The Catch

COCORAHS – MAY DAY

FORT COLLINS, CO — Saturday, May 1, 2010

Greetings to all CoCoRaHS volunteers, friends and family:

What a day it has been in western Tennessee, and the day is far from over. Rains began there early this morning and by 7 AM several CoCoRaHS observers already had over 8" of rain with a couple of reports over 11" (our gauge only holds about 11.30" full to the top when the cylinder and funnel are in place). If additional rain falls, it flows down the side. Rains have continued and more are expected along with possibilities of large hail and tornadoes. Thanks to all of you there who braved the storm to measure and report your rainfall and for all the "Significant Weather Reports" that were filed today. Please be careful today and give a hand to those who need help.

To put today's Tennessee rains into perspective, a 4" rain is big anywhere in the country although they happen fairly regularly from Texas across the South up to the mid Atlantic states and sometimes in the Midwest. By the time you get up to 8" in a day, that's a huge rain anywhere in the country that can cause terrible local or widespread flooding. Then go up to 11" or greater, and most areas of the country have never seen that much rain in recorded history except in a few memorable historic storms. So these storms in W. Tennessee today are huge and we wish the best to the people of that area.

What to do if it rains that much?

First of all, stay on high ground and don't drive if you can possibly avoid it. Many flood related accidents and fatalities can be avoided each year simply by not driving into flood waters. If you are a CoCoRaHS observer, don't put yourself at risk to measure during extreme storm conditions. We've seen pictures of CoCoRaHS rain gauges on backyard posts surrounded by flood waters. You should never swim to your rain gauge.

However, your reports of heavy rains are extremely helpful. If you are receiving intense rain that you think is significant and might contribute to local or widespread flooding, then please take a measurement when it is safe (any time of the day) and send in a "Significant Weather Report" That will go immediately to your local National Weather Service and may help them issue or verify a flash flood or severe thunderstorm warning. There were dozens of heavy rain reports from our Tennessee volunteers this morning and that was greatly appreciated!

http://www.cocorahs.org/Admin/MyDataEntry/IntensePrecipReport.aspx

You may send in as many "Significant Weather Reports" in a day as you feel are necessary. But remember you will still need to send in your regular daily precipitation report with the total rainfall (or snow) for the day.

It may be difficult or impossible to make an exact measurement when heavy rain is falling. It is OK to approximate without emptying your gauge. Remember, the inner cylinder of the gauge holds 1.00". If additional rain falls, it will spill out of the inner calibrated cylinder and collect inside the large outer tube. To measure exactly, you need to remove the funnel, empty the inner cylinder, and then carefully pour the contents of the outer cylinder into the calibrated inner tube. However, you can get an approximate reading simply by leaving the inner tube in place and seeing how deep the water is inside the gauge. Exactly 2.00" of rain will fill the inner tube to the top and will fill the outer cylinder up to the 0.11" mark on the outside of the calibrated tube. If the water is up to 0.22" on the calibrated tube, then that means that almost exactly 3.00" of rain has fallen. And so on. When the gauge is completely full to the top and beginning to spill over, that is about 11.30". So without emptying the gauge, you can get a very close approximation. If you can see your gauge from inside your house, you can even take approximate readings for your "Significant Weather Report" without going outside. A pair of binoculars will help you estimate better.

If you are having an extreme event, like the people of western Tennessee are experiencing today, then you need to be careful to not let your gauge fill to the top and overflow. Daily amounts over 11" are rare but so important. Accurate measurements of extreme events are hard to come by. CoCoRaHS can make a huge contribution towards better documentation of extreme events. Anytime your outer cylinder is more than half full, you've had an incredible rain and you may want to read and empty it to make sure it doesn't spill over. Write down that amount so you don't forget when you report your daily total the next day.

Remember that many scientists, weather and river forecasters look at your reports. If you've experienced a very heavy rain (or snow) for your area, please add a few comments so we know approximately when the storm began, when it was heaviest and if there is or has been any flooding observed. Your remarks are invaluable when it comes to interpreting the significance of your report. And in some parts of the country, even just an inch or less of rain can also be very significant.

One more thing. If extreme rains occur in your area but not necessarily at your own gauge, mention that in your remarks. Knowing that you got 6" of rain but two miles north of town go 9" is worth noting in your remarks.

Meanwhile, here in Colorado here it's been cool, pleasantly damp (over 3" of moisture in the past 10 days -- 20% of our annual average) -- and we woke up to a good wet snow Thursday morning that was pink and red. Nothing like pink snow to make you wake up scratching your head. Turns out there had been a big dust storm over NE Arizona the previous day that was entrained into our storm and washed out..

Dirty rain and snow?? Report it.

There are scientists studying the deposition of desert dust and it's impacts on snow melt and runoff. If you happen to observe dirt in your gauge or on your car or deck before, during or after a precipitation event, please mention it in your comments and describe the color of the soil particles. This can help scientists figure out where the dust may have come from.

Snow in Vermont!

Did any of you notice the snow in Vermont this week? Late April snow isn't too unusual there, but 10-20" the last week of April is impressive. And even more impressive is how quickly the weather changed. It was still snowing there on Thursday and now the temperatures are headed towards 80 degrees F for the weekend all the way up to southern Canada.

CoCoRaHS Hail Week

Starting tomorrow, we'll be highlighting hail, hail awareness, and hail reporting for the next week. This will culminate in a big "Hail Pad Making Party" here in Fort Collins next Saturday AM 9 to noon at the Fort Collins Discovery Science Center. Stay tuned for daily messages on the

CoCoRaHS "Message of the Day" each day this next week. And if you live in or near Fort Collins, or happen to have travel plans bringing you to this area next weekend, please come and join us. We hope to make several hundred hail pads so we have enough supplies on hand to start the hail season. If you've never seen or used a hail pad, they do a great job of recording the quantity and intensity of hail. Each stone leaves a crater that is a function of the size, hardness and velocity of the stone. Please RSVP if you can join us for the party. Please contact Henry Reges (hreges@atmos.colostate.edu) or call 970 491-1196 for more information and to RSVP.

Go for 9,000

Two days last fall we received over 9,000 daily precipitation reports from across the country -- an all time record for CoCoRaHS. Since then, the number of daily reports dropped back to around 7500 to 8500. That is fantastic and paints a great picture of nationwide precipitation patterns, but it's not enough to capture the local detail in many areas. Now it's the time of year where thunderstorms become a dominant precipitation maker for the next few months. This means that precipitation patterns that are highly variable already become even more variable. Your neighbor a block away could get substantially more or less rain than you from any given storm. This is the time of year that we need the most rain gauges to try to accurately map and track storms. It is also the time of year where it is especially helpful to report 0.00" or Trace amounts since it's possible that one part of town could be soaked while another part is dry. Let us know either way. If you've been hesitating or if you haven't got your rain gauge set up yet -- or if you've forgotten your user ID for CoCoRaHS, this is the time to get set up and reporting.

It may sound absolutely crazy, but our goal of having one or more rain gauges per square mile (in populated areas) is what is needed to reasonably track rainfall patterns from summer storms. And sometimes that's not even enough. So dust off your gauge and start reporting (if you've gotten out of the habit). Let's make May 10-14 "report your rainfall week" and see if we can surpass 9000 reports each day. We've added over 2000 new volunteers since last fall, so maybe we can even reach 10,000. Let's give it a try. Please report each day May 10-14th.

Garden planting

Things are fairly peaceful right now in terms of our various farm animals. The pasture is growing well -- much to the pleasure of the horses. Lily

(our young Australian shepherd) has been getting more exercise, so she's been happy and has not gotten into much trouble. It's garden planting time right now and my wife is going full speed making worm compost and compost tea. I'll let you know how that all works out. It's still too cold for many plants, but the kale, spinach, broccoli and peas are doing well.

Thanks to all of you, and have a wonderful spring. If you need help with anything, contact your local CoCoRaHS coordinator and they can help you out.

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