



The Hoosier Observer
Indiana CoCoRaHS monthly e-newsletter

January 2022

December 2021 Statistics

Total observers reporting	482
Observers with no missing reports	305
Percent of total	63
Average Daily Reports per Day	395
Max # of Daily Reports and Day	428 / 15
Significant Weather Reports	9
Condition Monitoring Reports	23
E-T Reports	0
Max Daily Rainfall (County)	3.95" / (Ripley)

It's been a relatively quiet month, especially when it comes to snowfall for much of Indiana. As we enter the new year, we'd like to thank everyone for going out on some of these colder mornings to check their gauge and get those observations in.

As a fun statistic, across Indiana the biggest one-day snowfall in December was only 4.0 inches compared with 8.0 inches December 2020 and 6.1 inches December 2019.

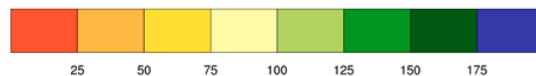
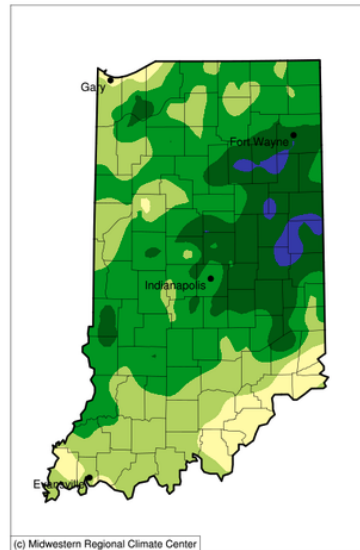
To the 8 new observers (Bartholomew, Clinton [2], Marion, Monroe, Posey, St. Joseph, Warrick), thanks for joining the team!

December 2021 Precipitation in Indiana

December was wetter than November throughout the state, helping to alleviate any drought concerns that November may have been creating. The December 2021 statewide precipitation for the month was 3.95 inches -- 0.94 inches *above* the 1991-2020 normals. The map shown illustrates the percentage of the 1991-2020 normal precipitation for December 2021 where most of the state received more precipitation than what has been normal. Of the observers that provided data *every day*, the greatest precipitation total for the month was 7.49 inches at BATESVILLE 6.7 S (Ripley County), whereas the lowest monthly precipitation total was only 1.46 inches at LEBANON 6.2 ESE (Boone County). Of those with *complete monthly records*, the maximum 1-day total was 3.95 inches on December 6th at BATESVILLE 6.7 S (Ripley County).

Accumulated Precipitation (in): Percent of 1991-2020 Normals

December 01, 2021 to December 31, 2021



Winter Precipitation Training

By Beth Hall

In mid-December 2021, two duplicate training webinars were offered to help review some critical aspects of making precipitation measurements of new snow, snow depth, snow water equivalent, etc. If you missed the webinars, you can still view one of them [here](#). It is a little over an hour in length. Additionally, there are a variety of [training videos](#) on the CoCoRaHS website that are relatively short and entertaining.

Condition Monitoring During the Winter

By Steve Hilberg

Just because it's cold outside doesn't mean that Condition Monitoring reports aren't important. Condition Monitoring reports are valuable year 'round, but you may ask, what do you report in the winter when everything is dormant and the ground is frozen? Keep in mind that conditions during the winter - frozen ground, precipitation, snow cover - can have a significant impact on winter and spring flooding, spring planting, etc. Having a continuous record of weekly reports helps those monitoring for flooding, drought, and other impacts. During the winter you can focus on total precipitation (running below, at, or above normal), snow that has fallen, the character of the snow cover on the ground (i.e., patchy, deep, icy, high water content, etc.). You can also note any particular impacts from winter weather such as flooding, tree damage and other damage from ice accumulations, and the effects of rain and snow on the environment. It's not just what's happening in your yard, but in the general area, so a good practice could be to use a nearby ditch, pond or anything else where water normally exists. Using the same indicator as a 'marker' each week you can assess the situation to indicate any changes. We still recommend weekly reports, even though one week can look much the same as the last. It's easier to notice changes if you are reporting each week, as then you tend to be more "tuned in" to what has been going on.

Weighing Your Precipitation

by Steve Hilberg

This is a classic article that we try to re-gift to all of you as snow season gets under way. You might have read

this before and could use the reminder, or this may be new for you and be a great timesaver discovery!

The "melt and measure" method of dealing with snow and ice in the gauge in the winter is sometimes time-consuming, and there's always a chance that you could spill the contents as you pour from the outer cylinder into the inner measuring tube. There is a much easier way to deal with snow and ice in the rain gauge, and the snow collected in snow cores that involves no melting and is very quick to do. This alternative is to weigh your outer cylinder and the contents, and convert that measurement into inches of precipitation. You can view [the two-minute CoCoRaHS training animations](#) on how to do this, but here's a quick description on the process. You will need a decent kitchen scale that measures to the nearest gram. The first step is to weigh your empty, dry outer cylinder without the inner tube or funnel. Write down the weight. I also write the weight on the bottom of the cylinder with a permanent marker. The next time it rains or snows, bring in your outer cylinder. Be sure to wipe off the outside of the cylinder to remove any excess water. Then, weigh the cylinder and its contents. Subtract the weight of the cylinder from the total weight. Divide the result by 201, and you will have the amount of precipitation in inches. (An inch of water weighs 200.8 grams). Here is an example.

My outer cylinder plus the snow in it weighs a total of 510 grams. The outer cylinder weighs 445 grams. The weight of the snow in the gauge is $510 - 445 = 65$ grams. $65 \text{ g} \div 201 \text{ g/inch} = 0.32$ inch of precipitation.

Not only is this great during the winter, but you can also use this for any heavy precipitation you receive where the inner cylinder overflows. Pour the contents of the inner cylinder into the outer cylinder, and then weight the outer cylinder plus the precipitation. Be sure the outside of the cylinder is dry before you weigh.

If you Move or Change your Email Address

If you are moving to a new home and want to continue to participate in CoCoRaHS, please let us know as soon as possible. Your observations are tied to a specific location, so we don't want observations from your new location associated with your previous location. The value of the observations is increased by their continuity at that location, so consider suggesting to the buyer or new tenant of your home that they participate in CoCoRaHS! We have a brochure that you can download, print and give to them.

When you know your new address, let us know. When you are ready, we will close your old station and open a new station at your new address (DO NOT sign up for CoCoRaHS again). Once that's done, you can enter observations from your new location. If you are moving to a different state, we can help you get in touch with that state coordinator so you can get started there.

Let us know if you change your email address so that your record is up to date. You can update your email address in the CoCoRaHS database yourself by logging in and clicking on My Account in the top line menu. Click on Edit in the My Information box. Make any corrections, then click save.

Please also send a message to andrew.j.white@noaa.gov with the email change as well, so we can update your address on our newsletter mailing list. This list is maintained separately from the main CoCoRaHS database.



Andrew White (andrew.j.white@noaa.gov)
Kyle Brown (kyle.brown@noaa.gov)
Beth Hall (bethhall@purdue.edu)