

The Alabama Climate Report

Brought to you by the Office of the Alabama Climatologist

Volume 8, Number 2, November 2017



Dr. John Christy, Alabama State Climatologist

Has 2017 felt unusually warm to you?

Whether we noticed or not, for the year to date, 2017 has been one of the warmest years in the modern climate record. According to our friends at the Southeastern Regional Climate Center, the first 11 months of the year were the warmest on record for both Mobile and Montgomery, and the second warmest for Birmingham and Huntsville.

While daily high temperatures contributed to that, they aren't driving the warmer than normal average temperatures. While daytime highs have averaged warmer than normal, the nightly low temperatures are largely responsible for the high average temps. The average low temperature in Montgomery for the

first eleven months of the year was about 3.5° F warmer than normal, while lows were 2.3° warmer than normal for Mobile. Those are the warmest lows on record for both cities. Huntsville's +2.2° and Birmingham's +2.6° were only the second warmest.

Alabama has gotten some rain this year, especially in the southern two-thirds of the state. Mobile, Montgomery and Birmingham all saw their third wettest January through November. On average, the three cities are almost 18" ahead of normal for rain in 2017. If they don't see a drop of rain in December (which is rare, but does happen), they would still finish the year wetter than normal.

Huntsville, by comparison, is only 0.8" wetter than normal for 2017.

The rain might help explain some of the warmer than normal lows. Clouds and humidity at night tend to trap heat near the surface, raising nighttime temperatures.

Looking back through the year, we note June was especially ... damp, with an average statewide rainfall of 10.56". That included 19.96" in Greensboro and 18.1" in Thomasville.

November, by comparison, was warmer and drier than normal. More than a third of the stations in our monthly sample saw their driest November on record. That includes Birmingham (1.44"), Huntsville (0.89") and Mobile (0.48"). Other records were set in Brewton (0.76"), Fairhope (0.20"), Gadsden (1.04"), Muscle Shoals (1.41") and Scottsboro (1.07").

In that list, Mobile and Scottsboro are noteworthy for the length of their climate records. Climate records from Scottsboro go back to 1891, while Mobile's begin in 1893.

We are beginning to see a pattern consistent with a La Niña Pacific Ocean cooling event. When the temperature of sea surface water in the eastern Pacific along the equator drops, it shifts weather patterns around the globe. Weather is typically a bit warmer and drier along the gulf coast and a bit wetter in the Ohio valley, which is what happened in November.

We should also note that the warmer than normal November pushed back the arrival of the first "killer" frost of the winter by a few days. A cold front on Nov. 20 brought 28° or colder temperatures to most of north Alabama, as far south as Montgomery and Tuscaloosa. That was a week and a half later than normal for northern stations, but only two days late in Montgomery.

- John Christy

U.S. Drought Monitor Alabama



November 28, 2017

(Released Thursday, Nov. 30, 2017) Valid 7 a.m. EST

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Drought Conditions (Percent Area)								
	None 00-04 01-04 02-04 03-04 04							
Current	34.91	65.09	13.25	0.00	0.00	0.00		
Last Week	74.05	25.95	9.20	0.00	0.00	0.00		
3 Months Ago 05-29-2017	99.95	0.05	0.00	0.00	0.00	0.00		
Start of Calendar Year 01-03-2017	22.97	77.03	68.12	48.58	23.32	0.00		
Start of Water Year 00-20-2017	100.00	0.00	0.00	0.00	0.00	0.00		
One Year Ago	0.00	100.00	100.00	100.00	96.51	32.75		

Intensity:



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.

Author:

David Simeral Western Regional Climate Center



http://droughtmonitor.unl.edu/



Lawn-and-Garden Moisture Index for December 4, 2017

Alabama Monthly Climate Summaries

Nove	mber	201	17

	Station Began	Nov. Mean Nov. Norm	Nov. Hi Temp Record Hi	Nov. Low Temp Record Low	Total Precip. Normal Prec.	Wettest Nov. Driest Nov.	Heaviest Day Record Day
Anniston	2/1903	54.6° 53.4°	80° 11/5/17 88° 11/2/74	32° 10/30/17 22° 10/30/52	1.32" 4.20"	10.32* 1992 1.03* 1980	0.41° 11/9/17 3.21° 11/28/48
Auburn	1/1893	56.9° 53.4°	80° 11/3/17 90° 11/1/35	36° 10/30/17 27°+ 10/28/57	0.96* 3.47*	17.77* 1948 0.23* 1924	0.57° 11/9/17 7.05° 11/27/48
Birmingham	1/1930	55.9° 53.1°	81° 11/4/17 85°+ 11/1/00	35° 10/30/17 27° 10/28/57	*1.44" 4.63*	9.66* 1986 1.67* 1981	0.44° 11/7/17 4.41° 11/27/83
Brewton	4/1977	57.0° 56.0°	81.1° 11/4/17 89°+ 11/1/61	35.5° 10/30/17 21° 10/30/52	*0.76" 5.16*	13.01* 1989 1.20* 1993	0.54° 11/9/17 4.52° 11/8/89
Calera	9/1900	56.6° 53.0°	80° 11/3/17 86° 11/2/74	35° 10/30/17 22° 10/26/82	1.18* 3.69*	16.94* 1948 0.00* 1924	0.37° 11/9/17 4.70° 11/12/29
Clanton	2/1893	54.0° 53.0°	80.5° 11/3/17 88° 11/1/35	33.1° 10/30/17 24°+ 10/29/57	0.87* 4.96*	17.37* 1986 0.80* 1981	0.43° 11/9/17 5.50° 11/12/29
Courtland		52.1° M	79.0° 11/5/17 M	33.1° 10/30/17 M	1.87* M	M M	0.92* 11/7/17 M
Cullman	7/1907	52.0° M	79.1° 11/5/17 M	29.2° 10/30/17 M	1.46* M	M M	0.48* 11/3/17 M
Decatur	2/1880	52.3° 51.0°	82° 11/5/17 86° 11/3/35	29° 10/30/17 26° 10/31/17	0.26* 3.69*	14.26* 1957 0.00* 1910	0.11° 11/18/17 3.97° 11/10/91
Dothan	2/1902	60.8° 58.0°	84° 11/4/17 88° 11/5/46	37° 10/30/17 29° 10/29/08	0.47* 3.01*	10.29* 1930 0.05* 1931	0.40° 11/9/17 4.50° 11/7/12
Fairhope	8/1917	58.9° 59.5°	80.8° 11/2/17 91° 11/2/71	32° 10/27/17 33°+ 10/21/89	0.20" 5.19"	12.03° 1997 0.81° 1981	0.09" 11/30/17 4.88" 11/2/95
Gadsden	7/1893	51.7° 51.8°	77.3° 11/4/17 87° 11/1/00	29.4° 10/30/17 23° 10/30/54	1.04" 4.56*	8.97* 1982 1.30* 1981	0.38° 11/18/17 4.31° 11/28/73
Gainesville Lock	6/1948	54.9° 53.6°	81.7° 11/3/17 87° 11/1/61	33.6° 10/29/17 30°+ 10/29/2001	2.11" 4.51"	10.24* 1986 0.93* 1998	0.99° 11/3/17 3.58° 11/28/01
Greensboro	2/1890	55.4° 55.7°	81.8° 11/3/17 98° 11/7/40	33.6° 10/30/17 24° 10/26/65	1.40° 4.47°	14.70° 1986 0.75° 1981	0.53° 11/4/17 4.55° 11/12/29
Highland Home	3/1892	57.7° 56.0°	79.8° 11/4/17 88°+ 11/1/84	34.8° 10/29/17 29° 10/16/87	1.20° 4.71°	11.87* 1997 0.73* 1999	0.63" 11/9/17 3.20" 11/28/48
Huntsville	1/1959	54.4° 51.2°	81° 11/4/17 84°+ 11/1/00	33° 10/30/17 23° 10/30/63	*0.89" 5.22*	11.53* 1977 1.82* 1971	0.61° 11/7/17 3.33° 11/27/73

Alabama Monthly Climate Summaries

No	member	2017
7.40	venuoer	2017

S	Station Began	Nov. Mean Nov. Norm	Nov. Hi Temp Record Hi	Nov. Low Temp Record Lo	Total Precip. Normal Prec.	Wettest Nov. Driest Nov.	Heaviest Day Record Day
Mobile 3	1900	61.6° 58.9°	83° 11/2/17 87°+ 11/2/71	38° 10/29/17 30° 10/31/93	*0.48" 5.41"	12.70° 1992 0.85° 1981	0.16" 11/30/17 7.01" 11/6/75
Montgomery 6	1948	56.6° 56.1°	82° 11/3/17 87°+ 11/8/86	35° 10/30/17 26° 10/30/52	1.15" 4.53"	10.18" 1986 0.51" 1981	0.49" 11/30/17 8.16" 11/26/48
Muscle Shoals 12	/1940	53.8° 51.5°	81° 11/3/17 85° 11/1/00	32° 10/30/17 25° 10/27/61	*1.41" 5.09"	11.06" 1986 1.90" 1971	0.49" 11/18/17 3.65" 11/30/91
Russellville 9	/1953	51.2° 50.1°	78.0° 11/3/17 85°+ 11/2/00	30.6° 10/30/17 19° 10/28/61	1.13" 5.08"	9.76" 1986 0.84" 1971	0.34° 11/18/17 3.80° 11/2/99
Scottsboro 10	v1891	50.7° 50.2°	79.3° 11/5/17 85°+ 11/2/00	30.1° 10/30/17 20° 10/26/68	*1.07" 4.98"	11.43" 1977 1.52" 1971	0.35" 11/7/17 4.90" 11/17/27
Selma 1	/1895	54.1° 56.2°	81.4° 11/3/17 91° 11/3/30	31.4° 10/30/17 27° 10/30/52	1.05" 4.32"	10.44" 1986 0.53" 1981	0.48" 11/9/17 3.62" 11/27/48
Talladega 2	/1888	52.9° 51.4°	81.0° 11/4/17 86°+ 11/2/74	29.8° 10/30/17 23°+ 10/25/65	1.22" 4.59"	10.69" 1992 0.66" 1981	0.44" 11/9/17 3.31" 11/2/92
Thomasville 9.	/1891	55.3° 56.3°	80.3° 11/2/17 90° 11/4/35	32.7° 10/30/17 29°+ 10/31/93	1.66" 5.31"	11.26" 1986 0.86" 1981	0.50" 11/4/17 3.80" 11/6/59
Troy 6	1908	57.1° 56.2°	82° 11/3/17 89° 11/4/35	33° 10/30/17 28° 10/24/37	1.34" 4.44"	10.53" 1992 1.33" 1990	0.75" 11/9/17 6.12" 11/8/43
Tuscaloosa 6	1948	56.6° 55.3°	81° 11/3/17 87°+ 11/3/00	34° 10/30/17 23° 10/30/52	1.02" 4.84"	10.04" 2000 0.84" 1985	0.33" 11/4/17 3.67" 11/11/95
Valley Head 1	/1893	50.7° 48.5°	76.7° 11/5/17 84°+ 11/3/74	27° 10/30/17 19° 10/27/61	1.43" 5.00"	9.76" 1983 1.19" 1971	0.43" 11/18/17 4.06" 11/5/77
Statewide Nov. 2 Nov. Nov. Nov. Nov. Nov. Nov. Nov. Nov.	017 orm	55.27° / 53.98° /	84° Dothan 98° Greensboro	27° Valley Head 19° 2 stations	1.08" 4.60"	14.95" Brewton 0.00" 9 stations	0.92" Courtland 8.16" Montgomery

M: Data is missing or not available

*New Record

#This data is missing this month due to an instrument malfunction

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS) November 2017

I	Total Precip.	# Stations
Autauga	1.12	2
Baldwin	0.21	26
Barbour	n.a.	0
Bibb	1.90	1
Blount	0.74	8
Bullock	n.a.	0
Butler	n.a.	0
Calhoun	1.50	2
Chambers	n.a.	0
Cherokee	0.00	1
Chilton	1.13	1
Choctaw	1.68	1
Clarke	1.59	1
Clay	n.a.	0
Cleburne	n.a.	0
Coffee	0.88	1
Colbert	1.52	5
Conecuh	0.54	2
Coosa	0.98	2
Covington	n.a.	0
Crenshaw	n.a.	0
Cullman	1.12	4
Dale	0.65	1
Dallas	1.29	1
DeKalb	1.44	5
Elmore	1.08	4
Escambia	1.04	2
Etowah	n.a.	0
Fayette	1.13	4
Franklin	n.a.	0
Geneva	0.91	1
Greene	n.a.	0
Hale	n.a.	0
Henry	0.00	1

	Total Precip.	# Stations
Houston	0.72	2
Jackson	1.31	6
Jefferson	1.43	13
Lamar	0.87	1
Lauderdale	0.77	9
Lawrence	1.04	2
Lee	0.50	2
Limestone	0.96	7
Lowndes	n.a.	0
Macon	1.00	1
Madison	0.97	22
Marengo	n.a.	0
Marion	1.25	1
Marshall	1.39	9
Mobile	0.48	14
Monroe	1.39	2
Montgomery	1.23	4
Morgan	1.17	5
Репу	n.a.	0
Pickens	n.a.	0
Pike	n.a.	0
Randolph	0.81	2
Russell	1.64	2
St. Clair	1.03	5
Shelby	1.15	17
Sumter	n.a.	0
Talladega	1.37	4
Tallapoosa	0.37	2
Tuscaloosa	1.41	5
Walker	n.a.	0
Washington	1.24	1
Wilcox	1.16	2
TT	0.90	2

Normal	
November	r
Precipitatio	n*
Abbeville	.4.19"
Alberta	.4.12"
Alex City	.4.34"
Aliceville	.4.39"
Andalusia	.4.19"
Ashland	. 4.50"
Athens	. 4.59"
Bay Minette	.4.36"
Bessemer	5.11"
Billingsley	.4.27°
Centreville WSMO	. 5.04"
Chatom	. 4.33"
Claiborne L&D	. 4.26"
Clayton	. 3.60"
Dauphin Isl	. 4.15"
Elba	. 3.96"
Eufaula WR	. 4.26"
Evergreen	. 4.05"
Fayette	. 4.41"
Geneva 2	. 5.16"
Greenville	. 3.94"
Haleyville	. 5.02"
Hamilton 3S	. 4.92"
Heflin	. 4.44"
Hurtsboro	. 4.57°
Jasper	. 4.61"
Lafayette	. 4.01"
Livingston	. 3.86"
Melvin	. 3.73"
Milstead	. 3.74"
Moulton	. 4.87°
Oneonta	. 3.89"
Perryville	. 3.95"
Plantersville	. 4.31"
Rock Mills	. 4.16"
Rockford	. 4.23"
Sylacauga	. 4.30°
Union Springs	. 3.70"
Uniontown	. 3.48"
Vernon	. 5.14"
Warrior L&D	. 4.16"
wetumpka	. 3.48"

"Southeast Regional Climate Center www.serrc.com

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New Local Climate Records¹

November 2017

Maximum High Temperature, Daily

	New Record	Previous Hottest Day	Previous Record	Period of Record
06 Nov. 2017		-		
MOULTON 2	79	2015-11-06	78	60
07 Nov. 2017				
RUSSELLVILLE No. 2	77	2008-11-07	76	63
08 Nov. 2017				
FT BENNING LAWSON F	D 82	2015-11-08	79	68
18 Nov. 2017				
MOBILE DT AIRPORT	81	1958-11-18	79	68

Warmest minimum temperature, daily

	Period of Record	New Record	Previous Record	Previous Date
16 October 2016				
BELLE MINA	62	2015-11-03	61	67
MOULTON 2	63	2015-11-03	61	60
RUSSELLVILLE NUMBER 2	65	2015-11-03	62	63
04 Nov. 2017				
DEMOPOLIS LOCK AND DAY	M 62	2015-11-04	61	65
RUSSELLVILLE NUMBER 2	59	2004-11-04	55	63
06 Nov. 2017				
MUSCLE SHOALS RG'L APR	T 68	2015-11-06	66	76
07 Nov. 2018				
BELLE MINA	66	1975-11-07	62	67
GUNTERSVILLE	66	2015-11-07	64	107
HAMILTON 3 S	63	1975-11-07	62	55
MOULTON 2	67	1975-11-07	62	60
RUSSELLVILLE NUMBER 2	67	2000-11-07	62	63
11 Nov. 2018				
FT BENNING LAWSON FIELD	D 59	1966-11-08	58	68

Alabama State Climatologist

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