

Messages of the Day
May 2011

Friday, May 6, 2011

Highlighting the Climate of Kentucky: What You Expect Is Not Always What You Get!

By Stuart A. Foster, Kentucky State Climatologist

Kentucky's climate is a natural resource that supports a way of life enjoyed by people through the commonwealth. As the global population and economy continue to grow, water is increasingly recognized as a vital but threatened resource. Kentucky's location in the eastern United States in proximity to the Gulf of Mexico contributes to a climate that normally produces ample precipitation to meet the needs of both urban and rural dwellers. Average annual precipitation ranges from over 40 inches in far northern Kentucky to more than 50 inches in south central Kentucky. Precipitation tends to be well distributed throughout the year, though the fall is typically a bit drier than other seasons.

As Kentuckians know however, our climatic conditions can vary significantly from year to year. The wettest year on record in Kentucky was 1950, when average precipitation across the state was 62.93 inches. Weather producing extremes of precipitation can develop quickly or persist for extended periods. Flash floods, usually resulting from intense but short-lived thunderstorms or from storms training over an area, occur throughout Kentucky, but are a particular concern in the rugged terrain of eastern Kentucky, which is characterized by steep slopes and narrow valleys. Flooding on major rivers is also a threat, and the Great Flood of January, 1937 set the mark. Record flooding occurred on the Ohio River and many of its tributaries when more than 20 inches of precipitation was recorded in parts of Kentucky during that January alone.

Drought occurs periodically in Kentucky. When it does, it is often accompanied by oppressive heat, leaving the landscape parched. Kentucky's drought of record occurred in 1930. Crops wilted in the field, and many municipalities struggled to provide a safe, adequate water supply. The year 1930 was the driest year on record in Kentucky, with an average precipitation total of 29.39 inches across the state.

Kentucky's location further contributes to a climate characterized by warm summers and cool winters. High temperatures in the summer average from the mid-80s in the north and east to about 90 in western Kentucky. Overnight low temperatures average from the low to upper 60s across those same areas. The highest recorded temperature, 114F, was reported in Greensburg on July 28th in the midst of the 1930 drought. High temperatures in the winter average from the high 30s in the north to the mid-40s in the south, while lows range from about 20 to the mid-25s over the same areas. Kentucky's record low temperature of -37F was recorded at Shelbyville on January 19th following a paralyzing snow and ice storm in 1994.

While Kentucky enjoys a pleasant climate, the changeable nature of day-to-day weather is often noted by its residents. CoCoRaHS observers throughout Kentucky play a vital role in contributing to our record keeping and understanding of day-to-day weather in Kentucky, and therein also aid in furthering our understanding of Kentucky's climate.

To learn more about Kentucky's climate please visit the Kentucky Climate Center Web page at:
<http://kyclim.wku.edu/>.

To learn more about the "Climates of our Fifty States" and view past state climate messages, visit our [50 States Climate Page](#).

Join us in a few weeks, as we look at the states of the Southeastern Regional Climate Center

Wednesday, May 18, 2011

Crepuscular Rays, Heiligenschein, Iridescence? Do any of these terms ring a bell?

They all fall under the category of "Atmospheric Optics". When sunlight enters the atmosphere it is either scattered, absorbed, reflected or transmitted on through. How objects at the surface respond to this energy depends on their general nature and the wavelength that strikes them. Thus the world of Atmospheric Optics which you and I can enjoy.

To view and learn more about these phenomena visit: ["Atmospheric Optics"](#)

Saturday, May 21, 2011

National Hurricane Preparedness Week May 22-28, 2011

History teaches that a lack of hurricane awareness and preparation are common threads among all major hurricane disasters. By knowing your vulnerability and what actions you should take, you can reduce the effects of a hurricane disaster. National Hurricane Preparedness Week during 2011 is May 22nd through May 28th.

The goal of this Hurricane Preparedness Web site is to inform the public about the hurricane hazards and provide knowledge which can be used to take ACTION. This information can be used to save lives at work, home, while on the road, or on the water.

Join NOAA all week long as they examine the following topics:

- Sunday: Hurricane History
- Monday - Wednesday: Hurricane Hazards
- Thursday: The Forecast Process
- Friday: What can you do to prepare
- Saturday: What actions you can take

To find out more visit: [National Hurricane Preparedness Week](#)

Saturday, June 4, 2011

"CoCoRaHS hits 10,000 Reports" Challenge Week

June 6-9, 2011 is our chance to reach 10,000 precipitation reports per day for the first time in CoCoRaHS history. Please join us in reaching this significant goal.

Most of you already report your daily measurements each and every morning rain or shine (zero). We (CoCoRaHS Team) and all those who use CoCoRaHS data each day are grateful for your excellent rainfall reports.

To reach our goal of 10,000 reports, we will need the help of the hundreds of other CoCoRaHS volunteers who report less frequently -- or only when it rains. Please help June 6-9 by reporting rain or shine.

Finally there are some of us who have signed up, bought a gauge and are waiting for a good opportunity to put it out and make that first report. This week is for you!

Thanks for helping reach this goal. We will report on the results next week.

Friday, June 10, 2011

Wanted: Questions for the "Weather Queries" column in Weatherwise Magazine

As you go out each morning to take a look at your rain gauge, or any other time you're outdoors, do you ever puzzle about what's going on in the sky? Do you wonder about spells of unusual weather? If you have a question about weather or climate, sent it to: weatherqueries@gmail.com. Tom Schlatter, a fellow CoCoRaHS volunteer, has been writing a question and answer column in *Weatherwise* since 1980, and he welcomes questions from young and old. No question is too simple. In fact, sometimes the "simple" questions are the most profound.

Send your questions to weatherqueries@gmail.com, and be sure to include your name and the city or town where you live.

Monday, June 13, 2011

LAX . . . DTW . . . MCO and don't forget GGG!

Have you ever read a weather report and noticed one of those three letter location identifiers like ORD, DEN or RDU representing the place that the observation is coming from? What are they? Those are the Federal Aviation Administration's three letter airport codes for US cities (other countries use them as well). If you haven't seen them on a weather report, you've surely seen them on the tags on your checked airline luggage.

Why is MCI used for Kansas City? ORD for Chicago's O'Hare International Airport? BNA for Nashville?
Click here find out why and also learn the history of these codes: [Explanation of Airport Identifier Codes](#).

Below are the three letter codes for several cities across the United States:

ALB - ALBANY, NY
ABQ - ALBUQUERQUE, NM
ESF - ALEXANDRIA, LA
ABE - ALLENTOWN, PA
AMA - AMARILLO, TX
ANC - ANCHORAGE, AK
AVL - ASHEVILLE, NC
ATL - ATLANTA, GA
AUS - AUSTIN, TX
BFL - BAKERSFIELD, CA
BWI - BALTIMORE, MD
BGR - BANGOR, ME
BTR - BATON ROUGE, LA
MBS - BAY CITY, MI
BPT - BEAUMONT/PT ARTHUR, TX
BIL - BILLINGS, MT
BHM - BIRMINGHAM, AL
BMI - BLOOMINGTON, IL
BOI - BOISE, ID
BOS - BOSTON, MA
BUF - BUFFALO, NY
BUR - BURBANK, CA
BTM - BUTTE, MT
CID - CEDAR RAPIDS, IA
CMI - CHAMPAIGN/URBANA, IL
CHS - CHARLESTON, SC
CLT - CHARLOTTE, NC
CHA - CHATTANOOGA, TN
MDW - CHICAGO, IL/MIDWAY
ORD - CHICAGO, IL/O'HARE
CVG - CINCINNATI, OH
CLE - CLEVELAND, OH
COS - COLORADO SPRINGS, CO
CAE - COLUMBIA, SC
CMH - COLUMBUS, OH
CRP - CORPUS CHRISTI, TX
DFW - DALLAS/FT. WORTH, TX
DAY - DAYTON, OH
DEN - DENVER, CO
DSM - DES MOINES, IA
DET - DETROIT, MI/CITY
DTW - DETROIT, MI/METRO
DBQ - DUBUQUE, IA
DRO - DURANGO, CO
DUT - DUTCH HARBOR, AK
ELP - EL PASO, TX
EUG - EUGENE, OR
EVV - EVANSVILLE, IN
FAI - FAIRBANKS, AK
FYV - FAYETTEVILLE, AR

FLO - FLORENCE, SC
FAT - FRESNO, CA
FLL - FT. LAUDERDALE, FL
RSW - FT. MYERS, FL
FSM - FT. SMITH, AR
VPS - FT. WALTON BEACH, FL
FWA - FT. WAYNE, IN
GRR - GRAND RAPIDS, MI
GRB - GREEN BAY, WI
GSP - GREENVILLE/SPARTANBURG, SC
GSO - GREENSBORO, NC
GUC - GUNNISON, CO
HRL - HARLINGEN, TX
MDT - HARRISBURG, PA
BDL - HARTFORD, CT
HNL - HONOLULU, HI
HOU - HOUSTON, TX/HOBBY
IAH - HOUSTON, TX/INTERCONTINENTAL
HSV - HUNTSVILLE, AL
IND - INDIANAPOLIS, IN
ISP - ISLIP, NY
JAN - JACKSON, MS
JAC - JACKSON HOLE, WY
JAX - JACKSONVILLE, FL
AZO - KALAMAZOO, MI
MCI - KANSAS CITY, MO
EEN - KEENE, NH
EYW - KEY WEST, FL
ILE - KILLEEN, TX
TYS - KNOXVILLE, TN
LSE - LA CROSSE, WI
LFT - LAFAYETTE, LA
LCH - LAKE CHARLES, LA
LAN - LANSING, MI
LRD - LAREDO, TX
LAS - LAS VEGAS, NV
LAW - LAWTON, OK
LEX - LEXINGTON, KY
LNK - LINCOLN, NE
LIT - LITTLE ROCK, AR
GGG - LONGVIEW, TX
LAX - LOS ANGELES, CA
SDF - LOUISVILLE, KY
LBB - LUBBOCK, TX
MSN - MADISON, WI
MHT - MANCHESTER, NH
MQT - MARQUETTE, MI
OGG - MAUI, HI
MFE - MC ALLEN, TX
MFR - MEDFORD, OR
MLB - MELBOURNE, FL
MEM - MEMPHIS, TN
MIA - MIAMI, FL
MKE - MILWAUKEE, WI
MSP - MINNEAPOLIS, MN
MOB - MOBILE, AL

MLI - MOLINE, IL
MRY - MONTEREY, CA
MGM - MONTGOMERY, AL
MKG - MUSKEGON, MI
MYR - MYRTLE BEACH, SC
BNA - NASHVILLE, TN
HVN - NEW HAVEN, CT
MSY - NEW ORLEANS, LA
JFK - NEW YORK, NY/KENNEDY
LGA - NEW YORK, NY/LA GUARDIA
EWR - NEWARK, NJ
SWF - NEWBURGH, NY/STWRT FIELD
ORF - NORFOLK, VA/INTERNATIONAL
OAK - OAKLAND, CA
MAF - ODESSA/MIDLAND, TX
OKC - OKLAHOMA CITY, OK
OMA - OMAHA, NE
ONT - ONTARIO, CA
SNA- ORANGE COUNTY, CA
MCO - ORLANDO, FL
OWB - OWENSBORO, KY
OXR - OXNARD, CA
PSP - PALM SPRINGS, CA
PNS - PENSACOLA, FL
PIA - PEORIA, IL
PHL - PHILADELPHIA, PA
PHX - PHOENIX, AZ
PIT - PITTSBURGH, PA
PWM - PORTLAND, ME
PDX - PORTLAND, OR
PVD - PROVIDENCE, RI
RDU - RALEIGH-DURHAM, NC
RNO - RENO, NV
RIC - RICHMOND, VA
RST - ROCHESTER, MN
ROC - ROCHESTER, NY
RFD - ROCKFORD, IL
SMF - SACRAMENTO, CA
SLC- SALT LAKE CITY, UT
SJT - SAN ANGELO, TX
SAT - SAN ANTONIO, TX
SAN - SAN DIEGO, CA
SFO - SAN FRANCISCO, CA
SJC - SAN JOSE, CA
SJU - SAN JUAN, PR
SBP - SAN LUIS OBISPO, CA
SBA - SANTA BARBARA, CA
SMX - SANTA MARIA, CA
SRQ - SARASOTA, FL
SEA - SEATTLE, WA
SHV - SHREVEPORT, LA
FSD - SIOUX FALLS, SD
SBN - SOUTH BEND, IN
GEG - SPOKANE, WA
SPI - SPRINGFIELD, IL
SGF - SPRINGFIELD, MO

STL - ST. LOUIS, MO
SYR - SYRACUSE, NY
TPA - TAMPA, FL
TXK - TEXARKANA, AR
TOL - TOLEDO, OH
TVC - TRAVERSE CITY, MI
TUS - TUCSON, AZ
TUL - TULSA, OK
TCL - TUSCALOOSA, AL
TYR - TYLER, TX
EGE - VAIL/EAGLE, CO
ACT - WACO, TX
IAD - WASHINGTON DC/DULLES
DCA - WASHINGTON DC/NATIONAL
CWA - WAUSAU/STEVENS POINT, WI
PBI - WEST PALM BEACH, FL
HPN - WESTCHESTER COUNTY, NY
ICT - WICHITA, KS
SPS - WICHITA FALLS, TX
AVP - WILKES BARRE, PA
ORH - WORCESTER, MA

Wednesday, June 15, 2011

"The Catch"

What's "The Catch" you may ask? "The Catch" is the name of the bi-weekly e-mail that many of you receive from CoCoRaHS's national director Nolan Doesken. These folksy messages are chocked full of very helpful precipitation information and provide for an interesting read. Many of you enjoy following the adventures on Nolan's farm (they're usually at the end of the message). In case you haven't received the most recent one you can always view it and archived additions on the web by clicking here: ["The Catch"](#)

If you are not receiving "The Catch" via your e-mail or just need to update your email address, please contact zach@cocorahs.org.

PS - The term "catch" is another way of saying what has fallen in your rain gauge.

Friday, June 17, 2011

CoCoRaHS Celebrates 13 Years Today!

On June 17, 1998, the first CoCoRaHS (then known as the Colorado Collaborative Rain and Hail Study) precipitation reports came rolling in from a handful of volunteers, as the network got underway along the Front Range of Colorado's Rocky Mountains. Now thirteen years later, we have over 15,000 active volunteers taking daily measurements in all fifty states. CoCoRaHS has become the largest provider of daily precipitation measurements in the country. Who could have guessed that this local project would grow to what it has become today!

We thank you for being part of our team. We could not have done it without you! Happy Anniversary CoCoRaHS!

Friday, June 24, 2011

Weather Symbols - What's that "S" with the arrow through it?

Those of you interested in weather will want to learn the 100 weather symbols used today in meteorology. You might recognize some of the more common ones and there will be others that are unfamiliar.

Here is a great list of those symbols by the National Weather Service's JetStream - Online School for Weather. Click here: [Weather Symbols](#).

Weather symbols have been used by meteorologists for many years on surface weather maps, often seen at station weather plots. Click here: [Weather Maps](#).

So the next time you see a comma or set of periods you might think punctuation, but than again you just might think precipitation! By the way, that "S" with the arrow through it . . . that's a moderate duststorm.

Monday, June 27, 2011

The Southeast Regional Climate Center

As we continue our "Climates of the Fifty States" series, we move to our fifth region of the country and look at the states of the Southeast Regional Climate Center.

The Southeast Regional Climate Center (SERCC) is one of six regional climate centers and, as part of NOAA's Regional Climate Center Program, serves as the hub for climate services, applications, research, and education in the Southeast. The SERCC provides climate service support and engages in research germane to the states and territories of Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, the District of Columbia, Puerto Rico, and the American Virgin Islands. Originally established in 1989 at the South Carolina Department of Natural Resources in Columbia, SC, the SERCC relocated to the Department of Geography at the University of North Carolina at Chapel Hill in the spring of 2007, and operations began in June of that year.

The SERCC provides a variety of climate services to meet sector-specific needs in the southeast region. These include climate data ingest, quality control, and product development via the Applied Climate Information System (ACIS); monitoring of regional climate patterns and their societal impacts in the context of climate variability and change; education and outreach support; and applied climate research. These services and activities are enhanced through regional support from and collaboration with a variety of entities, including a strong and active network of state climate offices, NOAA centers (including NCDC), RISAs, Sea Grant programs, and academic institutions, among others.

Currently, the SERCC is focusing its user-engagement and research activities in areas where there is a strong need for expertise in the use of climate information. Topically, these areas include public health, planning, tourism, and coastal conditions. A number of outreach activities and research projects are presently under various stages of development. These include collaborative research projects on the health

impacts of heat waves and the spatial patterns of precipitation across the southeast. Additionally, the SERCC has initiated a research program, in collaboration with experts and professionals in other fields, to explore the socioeconomic and human health impacts of extreme weather events in the southeast. The ultimate goal of this research program is to provide extended-range weather and climate forecasts that are tailored to specific user groups. These forecasts would provide valuable climatological context and more specificity with respect to the character and probability of extreme events.

To find out more about the SERCC, visit: <http://www.sercc.com>

To learn more about the "Climates of our Fifty States" and view past state climate messages, visit our [50 States Climate Page](#).

Join us on Wednesday, as we look at the next state in our series: Alabama

Tuesday, July 5, 2011

The Climate of Georgia is Peachy!

By Pam Knox, Georgia Assistant State Climatologist

Georgia is one of the largest states east of the Mississippi River, and has elevations ranging from sea level along the coast to a peak height of 4784 feet at Brasstown Bald in far northern Georgia in the southern Appalachian Mountains. The location of Georgia in the southeastern United States puts it in the path of many different types of weather systems, leading to a wide variation in weather across the year that is suitable for raising many different crops, including our world-famous peaches.

The climate along the Georgia coast is warm and humid for much of the year, although occasionally cold temperatures and even snow will reach the coastal areas. The influence of the ocean can be seen in the development of thunderstorms and showers near the coast as the sea breeze develops over the day. During the tropical season (June through November), tropical storms and hurricanes can contribute to copious rainfall amounts as they pass through the area. Even though Georgia's coast has not had a direct hit by a hurricane since 1900, we know that there were three major hurricanes in the 1800's, so the likelihood of an eventual direct landfall is high. Even when the eye of the storm does not come onshore, however, significant flooding can cause damage and the potential for injury to people and animals in the flooded areas.

The central part of Georgia is the inland coastal plain and the Piedmont area, which stretches from southwest to northeast through the central part of the state. This area is the driest part of the state (in some places less than 45 inches per year) and the least populated, but many of Georgia's crops are grown in this area due to the availability of good soils and water resources. It is also the hottest part of the state in summer and temperatures above 100 degrees F are not uncommon in summer months.

The northeast section of Georgia is the most mountainous region. Flow of humid air up the slopes of the mountains leads to rainfall values of over 80 inches per year on the south-facing mountain ridges, although less is seen in valleys and in areas sheltered from the moist winds. Snow and ice storms are also the most frequent in this northern part of the state. Because of the steep slopes of the mountain valleys, flash floods sometimes occur in the summer months when thunderstorms develop over the mountainous areas and inundate local rivers with several inches of rain in just a few hours.

If you would like to know about Georgia's "peachy" climate, please come and visit our web page at: <http://climate.engr.uga.edu> or call us at 706-542-6067. We would love to hear from you!

To learn more about the "Climates of our Fifty States" and view past state climate messages, visit our [50 States Climate Page](#).

Join us on Friday, as we look at the next state in our series: South Carolina

Saturday, August 6, 2011

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, August 9, 2011

The CoCoRaHS "Climate Resources Guide for Master Gardeners" is here!

Over the past year, the folks at CoCoRaHS headquarters have developed an on-line guide for our [master gardeners](#) out there. 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 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 . . . and don't forget to pick those zucchinis and tomatoes this week before the animals beat you to it!

Sunday, August 14, 2011

Calling All Educators! Join the "CoCoRaHS School Network"!

With the beginning of school right around the corner, we want to make our educators out there aware of opportunities for involvement regarding educational materials and activities for K-12 teachers.

As the CoCoRaHS Education Team develops and pilots new materials and activities, we invite any existing educators, teachers, students, schools, and home schools that are currently involved as CoCoRaHS volunteers to contact us. If you or someone you know is interested in becoming part of the developing "CoCoRaHS School Network", please send your contact information to: noah@cocorahs.org.

Wednesday, August 17, 2011

Late Summer Drought Impacts

CoCoRaHS in collaboration with the National Drought Mitigation Center ([NDMC](#)), continues to give observers the opportunity, via the CoCoRaHS Web site, to provide the nation with important information on how drought is impacting their communities.

Here in mid-August many of you know from first hand experience that some regions of the country are much drier than normal right now. Exceptionally Dry! Arizona, New Mexico, Texas, Kansas, Oklahoma and Louisiana just to name a few. Parts of Georgia and coastal North Carolina are very dry as well. Please take a look around your area this week and think about how drought might be impacting your community. Drought can impact us in many ways. Effects may be associated with agriculture, energy, public health, wildfire and recreation just to name a few areas. Although your part of the country may not be experiencing drought at the present time, many of us may be affected by varying degrees of drought in the months to come. When you start to feel these effects it's time to let us know about it by filing a ["Drought Impact Report"](#).

If you have some spare time, please take a few moments in the next few days and re-visit our ["Drought Impacts Reporting Resource Page"](#) to get re-acquainted with drought impacts. In addition there is a short slideshow that you will benefit from reviewing.

We thank you for your drought impact reports!