

COCORAHS -- THE NEW YEAR HAS BEGUN - WATER YEAR, THAT IS

Fort Collins, CO — Sunday, October 14, 2012

October greetings to all CoCoRaHS pros, beginners, retirees, friends and family.

Since I last wrote in September at least 200 new volunteers have signed up from all over the country. In particular I've noticed several new observers from southern California, some from the Pacific NW, several from the SE (especially South Carolina), a good group from TX, OK, AR and MO and a few from the big Island of Hawaii. We've added a good number here in Colorado, too, where we continue to campaign to encourage our schoolteachers who teach weather and climate to get their students involved. Welcome to all of you and we're glad to add you to our rain gauge team.

Back from our trip

Wow, I can't believe I was just in France. Some of you are accustomed to international travel, but it was a new experience for us. On the way home this week I got a great glimpse of Greenland in October sunshine with large icebergs in the Atlantic and freshly snow-covered mountains and glaciers. I was appalled to see that most passengers didn't even glance out their windows -- focused instead on movies or sleep. Maybe they've done that flight many times before, but still -- for me it was indeed a thrill. I came back with a head cold, jet lagged and lost my glasses somewhere along the way, but other than that we have a lot of great memories. We got to see our daughter, son-in-law, lots of his family and childhood friends (he's from there) and, of course, our almost two-yearold grandson. I could blabber about that for awhile, but all of you who are grandparents already know what I mean. Hearing the little guy say "grandpa" was music to my ears. We only visited Paris briefly and spent most of our time in the Loire Valley where our daughter now lives -- and the area down near Moulins (idyllic region of farms and ancient villages)

where Nico grew up. We left our computers and the Internet behind and had a wonderful time. We ate lots of local cheese and vegetables and visited bakeries and butcher shops. We enjoyed days of French sunshine and also days of low clouds, drizzle and rain. As you might expect from me, I took a couple of CoCoRaHS rain gauges with me (metric versions) and gave them as gifts to our new relatives there.

Meanwhile, we missed some interesting weather back home. When I got back to Colorado this week I learned that I missed our heaviest rainstorm of the year, our first and only hail storm, another wildfire nearby up in Rocky Mountain National Park, our first freeze (put a quick and severe end to the garden -- went down to about 20F) and our first snow -- all in just a few days. Now we're settling into more stable autumn weather and I got to do my first leaf raking today.

Water Year summary reports and graphs

I also missed out on the CoCoRaHS "New Year's celebration". Yes, every year we ring out the old year on September 30 and ring in the new on October 1 as we begin the new "Water Year". The definition of water year varies a bit geographically across the country, but the idea is that after a long summer, starting around October 1 we begin to recharge soil moisture. In the mountains the first snows begin to fall and eventually accumulate. That tends to be a logical time to start the annual clock ticking. Winter tends to be an "accumulation period" in the water balance as precipitation is more likely to exceed evapotranspiration for much of the country. Then next spring the snow melts, the rivers surge, and then the vegetation begins again to consume more water. Summer is the "water usage" time of year where evapotranspiration often consumes much or all of the available moisture. It's a marvelous cycle.

Our tradition is to take this opportunity to review our data for the past 12 months, check for errors and missing reports, compile our precipitation statistics and then compare data. Julian (our CoCoRaHS Web developer) got all the summaries run last week for all 15,000+ stations who measured precipitation this past year. You can access data specifically for your station (you need to be logged in) simply by clicking "My Account" at the top of the CoCoRaHS webpage -- www.cocorahs.org You will find all your data reports compiled into monthly and annual totals. There are also graphs of daily and monthly totals and accumulations. Please take a look. You will also be able to compare 2012 data with the previous two years if you have been long-time participants. To view data for any station in the country and in Manitoba, Canada, click here http://www.cocorahs.org/WaterYearSummary/

If you see any errors or missing data for your station, please review your daily entries and make additions or corrections, if necessary. Use the regular daily precipitation entry form. For those of you who don't customarily enter data on days when no precipitation falls, this is also a chance to go back and use the "Monthly Zeros" report to quickly fill in your zero values so your data summaries are more complete.

Please note: The Water Year Summary reports and graphs do not update automatically. If you fill in or correct any data, the water year summary reports and graphs will NOT change. Instead, we plan to wait about 3 weeks and give everyone a chance to check over their data. Then in early November, Julian will recompile and repost all these reports and archive them for posterity.

We've hit 11,000!!!

Earlier this year we finally reached our long-time goal of 10,000 individual daily precipitation reports. As we've added more volunteers this year, we are now routinely reaching 10,000 reports (although it usually takes 1-3 weeks after the date as people go back and fill in late reports). Back on July 10 we shot right past 10,000 and hit 11,123 reports. Fantastic! I also notice a day in September with over 10,000 reports of which over 9,000 received no (0.00") precipitation. That's quite an accomplishment. We really appreciate your dedication to CoCoRaHS and your willingness to report, even on the many days when no rain or snow has fallen. Thanks so much for contributing to this accomplishment.

Special webinar on the "Northern Lights"

Please join us this week on October 18th for the 11th in our series of "WeatherTalk" webinars. Jan Curtis will explain and demonstrate some of the remarkable features of the aurora borealis. Jan spent several years of his life working as a climatologist in Fairbanks, AK and photographing the "Northern Lights" every chance he got. As has been the case with most of our speakers, he is also very active in CoCoRaHS. So please take a moment to sign up:

https://www3.gotomeeting.com/register/502665910

If you are interested but unable to attend, all of our WeatherTalk webinars are recorded and can be viewed at your leisure:

http://www.cocorahs.org/Content.aspx?page=wxtalk

Also, coming up soon (November 8) is our webinar on weather optics titled "There are more "bows" in the sky than just rainbows" Grant Goodge is a longtime weather observer, weather photographer and a personal friend. Don't mist this one either.

We understand that some of you have attempted to participate in our webinars but have had technical difficulties. We recommend that you start logging in at least 15 minutes in advance of the scheduled webinar and please pay close attention to time zones. Most webinars are held at 11 AM Mountain time so that would be 1 PM Eastern, noon Central and 10 AM Pacific). Some of you have combinations of browser issues or limited bandwidth that make participation difficult or impossible. But most of you can view them later if you can't join live.

Evaporation Measurements and Water Balance Charts

117 CoCoRaHS volunteers joined the ET team this year adding the measurement of reference evaporation to their daily routine. I have really enjoyed watching the water balance in action (incoming precipitation offset by outgoing evaporation). As freezing temperatures approach, the ET stations will be closing down for winter. To view the water balance in action go to:

http://www.cocorahs.org/ViewData/StationWaterBalanceChart.aspx Beware that not all data are complete for all stations, so shop around and find the best examples.

We'll be looking for more ET volunteers for next year as we extend our effort to track the variations and status of the water balance across the country. The gauges are pricey (over \$200) but we continue to look for sponsors to help cover the costs and make these affordable for our volunteers with ideal station exposure. If you would like to be considered for a gauge next year, please contact Zach Schwalbe at: info@cocorahs.org

Damp manure

Here on our farm, a sure sign of the changing season and change in the water balance is evident out in the barn and corral. All summer the horse manure dried up almost instantly and was light as a feather to shovel and haul. Now with cooler temperatures, less sunlight and higher humidity (and fewer flies) the manure stays nice and moist (but also quite heavy) – ready to easily blend into our compost piles.

Our farm sitter did great while we were gone and we came back to the same number of animals that we had when we left. The main changes are that our hens are already slowing their egg production and the barn kitties really grew up fast while we were away. Look out mice!

A good book for a weather enthusiast

I don't generally make book recommendations, but I've got to tell you about this one. "The Weather Observer's Handbook" by Stephen Burt from the UK just came out a few weeks ago. It is remarkably thorough and answers almost all the questions I get every year about weather measurements and weather station equipment. My only disappointment is that he doesn't say much about snow measurements. What also impressed me was the fact that this may be the first text book that mentions CoCoRaHS. Here is a link to find out more:

http://measuringtheweather.com/

The author provided me the following link and code to get a 20% discount. But shop around (Amazon, etc) as you might find better prices there.

How To Order

Visit www.cambridge.org/us/9781107026810or Call 1.800.872.7423 Enter Discount Code E2BURT at checkout to receive the discount. Offer expires 6/01/2013

Preparing for Snow

With each passing week, there will be more opportunities for snow. Last year was an easy winter with very little snow for much of the country. This winter could be different. Please brush up on snow measurement procedures before that first snow arrives in your area. We have several training resources you can refer to:

Written instructions: http://www.cocorahs.org/Content.aspx?page=snow Training slide show:

http://www.cocorahs.org/Content.aspx?page=training_slideshows Training webinar:

http://www.youtube.com/playlist?list=PL86DC4C330F518387&feature=plcp

Training video:

http://www.youtube.com/watch?v=CzWFhbO_NNg&list=UUaKwgzgBlG2n

_nTLuObUtFA&index=28&feature=plpp_video

And soon we will be announcing a brand new snow training animation.

So take your pick and make sure you are ready.

We are also working closely with NOAA as they are preparing revised "Snow Measurement Guidelines" for National Weather Service weather observers.

There were some other things I wanted to mention, but this e-mail is already way too long. If you read this far, I applaud you!

Have a great week, and thanks for being a part of CoCoRaHS.

Sincerely,

Nolan Doesken Colorado State University