

The Catch

COCORAHS – CELEBRATE

FORT COLLINS, CO — Tuesday, February 2, 2010

Dear CoCoRaHS volunteers, family and friends:

Good morning and happy Groundhog Day!

Southern Snow

From West Texas to Georgia, South Carolina and up to Delaware, many of you got a chance to measure and report snow sleet and freezing rain these past few days. Good job. We received a few "interesting" reports as folks not accustomed to snow tried to figure out what to do. There were some 5.00" and 6.00" reports of "rain and melted snow" where well meaning enthusiastic weather observers measured the accumulation of new snow and then reported that as the precipitation amount. Alas you need to melt it first to get the water content. Others tried to report 0.00" for the precipitation amount, thinking that if it snowed that you shouldn't report a value for "rain and melted snow". Oh well. With practice, we get better.

Celebration

1) It's groundhog day -- a traditional day for meteorological musings, fun and frolic. It's not because we believe a shadow from a ground hog means anything and not because winter is ever over so soon. But when we've made it to February 2, the coldest and darkest part of winter is almost always behind us. Farm, garden and yard work will be coming soon.

From the time I was a small child of 4 or 5 back in central Illinois, groundhog day was special. My father somehow sensed my early meteorological curiosity and often had a story to share. He kept a daily

journal of weather conditions and he would sometimes pull out the journal and show me what February and March weather conditions had been in previous years. There was usually an article in the local newspaper, too. I recall stories about 1899 when on Feb 2 the winter was just getting started. In the following days, temperatures dropped below zero Fahrenheit all the way down to northern Florida. Here in northern Colorado we had many days below -30F in February 1899 and more than 200 inches of snow fell in the mountains cutting off access to the old mining towns like Aspen and Crested Butte. By comparison, this year looks pretty bland.

2) I am very pleased to announce the results of our "Five for CoCoRaHS" fund raising campaign. Thanks to nearly 400 donations the last week of January, a total of \$35,000 was received since mid December to help keep CoCoRaHS going this year. More than 1,700 individual donations were received. Some are still trickling in. Most came in the form of \$5 donations, but quite a few chose to give more. The CoCoRaHS staff and I are most grateful and appreciative. We will do our best to put these funds to good use for the project. We still have our work cut out for us, but now we can go to the organizations that use our data and show them just how involved and committed the CoCoRaHS team really is.

While the official campaign is over, we'll still be able to receive contributions through the year. If you know of individuals or organizations who are benefiting from CoCoRaHS, encourage them to help. There is a "Donate" button on the CoCoRaHS homepage at <http://www.cocorahs.org>

Flooding ahead? Please measure the SWE

I received a call yesterday from the National Operational Hydrologic Remote Sensing Center up in Minnesota. They along with the National Weather Service River Forecast Center are carefully watching the deep snow over the northern plains and are concerned about another spring of possible flooding. A lot can happen, of course between now and early April, but there is enough water in the existing snow that has been sitting on the ground now for many weeks to cause immediate concern.

Why did they call me? Because they utilize CoCoRaHS data. They specifically asked me to encourage our volunteers to try to measure and report SWE. SWE stands for "Snow Water Equivalent" and it refers to the amount of water in the snow that remains on the ground. I realize it's not all that easy to go out in the morning and take a core sample of that deep snow and then melt and measure it. But if you can -- even if it's just a

few times a week -- please do. Remember, you may need a spatula to help keep the granular snow from falling out when you pull the cylinder back up out of the snow. And if the snow is deeper than about 12-15" you may need to take more than one core to get all the snow down to ground level. Our plastic gauges aren't strong enough to penetrate through layers of ice in the old snow, but do your best. Our data could help improve the accuracy of flood forecasts in the weeks ahead.

I've been amazed watching our SWE here in Fort Collins. The snow that was 9-10" deep a month ago and held nearly 1" of water is now down to just 1-2" in depth. But guess what? The water content of that remaining snow is now over 1"! The structure of the snow has changed completely. I nearly cut myself on the icy crystals the other morning. While the snow seems to be disappearing, most of the water is still there and has not evaporated or soaked into the frozen ground.

We have instructions on how to measure SWE in our training materials, but they don't cover all the difficult situations you might encounter. Having a scale to measure the weight of the snow makes the measurement much quicker and easier. I wish we had a source of funds to buy better equipment for everyone who lives in deep snow country, but make the best of it and help if you can. If you have more questions, please contact your local CoCoRaHS coordinator.

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Colorado Climate Center