Messages of the Day
December 2014

Tuesday, December 2, 2014

THIS THURSDAY — CoCoRaHS WxTalk Webinar for December 2014: "Tsunami Science and Tsunami Warning Systems"

Tsunamis will be the focus of our next "WxTalk Webinar" on Thursday, December 4th. ***"Tsunami Science and Tsunami Warning Systems"*** will be presented by Stuart Weinstein, the Deputy Director of NOAA's Pacific Tsunami Warning Center located in Ewa Beach, HI.

Space is limited to the first 500 registrants, so register today! We will notify the first 500 who register of their acceptance to the Webinar. Those who aren't able to attend will be able to watch this episode on-line the following day.

REGISTRATION INFO

Title: Webinar #37 - CoCoRaHS WxTalk: Tsunami Science and Tsunami Warning Systems
Date: Thursday, December 4, 2014
Time: 1:00 PM Eastern, Noon Central, 11:00 AM Mountain, 10:00 AM Pacific

"This talk will cover the nuts and bolts of tsunami science and how tsunami warning systems work. This includes how tsunamis are generated, how they propagate across ocean basins and why they are destructive. Most destructive tsunamis are generated by great earthquakes. Therefore tsunami warning centers have developed methods to rapidly analyze earthquakes and assess their potential to generate destructive tsunamis. Tsunami warning centers act as the trip wire i.e., they rapidly pass on the results of their analysis to National or State Disaster Organizations (like FEMA or State Civil Defense agencies) whose task it is to make sure the public at risk receives the warnings (sound sirens for example) and facilitate evacuations."

Reserve your seat now by registering here: ***TSUNAMI***

Our January CoCoRaHS WxTalk Webinar: "Avalanches in the US … In a Nutshell", will feature Simon Trautman, a National Avalanche Specialist with the US Forest Service's National Avalanche Center located in Bozeman, MT. It will take place on Thursday, January 22nd. Stay tuned for an upcoming announcement on how to register.

Friday, December 5, 2014

Who Uses CoCoRaHS Observations? Recreation

9. Recreation

There are many ways that precipitation data are used for recreation applications. Fisherman may check recent rainfall amounts since rain can affect water levels, water clarity and water temperature. Rafters, canoers and kayakers watch for precipitation amounts and for melting snow that will affect water levels. Winter recreation pays close attention to snowfall, snow depth and water content for obvious reasons. Golf course managers rely on precipitation measurements when determining how much to water their greens. Some major league ballparks (such as **Target Field**, home of the Minnesota Twins) have CoCoRaHS gauges to help them know how much rain has fallen on the field. Precipitation measurements are valuable to both work and play.

Stay tuned as we finish highlighting our ten most obvious (or perhaps not so obvious) categories. Please visit our **WHO USES COCORAHS OBSERVATIONS?** page where we will continue to update the summary of this series. Thanks for your very, very useful observations!

Tuesday, December 9, 2014

SPECIAL WEBINAR THIS THURSDAY! — "A Review of Significant Weather Events Occurring in 2014"

This Thursday, Greg Carbin from NOAA's Storm Prediction Center will be presenting a special Webinar entitled "A Review of Significant Weather Events Occurring in 2014". You won't want to miss this one!

Space is limited to the first 500 registrants , so register today! We will notify the first 500 who register of their acceptance to the Webinar. Those who aren't able to attend will be able to watch this episode on-line the following day.

Title: SPECIAL WEBINAR - CoCoRaHS WxTalk: "A Review of Significant Weather Events Occurring in 2014"
Date: Thursday, December 11, 2014
Time: 1:00 PM Eastern, Noon Central, 11:00 AM Mountain, 10:00 AM Pacific

"Greg will present an overview of hazardous weather episodes impacting life and property within the United States during 2014. Selected events will be presented in quasi-chronological order and described with photos, maps, and loops of satellite and radar data. While many of the events selected for this talk captured the attention of the media and public, some of these "meteorological memories" may have been forgotten as more substantial weather events occurred throughout the year. This review will highlight some of the "big stories", as well as smaller short-term events. The presentation will include descriptions of significant and deadly weather events of the past year including winter storms, tornadoes and floods. Along with the meteorological set-up for each event, an impact summary will also be provided.

Given the national scope and varied responsibilities of the Storm Prediction Center, high impact weather events, ranging from severe thunderstorm and tornado outbreaks to wildfires and winter storms, are analyzed and forecast regularly. These responsibilities provide the SPC forecaster with a unique

opportunity to interpret data related to extreme weather across the nation. This diversified experience, and the availability of large, high-resolution, archived datasets, provide for this type of informative presentation."

Reserve your seat now for the **Special Webinar** by registering here: **2014 REVIEW**

Our January CoCoRaHS WxTalk Webinar: "Avalanches in the US … In a Nutshell", will feature Simon Trautman, a National Avalanche Specialist with the US Forest Service's National Avalanche Center located in Bozeman, MT. It will take place on Thursday, January 22nd. Stay tuned for an upcoming announcement on how to register.

Friday, December 12, 2014

Who Uses CoCoRaHS Observations? Many others

10. Many others

As we finish up our "Who Uses CoCoRaHS Observations" series, there are many others who use CoCoRaHS data on a daily basis. Below we have listed a few. Perhaps you can think of more. With each passing year, more organizations are learning about CoCoRaHS data. This list will keep growing.

Here are some specific examples:

-- **Weather radar correction and calibration:** Radar has been used since World War II to track storms. It is a very valuable tool for tracking storm location, movement and intensity. More recently it has been used to quantitatively estimate the rainfall reaching the ground. It is possible to estimate precipitation amounts from radar, but actual rain gauge observations are critical to this process. CoCoRaHS reports that arrive promptly each morning and our "Intense Precipitation Reports" are used routinely to help correct and adjust radar precipitation estimates by research scientists, National Weather Service forecasters and private meteorological businesses.

-- The **National Drought Mitigation Center (NDMC)** looks at CoCoRaHS data each week in the assessment of local and regional drought – and in anticipating areas that may be on the verge of drought.

-- **NASA** has used our hail data in assessing the risk of hail at Kennedy Space Center. NASA and NOAA scientists and educators have been using CoCoRaHS data to help validate satellite estimates of rainfall, soil moisture and evapotranspiration.

-- **NOAA's National Climatic Data Center (NCDC)**. CoCoRaHS data have proven to be reliable and of comparable quality to the National Weather Service precipitation data sources. Therefore, NCDC began including CoCoRaHS daily precipitation data in the Global Historical Climate Network archived data set and can now be accessed through this federal repository for global climate data.

-- The **Federal Emergency Management Agency (FEMA)** has recently begun to accept CoCoRaHS reports to identify and confirm snowstorms worthy of federal disaster declarations.

-- **Fisheries** use CoCoRHS observations (Maine Coastal Waters for example) to determine when there has been large amounts of runoff draining into bays, etc. This helps them to decide when to close the waters to shellfish harvesting.

-- **The media** (newspapers, TV stations, internet news services) in many parts of the country use CoCoRaHS data to provide more detail on local storm patterns.

-- **Many local utilities** look at CoCoRaHS data to help gauge inputs to their water supply and also project water demand. Snow reports from CoCoRaHS volunteers are of great value since there are very few sources for high quality snowfall, depth and water content measurements from trained observers.

-- **Legal applications.** Weather is often a contributing factor to accidents and a variable that may provide useful crime scene evidence. Increasingly attorneys and law practices are using CoCoRaHS data in forensic investigations.

-- **Education.** CoCoRaHS data are used every school day as data that are ideal for classroom analysis, plotting graphs, and connecting weather to its impacts and consequences.

-- **Homeowners.** One CoCoRaHS observer tells us *"I use CoCoRaHS date to turn off and off my home irrigation system. I also share data with a friend a mile away to compare."*

Can you think of others? Please let us know.

Thanks for following our series and thank you very much for your observations. Please visit our **WHO USES COCORAHS OBSERVATIONS?** page where we have listed the summary of this series.

Thursday, December 18, 2014

Flakes, but no accumulation

An observer from North Carolina writes: "If you physically observe snow during the 24-hr period preceding your observation, but it all melts once it hits the ground (or melts overnight), what's the best way to report in CoCoRaHS that the snow actually occurred and that it may have contributed some to total water in the gage?"

Great Question! Here's our answer: "If snow falls but all melts on contact with the ground without ever reaching a depth of 0.1" or greater, then report "T" for "New Snow" and 0.0" for the total depth of snow on the ground."

Friday, December 19, 2014

"Sunrise, sunset . . . Swiftly flow the days"

"*Sunrise, sunset . . . swiftly flow the days*" . . . so goes the song from the musical "Fiddler on the Roof". This is the time of year that many of us are keenly aware of sunrise and sunset as for many of us one comes way too late, and the other comes way too early. This weekend we reach the shortest day of the year (winter solstice on December 21st) and as we move into January many of us will be getting another two minutes of daylight each day (more in the higher latitudes).

If you're interested in sunrise/sunset times, and how they change for anywhere in the country, you may wish to pay a visit to the U.S. Naval Observatory website: "Naval Observatory"

They also specialize in such obscure, but critically important information such as twilight -- the amount of light visible before sunrise and after sunset.

For those of you who miss those long sunny evenings, just remember that Daylight Savings Time, observed in many states, is not that far away. It begins on March 8th in 2015.

Wednesday, December 24, 2014

Sleet . . . "That other frozen stuff"!

A CoCoRaHS observer asks "What is sleet and how do I measure it when it makes it's rare appearance in my state?"

Here's our answer: Sleet is precipitation that leaves the cloud as rain, but on its way down 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 Snowfall" and as "Total Snow and Ice on Ground at Observation Time". Please note "sleet" in your comments so we know that it fell at your location.