The Catch

NOLAN DOESKEN'S MONTHLY COCORAHS E-MAIL MESSAGE

CoCoRaHS -- Happy New (Water) Year!

Fort Collins, Colorado -- September 28th, 2015

Greetings new, ongoing and retired rain gauge volunteers. Thank you for your efforts past, present and future, to track the amazing variation in precipitation that we all deal with.

CoCoRaHS For Schools - Rain Gauge Week

We just completed our annual fall "Rain Gauge Week" where students and teachers across the country join in to measure and report how much rain fell at their school. We have several hundred participating schools now. This year, we added a 'contest' component where we held a drawing among all schools with complete participation for the week (including submitting a multi-day report to cover the weekend). The winning school was an elementary school in Arkansas. The prize is a web-based classroom visit with me, where I will discuss the importance of their measurements and also let them ask me questions about my job as a climatologist. If you know of any schools, teachers or students who would really like to be a part of CoCoRaHS, please show them how to sign up and join.

Frost and Fall Colors

It's cooler now at night, but still feels like summer each afternoon. We've had a couple of early autumn cold fronts and the first frosts in spots from Montana to Upper Michigan. Like it or not, winter is coming, but first (I hope) comes fall with glorious foliage. It used to be a challenge to figure out when the leaves were changing and reaching peak color in different parts of the country. Now you can spend a couple hours online, sitting in a chair or on the couch, and view fall foliage webcams all over the country without even leaving your house -- interesting if you have the time, but not exactly satisfying. I'd much rather see them live and in person. Then again, I'm color blind and don't really see orange or red anyway. Lucky for me, our Colorado aspen and cottonwoods mostly just turn gold. That I can see.

Feel free to add comments in your CoCoRaHS daily precipitation report about the status of your fall colors. Or better yet, join one of the many citizen-science projects specifically designed for tracking foliage and phenology. Try Project Budburst, Nature's Notebook or Picture Post to see how you can contribute.

From California to Omaha, from Jacksonville to Roanoke

Quite a few parts of the country have been dry since late summer – our little farm being one of them. But we live in a large land (with many rain gauges :)). Every day, it rains somewhere. We've had some early (and much appreciated) doses of rain in parts of CA between September 15th-17th. Surges of tropical moisture reached the desert SW in September with unfortunate flash flood consequences in UT and then in NM a few days later. This week a band of heavy rains caught the corner of SE Colorado, parts of Kansas, up to SE Nebraska and then continuing in spots up to Duluth. Three of our volunteers in Council Bluffs, Iowa (just across the border from Omaha) totaled 6.24", 8.06" and 9.28" respectively, while other parts of Iowa got nothing. Click here to see their county map on 9/23 and use the date picker to select the next two days. Also, a little low pressure area spun it's way up the southeast coast from Jacksonville to Delaware dropping a good amount of precipitation. New Jersey uses contour maps to display their CoCoRaHS data. Check out their totals from the 11th.

Maybe this wasn't your week or month for rain, but someone is getting their turn. Next time, it might be you.

A Trip to Minnesota

I just got back from a few days in Minnesota. The Board of Directors of the new "Citizen Science Association" met there at the lovely Science Museum of Minnesota in downtown St. Paul looking out over the Mississippi River. Our local CoCoRaHS coordinators there organized a Minnesota "hot dish potluck" followed by an evening tour of the Chanhassen National Weather Service Office. We had plenty of food and hours of enthusiastic weather chatter. If my taste buds were correct, I think I partook in a heaping serving of good ole fashioned "Spam casserole". As a kid on family camping trips, I loved Spam sandwiches with slices of fresh home-grown tomatoes. Thanks, Minnesota, for the warm welcome.

USDM - Animation

I don't like drought. I much prefer reliable rain and snow. But that's not how it works for most of the country. The USDM (an abbreviation for the very popular "U.S. Drought Monitor") is a weekly product updated every Thursday morning - 52 weeks a year -

showing drought severity across the county. If you are a regular rain gauge reporter for CoCoRaHS or the National Weather Service Cooperative Program, chances are your data are being used each week to help make these maps, such as the current map for this week.

What are the drought categories (D0 to D4) and what do they mean? The CoCoRaHS team recently completed a cartoon animation for the National Integrated Drought Information System (NIDIS) that explains the significance of these categories and the statistics they are based on. If you 'd like to learn more, click here to view the animation.

By the way, don't forget the value and importance of submitting "Drought Impact Reports". Your qualitative assessment of developing, expanding or retreating drought conditions based on visual assessments of crop conditions, landscape vegetation, soil moisture, stream and lake water levels, recreational conditions, wild fire vulnerability etc are all very helpful to us and the many others involved in assessing drought conditions. Some of our new volunteers in Puerto Rico and the U.S. Virgin Islands provided excellent descriptions of their drought severity this summer, and that was a huge help. You can always view Drought Impact Reports using our 'view data' tools, or click here.

WxTalk Webinars - These are Worthwhile!

We had good turnout on Sep. 17 for the 40th in our series of CoCoRaHS WxTalk Webinars. The topic was the history and uses of volunteer weather observations. Some interesting characters showed up in the presentation – like Ben Franklin, Thomas Jefferson, Elwood Mead and you and me. If you missed it but are interested, we record each of our seminars so you can play them back at your leisure.

The topic of our next WxTalk Webinar scheduled for Oct 15th is the North American Monsoon. I'm fascinated with that phenomenon and can't wait to hear from our special guest, Chris Castro from the University of Arizona. Click here to register to attend. We've got another one coming up on lake-effect snows to be given by the Weather Channel's very own winter weather expert (and former CoCoRaHS volunteer), Tom Niziol.

Already Tired of Talking about El Niño

In our business of weather and climate, a part of the job is talking to the media. It's still only September and already I'm sick of being asked questions from journalists about El Niño and what it means for this coming winter. It might mean a lot and it might not. It's a great test for the very challenging field of long range seasonal prediction. The part that you can help with is measuring what actually happens. Please help us do our best job ever of tracking precipitation patterns this fall and winter. Spread the word. Recruit friends and family!!

Farewell Water Year 2015

This week marks the end of another water year. Many climatologists use the October 1 – September 30 definition of "year", especially here in the western half of the country, because it best aligns with the annual cycle of cool season snow accumulation, soil moisture and hydrologic recharge followed by warm season snow melt, runoff and growing season water usage. But it also makes sense elsewhere as it keeps the winter months and the following summer months all in the same year.

As many of you know, we prepare a complete compilation of “water year precipitation statistics and graphs for every single station – thousands of them. So this is your chance to make sure that your data for the past year are complete and correct in the CoCoRaHS database. We encourage you to go back and fill in any days that you measured but forgot to enter. You can review (or edit) all of your past reports by clicking here. Also, if you tend to only report on days where it rained/snowed, you are welcome to use the “Monthly Zeros” report to quickly enter in all the zeros for days when no precipitation fell.

If you have any questions about this, please contact your state coordinator or send us a message at info@cocorahs.org.

Farm Stories - Moon, Dust and Water

I hope you got to see the lunar eclipse last night. It was the best I remember ever seeing. We watched the full moon rise and then begin to darken on the northern edge. A bank of clouds then impolitely moved in and blocked the view for the next hour. Fortunately, the moon popped out from behind the clouds just as the eclipse reached totality. The weather here was uncommonly warm, for late September, and thanks to the evening timing, many families with younger children were out watching. Great fun!

We lost a couple of chickens this summer -- just old age, no predators or bad dogs this time. We had just kept the old gals as pets. Other than that, things are peaceful. But after the wet spring we had and the lush pasture, things here have turned super dry. We're on track for our warmest September on record.

We get irrigation water every 6 days. There is nothing like spending a few hours outside every week watching water flow to gain and maintain a key interest in the water cycle. Directing the water and watching it flow is always "telling" -- from the main canal to the "lateral", clearing the debris from old cottonwood trees before the water disappears in the siphon tube under the highway, watching the water flow down the lateral to our head-gate and from our head-gate to our pasture, and then directing it in plastic "lay down" to the dry areas of the field. I do a lot of thinking during this weekly ritual. Where did this water come from? How much was rain and how much melted snow? How long will the ditch flow? Will it even make it from the main ditch 1 1/2 miles away to our land without all soaking in? How much is going back into the groundwater and how much is growing trees, grass, weeds, alfalfa, etc.

We get most of our water at night -- which is fine by me since I've learned that a lot more water gets to our field at night when all the grass and trees along the ditch aren't sucking as much water to meet their transpiration needs. Earlier this summer when I'd open the pipes and let the water flow, it would spread quickly across the field. Now that it's been really dry for over 10 weeks, the water won't go anywhere -- and instead you can literally hear it late at night being sucked quickly into the soil. Only after an hour or so will it flow further -- having finally replenished the dry soil higher up.

Our farm operation is just a hobby. But I think about the 4-6 generations before us --

most of whom made their living off this land. They dug the irrigation ditches using mules pulling scrapers, and dug the laterals with single furrow plows and hand shovels. They shepherded the water to the furrows of their fields -- and then watched the crops grow or whither, depending on weather conditions and water supply. For us, it's just a hobby -- but what a rich honor and privilege it is to help manage this precious resource (and what a great excuse to be outside instead of at my desk or my computer).

Have a great fall, and keep those rain gauge reports coming. October can bring the first snow of the season to a few parts of the country, so don't be caught off guard.

Sincerely,

Nolan Doesken and the CoCoRaHS team
NOAA's Weather Ready Nation Ambassador Program
Colorado State University