

VOLUME 5 EDITION 1



NATIONAL COOPERATIVE OBSERVER NEWSLETTER

Did you know that there is a national newsletter for Cooperative observers? It is called the "National Cooperative Observer" and can be accessed at: www.weather.gov/os/coop newsletter.htm.

In addition to viewing this online, you can subscribe to this newsletter at the URL above, and it will be sent to your email address each time it is published.

In this newsletter, you will find topics that are relative to the cooperative observer program such as national Cooperative Length of Service Award recipients, national Holm and Jefferson Award Recipients, events taking place across the nation, as well as seasonal outlooks and many other topics.

Past issues on this site date back to the Fall of 1983.

CLIMATE DATA ARE USED IN EVERY ASPECT OF OUR NATIONAL ECONOMY

According to NOAA's National Climatic Data Center, here are just a few of the ways that the climate data you collect and send in on a daily basis is used nationwide:

- 1. **Litigation:** It is used to settle legal disputes to assure the continued operation and growth of business and industry.
- 2. **Insurance Industry:** It is used to settle weather related disaster claims.

- 3. **Consultants and Engineers:** It provides guidance to engineering, marine and architectural firms in design and construction of airports, port facilities, highway and dam projects, etc.
- 4. **Public Utilities:** It is used to help determine levels of electrical/gas demands, compute rate adjustments, etc.
- 5. **Natural Hazards/Mitigation:** It helps track and analyze weather extremes and events. This information is used in disaster mitigation efforts.
- 6. Agriculture: It provides information which is used to assist in the study of the effects of climate variations on crop yields, determine optimal geographic locations for crop types, and plans for applications of herbicides and pesticides.
- 7. **Housing and Real Estate:** It aids in determining construction deadline penalties/extensions, and assists in site selection for resort and retirement communities.
- 8. **Medical:** It assists in the research for possible correlations between climate and disease/physical disorders.

WHO ARE USERS OF CLIMATE DATA*:

- 1. Businesses: 77%
- 2. Public: 13%
- 3. Government: 6%
- 4. Academic: 4%

*Information for these percentages was gathered from the National Climatic Data Center



AWARDS FOR 2015

The following COOP sites will receive a Length of Service award this year:

<u>Site Name</u>	<u>Observer</u>	Length of Service
Mt. Vernon	Robert "Bud" Cox	40 Years
Skyline 1SE	Robert Watts	40 Years
Paintsville 1E	John & Susan Conley	25 Years
Beattyville 4N	Lisa Binion	15 Years
Barbourville	Staff	15 Years

The following COOP site will receive a Family Heritage Award this year:

Site Name	<u>Observer</u>	Length of Service
Baxter	Doris Lowe	75 Years

GETTIING TO KNOW US....

DUSTIN JORDAN, GENERAL FORECASTER



Dustin Jordan has always had an interest in meteorology. Growing up in eastern Tennessee Dustin was able to experience many different types of weather throughout the year, much like eastern Kentucky. His fondest memory, which set off his passion for meteorology, was experiencing thunder snow during the Blizzard of 1993. This event was monumental for Dustin and his goal to one day become a meteorologist. Before pursuing weather, Dustin spent 4 years in the US Air Force working on AC-130U models gunship aircraft. The Air Force taught Dustin so much, but he desired to get back to the career he always wanted to pursue.

In 2010, Dustin began attending Western Kentucky University (WKU), where he received a Bachelor's degree in meteorology. Many opportunities presented themselves as a student at WKU. One of the most memorable was seeing his first tornado. This was made possible when he attended a field forecasting class. In this class, he forecast and chased tornadoes in

the plains for 2 weeks. This experience made him realize the importance of being a meteorologist for the National Weather Service (NWS), and the goal of saving lives and property. After this Dustin was able to volunteer with the NWS during the summer at the office in Morristown, TN. This made his drive stronger to become a meteorologist for the NWS.

In 2012, Dustin graduated from WKU and began to pursue a career with the NWS. After applying all over the country, he made the decision to move to northern Maine as an intern for the NWS in Caribou, ME. In Caribou, Dustin was primarily responsible for data collection and also long range forecasts. This gave him a whole new perspective of weather that he had not experienced before, from multiple blizzards to blizzard like conditions and temperatures close to 30 below zero at times. In 2014, Dustin applied for the forecaster position here at NWS Jackson and was selected. This brings Dustin closer to home and allows him to continue to move his career forward in the NWS. Dustin feels blessed to work for the NWS and enjoys the people as well as his new position.

In Dustin's spare time he enjoys spending time with his wife and hiking in the Red River Gorge area. Also being close to east Tennessee allows Dustin more time with his family and friends to the south.



Below are the Top 5 Weather Events of 2014, in order of importance:

1. The coldest winter temperatures in 2 decades:

An arctic cold front barreled across eastern Kentucky late Sunday, January 5th, ushering in what would be the coldest temperatures and wind chills experienced in 20 years. Temperatures on Sunday afternoon warmed to near 60° F in many locations, but by the next afternoon the mercury was 50 to 60 degrees colder, dropping into the single digits. Temperatures by Tuesday morning, January 7th, ranged from 2 below zero to 9 below zero in the valleys of eastern Kentucky, down to 17 below zero at the top of Black Mountain.

Gusty west to northwest winds combined with these temperatures to produce wind chills in the 15 to 30 below range for most locations, with the highest terrain along the Virginia border dropping even lower. Temperatures also fell below zero 2 more times during January: from the 22nd to the 24th and from the 28th through the 30th. Six new record lows were set at the Julian Carroll Airport in Jackson and 1 record low at the London Corbin Airport. The last time there was widespread below zero temperatures in eastern Kentucky was in the middle 1990s. An examination of historical records shows that major cold waves occurred more frequently from the late 1800s until the mid-1990s, with the recent long stretch without a major cold air outbreak being very unusual.



The North Fork of the Kentucky River near Jackson, KY was completely frozen over by January 27th. The following picture was taken looking downstream (north) from the Hays Depot Bridge just north of downtown Jackson

For more information on this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=99465&source=2 http://www.crh.noaa.gov/images/jkl/Headline_Images/January2014Cold.pdf

Visit us on the web at:

www.weather.gov/jacksonky



2. Flash Flooding on August 22nd:

Severe flash flooding occurred in parts of Johnson, Floyd and Pike Counties during the evening hours of August 22nd, with other nearby locations also experiencing flooding. Here is a look at how much rain fell in these locations with a few actual rain gauge readings indicated. In most instances, the bulk of the rainfall indicated on this map fell in 1 to 2 hours!



For more information on this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=103957&source=2

3. Tornadoes on October 7th:

October is hardly severe weather month across eastern Kentucky. As a matter-of-fact, until this year there had only been 4 confirmed tornadoes during the month of October for our coverage area since 1934.

There were 2 confirmed tornadoes in Bath County on October 7th:

The first tornado touched down in the Sharpsburg area at 4:35 p.m. EDT. The National Weather Service (NWS) in Jack-

son determined that it was an EF-1 tornado with an estimated peak wind of 90 mph. The tornado had a path length of .06 miles and a path width of 50 yards. Three barns were damaged and there was sporadic damage to trees. No fatalities or injuries occurred during this event.



Path of tornado near Sharpsburg



The second tornado touched down in the Olympia Springs area at 4:53 p.m. EDT. The NWS in Jackson determined that it was an EF-1 tornado with estimated peak wind of 90 mph. The tornado had a path length of 0.3 miles and a path width of 35 yards. Damaged occurred to a boat trailer and boat, a camping trailer was blown onto a truck, numerous shingles were blown off a house, and there was sporadic damage to trees. No fatalities or injuries occurred during this event.



Path of tornado Olympia Springs

There was 1 confirmed tornado in Pike County on October 7th:

A tornado touched down in the Gulnare area 10:44 p.m. EDT. NWS Jackson determined that it was an EF-1 tornado with estimated peak wind on 90 mph. The tornado had a path length of 0.1 miles and a path width of 130 yards. Several large

trees were snapped and/or uprooted, a large section of a roof was peeled from a house, and 2 barn roofs were damaged. No fatalities or injuries occurred during this event.

Path of tornado near Gulnare in Pike



For more information on these events:

Tornadoes in Bath County:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=104638&source=2

Tornado in Pike County:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=104670&source=2



4. Heavy snow of up to 14 inches blankets southeast Kentucky on February 12th and 13th:

A powerful winter storm impacted the southern and eastern U.S. as low pressure moved from the Gulf of Mexico on Wednesday, February 12th, and up the East Coast through early Friday morning February 14th.

On the backside of this system, heavy snowfall affected much of east Tennessee, western Virginia, West Virginia, and southeast Kentucky. Here locally, while the far northern and far western coalfields did not see a flake, locations near the Virginia border received large amounts of snow. In fact, several locations in Letcher, Pike, and Harlan counties saw more than ten inches of snow.



For more information on this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=100450&source=2

5. Winter Storm on March 2nd and 3rd:

A cold front passed southeastward across eastern Kentucky late on Sunday. A shallow layer of very cold air infiltrated the area behind the cold front with temperatures dropping into the 20s and eventually teens behind this front. A few thousand feet above the ground, however, temperatures were in the 40s Sunday evening. As a result, rain changed to freezing rain and sleet from northwest to southeast Sunday night. Eventually, the warm layer aloft eroded and the sleet changed to a period of heavy snow for many areas. Periods of snow, some heavy at times, continued through Monday morning before tapering off during the afternoon hours.



For more information on this event:

http://www.crh.uoaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=100933&source=2



- 1. If you enter your observation in Wxcoder, please have the observation entered by 9:30 a.m. We use the data you submit to produce a morning Regional Temperature and Precipitation Summary (RTP) that is displayed on our web page. This report must be generated before 10 a.m.
- 2. If you are going out of town, please try to notify us ahead of time. Our email addresses are: jeffrey.carico@noaa.gov and tabitha.brewer@noaa.gov, or you can call us at (606) 666-2560.
- 3. Check the inner tube and funnel of your rain gauge to ensure it did not crack during the winter. If you happen to find cracks, please let us know and we will send a replacement.
- 4. Let us know ASAP if you are experiencing problems with your temperature equipment. Some errors we can help you correct when you call, others may require a home visit.
- 5. If you miss an observation and you have the NIMBUS max/min box, you can call us and we can step you back through to get the max, min and at observation temperatures on the day(s) you are missing.
- 6. If your box is displaying -99.9, that generally means that there has been a loss of power to the box. In this instance, check to see that the box is plugged in. If the box is plugged in, then gently push in on the plug in the back of the box to ensure it is making connection. If -99.9 still displays, unplug your box, leave unplugged for 30 seconds, then plug it back in. If all of the above fails to clear the -99.9, call and let us know. A home visit may be required.
- 7. If your box is displaying a "L", that means that the back-up battery needs to be replaced.
- 8. Remember to completely fill in your data in WxCoder every day. If no precipitation has occurred, or if no snow fall or snow depth is present, put zeroes in the boxes. This gets you ready for the winter season and becomes a habit. Completed forms in WxCoder are considered heavily as well when you are nominated for the Holm or Jefferson Awards, the 2 most prestigious awards given by the National Weather Service.
- 9. Dave Stamper or Tabitha Brewer will be contacting all COOP sites this year to schedule the routine yearly site inspection.
- 10. If you are a Fisher Porter site, please get that information emailed to **tabitha.brewer@noaa.gov** no later than the 15th of the month.
- 11. As always, if any other issues arise, or you have any questions, you can call either Dave Stamper, Tabitha Brewer or Jeffrey Carico at (606) 666-2560 and we will be more than glad to assist you.

