

# MARYLAND/DC COCORAHs

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May 2009

## Cleaning Your Rain Gauge

Some of us longer term volunteers in the Maryland/DC area have noticed a gradual accumulation of dirt, algae, and other debris in our rain gauges over time. Sometimes a simple rinsing out under a faucet does the trick, but in cases of algae growth and other stains, something more is needed. One solution is to pour a mixture of ½ bleach and ½ water into your gauge and let it soak for about 30 minutes before rinsing it out. This usually works well, but you need to be careful with the bleach to make sure you don't spill it on some good clothes! If that doesn't clean out all of the grime, you can always roll up a paper towel and make it sufficient long to reach the bottom of the gauge and with a twisting motion, wipe out remaining residue.

## April Weather Review

For the first time in many months, most of the state including Washington DC saw an above average month for rain. For many of us, rain occurred on more than ½ the days during the first 24 days of the month, some stations rained a total of 15 days for the month. Not only was it rainy during early and mid April, but it was quite cool during most of the period as well. A dramatic warmup toward the last week in April sent temperatures toward the 90 degree mark in some spots, which resulted in the average temperature for April being slightly above normal despite the early cold temperatures. An anomalously strong high pressure ridge situated across the southeast US was responsible for the record heat which occurred during the last week of April. This same system kept most of the active weather systems well to west of our region, providing a break to the cool and damp pattern experienced earlier in the month. Frederick Maryland hit a high of 98 degrees during the warm streak during the last week of April and actually set the high temperature for the nation (lower 48 states only) which is to say the least, a rarity. Worcester County claimed the honors for the wettest location in April with several locations receiving over 7" for the month. MD-WR-5 (near Ocean Pines) picked up 7.08 inches while MD-WR-2 (near Berlin) was not far behind with 7.01 inches. Over 2 inches fell across the county on the 7<sup>th</sup> while another 4 to nearly 5 inches fell during the wet period from April 11<sup>th</sup> through the 24<sup>th</sup>. Across the remainder of the state, rainfall amounts were fairly uniform and above normal with  
(continued on page 2).

Maryland CoCoRaHS



## Southern Delmarva Treated To Rare Heat Burst

Between 1 am and 2 am on Sun Apr 26<sup>th</sup> a decaying line of thunderstorms produced a rare heat burst across the southern Delmarva. Most residents probably slept through the event but the observations out of the Salisbury airport caught all the action. A heat burst is a rare atmospheric phenomenon which is characterized by a sudden warming of temperatures at night along with strong winds and a significant drop in dewpoints. It is typically in response to a dying thunderstorm where rain evaporates into air aloft and the sudden "dry" downburst winds warm as they push to the surface. This phenomenon is usually noted across the plains states where temperatures have been known to rise above 100 degrees at night during these events. Below are the hourly observations from the Salisbury airport during the time of the heat burst. Notice between 1 am (0454) and 2 am (0554) the temperature rose to 87 degrees, the dewpoint dropped to 41 degrees, and the wind speed increased to 33 kts with gusts to 45 knots.

STN	TIME	PMSL	TMP	DEW	RH	DIR	SPD	GUS
	DD/HHMM	hPa	F	F	%	deg	kt	kt
SBY	26/0654	1022.4	82	54	38	260	15	21
SBY	26/0554	1021.8	87	41	20	290	33	45
SBY	26/0454	1023.8	76	59	56	300	8	

## April Weather Review Continued

amounts generally in the 3 to 6 inch plus range. MD-HW-17 near Woodbine in Howard County turned in the lowest amount for the month with 2.82 inches. The early month cold snap was accompanied by snow across portions of western Maryland on Apr 7<sup>th</sup> and 8<sup>th</sup> and even a few spots along the northern counties of Maryland measured a few tenths of snow. MD-GR-4 picked up 5.5 inches of new snow on the between Apr 6-8th, while MD-GR-2 reported 4 inches. MD-GR-1(near McHenry) had the highest liquid amount for the month in western Maryland with 5.30 inches.

## MY GAUGE IS BROKEN! WHAT DO I DO?

IF YOU JUST NEED A PART OR  
THE WHOLE RAIN GAUGE YOU  
CAN CONTACT EITHER:

[WWW.WEATHERYOURWAY.COM](http://WWW.WEATHERYOURWAY.COM)

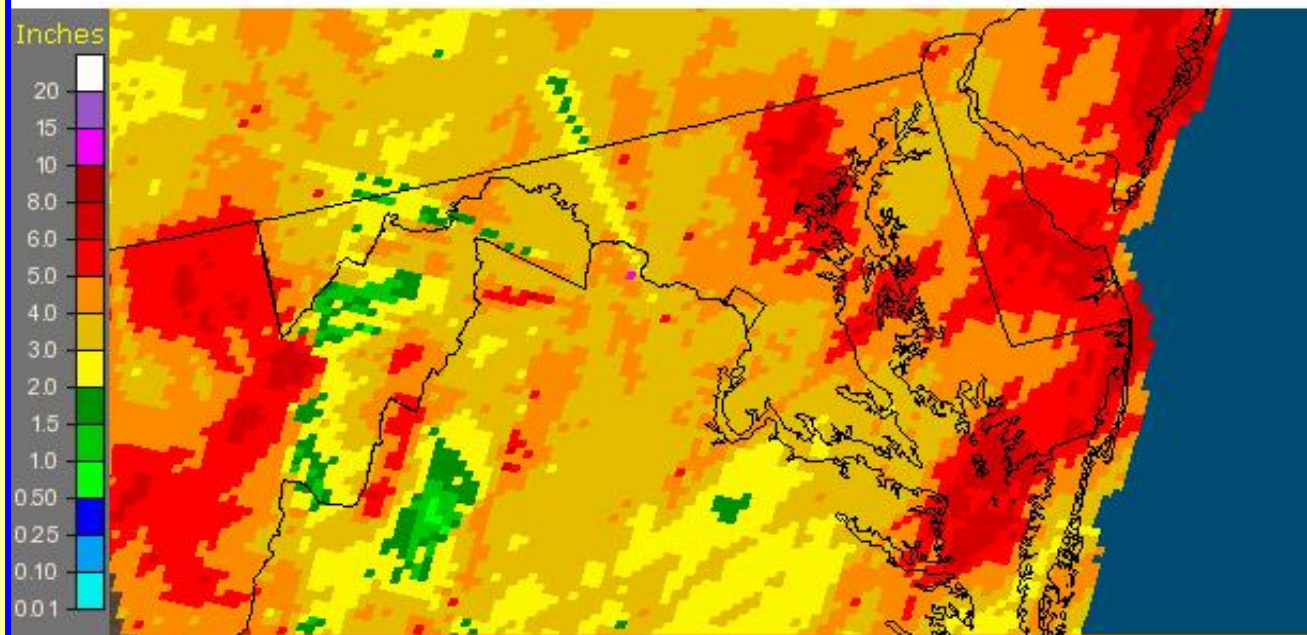
OR

[WWW.AMBIENTWEATHER.COM](http://WWW.AMBIENTWEATHER.COM)

THEY ARE OFFICIAL SUPPLIERS  
OF THE CoCoRAHS NETWORK

***Why do we need volunteer observations?*** Well below is the perfect example. The following is the observed monthly precipitation for April (ending 8am edt May 1<sup>st</sup>) from the Advanced Hydrologic Prediction Service. This is radar estimated precipitation that is calibrated (adjusted) by observed rain gauge data from a variety of sources. The rain gauge data helps correct for high or low biases in the radar estimates. Even with the adjustments, you will find that your April totals may not be accurately reflected in the estimate, but often it is close. If you look closely you will notice two yellow and green streaks, one stretching north from northern Virginia into south central PA and another stretching northwestward across West Virginia into western Maryland. In both cases, this is where the radar underestimated precipitation due to what is called "beam blockage", which is the result of a permanent obstacle in the path of the radar beam that prevents the beam from clearly seeing rain at distances behind the obstacle. In most cases this is a mountain, tower, or building.

Maryland: April, 2009 Monthly Observed Precipitation  
Valid at 5/1/2009 1200 UTC- Created 5/1/09 22:43 UTC



## APRIL HAIL REPORTS

As we continue to progress toward the warm summer season, the threat of thunderstorms increase as does the threat for hail. We had 3 days last month that saw small hail accompany storms that moved through the region and as a result, 19 hail reports were submitted.

4/20 **pea size** hail reported at MD-WC-9

4/21 **rice to pea size** reported at MD-MG-1, MD-MG-5, MD-MG-8, MD-MG-18, MD-MG-55  
MD-HR-15, MD-SM-1

4/22 **rice to pea size** reported at MD-PG-3 MD-PG-40, MD-PG-41, MD-MG-5, MD-MG-42  
MD-BL-15, MD-CC-8, MD-SM-1

### Clearing Your Backyard for Your Rain Gauge

No you don't have to go to that extreme (see below). You do want to avoid being near trees or any obstruction that would affect your gauge catch. Typically you want to place your gauge at a distance at least as far away from an object as its height. In other words if a tree is 10 feet high, try to place your gauge 10 feet away from it or more. Check the main [www.cocorahs.org](http://www.cocorahs.org) frequently asked questions for other issues you may have. By the way, this is my backyard after a storm two summers ago. Besides destroying my basketball hoop, knocking off some gutters, and putting a hole in my shed, the house actually escaped major damage. Could not say the same for the rest of the neighborhood!



## **Say Goodbye to Winter**

While records dating back to the late 1800's have reported snowfall at both Baltimore and Washington, in all cases it has been only a trace. Garrett County is not totally out of the woods, but even there the chances of late season accumulating snows are pretty rare. So we can pretty much declare MD-GR-4 as the Maryland CoCoRaHS Winter 2008-2009 champion with 107.9 inches. I leave you with a pretty snow scene from my home (though not this year!)



In next month's issue, I hope to begin plotting monthly precipitation plots from your Maryland/DC observations. So please make sure you fill in those days of no precipitation if you want to be included on those maps. Only completed monthly observations will be used.

Any questions, comments, or contributions please send them to:  
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