

# The Catch

## **COCORAHS—JANUARY THAW, MANY NEW FACES AND HELP WITH ICE**

FORT COLLINS, CO — Wednesday, January 24, 2007

Good Morning,

### **CoCoRaHS at the Colorado Farm Show today**

This is short notice, but if you are in northern Colorado and have a couple spare hours this afternoon (Weds. Jan 24) come over to Greeley and the Colorado Farm Show at Island Grove Park and Fairgrounds. We'll be giving a summary of current climate conditions in Colorado. We'll be in one of the new conference rooms speaking from 2 - 4 PM. Then we will end by making another pitch for CoCoRaHS participation and doing a quick refresher training session. If you can make it, we'd love to see you.

### **Icy Weather**

Many of you from Colorado and Wyoming all the way east to Pennsylvania got a bit of snow this past week. Even folks in Texas and southern New Mexico got to try their hand at measuring snow. I see some "unusual" looking reports here and there—such as entries of the depth of new snow in the "precipitation" column and reports of the Snow Water Equivalent days after the snow has ended showing up in your "Daily Precipitation" entry (that's a good way to get our attention :-)). But overall we did a nice job of measuring and reporting the white stuff. Thanks!

Some of you faced yet another major ice storm. We've had so many inquiries about how to measure and report freezing rain. Our online instructions just don't give enough information (we hardly ever have freezing rain here in Colorado).

Perhaps the worst is over now, but here are a few tips for measuring sleet and freezing rain.

- 1) Sleet is precipitation that leaves the cloud as rain, but freezes into little balls of ice before reaching the ground. Sleet is measured and reported in the same manner as snow. You melt the contents of your gauge to get the water content, and you measure the accumulation of sleet on the ground or on your snow

board, and report that as "New Snow" and as "Total Depth" Note "sleet" in your comments so we know what you got.

2) Freezing rain is rain that falls in liquid form but freezes on contact with the ground and objects above the ground. Do NOT report freezing rain as "Snow". If you have an inch of freezing rain accumulate, you melt and measure the moisture that has accumulated inside your gauge and you report that as your daily precipitation amount. You report ZERO for your new snow amount (assuming it all fell as rain, and no sleet or snow accumulated). You DO report the total depth of freezing rain that has accumulated on the ground and enter that in the "Total Snow on Ground" column. Again, make a note in your comments section of your report so that we know its freezing rain.

A very useful measure of freezing rain is the "radial thickness" of ice on wires, branches, etc. If you can, measure the ice thickness on a wire or branch and report in your "Comments" the average radius of the ice (not diameter). We also encourage photos, and will eventually have a place on our data entry form to actually submit photos directly. Some of the ice photos we received last week were truly amazing.

3) Mixed precipitation—rain, freezing rain, sleet and snow in combination: Well, lucky you. When you get a mess like this, you just do the best you can. Your precipitation measurement is, of course, just the water content of whatever the stuff was that ended up in your gauge. The "New Snow" is the maximum depth of the frozen precipitation (snow/sleet) that accumulates on the ground and/or on your snowboard within the past 24 hours. The "Total Snow" is the total thickness of all snow and ice that remains on the ground as measured at your 7 AM observation time.

4) Snow: We won't go into that now. We have lots of instructions and a video on our website to provide help in measuring and reporting new snow and total depth of snow (old snow) on the ground.

5) Comments: We always encourage you to type in a few notes about your observation in the data form. Your descriptions of weather conditions and observational procedures are incredibly useful. This is your chance to explain yourself, and to contribute to weather history.

More Questions??

And if you have more questions, let us know. We want you all to become confident wintertime observers. As we see time and time again, there is a great need and demand for accurate measurements of winter precipitation, so give it your best! Your efforts will be appreciated!

## **Some Icy Tips**

Many of you discovered the difficult if not impossible challenge of measuring precipitation in a gauge that is firmly frozen to its mount. Here are some tips to deal with that situation.

-- Don't fall down on the way to your gauge. (we had a few of you send funny stories about your adventures just getting out to your gauge -- and we also had some sincere apologies from some who thought it best not to risk their bodies for science -- we understand and agree with you).

-- if freezing rain is anticipated, it may be a good idea to remove your gauge from it's mounting bracket and set it on the ground (making sure it cannot easily blow or be knocked over). That makes it easier when everything is coated with ice.

-- bring a pitcher of warm water with you when you go out and pour it slowly over the mounting bracket to melt the ice and free the gauge.

-- Several of you have written to say you've had good success spraying your mounting bracket with a light-weight lubricant that repels water.

-- It is so much easier to take winter measurements if you have an extra rain gauge, or at least an extra outer cylinder. You can bring one in to melt, while you set the other out to collect. This saves time and an extra trip. If you can afford this luxury it makes everything easier.

"WeatherYourWay.com" -- our CoCoRaHS rain gauge supplier (although you can get the CoCoRaHS gauges from other places -- will ship you an extra gauge or outer cylinder within just a few days.

## **A January Thaw —the Mud Season Begins**

After 5 consecutive weeks of deep snow (I know, you mountain folks accustomed to 5 MONTHS of deep snow are chuckling at what sissies we are down here), we are beginning to see the muddy light at the end of the winter tunnel. It warmed into the 40s yesterday here in Fort Collins, and snow began to melt. The forecast calls for temperatures of 50 degrees later this week. But with the soil already moist and unfrozen beneath the deep snow, the +3" of water remaining in this snow will be giving us fits of mud and ice for weeks to come. I sloshed through slimy mud and thawing fragrant manure to feed the chickens, geese and horses last night. I can't wait until my wife is back on her feet again to help with chores. But this way I get to experience first hand the impacts from deep, water-laden melting snow :-)

## **Welcome New Volunteers**

Something amazing happened last week. Henry, our national coordinator, attended the annual meeting of the American Meteorological Society that was in supposedly sunny, warm San Antonio, TX this year. The normally mild January weather turned into days of ice, closed highways, cancelled flights, and general chaos. But in the meantime, thousands of local residents got to see our CoCoRaHS display at their public event -- WeatherFest. A news reporter interviewed Henry about the CoCoRaHS project, and before we knew it CoCoRaHS was in the news -- at least via on-line news services. MSNBC, Yahoo News, Reuters, Associated Press, Scientific American news, Weather.com -- you name it and CoCoRaHS was on display. CoCoRaHS also showed up on some talk radio shows, and may still appear in some major newspapers.

The result was an onslaught of new applications. Nearly 300 new volunteers signed up in just one week. In addition, we had inquiries from almost every other state (not sure if anyone from North Dakota called, but I think every other state plus the Virgin Islands and Puerto Rico sent messages, "When can we join")

It will take us awhile to get everyone signed up and underway, but this was a very exciting week for CoCoRaHS.

## **Help Offered, help appreciated**

Many of you have offered to help CoCoRaHS in your spare time. If you are interested in helping us expand the project, here are some suggestions.

-- Take accurate measurements, report promptly, and check your data -- we do great, but the few errors that we do make always catch the attention (negatively) of the many scientists who look at CoCoRaHS data. The credibility of our data is what wins respect in the scientific community.

-- Tell others about CoCoRaHS and recruit a few new volunteers from your area.

-- Identify possible sponsors who might be willing to contribute to the project. Eventually we will be on our own for funding CoCoRaHS, and local sponsors may really help.

-- Contact your state or local coordinator and let them know that you would like to help.

Keep in mind that an ideal network will consist of at least one reporting volunteer per square mile over populated areas, and about one volunteer per township (36

square miles) over rural areas. This is an ambitious goal, but we are approaching this density in parts of Colorado and the results are fascinating. It is possible!

Have a great day, and thanks for sharing your interest in weather.

*Nolan Doesken*

CoCoRaHS

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