



Wyoming CoCoRaHS

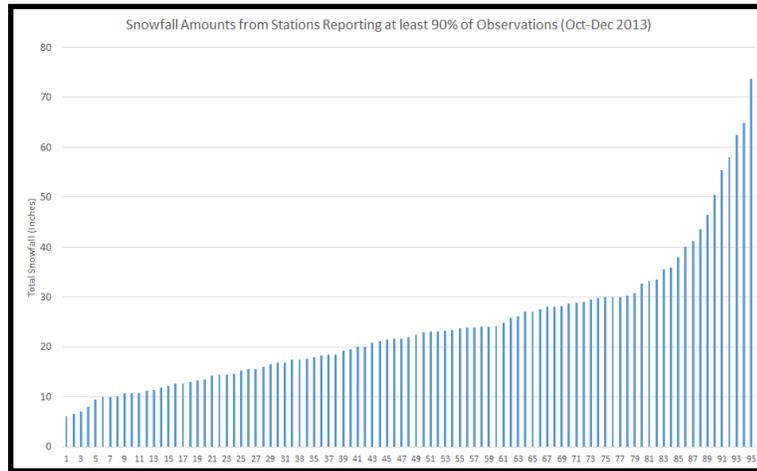
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Oct-Dec 2013

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A Cold and Snowy 4th Quarter for 2013



The fourth quarter of 2013 started out with a quick piling of snow in many parts of the state and, by the end of October, I had measured over 20 inches of snowfall. This was the most snow I've recorded for October in at least eight years.

In November, the cumulative snowfall for the water year fell to second place behind the 2010 Water Year.

Water Year 2014 was not to be outdone, however, and by the 4th of December it had, again, taken the lead. As of now, my station has a snowfall total that is 0.1" short of the March 4th snowfall total for Water Year 2010.

Along with the snow, there were some days where it became quite apparent that the balmy days of Summer and early Fall were long gone.

In early December, I heard from a few of you who attempted the old trick of flinging a cup of water into the air to see if it would freeze before it hit the ground. The results, it seemed, were mixed! Having used hot water, my own attempt resulted in a steam cloud blanketing much of the block!

With the exception of southwest portions of the state, Wyoming was at to well below

normal for temperature for October thru December. For precipitation, the numbers are a bit more scattered but many parts saw above to well-above normal precipitation for the three-month period with the far northwest and parts in the south seeing average to slightly below average amounts.

Snowpack is in good shape for this time of the year and, as I write this, the state as a whole is at 122% of normal. This compares to 79% of normal for this time last year.

While this is a good start, we have to remember that it is still relatively early in the season and the important numbers will be those that come later in the year. The late March, April, and May snows are what will make or break the year.

Currently, at 83% of normal, the Sweetwater River Basin in the central part of the state (southern Fremont County, southwest Natrona County, and extreme northwest Carbon County) is the only basin that is below average for this time of the year.

Among CoCoRaHS stations with 90% or more data complete, snowfall totals range from 73.6" down to 6.1" and, for a change, the high total does not come from Lincoln or Teton counties but, rather, from Sheridan County.

Wyoming CoCoRaHS 4th Quarter 2013

- ◆ Most observations in a day: 214 Reports on October 18th
- ◆ Greatest Amount: 2.87" on Oct 4th, Casper
- ◆ Ten days with no precipitation statewide
- ◆ Eighteen days with a trace or less statewide
- ◆ 16,668 daily reports submitted
- ◆ 290 active observers



Inactive Stations to be Closed

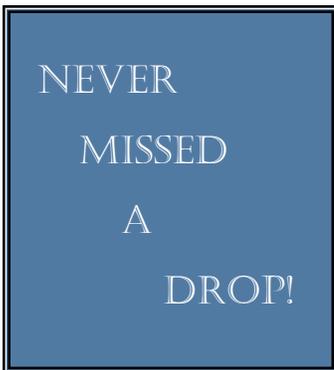
This is the obligatory "Health of the Network" portion that I do each year where I look at stations that may have stopped reporting (or ones that have signed up but have not begun to submit reports).

There are 432 stations listed as *Reporting* in Wyoming and 58 of those stations have not started observing as of the end of 2013. If you are the observer at one of those stations, I would encourage you to begin. If there are circumstances existing that prevent you from observing, please let

me know and I will do what I can to help you get started. If you have changed your mind and do not wish to participate, please send an email to me at antonius@uwyo.edu and I will mark your station Closed.

There are an additional 47 stations that have not been active since the end of 2012. Again, I would encourage you to continue or, if you have had problems with your gauge, let me know and I can assist. If you are no longer interested, that is perfectly fine,

CoCoRaHS is not a life-time commitment, and if you could send me an email indicating that you do not wish to continue, I'll mark your station as *Closed*.



Stations reporting every day 01 Oct thru 31 Dec

WY-AB-8	WY-JN-14	WY-LM-113	WY-SH-14
WY-CM-16	WY-LM-5	WY-LM-148	WY-SH-22
WY-CM-20	WY-LM-23	WY-LN-2	WY-WH-1
WY-CV-11	WY-LM-36	WY-LN-19	WY-WH-14
WY-CV-12	WY-LM-38	WY-PK-7	
WY-FM-11	WY-LM-59	WY-PK-8	
WY-GS-9	WY-LM-96	WY-PT-14	
WY-GS-16	WY-LM-102	WY-PT-23	
WY-GS-20	WY-LM-106	WY-SH-9	
WY-GS-27	WY-LM-112	WY-SH-10	

Winter Rain Gauge Photos Wanted

As the end of the year approaches, we are asking our CoCoRaHS volunteers to e-mail us photos of their rain gauges with winter backgrounds for our possible "2015 CoCoRaHS Rain Gauge Calendar". We hope to publish the calendar during the summer of 2014. We are currently looking into the feasibility of doing this. Our last calendar in 2011 was very popular.

What we are looking for are artistic, high-quality, high-resolution photos (jpeg format) of your rain gauge with winter backgrounds and in winter conditions. These should be of "the gauge" only and should not include people in them. Close-up shots of the gauge are best. They can be artistic and creative. We will narrow down our final photos in the late spring of 2014.

Please e-mail your photo to Henry Reges at: hreges@atmos.colostate.edu with the words "Rain Gauge 2015 Calendar Photo-Winter" in the subject line. Please include the name of the photographer for credit purposes, as well as the location - city, state - of the gauge (ex-John Smith: Columbus, Ohio). Finally include in the text of your message that you "give CoCoRaHS permission to publish the photo and use it for other possible CoCoRaHS promotions".

We will ask for additional "winter and spring" gauge photos through the first part of 2014, so if you have the opportunity, keep your camera handy and keep shooting! . . . dusty gauges, full gauges, dew on the gauge, animals in the gauge, special lighting circumstances, rainbows in the background, lightning bolts in the background, etc. -- be creative, all photos should be natural, no photo-shopping please.

Goals: What we did and what we want to do

Welcome!

WY-AB-92
 WY-CV-21
 WY-FM-37
 WY-JN-26
 WY-LM-159
 WY-PK-30
 WY-PT-25
 WY-SH-32
 WY-TT-30
 WY-UN-16

In the 4th quarter newsletter of last year I set out a few goals that I wanted to accomplish in 2013. The first goal I listed was to increase the average of 140 observers per day that we had in 2012 to over 150 per day. I'm very pleased to inform you that we broke the goal by over 25; the average reports per day in 2013 was just over 176!

The number of active reporters in 2013 was 336. This is amazing for a state which has the population that Wyoming does. The 336 active reporters represents almost a 41% increase over the 239 active reporters in 2012. You and your 335 other fellow observers turned in a total of 64,352 daily observations in 2013.

One other goal was to get 5 more Facebook followers so we could get rid of the awful looking URL:

<http://www.facebook.com/pages/Wyoming-CoCoRaHS/230236620324909>

While we did get the extra 5 followers (and then some!), the conditions for changing the URL are now no longer based upon the number of followers. Nevertheless, I hope to have this changed to something more useable before too long!

For 2014, I hope to again increase the number of observers and, especially, the number of observations per day. Each month almost 250 observers are active yet the average number of reports per day is about 75 less than that. If you are not reporting when there is no precipitation, please consider giving it a try...it's really the easiest report to enter and knowing where there was no precipitation is very important, too.

Stations reporting every day in 2013

WY-AB-8	WY-CV-12	WY-GS-20	WY-LM-36	WY-SH-9	WY-SH-22
WY-CM-16	WY-GS-9	WY-LM-5	WY-LM-106	WY-SH-10	WY-WH-1
WY-CV-11	WY-GS-16	WY-LM-23	WY-LM-113	WY-SH-14	

NEVER
 MISSED
 A
 DROP!

Goals: What we did and what we want to do (cont)

In September of last year, we did average 200 reports per day so I know it is possible. I hope in 2014 that we can have a few more months with that many reports per day. Let's see if we can make it happen!

In 2013 there was not much progress made toward establishing more ETo stations and this year I'd like to remedy that. I used data from the stations we do have operational quite a bit last year and stations in a few more locations around the state would be very helpful when it comes to items like drought analysis or consumptive use requirements.

Goals

Avg of 200+ Repts/Day
 25 new Stations
 10 new ETo Stations
 A Real Facebook URL

Over the years (and especially in 2013 it seemed) I've received many emails with questions regarding measuring snow or what to do during special circumstances and I will try to continue to answer those as best I can. So, when in doubt, please ask! If I get enough questions related to a similar situation, I will try to include those in summary form to send out to all of you. Remember, there are no dumb questions and, if you are unsure of something, then others may be as well.

You can ask either in an email or, if you are so inclined, you may post them on the Facebook page. Although I will answer them on the page, if there are enough that are similar, I will also send them out directly, probably during the monthly summary email. This is because not everybody has, nor wants, a Facebook account and that is completely understandable.

A few things to remember when reporting...and these will help cut down on my sending inquiries to observers wondering about a particular observation.

- If there are sprinkles or a few drops, report a trace even if your gauge is dry. This applies if you see occasional flakes of snow, too.
- In the winter, the snow has to be melted before it is reported as precipitation.
- Measure new snowfall as soon as **reasonably** possible after it stops. "Reasonably" means at your earliest convenience. You don't need to get up at 2 in the morning to see if it has stopped snowing yet 😊

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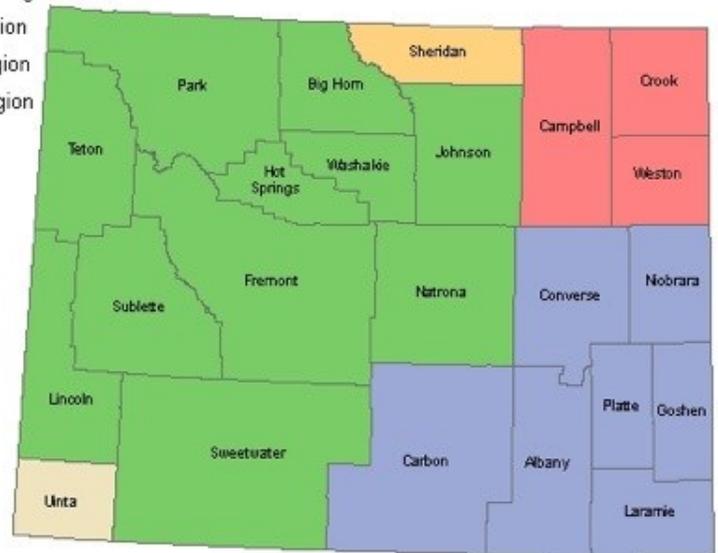
<http://www.facebook.com/pages/Wyoming-CoCoRaHS/230236620324909>

<http://cocorahs.org>
<http://www.wrds.uwyo.edu>

Wyoming Regions

- West-Central Region
- North-Central Region
- Northeast Region
- Southeast Region
- Southwest Region

Wyoming CoCoRaHS Regions



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We Need You!



The end of summer sports in Wyoming.
Photo by Tony Bergantino

If you are not a CoCoRaHS observer and would like to take part joining is simple.

Just go to <http://cocorahs.org> and click on the **Join CoCoRaHS** link on the left side of the page.

Participation requires only a few minutes a day, an internet connection, and an interest in measuring and reporting rainfall.

Your observations will appear each day on a map and you can see how much you received compared to your neighbors, neighboring counties, and neighboring states.

Meanwhile, your data are used by various entities throughout the

country such as the National Weather Service, the National Drought Mitigation Center, researchers, and those who are just curious about how much rain fell where.

CoCoRaHS helps to fill in holes in places where there are no observers for other networks. CoCoRaHS is a high-density network which allows us to see the variations in precipitation across the country **and** across town.

If you are interested in joining or have any questions, please contact Tony Bergantino at:

antonius@uwyo.edu