

Messages of the Day
June 2012

Sunday, June 3, 2012

SAVE A SPACE FOR A TRACE

We get lots of questions about what we mean by “a trace of precipitation”.

A trace may be just a few drops on the funnel of your gauge, or a few flakes of snow in the in the air, or a few sprinkle splashes in a pond or puddle or on your arm or face. A trace may also be when your sidewalk is almost wet and when there is a bit of moisture in the bottom of your gauge, but not enough to get to the first mark (0.01 -- the first measurable increment). Trace amounts aren't terribly significant, but it does mean that moisture did fall from the clouds. Sometimes that is important to know.

How do I report it when I get a trace? That's easy -- Just type in T

What if I'm not at home to see it? Only report a trace if you actually observe it or if you find a bit of moisture in your gauge (or your neighbor or family says “There was a trace!”). Also, remember that if the moisture came from dew or frost, then don't report that as a trace.

Thanks for your reports!

Tuesday, June 5, 2012

The 'ups and downs' of the water cycle - Reference Evapotranspiration (ET) . . . 'the up side'

Recently CoCoRaHS launched a new opportunity for our observers to track the water cycle -- the literal "ups and downs" of water so to speak. We already measure precipitation as it arrives at our locations (the down), but what about water as it returns to the atmosphere? This is called evapotranspiration (going back up). For certain CoCoRaHS observers this will be a great opportunity to provide data for a whole new set of applications used in drought monitoring, irrigation and yard watering, remote sensing (satellite) and weather forecasting to name just a few.

There are several qualifications needed to become a CoCoRaHS observer for Reference ET, so don't feel bad if you are unable to participate. There will also be several things to consider on your part as you apply:

- 1) We are looking for "ideal" locations (open exposures with surrounding vegetation that is representative of your area) and highly motivated observers (you have reported on a consistent daily basis for CoCoRaHS over time).
- 2) You are up to the challenge of taking on a more complex daily observation.
- 3) You, or a sponsoring organization are willing to make the substantial investment in purchasing this delicate instrument, the ETgage (which sells for \$212 at www.weatheryourway.com, plus tax and shipping).

Some of you have already signed up, we thank you for your interest. If you have yet to do so and are up for this challenge, please contact Zach at Info@cocorahs.org with a photo of the site where you will place your gauge and he will follow up with you.

For those of you who want to learn more about Evapotranspiration and the "up side" of the water cycle, please check out the CoCoRaHS ET page at: ["ETo"](#)

Friday, June 8, 2012

**CoCoRaHS WxTalk Webinar for June 2012:
"Hurricane Analysis and Prediction at the National Hurricane Center" . . .
There's still room . . . register today!**

Hurricanes will be the focus for our next ["WxTalk Webinar"](#) on June 14th, "*Hurricane Analysis and Prediction at the National Hurricane Center*" presented by Chris Landsea of the National Hurricane Center, Miami, Florida.

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 #7 - CoCoRaHS WxTalk: Hurricane Analysis and Prediction at the National Hurricane Center"

Date: Thursday, June 14, 2012

Time: 7:00 PM Eastern, 6:00 PM Central, 5:00 PM Mountain, 4:00 PM Pacific

"The National Hurricane Center issues analyses, forecasts, and warnings over large parts of the North Atlantic and Pacific Oceans, and in support of many nearby countries. Advances in observational capabilities, operational numerical weather prediction, and forecaster tools and support systems over the past 15–20 yr have enabled the center to make more accurate forecasts, extend forecast lead times, and provide new products and services. Important limitations, however, persist. This presentation discusses the current workings and state of the nation's hurricane warning program, and highlights recent improvements and the enabling science and technology. It concludes with a look ahead at opportunities to address challenges."

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

Our July CoCoRaHS WxTalk Webinar "Wind and Wildfire - A Dangerous Combination" by Liz Page of UCAR/COMET will take place on July 19th . Stay tuned for an upcoming announcement in June on how to register.

Thursday, June 14, 2012

Fire Weather . . . Information and Outlooks!

Another zero in the rain gauge? Hot, dry weather during the late spring and summer can create ideal conditions for wildfires in many parts of the country. As you read this message the High Park wildfire near Fort Collins, Colorado and the Whitewater Baldy Complex wildfires in New Mexico continue to burn across their drought-plagued areas destroying homes and property as they grow.

Most NWS Weather Forecast Offices provide fire forecasts twice a day and provide warnings in close partnership with local, state and federal fire control agencies. Learn more about [Fire Weather](#) and the NOAA Storm Prediction Center's latest [Fire Weather Outlooks](#) for your part of the country by clicking on the underlined text.

The [Incident Information System Website](#) is a great resource for finding out where wildfires are currently burning. This site gives a vast amount of information that many of you will find very informative.

For additional info on wildfire prevention and other wildfire topics, visit the National Interagency Fire Center's web site by clicking here: [NIFC](#)

Want to learn more about Fire Weather? Read and sign-up below!



CoCoRaHS WxTalk Webinar for July 2012:

"Wind and Wildfire - A Dangerous Combination" . . . register today!

Wind and wildfire will be the focus for our next ["WxTalk Webinar"](#) on July 19th, "*Wind and Wildfire - A Dangerous Combination*" presented by Liz Page of UCAR/COMET, Boulder, Colorado.

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 #8 - CoCoRaHS WxTalk: Wind and Wildfire - A Dangerous Combination"

Date: Thursday, July 19, 2012

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

"Wildfire spread can be erratic and challenging to predict. Fire behavior is controlled by three components of the fire environment: weather, fuels, and topography. We will look how each of these components is inter-related when diagnosing fire behavior. Through examples of historic wildfires from locations across

the country, we will explore what determines fire season and the critical fire weather patterns that contribute to extreme fire behavior.

We will also talk about the forecasters that provide weather information to the people fighting the fires. These Incident Meteorologists are highly trained and experienced forecasters who play a vital role in the decisions made to contain wildfires and protect people and property threatened by the fire."

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

Monday, June 18, 2012

How's your garden growing this year? Check out the CoCoRaHS "Climate Resources Guide for Master Gardeners"!

CoCoRaHS has an on-line guide for gardeners out there on our master gardeners: [Climate Resources for Master Gardeners Page](#). The HTML version of this "[Guide](#)", introduces elements of large scale and local climate important to gardeners. An overview of climate patterns and differences are shown. Links to local climate information are provided. Topics include: Climate & Gardening, Sunshine, Temperature, Humidity and Dew Point, Precipitation, Wind, Evapotranspiration, Climate Resources, Climate Change and CoCoRaHS.

We hope that you'll take a look at it, use it for your own gardening needs and pass along the URL link to other gardeners you know who may be interested in gaining a better understanding of climate and how climate might effect their local gardening efforts . . . it won't be long now (perhaps you already have) until it's time to pick a bouquet of zinnias and daisies or harvest that first juicy beefsteak tomato!

Thursday, June 21, 2012

How Long Have People Been Tracking Precipitation?

In his book *Meteorologica*, Aristotle (340BC) mentioned topics such as clouds, mist, rain, snow, etc, but not the measurement of precipitation. Measuring rain and keeping records of it was apparently still far off in the future.

The earliest quantitative device for measuring rainfall seems to be credited to a king in Korea called King Sejong who lived from 1397 to 1450. One of his goals as king was to make his people literate, so not only did he invent a rain gauge, but more importantly, he invented a phonetic alphabet for the Korean language as distinct from the Chinese characters widely in use in his time and movable type for that alphabet.

He decided that instead of digging into the soil to check for moisture, it would be better to have a standardized container about 30cm in depth and 14cm in diameter that stood on a pillar to measure the rainfall. These containers were to help villagers determine their potential harvest and to give King Sejong a better idea of how much the farmers should be taxed! So, these standard containers were distributed to each village. The rain gauge was invented in the fourth month of 1441, according to records.

The tipping bucket rain gauge was invented by Christopher Wren in Europe around 1661 and used the standard of weight, or sometimes volume, of the liquid precipitation. This tipping bucket idea is still used in many of the automated electronic gauges today.

In 1887, Mr. Abbe Cleveland wrote a manual on "Meteorological Apparatus and Methods" for the U.S. Army Signal Corps (agency responsible for U.S. weather observations at the time). In this booklet, Mr. Cleveland described the standards for the weather gauges to be used by the U.S. Army Signal Corps. This standard 8 inch diameter gauge is still in use by many National Weather Service offices and cooperative weather observers across the United States and abroad.

Saturday, June 23, 2012

Lightning Safety Awareness Week "When Thunder Roars, Go Indoors!" June 24-30, 2012

The nation will focus on lightning safety this week during National Lightning Safety Awareness Week, June 24-30, 2012.

NOAA states that summer is the peak season for one of the nation's deadliest weather phenomena—lightning. But don't be fooled, lightning strikes year round. The goal of their website is to safeguard U.S. residents from lightning. In the United States, an average of 545 people are killed each year by lightning.

Hundreds of people are permanently injured each year. People struck by lightning suffer from a variety of long-term, debilitating symptoms, including memory loss, attention deficits, sleep disorders, chronic pain, numbness, dizziness, stiffness in joints, irritability, fatigue, weakness, muscle spasms, depression, and more.

Lightning is a serious danger. Through their site we hope you'll learn more about lightning risks and how to protect yourself, your loved ones and your belongings. As a start, you can get an overview of Lightning Safety or stop by NOAA's comprehensive page of handouts, brochures, links and more.

To find out more visit: [Lightning Safety Awareness Week](#)

Recently lightning expert Ron Holle gave an excellent talk on "Lightning and Its Impacts" via our CoCoRaHS WeatherTalk Series. This episode is archived and available to view by clicking here: [Lightning Impacts](#)