CoCoRaHS Collections

"Because Every Drop Counts"

The Ohio Newsletter

Summer 2013

CoCoRaHS Reports Making a Difference

Routine everyday daily precipitation reports and significant weather CoCoRaHS reports are making a difference! On the morning of June 26th, showers were occurring over much of northern Ohio and northwest Pennsylvania. At the National Weather Service Forecast Office in Cleveland, the forecasters agreed that the showers appeared to be light to moderate. There was little or no thunder occurring. The 88D Doppler Radar rainfall estimates were between a quarter of an inch to a little more than an inch. The rain was more than expected, but not a significant concern.

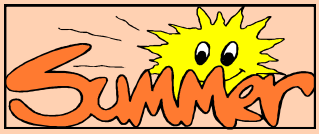
One of the forecasters noticed a CoCoRaHS report that had just come in. The report indicated that 2.43 inches of rain had fallen in the last 24 hours. It had been dry the day before so they knew that all of the rain had occurred during the overnight hours. Sure enough, a check of other CoCoRaHS reports that morning showed rainfall amounts of generally two inches or more across much of the western half of the county and into the neighboring county as well. The radar had been underestimating the rainfall by a factor of 2 and even almost by 3 at some sites!

Rainfall estimation by the radar algorithms can often be under or over the real amounts for a variety of reasons. It is often hard to determine if the rainfall estimation is accurate. A routine daily precipitation CoCoRaHS report gives the forecasters a measured value to help to calibrate the current event with the radar estimates.

On that same day, a couple of hours later, a significant weather report observation came into the office. The observation was from a location near the earlier heavy rain, but just across the state line in Pennsylvania. The report told of an inch of rain so far that morning with street flooding developing. Since there were additional heavy showers upstream, it was decided that a flood watch would be appropriate. Indeed, by the end of the day, flooding had developed in two counties.

During this event, both the routine daily precipitation CoCoRaHS observations and the significant weather CoCoRaHS reports provided ground truth rainfall reports which were very helpful to the forecasters in diagnosing and forecasting the flood event.

Inside This Summer 2013 Issue:



A special thank you to those listed below for contributing to this newsletter!

-Julian Turner, CoCoRaHS Headquarters

-The CoCoRaHS and NWS websites

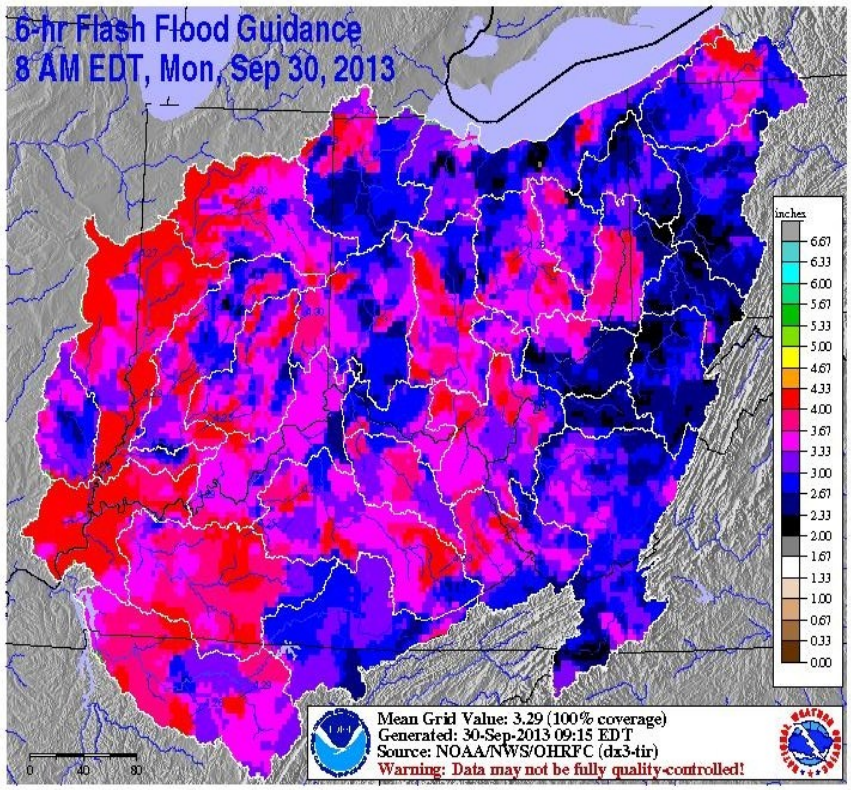
-OH-CK-1 for providing his CoCoRaHS story

-Jim Kosarik NWS Cleveland, Ohio, for providing the CoCoRaHS Reports Making a Difference article

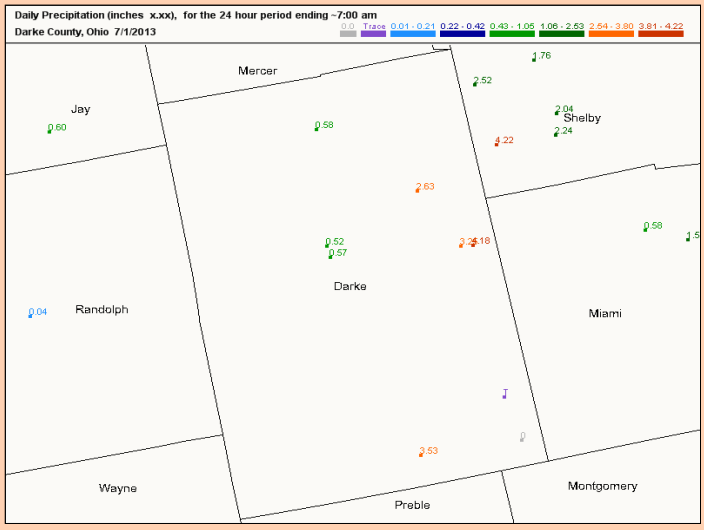
-Ted Jacobson, Athens County Coordinator, and Julie Dian-Reed, NWS Wilmington, Ohio, for contributions to the Flash Flood Guidance article

Flash Flood Guidance

The "Flash Flood Guidance" (FFG) Index is used directly in the flash flood warning decision process. Flash flood guidance estimates the average number of inches of rainfall for 1, 3, 6, 12, and 24 hour durations required to produce flash flooding in small drainage basins all over Ohio. Estimates are based on the time of year, vegetation state, soil type, and current soil moisture. In urban areas, less rainfall is required to produce flash flooding. NWS River Forecast Centers issue FFG 3 to 4 times a day and NWS Weather Forecast Offices use this guidance when issuing flash flood watches and warnings to the public. Daily FFG values are available for your county in graphical, text, and GIS data format and may be found on the Ohio River Forecast Center website: http://www.erh.noaa.gov/ohrfc/

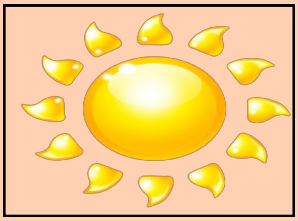


During heavy precipitation events, observers are encouraged to submit a CoCoRaHS "Significant Weather" report anytime rainfall of more than an inch in an hour is observed or if heavy rain has occurred over a several hour period. Please wait until it is safe to take and report an observation. Significant Weather reports are immediately relayed to the NWS Forecast Office responsible for flood watches and warnings in your county. There are limitations at times with radar estimated rainfall. Your Significant Weather reports are compared with radar estimates, surrounding rain gauges, and FFG. These reports play a critical role in the warning process.



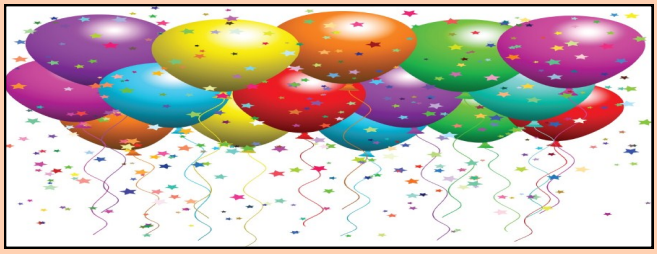
CoCoRaHS Map of the Day

On 7/1/13 Darke County Ohio was the CoCoRaHS Map of the Day and shows how much precipitation variability can occur across a county. Although quite often we see large differences in precipitation over short distances with thunderstorms, large differences can occur without thunderstorms and at any point during the year.



Bronze Observer Award-1000 Daily Precipitation Reports

Congratulations to our new Bronze Observer Award members! These individuals have reported over 1000 daily precipitation reports. You should receive your award certificate in the mail soon! Thank you for your daily dedication to CoCoRaHS!



OH-AT-12	Amesville 0.7 WNW
OH-LC-10	Granville 4.0 N
OH-LR-3	Sheffield Lake 0.5 E
OH-MM-2	Piqua 3.4 SE
OH-SC-4	Rosemount 0.3 W
OH-SH-5	Houston 0.5 SE
OH-TR-4	Newton Falls 0.6 N

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-AS-2	Ashland 3.9 SW	OH-ER-18	Huron 2.5 SSW
OH-CY-23	Mayfield 0.2 NW	OH-HM-17	Covedale 1.5 SSE
OH-ER-11	Berlin Heights 0.4 N	OH-SH-15	Fort Loramie 0.8 NNW
OH-ER-14	Milan 0.4 ENE	OH-WR-14	Lebanon 3.4 E

Summer 2013 Honor Roll

From June 1, 2013 through August 31, 2013, these Ohio stations reported everyday. Here are those stations who get a thumbs up for their dedication!

OH-AT-1	OH-DL-2	OH-GG-4	OH-MY-21	OH-SM-4	
OH-AT-2	OH-DR-1	OH-HR-2	OH-PB-1	OH-SM-5	
OH-CB-2	OH-ER-11	OH-LC-1	OH-PT-8	OH-SM-16	
OH-CC-1	OH-ER-20	OH-LK-1	OH-PT-9	OH-SN-1	
OH-CR-1	OH-FR-1	OH-LR-2	OH-PT-12	OH-WD-10	
OH-CY-4	OH-FR-2	OH-LS-1	OH-RS-1	OH-WL-2	
OH-CY-16	OH-FR-3	OH-MD-2	OH-SC-4	OH-WL-5	
OH-CY-23	OH-FR-8	OH-MY-5	OH-SD-2	OH-WR-10	
OH-CY-24	OH-FR-23	OH-MY-17	OH-SH-4	OH-WR-14	

Newsletter

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The Ohio CoCoRaHS Newsletter

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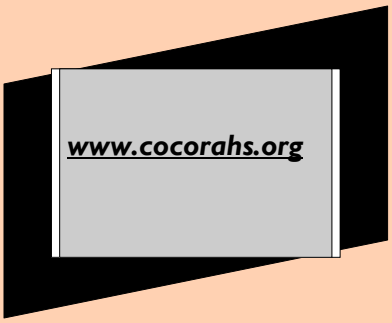

Helpful Links for Ohio CoCoRaHS Observers

Obtain replacement or extra equipment from our official suppliers:

http://www.weatheryourway.com/cocorahs/store.html

http://www.ambientweather.com/strgloteprra.html

For information on Ohio Climate:

http://www.geography.osu.edu/faculty/rogers/statclim.html

http://www.cpc.noaa.gov/

For Current Forecasts and Severe Weather Warnings:

http://www.weather.gov

For river information:

http://water.weather.gov/ahps/

For drought information:

http://drought.unl.edu/dm/

http://droughtreporter.unl.edu/

Looking for an article from a previous newsletter? Previous Ohio CoCoRaHS newsletters and newsletters from other states can be found on the left hand side of the CoCoRaHS website under 'State Newsletters.'

CoCoRaHS Story OH-CK-1

Want to share your CoCoRaHS story for a future newsletter? If so, please e-mail Ashley.Novak@noaa.gov. We look forward to hearing about your CoCoRaHS story. Special Thanks to OH-CK-1 for sharing his story.

OH-CK-1, Springfield 1.1 NNW, has been a CoCoRaHS observer since CoCoRaHS officially began in Ohio in early 2009. He has logged over 200 inches of precipitation since then. OH-CK-1 became interested in the weather at an early age. His parents supported his interests and purchased his first instruments and books. His hobby of observing and reporting weather conditions began in the middle 1950s for the radio and newspaper. He became so interested that he decided to continue in these endeavors as a lifelong project. Although he never received a degree in Meteorology, he learned about the field from television weather personalities and later from meteorologists at the Dayton Cox International Airport.

He became a cooperative observer for the National Weather Service in March of 1996 and continues as a cooperative observer in addition to being a CoCoRaHS observer. In addition to precipitation data, OH-CK-1 also reports evapotranspiration data as well. He finds the weather an interesting and enjoyable subject that he believes he will never be able to give up.