

# The Dakota Thunder



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## Welcome Message

By: Tony Merriman

It is with great excitement that we introduce the Summer 2013 edition of the CoCoRaHS newsletter! The purpose of this publication is to keep North Dakota residents informed about the latest weather events in the state and how observers like you assist the National Weather Service (NWS) create better river and weather forecasts.

This newsletter is issued twice a year, one in the summer and one in the winter. The content is truly a team effort as it is produced by a team of North Dakota CoCoRaHS coordinators.

If you have any requests for information you would like to see in the winter edition of this newsletter, please email me at

Tony.Merriman@noaa.gov.

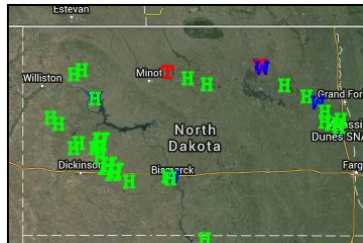
Thanks again for being great weather observers!



The 4-inch rain gauge required to participate in the program

## Reporting Hail in CoCoRaHS

By: Tony Merriman



(Source: NOAA)

Storm reports from July 21, 2013. The green H's indicate severe hail reports

Many areas of western North Dakota experienced hail on July 21, 2013. It was real-time reports from observers like you that provided National Weather Service (NWS) warning forecasters with accurate and timely information. This extremely valuable information was incorporated into subsequent severe thunderstorm warnings and statements, which alerted the affected residents of the size of hail they could expect.

How is hail reported in CoCoRaHS? After you log in, click on the "Hail" link under the "Enter My New Reports" header (see image to the right). Then fill out the information on the hail report form, click "Submit Data", and that's it! Your report is off to the NWS warning forecaster who will receive it immediately after you submit it. A simple one-page instruction sheet with a little more detail is at the following web address:

<http://www.crh.noaa.gov/images/bis/Hail2.pdf>

We really appreciate your daily reports. Your timely severe weather reports help us at the National Weather Service better accomplish our mission of protecting life and property.



After you log in, click on the "hail" link on the left of the page. Your report goes directly to meteorologists at the National Weather Service



# CoCoRaHS using Social Media to expand onto the Standing Rock Reservation

By: Frank Martin

**“The goal of this Facebook page is to provide timely weather information TO the public as well as collect weather data FROM the public.”**



CoCoRaHS is always looking to expand observer coverage and participation. The early summer saw significant damaging rain events on the Standing Rock Reservation that resulted in multiple culvert collapses. Subsequently, a “Standing Rock Sioux Tribe Weather information” Facebook page was launched and is linked here:

<https://www.facebook.com/pages/Standing-Rock-Sioux-Tribe-Weather-information/165975050212934>

The goal of this Facebook page is to provide timely weather information TO the public as well as collect weather data FROM the public.

Expanding CoCoRaHS on the reservation was a natural fit. It is expected that there will be

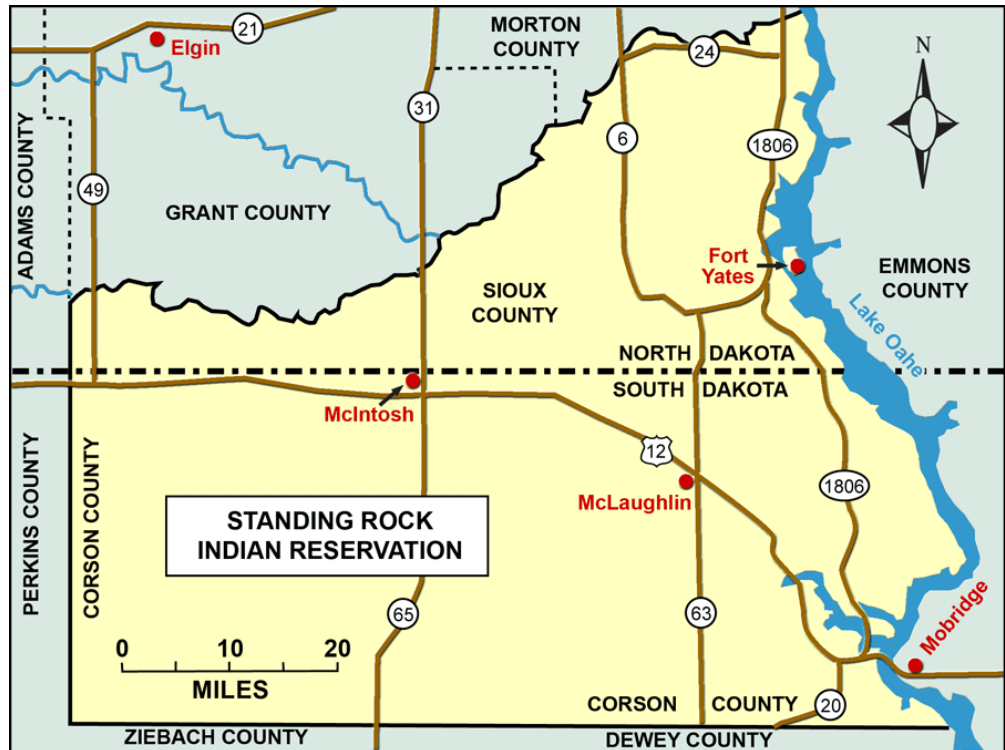
CoCoRaHS observers in all cities on the reservation as well as strategic rural observers. In Sioux County alone CoCoRaHS participation is expected to rise from zero earlier this year to six by the end of July.

Observation and reporting is being handled in a unique way. Observers report their data, via the Facebook weather page, to a reservation coordinator who then inputs the data to the system. The effort is a collaborative effort between the Standing Rock Sioux Tribe, volunteer observers, and the Sioux County coordinator as well as both the North Dakota and South Dakota CoCoRaHS programs.

The reservation coordinator is Frank Martin, a former graduate student and meteorology lab coordinator in the Atmospheric Sciences program at the University of North Dakota.



(Source: Frank Martin)  
New CoCoRaHS rain gauge set up in Sioux County



(Map Source: [www.ndstudies.org](http://www.ndstudies.org))

The Standing Rock Sioux Reservation is situated in North and South Dakota. The people of Standing Rock, often called Sioux, are members of the Dakota and Lakota nations. "Dakota" and "Lakota" mean "friends" or "allies." (Source: <http://www.standingrock.org/history/>)



# Seasonal Climate Outlook for December - February

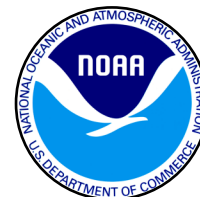
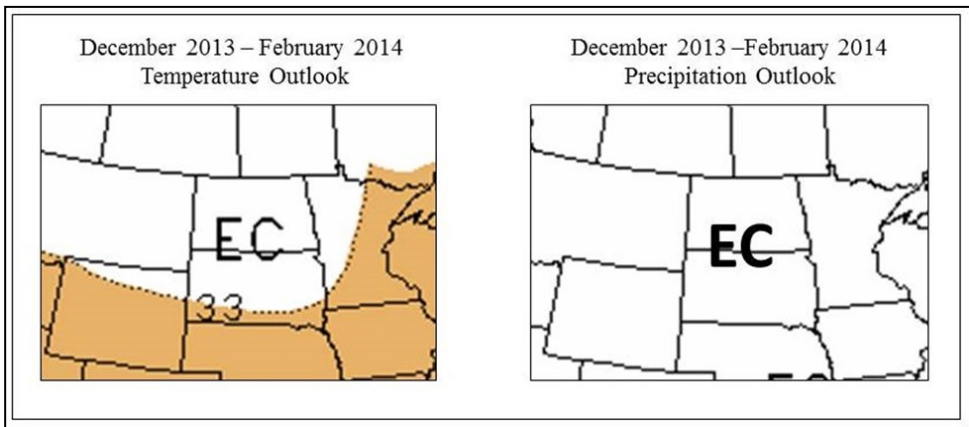
By: Lindsay Tardif-Huber

The 2012-13 winter season was one to remember! Record breaking snow and cold was seen throughout the season, especially during April 2013. Old man winter kept his clutches on the Northern Plains, only to let go in early May. It's hard to believe that another winter is around the corner even as July is nearing its end. So, what can be expected for the upcoming winter?

tionally dry or wet. For now, the seasonal outlook for December 2013 through February 2014 issued on July 18 by the Climate Prediction Center has North Dakota favored for near normal temperatures and precipitation. So, stay tuned for further updates to the 2013-2014 winter seasonal outlook as it may change in the coming months! To view the latest or additional seasonal outlooks, go to the Climate Prediction Center website at:

Looking ahead there are no clear climate patterns or drivers that would allow us to determine if the winter will be excep-

[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)



## Meet a Bowman County Observer

By: Rick Krolak



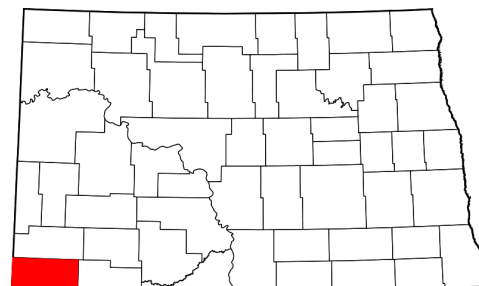
to CoCoRaHS as well.” Karen’s second grade teacher got her hooked on weather, and with being a rancher, keeping an eye on the sky is a daily way of life. Karen has also been a storm spotter for about eight years.

Karen works her ranch full time while her husband Eddy works in the oil field. Eddy helps farm the ranch in his spare time. They raise commercial angus cattle and also help a local custom meat processor part time. Karen also logs an additional 400 hours a year in a combine for another local farmer. Karen and Eddy have four children and two grandchildren.



**Bowman County was created by the 1883 territorial legislature, but eliminated by the 1903 session due to a lack of settlement. It was reestablished on June 10, 1907 by proclamation of Gov. John Burke. The government was organized on July 5, 1907. Its County Seat has been Bowman since 1907. (Source: [www.nd.gov](http://www.nd.gov))**

Meet Karen Heck. Karen is one of our CoCoRaHS observers in Rhame, located in Bowman County. Karen joined CoCoRaHS in May 2012. It was at an annual SKYWARN training session with the National Weather Service where she learned about the CoCoRaHS program. Karen stated, “Since I have always kept track of precipitation for our ranch records, it would be easy enough to report that daily observation



(Map Source: Wikipedia)

## NATIONAL WEATHER SERVICE - BISMARCK, ND

2301 University Drive  
Building 27  
Bismarck, ND 58504  
(701) 223-4582  
<http://www.weather.gov/bis>

## COCORAHS NATIONAL HEADQUARTERS

1371 Campus Delivery  
Fort Collins, CO 80523-1371  
(970) 491-1196  
<http://www.cocorahs.org>

### National Weather Service Mission Statement:

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.



### CoCoRaHS Mission Statement:

CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow). By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education and research applications.



### Summer 2013 Dakota Thunder Team:

**Tony Merriman (editor)** - Western & Central North Dakota Regional CoCoRaHS Coordinator / Lead Forecaster (NWS Bismarck)  
**Frank Martin** - Standing Rock Reservation CoCoRaHS Coordinator / Sioux County Extension Assistant, FNP (NDSU)  
**Rick Krolak** - Northwestern North Dakota Regional CoCoRaHS Coordinator / Observation Program Leader (NWS Bismarck)  
**Lindsay Tardif-Huber** - Meteorologist Intern (NWS Bismarck)



## Meet a Sioux County Observer

By: Frank Martin



Frank Martin is a CoCoRaHS volunteer in Sioux County. Frank grew up in Columbus, Ohio and graduated with degrees in History, Field Biology, and a Certification to teach Junior and High school. Frank went on to take classes in atmospheric sciences from 1998-2002 in graduate school at the University of North Dakota.

Subsequently, Frank started teaching science classes at Standing Rock community school, including meteorology. He would arrange field trips to the NWS office in Bismarck and a television station. On one of those trips, a fellow UND alum mentioned that Fort Yates

needed a Cooperative weather observer. Frank's students volunteered their teacher. After four years, Frank moved to the nearby town of Selfridge and gave up the COOP position. His most memorable COOP moment was when, while playing poker in his basement with a thunderstorm outside, the phone rang right after his fellow players had chided him about "doing the weather". Of course it was NWS Bismarck calling for an update. Seconds later his poker guests were all headed to their nearby houses. The most impressive number from his time as the Fort Yates COOP was the dreadfully hot average high temperature of 98 degrees in July 2007.

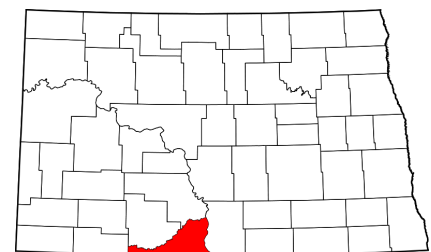
This summer, after several years of posting pertinent weather information on his Facebook page, he was asked to provide even more updates. As part of his Facebook expansion of providing weather to the public, he joined CoCoRaHS as a way to gather information. Frank is optimistic about gaining volunteers on the reservation.

Frank's hobbies include gardening, fixing up his house in Selfridge, playing poker, and of course, the weather. Growing up in Ohio, the weather had always interested him. Frank's dad, a doctor, helped with recovery in Xenia following the dreadful 1974 Tornado Super Outbreak. When Frank was ten, Ohio experienced its worst blizzard ever, the Great Blizzard of 1978. This extreme weather event cemented his interest in weather.



**Sioux County was created by proclamation of Gov. Louis B. Hanna on September 3, 1914, from the area encompassed by the Standing Rock Indian Reservation in North Dakota. It was named for Dakota or Sioux Indians who inhabited the reservation. Its government was organized on September 12, 1914. Its County Seat has been Ft. Yates since 1914.**

(Source: [www.nd.gov](http://www.nd.gov))



(Map Source: Wikipedia)