

Messages of the Day
July 2014

Tuesday, July 1, 2014

**CoCoRaHS WxTalk Webinar for July 2014:
"Space Weather: What is it and why should you care?"**

Space Weather will be the focus of our next ["WxTalk Webinar"](#) on Thursday, July 24th. "*Space Weather: What is it and why should you care?*" will be presented by Rodney Viereck, Director of the Space Weather Prediction Testbed at NOAA's Space Weather Prediction Center in Boulder, CO.

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 #32 - CoCoRaHS WxTalk: Space Weather: What is it and why should you care?

Date: Thursday, July 24, 2014

Time: 1:00 PM Eastern, Noon Central, 11:00 AM Mountain, 10:00 AM Pacific

"This presentation will include a review of some of the basics of space weather. Starting with the sun and solar flares and then moving through the solar wind and the Earth's magnetosphere, our speaker, Rodney Viereck will describe how space weather storms are formed and evolve until they arrive at Earth. The NOAA Space Weather Prediction Center provides alerts, watches, and warnings of space weather storms to a number of customer groups and technologies. Rodney will describe how a forecaster forecasts space weather storms and describe what happens when they arrive at Earth. What are the impacts and what technologies are affected? Who are the customers for space weather products and services and why do they care. And finally, whether it is flying in airplanes, using GPS satellite navigation, or trying to see the Aurora, Rodney will review some of the ways that the public might experience space weather."

Reserve your seat now by registering here: [SPACE WX](#)

Our August CoCoRaHS WxTalk Webinar: "Weather CSI - Forensic Meteorology" will feature Certified Consulting Meteorologist, Pam Knox of the University of Georgia in Athens, GA. It will take place on Thursday August 14th. Stay tuned for an upcoming announcement on how to register.

Thursday, July 3, 2014

The CoCoRaHS iPhone and Android Apps

Would you like to submit your daily measurements from your smartphone? There is both a CoCoRaHS iPhone and Android app available. Both free to download thanks to the hard work of one of our CoCoRaHS volunteers, Steve Woodruff at Appcay in South Carolina.

The CoCoRaHS iPhone App is available at the Apple Store. Click here to download: ["CoCoRaHS iPhone App"](#).

The Android App can be downloaded via the Google play store by clicking here: ["CoCoRaHS Android App"](#)

These apps allow registered CoCoRaHS observers to submit their daily precipitation reports via their mobile devices. In addition, users can view past reports to ensure accuracy.

Tuesday, July 8, 2014

"Dew Point" . . . When it starts to feel sticky outside, think about the Dew Point

"Dew point" is a term most of us have probably heard, but the meaning may not be clear unless you've had some meteorology background. Dew point is a good way of quantifying the amount of water vapor in the atmosphere. It is a more meaningful term in some respects than "Relative Humidity", which we have heard talked about often. Unlike relative humidity, dew point is a temperature. Specifically, it is the temperature that you would need to cool the air to for the air to reach saturation (100% humidity). At that temperature, cloud droplets may begin to form or dew will be deposited on surfaces in contact with the air. The higher the dew point the more moisture is in the air. Here in Colorado, when the dew point gets higher than about 52 degrees F, we think it's really humid. But in the South, Midwest and East, you would think that air is really dry. There you don't notice it feeling sticky until the dew point is over 65 or 70 degrees.

A good way to get an idea about how humid the air is, is to check for condensation on a glass of ice water. In the winter you hardly ever get water on the outside of a glass (unless you're down by the Gulf of Mexico), but when the dew point is high, condensation on our glasses forms easily.

Thursday, July 10, 2014

Water is Precious

Many of us are familiar with the verse "Water, water every where, nor any drop to drink" from Samuel Coleridge's poem: ["The Rime of the Ancient Mariner"](#). Most of us, however, probably don't realize how true those words are in terms of the amount of freshwater available to us.

Have you ever wondered where our water is stored? As you probably guessed, most of it is in the oceans. In fact, over 97% of all water on the planet is too salty for us to drink. Of the remaining 3% that is freshwater, about 2% is tied up in ice caps and glaciers and about 0.9% is stored as water in the ground. That leaves less than 0.1% of the world's total water supply to be split up between rivers, lakes, and the atmosphere (stored as water vapor)!

The next time you empty your gauge, remember how precious that freshwater is.

More information about the water cycle can be found at: ["USGS"](#) and also by viewing the CoCoRaHS animation short: ["THE WATER CYCLE"](#)

Sunday, July 13, 2014

"The North American Monsoon" and "Significant Weather Reports"

It's July and that means it's time once again to talk about the North American Monsoon.

The word "monsoon" comes from the Arabic word *mausim*, meaning season. Basically, it describes a seasonal wind shift over a region that is usually accompanied by a dramatic increase in precipitation. Many of us are familiar with the Indian-Asian monsoon that brings heavy rains during the summer months over widespread areas of India and SE Asia. Although these rains often produce major flooding, they are vital to agriculture and the economy. Because so much of the world's population live in this region, a delayed or reduced rainfall season can have a devastating effect on the livelihood of a significant fraction of the world's population.

Many other parts of the world experience monsoons, including North America. Our North American monsoon (also known as the Mexican monsoon) typically occurs between July-September and is relatively small compared to the Asian monsoon. However, in parts of NW Mexico, over 50% of the annual rainfall comes in this 3-month period. The rains provide a critical source of replenishment for water resources of Mexico and the SW United States.

CoCoRaHS volunteers can play an important role and possibly save lives by sending in real-time "[Significant Weather Report](#)" when heavy precipitation falls from flooding monsoonal rains. Check out our "[How to Measure Heavy Rainfall](#)" animation.

To learn more about the North American monsoon, check out: "[Monsoon](#)"

Thursday, July 17, 2014

Check out CoCoRaHS on Facebook and Twitter!

Did you know that CoCoRaHS is on *Facebook* and *Twitter*! We hope you will check us out on these networks and perhaps become 'fan' of CoCoRaHS on Facebook or a 'follower' on Twitter. You can click on the icons at the top of the CoCoRaHS homepage or below to join in today!

For CoCoRaHS on Facebook, click here: [CoCoRaHS Facebook](#)

For CoCoRaHS on Twitter, click here: [CoCoRaHS Twitter](#)

Thursday, July 24, 2014

The Heat Index . . . What's That?

The Heat index (HI) is sometimes referred to as the "apparent Temperature". The HI, given in degrees F, is a measure of how hot it feels when relative humidity (RH) is added to the actual air temperature.

So if the temperature was 85F and the Relative Humidity was 85% the Heat Index value would be 99F. Believe me, that's an uncomfortable value. Many parts of the country have had heat index values over 100F the past couple of weeks. Thanks to the invention of air conditioning many are fortunate to keep cool during these hot summer days. For those who do not have air conditioning it's important to try to keep cool.

NOAA's Weather Prediction Center has created a great ["WPC Heat Index Calculator"](#) that you can use to determine the heat index at your particular location.

Here is a list of possible heat disorders that could result for people in high risk groups when the HI reaches a certain value:

Heat Index of 130F or higher = Heat stroke or sunstroke likely.

Heat Index between 105 - 129F = Sunstroke, muscle cramps, and/or heat exhaustion likely. Heatstroke possible with prolonged exposure and/or physical activity.

Heat Index between 90 - 105F = Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.

Heat Index between 80 - 90F = Fatigue possible with prolonged exposure and/or physical activity.

For additional information on ["HEAT "](#) and ["HEAT STRESS"](#) click on those words.

On a final note, animals such as dogs are very susceptible to heat stroke. Don't forget to find a shady, cool spot for your pets, they will be thankful you did.

Tuesday, July 29, 2014

Heavy Rain? . . . stay safe . . . Turn Around Don't Drown (TADD)

Local summer thunderstorms, as well as tropical systems can wreak havoc, especially when a large amount of rain falls in a short period of time. In the case of a flash flood the rain may not even fall in your local area, but upstream, resulting in cascading water heading in your direction.

In today's Message of the Day, we highlight the National Weather Service's campaign "*Turn Around Don't Drown*". It is meant to inform people of the hazards of walking or driving a vehicle through flood waters. Knowing what to do ahead of time when a flooding situation arises can help save your life.

NOAA's site recommends several things when it comes to flooding:

- ***Monitor the NOAA Weather Radio, or your favorite news source for vital weather related information."***
- ***If flooding occurs, get to higher ground. Get out of areas subject to flooding. This includes dips, low spots, canyons, washes etc.***
- ***Avoid areas already flooded, especially if the water is flowing fast. Do not attempt to cross flowing streams. Turn Around Don't Drown®***
- ***Road beds may be washed out under flood waters. NEVER drive through flooded roadways. Turn Around Don't Drown®"***

- ***Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.***
- ***Be especially cautious at night when it is harder to recognize flood dangers."***

Please take a few moments to visit NOAA's informative site at: [TURN AROUND DON'T DROWN](#).

Stay safe this summer!

Thursday, July 31, 2014

Oh, my it's Raining Cats and Dogs ... be careful not to step in a Poodle!

Intense Precipitation -- Significant Weather . . . when and how do I report that?

This time of year many parts of the country experience heavy downpours. Because heavy precipitation can cause flooding and disrupt transportation, we encourage you to submit "Significant Weather Reports" at any time during the day or night.

<http://www.cocorahs.org/Admin/MyDataEntry/IntensePrecipReport.aspx>

Many have asked "How hard does it need to rain before I should submit an "Significant Weather Report"?" There is no universal definition of intense rain. What it takes to cause flooding varies through the year and from place to place. In general, any rain of at least 0.30" in an hour could be considered "heavy rain". Use your own judgment, and if you feel it is raining very hard, go ahead and report it. It is better to be safe than sorry.

If you would like to view the reports of intense precipitation from other observers then go to "View Data" and select: <http://www.cocorahs.org/ViewData/ListIntensePrecipReports.aspx>

Also, remember that even if you submit an intense precipitation report, that you still need to send in your normal daily report, too.

Thanks for helping!