



ARKANSAS CoCoRaHS



Spring, 2013

Arkansas Natural Resources Commission
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MARCH MADNESS RESULTS

This is the first year that Arkansas “competed” for the “March Madness” trophy. As you can see below, we did pretty well. Special thanks to the Arkansas Democrat Gazette and Channel 11, KTHV, for promoting CoCoRaHS on their media. Next year, we’ll get an earlier start and work to improve our positions.

Traditional Count

226	Texas
155	North Carolina
87	Arkansas
75	Wyoming
49	Maine

Per Capita* Count

133.07	Wyoming
43.12	North Dakota
36.89	Maine
29.84	Arkansas
29.48	South Dakota

THE IMPORTANCE OF COCORaHS DATA

The CoCoRaHS website lists a variety of uses for precipitation data supplied by volunteers.

“CoCoRaHS is used by a wide variety of organizations and individuals. The National Weather Service, other meteorologists, hydrologists, emergency managers, city utilities (water supply, water conservation, storm water), insurance adjusters, USDA, engineers, mosquito control, ranchers and farmers, outdoor recreation interests, teachers, students, and neighbors in the community are just some examples of those who visit our Web site and use our data.”

For example, Harris County, Texas (Houston) uses CoCoRaHS data to supplement other rain gauges in flood forecasting. Despite over 130 “strategically place” automated rain gauges, there is often considerable variation in rainfall within a few miles. The Houston area is highly susceptible to flooding, and CoCoRaHS data can be very crucial. To read the article, go to <http://www.hcfc.org/news/2012-0515.html>.

CoCoRaHS observers also played a prominent role in describing the rainfall amounts from Hurricane Sandy that damaged much of the mid-Atlantic and northeastern seaboard. While much of the area of southern New Jersey had 4 to 5 inches of rainfall, CoCoRaHS gauges revealed areas of in excess of 8 inches. See the following article for more information. <http://www.erh.noaa.gov/mhx/EventReviews/20121029/20121029.php>.

A recent news release from Colorado State University...

“This type of accurate information is helping several organizations. The National Weather Service, one of the largest users of the volunteer program’s data, monitors CoCoRaHS rain and hail data daily to help track severe weather, issue severe storm warnings and verify forecasts. Outside of work, about one-third of local National Weather Service employees volunteer for CoCoRaHS.

The U.S. Department of Agriculture uses CoCoRaHS information to evaluate drought, hail and crop conditions and to improve estimates of future crop yields. The U.S. Bureau of Reclamation and the Northern Colorado Conservancy District both use CoCoRaHS data to look at how precipitation affects water inputs into specific river basins and how it impacts irrigation demands in those areas. Colorado State’s CSU-CHILL Radar research laboratory uses CoCoRaHS hail reports to test and improve new methods for remotely tracking hail storms and flash flood events using advanced weather radar technology.

Additionally, teachers from throughout the state can use CoCoRaHS information to help teach math and science to students. Lesson plans are provided via the Web for free to all teachers who want to use the project in their classrooms.”

CoCoRaHS data are also valuable in assessing drought. CoCoRaHS observers can submit Drought Reports as well as daily precipitation. Since droughts are characterized by little or no precipitation over an extended period of time, it is very important to submit precipitation reports even when it’s dry.

TIP OF THE MONTH

With over 700 registered observers/gauges in the State, there are many good ideas for enhancing the experience of being a CoCoRaHS observer. As observers become more experienced with using the rain gauge, there is also the opportunity to measure hail and snow depths, and to submit extreme rainfall events or drought conditions. There's even an instrument, called an ETgage, which measures the equivalent of evapotranspiration. This is not for everyone, but it helps in illustrating the effects of high temperatures in offsetting rainfall in the summer.

Gary Low provides the "Tip of the Month" for February. Gary puts a little bit of dye in his gauge so that the water level is visible from his house. Now he can watch the gauge fill during storm events and submit "significant weather events" if there is a downpour, or just see if it's going to be too wet for soccer practice that day. Thanks Gary, for your idea.

The following photo is courtesy of Duane Motsenbocker of Johnson County:



QUARTERLY REPORTING

Over the past quarter, the number of volunteers reporting 91 or 92 days out of a maximum of 92 was 73. This means that less than 10% of those who are registered volunteers reported that many days during the Spring. In all, 393 volunteers reported on at least 1 day. Many used the multi-day accumulation or simply combined daily readings.

MONTHLY SUMMARIES

March Summary

During the month of February, 327 stations reported at least one day's precipitation. Thirty-four (34) reported 30 or 31 days. Many observers (83) used the multi-day accumulation to capture the monthly total. I suppose Spring Break and Easter influenced this unusual number of multi-day reports. On March 18th, 236 observers recorded rainfall measurements.

Remember, if no precipitation occurs, submit "zeros". If you do not check your gauge for a few days when it does not rain, go to the "monthly zeros" and enter zeros for those days.

A few stations saw rainfall in excess of 6 inches. Five (5) of these stations included multi-day accumulations. Since multi-day accumulations can overlap adjacent months, only one of these stations recorded all precipitation in March. That was AR-WS-9, Springdale 5.8 ENE (6.94") in Washington County. Other stations exceeding 6 inches were - AR-SR-6, Leslie 10.8 SW (6.56") in Searcy County, AR-YL-10, Bluffton 2.6 WSW (6.47") and AR-YL-5, Havana 0.3 NW, both in Yell County.

April Summary

During the month of April, 362 stations reported at least one day's precipitation. One hundred thirty three (133) reported 29 or 30 days. A few stations saw rainfall in excess of 7 inches. Stations with multi-day accumulations overlapping 2 or more months were not included in the monthly total. Stations exceeding 7 inches were AR-BT-4 Pea Ridge 0.2 WSW (8.20") in Benton County AR-BT-12, Decatur 2.6 ESE (7.54") in Benton County, AR-LK-8 Lonoke 7.8 WNW (7.07") in Lonoke County, AR-ST-16 Mountain View 5.5 W (7.01") in Stone County, and AR-SH-11 Hardy 8.0 SSW (7.00") in Sharp County.

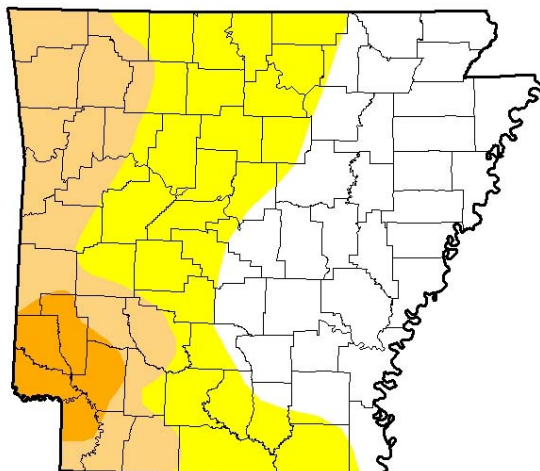
May Summary

During the month of May, 365 stations reported at least one day's precipitation. One hundred (130) reported 30 or 31 days. A few stations saw rainfall in excess of 12 inches. Stations with multi-day accumulations overlapping 2 or more months were not included in the monthly total. Stations exceeding 12 inches were AR-MT-4 Norman 13.4 W (17.68") in Montgomery County, AR-WS-9 Springdale 5.8 (17.13") in Washington County, AR-PN-4 Harrisburg 0.5 NNE (13.91") in Poinsett County, and AR-PL-1 Mena 3.2 WNW (12.14") in Polk County.

DROUGHT CONDITIONS

During the quarter, drought conditions decreased over the State.

U.S. Drought Monitor Arkansas



March 19, 2013

(Released Thursday, Mar. 21, 2013)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.87	60.13	26.49	5.49	0.00	0.00
Last Week 3/12/2013	46.26	53.74	24.13	2.38	0.00	0.00
3 Months Ago 12/18/2012	23.88	76.12	54.72	41.50	24.37	0.00
Start of Calendar Year 1/1/2013	24.37	75.63	54.32	41.05	24.37	0.00
Start of Water Year 9/25/2012	0.11	99.89	91.37	73.93	41.99	8.74
One Year Ago 3/20/2012	98.49	1.51	0.23	0.00	0.00	0.00

Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought
 D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

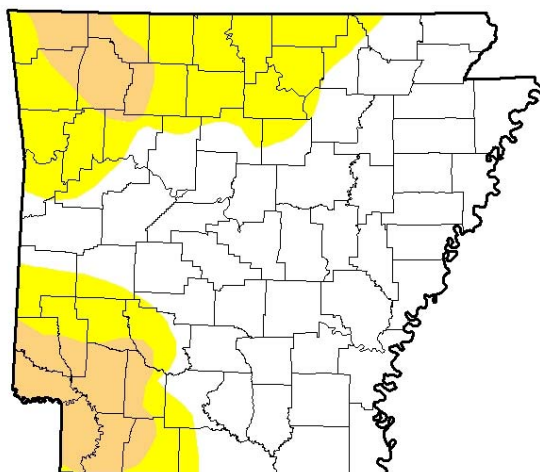
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<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Arkansas



April 16, 2013

(Released Thursday, Apr. 18, 2013)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	63.21	36.79	12.08	0.00	0.00	0.00
Last Week 4/8/2013	56.65	43.35	14.04	0.00	0.00	0.00
3 Months Ago 1/15/2013	25.06	74.94	53.81	34.55	10.14	0.00
Start of Calendar Year 1/1/2013	24.37	75.63	54.32	41.05	24.37	0.00
Start of Water Year 9/25/2012	0.11	99.89	91.37	73.93	41.99	8.74
One Year Ago 4/17/2012	99.96	0.04	0.00	0.00	0.00	0.00

Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
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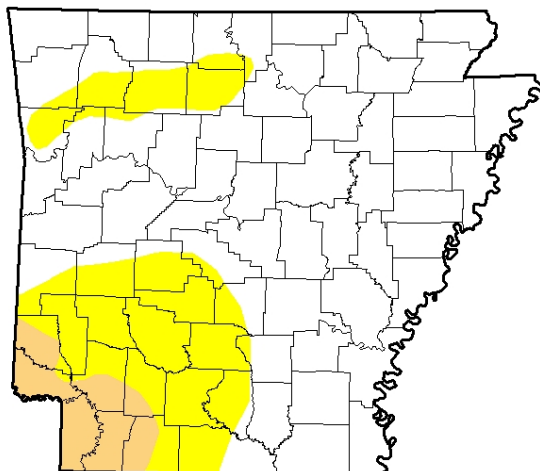
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Arkansas

May 14, 2013

(Released Thursday, May. 16, 2013)

Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	73.40	26.60	5.77	0.00	0.00	0.00
Last Week 5/7/2013	81.59	18.41	5.85	0.00	0.00	0.00
3 Months Ago 2/12/2013	49.79	50.21	31.74	17.44	0.00	0.00
Start of Calendar Year 1/1/2013	24.37	75.63	54.32	41.05	24.37	0.00
Start of Water Year 9/25/2012	0.11	99.89	91.37	73.93	41.99	8.74
One Year Ago 5/15/2012	75.44	24.56	1.53	0.00	0.00	0.00

Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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<http://droughtmonitor.unl.edu/>

