

<u>Click here to view some preliminary 2013 calendar year statistics</u>. In all, we've received

nearly 4,000,000 daily precipitation reports this past year from a total of just over 19,250 CoCoRaHS stations. This summary is subject to change, but is a great starting point to compare how many volunteers we have in each state and the range of precipitation we've had across the country this year. We've ranged from just over 2" at our driest stations in Nevada and California to over 100" at our wettest locations. This year was particularly wet, compared to average, in the southeast and also in parts of the northern plains.

Fundraiser Update and Request



It's the homestretch now for our year-end (year beginning) CoCoRaHS fundraiser. With just one week to go (the fundraiser continues through January 15th), we've received over 1600 donations. For all of you who've sent in donations, thanks SO MUCH! That number is short of our goal (5,000), but has been nicely compensated by unexpected generosity. For example, we've received close to 200 donations of \$50 or more, many requesting our special unique "CoCoRaHS thunderstorm t-shirt"

There is absolutely no reason to feel obligated. It is your rain gauge reports that help the most. But if you are inclined to push us closer to our goal and help support some of the operational costs of maintaining CoCoRaHS, we would all be very grateful.

For more information and to access the donation portal please click here.

Cold and Snow



A few days ago it was the Northeast. This time winter ganged up on the Midwest. Hats off to all of you who braved the bone-chilling cold to attempt an accurate measurement of this wind-driven snow. There was surprisingly good consistency in the snowfall reports from the Midwest today with well over 200 reports of at least 8" of new snow from central Missouri NE to

southern Michigan and NW Ohio (and a few over 16"). Measurements of the water content of the snow, however, were "all over the place". Some folks only found a few tenths of an inch of water when they melted the snow while others found much more. Either way, thanks for trying. In situations with snow and very strong winds, remember your gauge probably will only catch a fraction of what's falling. This is when you should, if possible, try to take a core sample where the snow accumulation was about "average". We've got <u>all sorts of training videos</u> that try to help but I'm not sure that any of our materials quite captured the misery of Sunday's storm. When you do face blizzard conditions, making a reasonable judgement and estimate is about the best you can do. **Hip-Hip-Hurray for Snow Depth and SWE!**

The total depth of snow on the ground that lingers after new snow falls -- and water content of that snowpack (SWE -- Snow Water Equivalent) -- are great indicators of winter severity. They tell us much



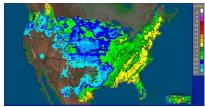
more about the impacts from winter weather than just snowfall totals alone. The depth and water content of the old snow that lingers is what we have to scoop up

and/or navigate around. It causes engineers to consider infrastructure demands such as the weight on our roofs, and for hydrologists' concerns, it holds our water supply for the months to come. Also, the depth and extent of snowcover have huge impacts on winter temperatures -- more snow cover usually means colder temperatures.

So far this year, the Pacific Northwest is having a very easy winter with very little snow accumulation. But snow has been piling up around the Great Lakes, over many parts of the Midwest and much of New England and southern Canada.

I know it can be a tricky measurement, especially if you only have a small backyard. But your best estimate of your snow depth each morning near your home, even on days when no new snow has fallen, is a big help. It's fascinating to watch the depth of snow and its water content change with time, and these measurements are really important. The National Weather Service's <u>National Operational Hydrologic Remote Sensing Center</u> (<u>NOHRSC</u>) cherishes and utilizes all of our snow and snow water content measurements and integrate our data with their remote sensing and computer modeled results. You'll be amazed with what they can do with our data. So if you're a faithful snow depth and snow water equivalent measurer, thanks! And if you're a beginner and need some help, just let us know.

A Few REALLY Big Rains, Too



While all eyes were watching winter clobber parts of the country, there have been some surprising heavy rains here and there around the edges. On Monday one of or volunteers from the east coast of south Florida reported the heaviest non-tropical rain amount

-- a whopping 10.21" near Boynton Beach. The previous day Key West, FL got soaked with over 5" of rain. South Texas enjoyed some wet weather too, with many of our volunteers around Brownsville, TX reporting around 4" of rain last week.

And then for you Hawaii watchers, there were some incredible rains to end 2013. Two of our stations on the north side of the the Big Island, near Honokaa and Ookala, each measured 35" of rain from Christmas to New Years with most of that falling on the last two days of the year. Now that is RAIN!

And Then There's California

While Arctic air has repeatably driven south from the Canadian prairies into the northern U.S., California and Oregon have enjoyed a remarkably boring early winter -- at least for folks who enjoy rain now and then. We're at the midpoint of the West Coast rainy season and there has been very little to show for it so far. It could all change quickly, but so far the <u>western drought continues to spread</u>.

Drought Impact Reports -- Appreciated

Which reminds me, if you are experiencing dry conditions that seem out of the ordinary for this time of year, please fill out a CoCoRaHS "<u>Drought Impact Report</u>". This information is immediately incorporated by the National Drought Mitigation Center at the University of Nebraska and used to help describe both emerging and improving drought conditions.

Webinar: CoCoRaHS and NWS River Forecast Centers



Surprisingly few people realize that the National Weather Service forecasts river levels, too. Our CoCoRaHS precipitation data are immensely helpful in making accurate river forecasts. <u>Please join us for our</u> <u>next WeatherTalk Webinar</u> on Thursday, January 16 at 1 PM Eastern, noon Central, 11 AM Mountain and 10 AM Pacific, as Greg Story describes how NWS River

Forecast Centers measure and track all the parts of the hydrologic cycle, so they can end up with accurate forecasts of streamflow in both small and large rivers across the country.

Farm Story -- House Privileges

Our two Aussies have been reveling in their good fortune. They are outdoor dogs during the day and laundry room sleepers at night. But thanks to the ill health of our oldest cat, she now gets the laundry room and won't share with the dogs. The result is -- for the last few weeks they've gotten invited in the house at night and they love it! They have blankets on the dining room floor where they are supposed to lay -- and usually do. But several times I've needed to get up in the night only to find them lounging luxuriantly on the living room couch -- feet straight up in the air pretending like they belong there. We've learned to place the dining room chairs on the couch at night to discourage this behavior, but sometimes I forget or leave enough space between the chairs -- alas there they are on the coach again. They are happy dogs who hope winter will never end. **Onward to 2014**

We wish you all a productive and satisfying new year, and we look forward to working together to track another fascinating year of precipitation patterns and storms.

Sincerely,

Nolan Doesken Colorado State University

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