, December started with nearly 55 percent of the state classified as abnormally dry (D0) or in drought status (Figure 4). More than 50 percent of the state was experiencing either moderate drought (D1) or severe drought (D2). Drought conditions improved throughout December and January but re-emerged in northern parts of the state by February. By the end of February, over 62 percent of the state was in either D0 or D1 status. Assessing drought impacts during winter is challenging since crops are dormant. However, signs of drought can be observed in below-average streamflows, low pond levels, and reduced soil moisture at deeper levels.



Figure 4: Left - December 3, 2024 US Drought Monitor map. Right - February 25, 2025 US Drought Monitor map.



The Annual CoCoRaHS Rain Gauge Rally

The CoCoRaHS Rain Gauge Rally is a friendly contest held during March to recruit new volunteers. The goal is to increase the number of rain gauges in the field to improve precipitation data, as rainfall can vary significantly even over short distances. The contest has two categories: Traditional Count, where the state with the most new recruits wins, and Per Capita, where the state with the most recruits per million population wins. Each winning state receives the "CoCoRaHS Cup" to display for a year.

Indiana has added 7 new observers in March 2025 so far.

Keep track of Indiana's progress here: https://cocorahs.org/marchmadness.aspx

2025 Spring Outlook By Mike Ryan, Senior Meteorologist, NWS Indianapolis

Wet and Stormy Spring Expected as La Niña Eases

After a cold and, at times, snowy January and February, temperatures have turned warmer through March, with multiple days already into the 70s. With the warmer temperatures have come severe weather, with thunderstorms producing damaging winds and tornadoes early on the morning of March 15th and again during the late afternoon and evening of the 19th.

The Climate Prediction Center outlook suggests a greater chance for warmer than normal temperatures and a greater chance for wetter than normal conditions. Typically, during the late winter and early spring with the La Niña phase of the El Niño Southern Oscillation (ENSO), the storm track will align with greater frequency across the Ohio Valley, trending towards a wetter, more active pattern extending out through the spring across Indiana. The threat of severe weather is likely to be above normal for April and May and possibly through June.



Wetter conditions will produce a near-to-slightly above-normal river flood risk across the southern two-thirds of the state, with an increased threat of heavy rain. This may ease the moderate drought conditions (D1) currently ongoing across much of the northern half of the state.

Since February, the La Niña conditions that dominated much of the winter have weakened, and ENSO neutral conditions are favored to develop throughout the spring into early summer. The current seasonal temperature and precipitation outlooks reflect a blend of ENSO model guidance, model trends, and soil moisture, as applicable.

The Importance of CoCoRaHS Significant Weather Reports Steve Hilberg, CoCoRaHS

As we enter the convective season characterized by showers and thunderstorms, Significant Weather Reports (SWRs) submitted by CoCoRaHS observers are invaluable to the National Weather Service (NWS). All SWRs are automatically sent to your local NWS office, and forecasters rely on these

reports to monitor storm developments.

We often receive questions such as, "What qualifies as significant weather?" and "How frequently should I submit a Significant Weather Report?" First, it's important to note that SWRs are supplementary reports and do NOT replace your Daily Report. They should not be submitted instead of a Daily Report. SWRs are particularly useful for updating rainfall amounts after your regular observation time. Once your Daily

Enter My New Reports

- Daily Precipitation
- Multi-Day Accumulation
- Hail
- Significant Weather
- Monthly Zeros
- Condition Monitoring Report
- Soil Moisture
- Evapotranspiration

Report is submitted, you should only update it to correct errors or add additional information.

So, what constitutes "significant weather"? Generally, it refers to heavy rain (falling at a rate of an inch per hour or more), snow accumulations, high winds, icing from freezing rain, or flooding. However, you are not limited to this list—use your best judgment in determining

whether to submit a report.

How often should you report? You should submit a SWR as often as necessary to accurately convey current conditions. Comments included with your SWR can also be very helpful.

You can submit an SWR via the website. After logging in, look for the option "Enter My New Reports" in the left-hand menu.

If You Move, or Change Your Email Address

If you're moving to a new home and want to keep participating in CoCoRaHS, please let us know as soon as possible. Your observations are tied to a specific location, so we want to make sure that your new observations are correctly associated with your new address. Observations are most valuable when they are consistent at one location, so you might also suggest to the new owner or tenant of your current home that they consider joining CoCoRaHS. We have a brochure available for download, print, and distribution.



Once you have your new address, inform us so we can close your old station and set up a

new one at your new location. Please avoid signing up for CoCoRaHS again yourself. Once we've set up your new station, you can start entering observations from your new location. If you're moving to a different state, we can connect you with the state coordinator there to help you get started.

If you change your email address, please update your record in the CoCoRaHS database by logging in, selecting "My Account" from the top menu, and clicking "Edit" in the "My Information" section. Make your updates and click "Save."

Also, send a quick message to <u>in-sco@purdue.edu</u> with your new email address so we can update our newsletter mailing list, which is maintained separately from the main CoCoRaHS database.

CoCoRaHS Newsletter Archive

If you are interested in viewing past issues of The Hoosier Observer, visit the <u>Newsletter</u> <u>Archive</u> located on the Indiana State Climate Office Website.



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