



Nevada CoCoRaHS Newsletter

Because every drop counts even in the driest state!

Winter 2012-2013

Highlights

Welcome to what is planned to be at least a twice yearly attempt to keep you up to date on happenings in the CoCoRaHS program in Nevada! The Nevada CoCoRaHS Newsletter is intended to serve as a resource that contains new information, training and unique odds and ends. There are many new changes that have taken place recently with the CoCoRaHS program to inform you about.

New Nevada State and Regional Coordinators

In August 2012, both Chris Stachelski and Andy Gorelow at the National Weather Service Office in Las Vegas took over jointly as co-coordinators of the CoCoRaHS program in Nevada. Chris currently serves as a forecaster at the NWS Office in Las Vegas where he leads the climate program and also assists with the office's cooperative observer program. Chris has been with the NWS in Las Vegas since 2008. Andy Gorelow has served as a forecaster at the NWS Office in Las Vegas since 1999. Andy currently leads the office's spotter program and helps out with the office's climate program. Andy has also worked at the NWS Offices in Reno and Elko and even briefly worked at the Ely office before it closed. Both Chris and Andy have a large interest in climate and observing weather and enjoys sharing this with the public. Chris and Andy will also be serving as the new Regional Coordinators for CoCoRaHS in southern Nevada.

In northwestern Nevada, we would like to welcome Kat Hohmann who will be serving as the new Regional Coordinator for this area. Kat serves as a lead forecaster at the NWS Office in Reno and leads the office's spotter program.

CoCoRaHS Nevada Celebrates 5 Years

It is hard to believe that the CoCoRaHS program has reached the 5 year mark in the Silver State. Since starting in 2007, 242 observers have signed up for the program with nearly 91 still active! This is a remarkable achievement for the driest state in the country. A great big 'Thanks!' to each and every observer who has taken the time to participate in this program!

Where Are Our Observers At?

CoCoRaHS Nevada has observers throughout the Silver State ranging from Las Vegas and Reno to a number of smaller communities. The largest amount of active observers resides in Washoe County which has 42 active observers! Clark County ranks second with 17 active observers while Elko County ranks third with 8 active observers. Two counties – Esmeralda and Storey - have not had any observers sign up yet for CoCoRaHS. Pershing and White Pine Counties have had observers but none are currently active. If you live in either of these counties and have an interest in weather consider making history and being the first observer by joining this program!

Are You Ready For Snow?

Winter typically presents the biggest challenges of the year for measuring and reporting precipitation. Frozen precipitation is difficult to measure and requires a greater time commitment. However, measurements of precipitation taken when frozen precipitation occurs are among the most valuable observations that you can take. Why? Despite the increase in weather stations, most are automated and many of their gauges freeze or clog when frozen precipitation occurs. In addition, even those that have a heater can under-measure just how much precipitation fell.

Some basic reminders about measuring frozen precipitation:

- The 4" diameter rain gauges used for CoCoRaHS can be used for measuring the water content of snow. However, you must remove the inner measuring cylinder and funnel for measurements of snow water content and other frozen precipitation. The inner tube can easily crack and break if moisture collects and then freezes. But keep the funnel and measurement tube handy indoors — you'll need it to measure the liquid amount.
- Snow should be measured on a snowboard which is a piece of plywood or flat plastic board painted white. One alternative that can be used as a snowboard is a white, plastic cutting board. If you don't have a snowboard, use a level surface of dirt or grass. However, air pockets lurking in the grass can cause an inaccurate measurement of snow. Do not measure snow on paved surfaces, sidewalks or gravel surfaces. These are sources of heat and will cause snow to be under measured.
- Snowboards should be cleaned off after each observation of snowfall is taken and set level on top of the existing snow surface. A small flag may be needed to locate the snow board if more than a foot of snow is expected.
- A metal ruler or yardstick is best since it can be pushed into the snow easier. If you live in an area that gets snowfall totals over a foot frequently, a yardstick is a better way to go.
- It is important to remember to measure only the amount of new snow that has fallen on the ground. This can be at a set time once a day or since the start time of the snow event. Snow does settle or compact and melt with time, so at best take a measurement once every six hours. Snow should be measured in an area as far away from obstructions such as buildings, trees and fences, at least 20 feet.
- New snow should be reported to the nearest tenth of an inch. Snow depth is reported in whole numbers only and can be rounded up or down.
- The liquid equivalent of frozen precipitation can be obtained in several ways. You will need to somehow melt the frozen precipitation you have down. Bring the gauge inside at your time of observation. If it has stopped snowing, you can bring it in earlier and just let the snow melt. In order to measure the water content of snow with this type of gauge, you will need to melt the contents and pour them back into the calibrated inner cylinder. Take your inner calibrated cylinder and pour warm water into it and jot down the amount. Then add that warm water to the outer cylinder so that all the snow melts. Then pour the water back into the inner tube and record the total amount. Other ways to melt snow include using a hair dryer (be safe!) or placing the snow in a microwave safe container, melting it and then pouring the liquid into the inner tube.
- In big snows, you may not capture all the snow that falls in your tube. For example if you get 12 inches of snow, only 4 inches of snow may be in your gauge. If you only melt what is in the gauge you will only measure the liquid equivalent for 4 inches of snow. For example, if you melt the 4 inches in your gauge and wind up with a liquid equivalent of 0.38 inch, you will need to multiply 0.38 inch by 3 to get a liquid equivalent for the entire 12 inches.

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Full in-depth guides on how to measure and report snow can be found on the CoCoRaHS website at <http://www.cocorahs.org/Content.aspx?page=Help>. You can also view slide shows that provide a more visual approach at http://www.cocorahs.org/Content.aspx?page=training_slideshows.



Normal Seasonal Snowfall In Nevada

How much snow falls in some communities in the Silver State from July 1st through June 30th? Below is a list of values computed by the National Climatic Data Center based on the period of 1981-2010.

Wild Horse Reservoir	122.6"	Minden	17.4"
Mt Charleston	103.6"	Tonopah	17.3"
Austin	68.1"	Pioche	16.0"
Virginia City	51.3"	Gerlach	13.3"
Ely	50.8"	Dyer	10.4"
Elko	41.3"	Carson City	10.3"
Eureka	28.6"	Lovelock	7.9"
Reno	21.8"	Fallon	7.4"
Winnemucca	20.9"	Las Vegas	0.3"

Keeping Your Account Up To Date

While we would love for all observers to stay with this program, we realize that things change. Many people move or have other changes in their lives that make commitment to being an observer difficult. If you find yourself in one of these positions, we ask that you update your account. If you move to a new address, you will have to obtain a new observer number. This is to keep all your records compatible with the location you took them at. If you no longer wish to observe, then please deactivate your account. Any accounts that do not take observations after a year will eventually be made inactive by the state or regional coordinators if you do not update them yourself. However, all of your information will always remain on file with us. This is to provide us with a record of observers. In addition, the CoCoRaHS database will always maintain all your records even if your station closes.

Weather Wonder: What Is Rime?



Rime on a bush in Elko. Photo credit: Ray Martin.

Rime is an opaque coating of tiny, white granular ice particles that forms when supercooled water droplets rapidly freeze on a cold exposed object. It typically forms on the windward sides of objects.

CoCoRaHS Nevada Resources

<http://www.cocorahs.org/state.aspx?state=nv>

State Coordinators and Southern Nevada Regional Coordinators

Chris Stachelski
Andy Gorelow

Contact them at: 702-263-9744 or e-mail christopher.stachelski@noaa.gov or
andy.gorelow@noaa.gov

Northwest Nevada Regional Coordinator

Kat Hohmann
Contact: katherine.hohmann@noaa.gov

Northeast Nevada Regional Coordinators

Pam Szatanek
Donny Dumont
Contact: pamela.szatanek@noaa.gov or donald.dumont@noaa.gov

