

The Catch

COCORAHS—SOME WAYS TO HELP DURING SEVERE WEATHER

FORT COLLINS, CO — Monday, April 3, 2006

For all you low-landers, winter weather prevails in the Colorado Rockies (several inches of new snow this weekend), and the ski areas are still open for a few more days. CoCoRaHS has few observers high up on mountain peaks, but our observer 6 miles north of Crested Butte, CO still has over 60 inches of snow on the ground this morning. But for most of us east of the Rockies, our attention now turns to severe weather. CoCoRaHS volunteers in Kansas, Missouri and Indiana have been hit hard over the past several days. Our volunteer in Mound City, Kansas was pounded by 2" diameter hail on Thursday—damaging buildings and vehicles. We are sorry for the damage, but pleased with getting thorough observations of the storm.

Henry and I participated in the "Central Plains Severe Weather Symposium" in Lincoln, NE on Saturday. What a day!! There must have been at least 2000 people there almost all fascinated with the weather. I talked to a few kids and adults who were bored silly but were humoring their weather-crazed parent or spouse. Two CoCoRaHS volunteers from Kansas drove up to take in the activities. We helped recruit dozens of new volunteers for NeRAIN (CoCoRaHS sister project in Nebraska). The featured topic of the Symposium this year was lightning, but excellent training sessions on "spotting" severe weather were given by National Weather Service experts. The Weather Channel and many local TV stations were there. It was amazing to see over 400 people at a time packed into a high school auditorium to learn more about storms. I thought folks here in Colorado got excited about the weather, but that interest pales in comparison to what we saw in the Nebraska. On our way home Saturday night, we watched nature go wild as thunderstorms erupted seemingly out of nowhere over central Nebraska with incredible displays of lightning.

Today, severe thunderstorms are possible in PA, VA and MD. You may not be accustomed to hail in those states, but please be ready to measure and report it should it happen.

Hail Matters

When it comes to hail, there are very few weather stations anywhere in the country that measure it. CoCoRaHS has a very special niche because of our emphasis on hail. I know that not all states are equipped with hail pads, but even if you don't have a supply of hail pads, you can still report hail. If you are home when it hails, please note the time when hail begins and ends. Also, take note of the color and hardness of the stones. This tells us quite a bit about the nature of the storm. Also measure the diameter of the stones. Then, as soon as it is safe to get onto your computer, please fill out a "Hail Report" and send in your "Hail Report". CoCoRaHS creates hail maps and reports, and every CoCoRaHS hail report is immediately forwarded on to the nearest National Weather Service office. So far, we've had 73 hail reports submitted this year. Four of those reports described stones that were 2" in diameter or greater. At this time last year we had only received 26 reports.

If you have any questions about how to measure and report hail, please click on <http://www.cocorahs.org/Content.aspx?page=hail>

Keep in mind that our rain gauges are not ideal for collecting hail. Some storms, however, produce copious amounts of hail and could totally fill and bounce out of the funnel of our gauges. If you believe hail is imminent, consider going outside to remove the funnel and inner tube from your gauge. You will then have a better chance of capturing the hail that falls and getting a more accurate measurement of total precipitation.

Floods are a big deal—and CoCoRaHS rainfall reports are very valuable

The season of intense rainfall is also soon upon us. We tend to get all worked up about tornadoes, but year in and year out flooding does much more damage and claims many lives. Remember, if you experience heavy rain (anything 0.30" or more in one hour qualifies) we encourage you to watch your rain gauge and submit "Intense Rain Reports" when you experience significant high-intensity rainfall. And if you've gotten 2" or more of rain and it's still pouring, then PLEASE report it. These are the type of storms that can do a lot of damage. CoCoRaHS "Intense Precipitation Reports" go instantly to the appropriate National Weather Service office and could help weather forecasters issue timely flood warnings. Your report could help save lives!

Bucket Survey

What is a "Bucket Survey"? A bucket survey is a special analysis of a local or regional rain storm where rainfall measurements from any and all sources available are used to help map rainfall patterns from intense storms. In the past, there were very few weather stations with accurate rainfall measurements, so scientists would go out looking for buckets or any similar receptacle that had

been empty prior to a storm. They then measure the water in the bucket and estimate the amount of rain that likely fell. It was curious work, and the results have sometimes been questioned. Nevertheless, this type of data is very important. The area of a storm, the patterns of rainfall and the intensity of the rain all factor into how much water runs into rivers, streams and impoundments. One of the main reasons for this type of study has been to design, build and maintain dams, spillways, culverts, and storm water collections systems all across the country. The size and engineering of dams and spillways ties directly to how much rain could fall over how big of an area. CoCoRaHS is perfect for this type of research.

Now that we have several thousand trained CoCoRaHS volunteers in several states, the chances are very good that a flash flood will occur near some of us. Last year Central Nebraska got over 10" of rain one night. This year, other areas may experience similar extremes. If a flash flood occurs near you this year, please make sure you get an accurate measurement of the storm rainfall and report it. Then, contact us or your state coordinate to see if additional data may be needed. Any of you could help with a "Bucket Survey" by contacting friends and neighbors to see what other data can be found. In the past it may have taken weeks or even months to complete a storm analysis. Now, with the combination of large numbers of volunteers equipped with high capacity rain gauges, along with cell phones and the Internet, we could complete "Bucket Surveys" within just a day or two following a storm.

Please keep in mind, that even though CoCoRaHS rain gauges can hold up to 11 inches of rain, some of the super storms that occur each year can produce more rain than that. If you are having a huge storm, it may be wise during a lull in the storm to go out and measure and empty the gauge so there is room for more. This will be a particular issue if CoCoRaHS spreads to hurricane-prone regions of the country.

Become an NWS trained severe storm spotter

As I have said many times before, CoCoRaHS is good, but if you can help with CoCoRaHS and also become a trained severe storm spotter for the NWS that is even better. If you can plan on attending spotter training sessions this spring.

Climate Change Seminar in Colorado

This is a bit of a different topic, but from some of the questions we've been getting, my guess is many of you are interested in the subject of climate change. KMGH TV, Ch 7, in Denver, CO has organized a public seminar on Climate Change that will be held at the Omni Hotel in Broomfield, Colorado next week (Wednesday, April 12). Top scientists from NOAA and the National Center for Atmospheric Research will be speaking. CoCoRaHS will be there and I will be

giving a presentation on recent (last 130 years) climate trends in Colorado. This seminar is open to the public but Channel 7 requires an RSVP if you plan to attend. More than 200 people have already registered. Go to the KMGH Channel 7 website to learn more about the program.

What next?

The fun part of weather and climate is that we never know for sure. Spring can be soft, fragrant and full of life but it can also be stormy and traumatic. If it rains just right, our crops will be off to a good start, but if it rains too much or too little, then problems erupt quickly. Farmers are getting ready to plant soon, and all eyes are on the skies and the long-range weather charts. I cannot tell you what will come next, but whatever it is we will measure it, document it and try to learn from it. Thanks for being a part of this exploration.

Nolan Doesken