



Nevada CoCoRaHS Newsletter

Because every drop counts even in the driest state!

Winter 2013-2014

Highlights

Welcome to the latest winter edition of the Nevada CoCoRaHS Newsletter! We would like to thank all of our observers from across the Silver State that continue to participate in CoCoRaHS as well as our new observers. Your observations really do matter and provide us with valuable information on what the weather has been in your neighborhood. Winter in Nevada can bring a vast variety of precipitation to our state in terms of the type as well as the amount.



Ward Charcoal Kilns near Ely. Photo Credit: Pam Szataneck

How Valuable Are Your Observations?

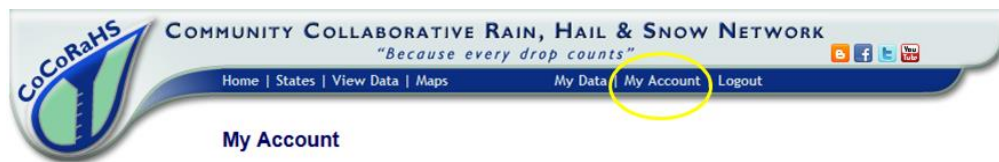
Frozen precipitation represents a challenge to measure no matter what form it falls in. However, this is where manual observations such as those that come from the CoCoRaHS network can make all the difference. Automated weather stations often have precipitation gauges that can freeze or perform poorly when frozen precipitation falls. In many instances, automated weather stations will under-measure the liquid water equivalent during events where frozen precipitation falls and in some cases may not measure anything at all! In addition, most automated weather stations cannot measure how much snow or sleet has fallen or how much ice has accumulated. Therefore, your observations through CoCoRaHS allow us to receive very valuable ground truth with respect to what went on with a storm. While submitting your observations through the CoCoRaHS website ensures that the information gets to the National Weather Service and climatologists who use your data, we also want to encourage you to contact your local National Weather Service during events if you have real-time information on how much precipitation has fallen as well as any impacts. Each National Weather Service office in Nevada has its own Facebook and Twitter pages where you can share this information.

Track CoCoRaHS Precipitation with PRISM

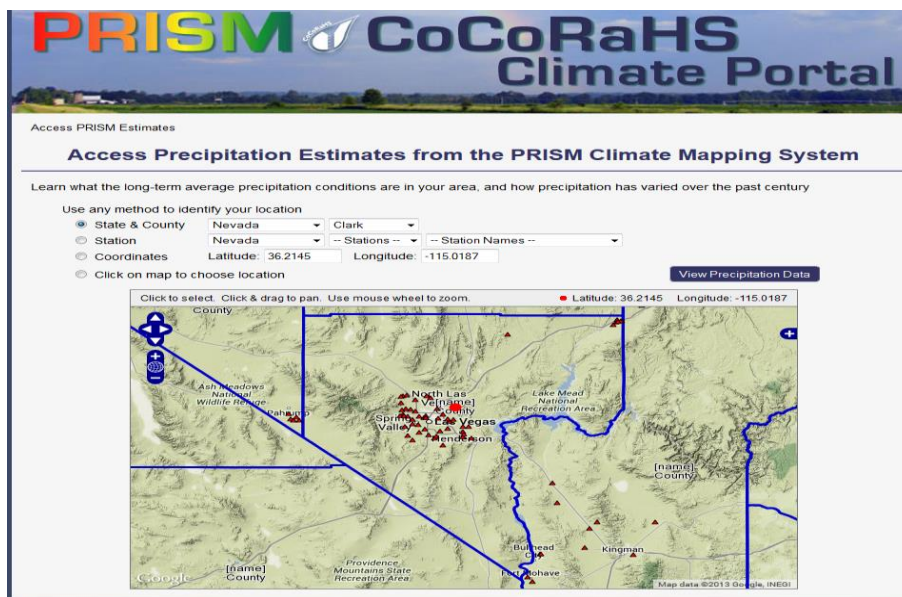
One new feature available in CoCoRaHS exclusively to observers is the PRISM feature. PRISM is a climate group established at Oregon State University to provide spatial climate research, education, analysis and mapping services for public, private, and educational institutions in the United States and abroad. The PRISM group has recently added a new feature for CoCoRaHS observers that lets you track in graphical form how much precipitation has fallen at your station (or any other CoCoRaHS station across the country) as well as how precipitation at a given station compares to normal.

How are the 'normal' precipitation values computed for a station? Officially the National Climatic Data Center computes 30 year normals every 10 years for long term climate stations in the United States such as McCarran International Airport in Las Vegas or the Elko Regional Airport in Elko. The most recent set of normal uses the period from 1981-2010. However, there are many locations in the United States for which no precipitation observations exist. To create a continuous map of precipitation across the country, available station observations are fed into a computer model called PRISM (Parameter-elevation Regressions on Independent Slopes Model). PRISM estimates precipitation for a grid of square cells, measuring 0.5 mile across, covering the entire country. For grid cells where no observations exist, PRISM mimics the process an expert climatologist would follow: the model simulates how precipitation varies with elevation, accounts for oceanic moisture sources, and factors in terrain barriers that can cause rain shadows.

In order, to access the PRISM feature in CoCoRaHS you'll need to log into your account, then on the top bar click on "My Account" (circled in yellow on the image below).

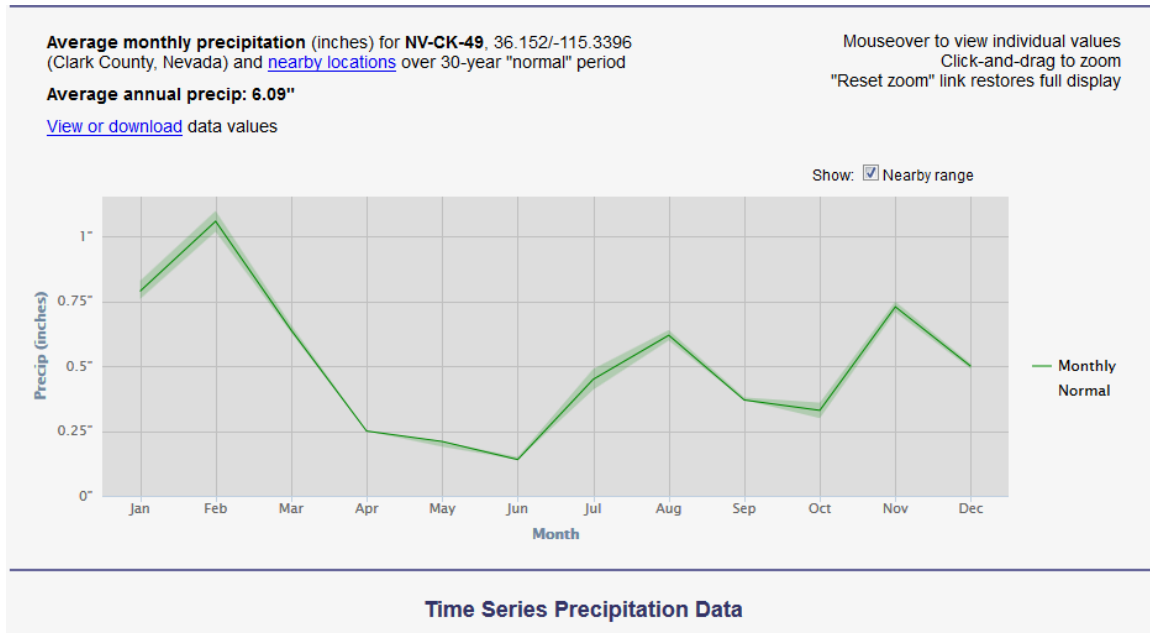


Once you are logged in, you will see a screen similar to the one shown. Often it will be defaulted to your station, but you can use the menu to find other stations.



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Once you decide on a station, click on the “view precipitation data” button just to the upper right of the map. You will then go to a new page that will show you a graph with the normal precipitation for the station you selected. Below this graph will be options to display data on a graph for your selected station by a selected time span, selected single month or by yearly values. An example of the normal precipitation graph is shown below.



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.

Some Simple Reminders About Measuring Snow

Here are a few quick reminders about measuring snow:

- If possible, use a snowboard to measure snow (a snowboard is a white plastic or board painted white). If not, find a level surface of dirt or grass (Do *not* measure snow on paved surfaces, sidewalks, rocks or gravel surfaces as these are sources of heat!)
- Any old snow already there only counts toward *snow depth*, not snow fall.
- Watch for snow melting or compacting.
- Measure away from obstructions such as buildings, trees and fences.
- Try to measure snow every 6 hours to avoid overmeasuring.

Weather Wonder: What Is Sleet?



Sleet pellets on an icy surface in Elko. Photo credit: Ray Martin

Sleet is defined as pellets of ice composed of frozen or mostly frozen raindrops or refrozen partially melted snowflakes. These pellets of ice usually bounce after hitting the ground or other hard surfaces. Sleet in Nevada is rare and usually falls in the colder months of the year – mainly from December through March. One reason sleet is rare in Nevada is that it needs a layer of warmer air aloft to occur. The vast majority of winter storms in Nevada lack this.

CoCoRaHS Nevada Resources

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

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