CoCoRaHS Collections

"Because Every Drop Counts"

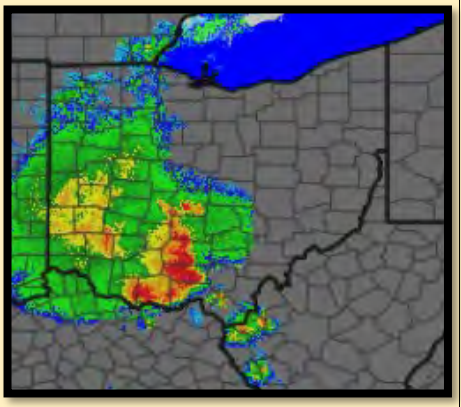
The Ohio Newsletter

Spring 2022

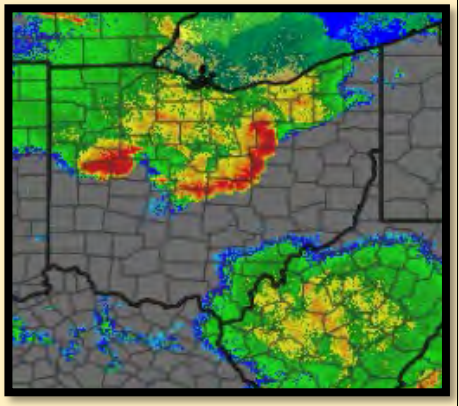
Ohio's June 13th-14th Multi-Phased Severe Weather

Written by Gabe Wawrin CoCoRaHS Coordinator

The Buckeye State would find itself in the midst of extremely active weather from late afternoon on June 13th into the morning of June 14th as not one, not two, not three, but four rounds of thunderstorms affected the state. A very warm and humid air was in place across much of the region on the afternoon of June 13th, with a stationary boundary draped from west to east across north-central Ohio. Along and south of this boundary was an extremely unstable environment, one which would facilitate rapid thunderstorm development given a forcing mechanism.



Convective initiation would occur around 1 PM near the Illinois/Indiana state line. Activity would then rapidly intensify as it moved eastward, eventually entering into southwest portions of Ohio at approximately 4 PM. This first wave, or thunderstorm complex, would continue southeasterly affecting much of southern Ohio, with the worst activity exiting the region by 10 PM. On the right is a radar image from June 13th at 7:30 PM. An EF1 tornado did occur in Pike County as this initial thunderstorm complex moved through the area. Hot on its heels was round number two. This round, along with rounds three and four, entered further north in Ohio, corresponding with where upper level energy was located across the region. The thunderstorm complex associated with round two entered into the far northwest portion of Ohio just after 9 PM and would rapidly progress southeastward, moving across central and finally southeast Ohio before exiting into West Virginia by approximately 2 AM. This thunderstorm activity was classified as a derecho and it produced three EF1 tornados and a macroburst as it moved through north central Ohio. On the right is a radar image from June 14th at 12 AM just before the macroburst occurred across southern Wayne into central/eastern Holmes County. The path length was estimated at 24 miles long and up to 15 miles wide. Estimated winds were generally in the 80 to 90 mph range, with



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A special thank you to those listed below for contributing to this newsletter! Gabe Wawrin CoCoRaHS Coordinator, Julian Turner CoCoRaHS Headquarters, CoCoRaHS Website, and CoCoRaHS observers who submitted names for the new Diamond Award!

If you have any questions or if there is a topic that you would like to hear about in a future newsletter please contact: Ashley.Novak@noaa.gov

Daily Precipitation Report Awards Based On Observer

In the past in Ohio the different level awards have been based on how many daily precipitation reports your station has submitted, now it is based on observer. I will still just list your active station(s), however this way if you move within Ohio (or to Ohio from a different state) your daily precipitation numbers will count towards your award length. This is a new process so please let me know if you notice any mistakes.

Diamond Dendrite Award

Thank you for all the amazing suggestions for the next Diamond Award. There were some amazing suggestions such as the (Nolan) Doesken Diamond, Ice Diamond, Diamond Hoar Frost, Paragon Diamond, Diamond Sparkle Drop, and Diamond Dendrite Award. Thank you to OH-SM-22 for the winning idea. The Diamond Dendrite Award is for observers that have submitted 5,000 daily precipitation amounts. Want to learn more about snowflakes and dendrites. Here is a great informative piece on snowflake science put together by our friends up north at the National Weather Service office in Gaylord, Michigan. https://www.weather.gov/apx/snowflakescience

OH-HG-8	OH-CN-10

Golden Raindrop Award

Congratulations to our new Golden Raindrop Award members! These individuals have reported over 3000 daily precipitation reports. Award certificates will be sent via email soon.

OH-AL-8	OH-AL-10	OH-AZ-1	OH-AZ-19	OH-CM-14	OH-CN-14	OH-CY-21
OH-DL-10	OH-DR-18	OH-DR-35	OH-FR-59	OH-HG-8	OH-HM-24	OH-HY-9
OH-LR-24	OH-MW-6	OH-RC-15	OH-SM-22	OH-TS-8		

Silver Snowflake Award

Congratulations to our new Silver Snowflake Award members! These individuals have reported over 2000 daily precipitation reports. Award certificates will be sent via email soon.

OH-AL-8	OH-AL-10	OH-CM-14	OH-CY-41	OH-DF-6	OH-FR-46
OH-HG-8	OH-HR-11	OH-LR-24	OH-PT-13	OH-RC-7	

Bronze Observer Award

Congrats to our new Bronze Observer Award members! These individuals have reported over 1000 daily precipitation reports. Award certificates will be sent via email soon.

OH-AZ-18	OH-DR-29	OH-FL-13	OH-HG-8	OH-LC-26	OH-LK-11	OH-LR-24	OH-MY-61

500 Club!

Congratulations to our newest 500 Club members! These observers have submitted at least 500 daily precipitation reports since becoming a CoCoRaHS observer. We look forward to adding onto this list with the next newsletter. Way to go!

OH-AT-26	OH-CM-21	OH-CY-58	OH-DL-31	OH-DL-32	OH-DR-13	OH-FR-111
OH-HG-8	OH-JF-11	OH-LK-18	OH-LS-36	OH-MA-9	OH-MG-3	OH-MM-22
OH-SM-40	OH-WR-32					

Spring 2022 Honor Roll

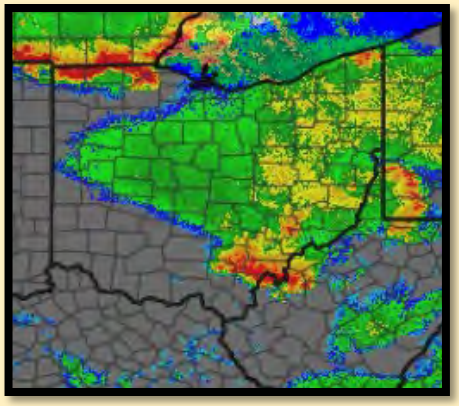
From March 1, 2022 through May 31, 2022, these Ohio stations reported everyday. Here are those stations who get a thumbs up for their dedication!

Not listed below, but thought you reported everyday? You can check your reports. There are multiple ways to do this. You can go into your account and click on list/edit my daily precipitation reports. This will show your reports everyday. You can also go into 'view data' at the top of the page and click on 'station precipitation summary report.' Input your station and the period of interest. The missing days will be shown with dash marks. If there are additional questions e-mail Ashley.Novak@noaa.gov.

OH-AD-5	OH-CY-48	OH-FR-3	OH-HR-2	OH-MG-3	OH-RC-15
OH-AD-6	OH-CY-53	OH-FR-8	OH-HY-5	OH-MH-10	OH-RS-8
OH-AL-5	OH-CY-54	OH-FR-83	OH-HY-9	OH-MH-11	OH-SD-2
OH-AS-6	OH-DL-10	OH-FR-87	OH-KN-4	OH-MK-13	OH-SH-13
OH-AT-1	OH-DL-22	OH-GG-4	OH-KN-7	OH-MM-1	OH-SH-14
OH-AT-5	OH-DL-31	OH-GG-7	OH-LC-1	OH-MM-11	OH-SH-15
OH-AT-22	OH-DL-32	OH-GG-11	OH-LC-10	OH-MY-5	OH-SH-20
OH-BT-39	OH-DR-1	OH-GR-13	OH-LC-22	OH-MY-9	OH-SM-22
OH-CB-8	OH-DR-9	OH-GR-26	OH-LC-26	OH-MY-17	OH-SN-3
OH-CB-18	OH-DR-18	OH-GR-37	OH-LC-28	OH-MY-34	OH-TR-4
OH-CK-19	OH-DR-33	OH-GR-41	OH-LC-29	OH-MY-76	OH-UN-4
OH-CM-7	OH-DR-35	OH-HG-8	OH-LC-30	OH-OT-2	OH-WR-14
OH-CM-21	OH-ER-8	OH-HM-13	OH-LK-9	OH-OT-4	OH-WR-34
OH-CN-6	OH-ER-11	OH-HM-17	OH-LS-22	OH-PB-1	OH-WR-35
OH-CN-14	OH-ER-14	OH-HM-24	OH-LS-23	OH-PT-2	OH-WR-36
OH-CN-15	OH-ER-18	OH-HM-37	OH-LS-34	OH-PT-8	OH-WS-9
OH-CC-4	OH-ER-48	OH-HM-45	OH-LS-36	OH-PT-9	OH-WL-5
OH-CY-21	OH-FF-24	OH-HM-56	OH-MC-7	OH-PT-12	OH-WD-14
OH-CY-24	OH-FL-16	OH-HM-69	OH-MD-1	OH-PT-17	
OH-CY-39	OH-FR-2	OH-HD-14	OH-MD-10	OH-PT-23	

Ohio's June 13th-14th Multi-Phased Severe Weather (Continued)

maximum wind gusts of up to 94 mph. Surveyors noted that "thousands" of trees were brought down and/or snapped.



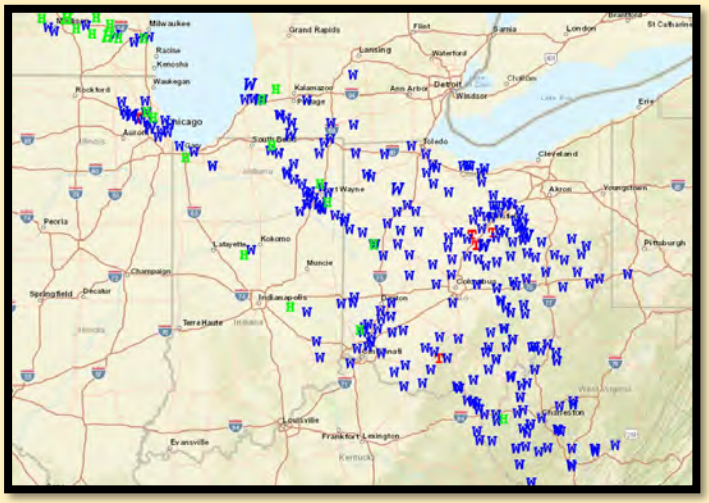
Round three was in the process of entering far northwest Ohio just as round two was exiting southeast Ohio. This third thunderstorm complex would follow roughly the same track across the Buckeye State as its predecessor, exiting southeast Ohio shortly after 6 AM. No tornadoes were reported with this round, but as with the two prior thunderstorm complexes, a multitude of Severe Thunderstorm Warnings were issued, with additional reports of wind damage received. On the right is a radar image from June 14th at 2 AM showing round three just entering northwest Ohio as round two is exiting into West Virginia.

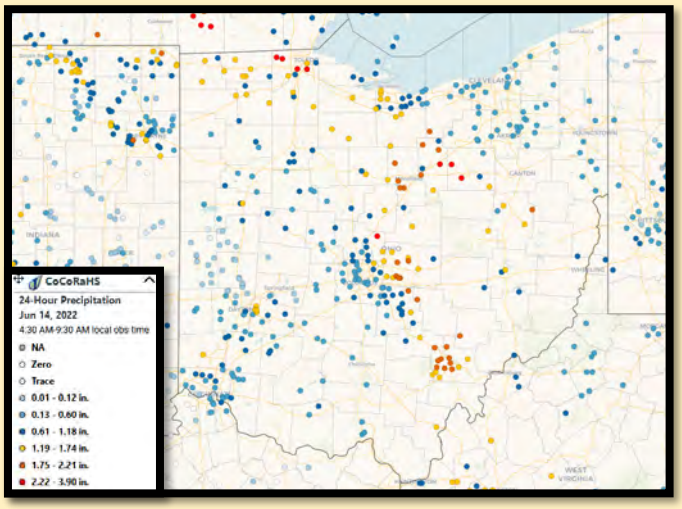
The fourth and final round of thunderstorms would develop across east central Ohio at approximately the same time that round three was exiting the state. The activity associated with it was much more isolated than the previous waves, with only one Severe Thunderstorm Warning issued in Ohio as it passed through. Areas further downstream in West Virginia would experience much greater impacts from this final wave as it continued to intensify as it moved southeasterly.

Another aspect of this event was the heavy rainfall associated with the multiple rounds of thunderstorms. This resulted in several Flash Flood Warnings being issued throughout the course of the event. Numerous CoCoRaHS observers reported in excess of 1" of rainfall on the morning of June 14th, with nearly twenty observers receiving more than 2". The highest report was 2.60" near Maumee in Lucas County.

All told, over 65 Severe Thunderstorm Warnings were issued between all four rounds across Ohio, leading to a very busy evening and overnight period for the National Weather Service Weather Forecast Offices that cover Ohio. The event ended up resulting in four tornadoes, numerous wind damage reports across the state, as well as some flooding concerns, all in less than an 18 hour period.

Below (left) is an image showing storm reports (H-hail, W-wind, T-tornado) associated with this event by location. Below (right) is an image showing CoCoRaHS 24-Hour Precipitation amounts for the morning of June 14th. Radar images used for this article were provided by the Iowa Environmental Mesonet of Iowa State University.





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E-mail:
Ashley.Novak@noaa.gov

Because Every Drop Counts

www.cocorahs.org

Helpful Links for Ohio CoCoRaHS Observers

Obtain replacement or extra equipment:

https://weatheryourway.com/

https://www.cocorahs.org/Content.aspx?page=store

For information on Climate:

https://climate.osu.edu/

https://www.cpc.ncep.noaa.gov/

For Current Forecasts and Severe Weather Warnings:

https://www.weather.gov/

For river information:

https://water.weather.gov/ahps/

For drought information:

https://droughtreporter.unl.edu/map/

Wet May

Many parts of the state saw a wet May with precipitation above normal values for the month. Just how much above normal depended on your location, however locations near the I-71 corridor between Cincinnati and Columbus received the highest rainfall totals for the month. Some locations even picked up over 10 inches of rainfall! Here is a map of how much precipitation occurred during the month based on locations that reported everyday. Did you know with the CoCoRaHS mapping system you can put in a date range? This and many other features are available. To put in a date range bring up the interactive map on the CoCoRaHS website and click on range. Put in a range of days and the map will update. Several other options are in the map options feature. After customizing your map, click on update map.