

# The Alabama Climate Report

Brought to you by the Office of the Alabama Climatologist

Volume 8, Number 3, December 2017



Dr. John Christy, Alabama State Climatologist

Do you remember the day before Christmas Eve?

December 23 was a bit damp over much of the state, with rain amounts of from a trace to four-fifths of an inch. It was hardly memorable, unless you had to run through the rain to finish your Christmas shopping.

What were memorable were the temperatures. Alabama was awash in unseasonable warmth. Dothan hit 80° and Mobile 76°. Montgomery's high was 75°, while Tuscaloosa, Anniston and Huntsville all hit 71°. It hit record highs for that day in Russellville (68°), Hamilton (75°), Mobile (78°) and Jackson (79°).

There were even some complaints that it didn't "feel" like Christmas.

That wasn't the situation earlier in the month, when central into southern Alabama got a heavy coating of snow. On Dec. 8, Butler reported more than 7.5" of snow. Birmingham reported 4 inches, Calera 5 inches and Mobile one inch of snow. Dothan reported a trace of snow on Dec. 9.

It wasn't unusual that Alabama got snow in December. What was unique about that storm was how EARLY in the month we got snow. There were several stations that apparently got their first recorded snowfall for either Dec. 8 or 9. And while it isn't surprising that Atmore, Mobile and Evergreen hadn't previously gotten snow on those days, you know the snow is early when the same can be said for Gadsden, Guntersville and Fort Payne. (See "Local Climate Records")

Between those two extremes, December in Alabama averaged out to ... remarkably unremarkable. NOAA reports there were nine daily max temperature records broken, but no low temperature records. Of the 25 cities and towns in our monthly sample, ten were slightly warmer than normal and 15 were slightly cooler.

We shouldn't be much surprised. Winter weather is subject to much more violent swings and extremes than weather in other seasons. The 80° Dec. 23 in Dothan, for instance, didn't break a record.

Looking back at all of 2017, it looks like the year will go down as one of the warmest in the recent temperature record. That's based on records from the Southeastern Regional Climate Center for the state's four largest cities.

Mobile, with a climate record back to 1900, saw it's warmest year on record; Huntsville and Montgomery their second warmest, and Birmingham was tied for it's second warmest year.

It was also wetter than normal for the southern three fourths of the state. Mobile reported it's third wettest year on record, with 83.78 inches of rain. That was 17.6" above normal. Montgomery saw it's fourth wettest year, with 70.25" of rain for the year or 17.2" more than normal. Birmingham got 69.27 inches of year in 2017, which is more than 15 inches above normal. That was Birmingham's fifth wettest year.

Huntsville, on the other hand, reported only 53.57 inches of rain for the year, with was half an inch below normal. It was Huntsville's 35th "wettest" year.

The problem with some of these records, however, is their relative brevity. The SERCC's climate record for Montgomery, for instance, goes back to only 1948; Huntsville's to 1937; and Birmingham's to 1930.

That's a problem because it was so frequently hot in the 1920s and '30s. At least it was during the day. If we look at the high temperature records for Huntsville, with a temperature record that goes back to 1908, five of the ten hottest years in that record were before 1937.

On the other hand, if we look at the average daily low temperatures, before 1973 only 1921, 1922 and 1927 squeeze into the top ten. For daily low temperatures, the past three years have been the three warmest on record in Huntsville.

Another NOAA website that provides statewide averages for temperature and precipitation has these as the 12 warmest years in the Alabama climate record, through 2016:

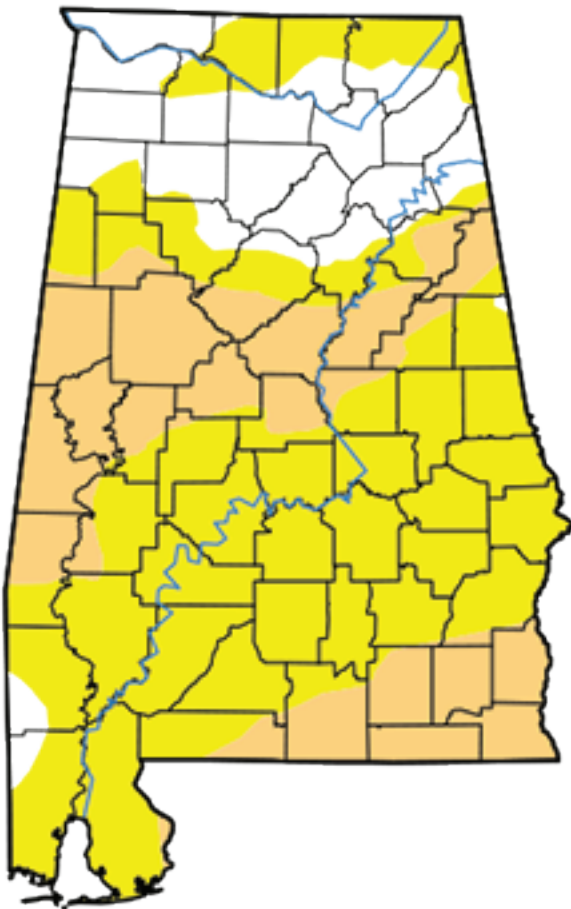
1. 1921 65.7°
2. 1927 65.6°
3. 1911 65.3°
- 2016 65.3°
5. 1922 65.2°
6. 1933 65.1°
- 1998 65.1°
8. 1925 65.0°
9. 1990 64.9°
- 2012 64.9°
11. 2015 64.6°
12. 1938 64.5°

So, if 2017 turns out to be about as warm as 2016 (which it might), then 2017 might be one of the warmest years in Alabama's climate history. Just not the top one or two.

- John Christy

# U.S. Drought Monitor Alabama

**January 2, 2018**  
(Released Thursday, Jan. 4, 2018)  
Valid 7 a.m. EST



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	19.01	80.99	26.60	0.00	0.00	0.00
<b>Last Week</b> 12-26-2017	38.82	61.18	16.85	0.00	0.00	0.00
<b>3 Months Ago</b> 10-03-2017	94.10	5.90	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2018	19.01	80.99	26.60	0.00	0.00	0.00
<b>Start of Water Year</b> 09-26-2017	100.00	0.00	0.00	0.00	0.00	0.00
<b>One Year Ago</b> 01-03-2017	22.97	77.03	68.12	48.58	23.32	0.00

Intensity:

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

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

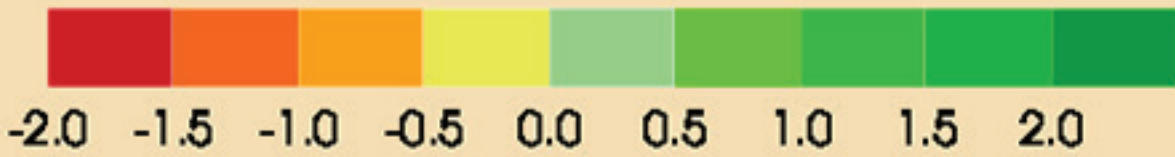
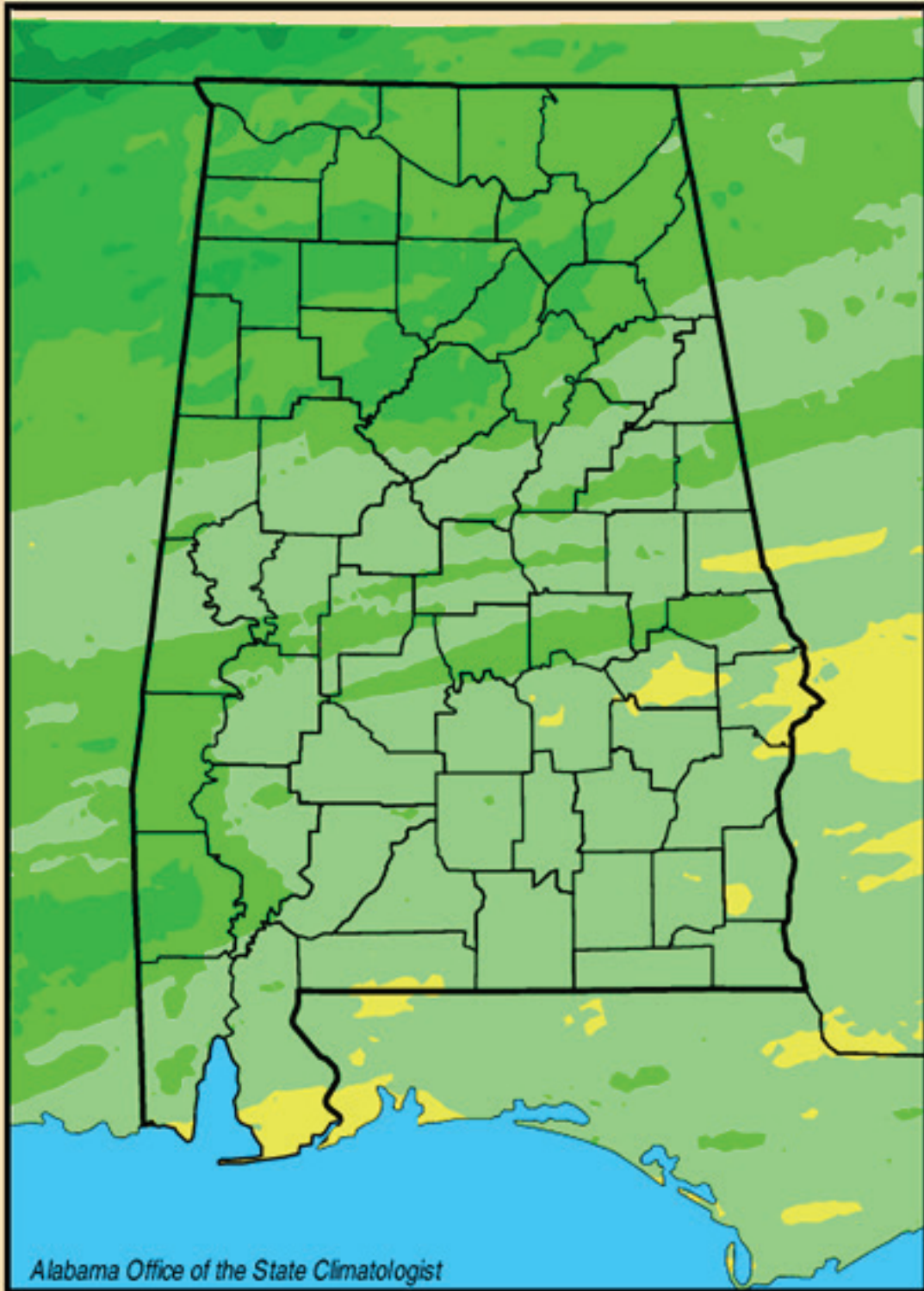
Author:

Eric Luebehusen  
U.S. Department of Agriculture



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

# Lawn-and-Garden Moisture Index for January 4, 2018



## Alabama Monthly Climate Summaries

December 2017

	Station Began	Dec. Mean Dec. Norm	Dec. Hi Temp Record Hi	Dec. Low Temp Record Low	Total Precip. Normal Prec.	Wettest Dec. Driest Dec.	Heaviest Day Record Day
Anniston	2/1903	44.9	71° 12/23/17	20° 12/10/17	3.45"	10.32" 1983	1.27" 12/20/17
		46.1	80° 12/7/51	1° 12/13/62	4.11"	0.71" 1980	4.11" 12/20/51
Auburn	1/1893	49.8	74° 12/5/17	27° 12/31/17	2.19"	14.27" 1953	1.26" 12/20/17
		48.3	84° 12/20/24	-1° 12/13/62	5.26"	0.82" 1955	6.22" 12/4/53
Birmingham	1/1930	45.5	71° 12/20/17	20° 12/31/17	4.01"	12.63" 1983	1.99" 12/20/17
		45.6	80° 12/7/51	1+ 12/23/89	4.47"	0.81" 1980	7.70" 12/27/42
Brewton	4/1977	49.6	77.4° 12/5/17	25.6° 12/10/17	3.52"	14.96" 1972	0.81" 12/6/17
		49.5	84° 12/8/98	7° 12/13/62	4.78"	1.13" 1980	6.23" 12/21/72
Calera	9/1900	46.1	75° 12/20/17	22° 12/31/17	2.98"	13.61" 1983	0.86" 12/20/17
		45.9	79° 12/8/78	-5° 12/26/83	5.12"	0.65" 1917	7.25" 12/28/42
Clanton	2/1893	45.4	74.1° 12/20/17	22.4° 12/10/17	3.73"	13.61" 1983	0.98" 12/8/17
		45.2	80°+ 12/8/78	2° 12/13/62	4.96"	2.20" 1980	5.10" 12/12/61
Courtland		42.2	69.9° 12/23/17	15.9° 12/31/17	4.84"	M	1.92" 12/5/17
		M	M	M	M	M	M
Cullman	7/1907	42.1	68° 12/23/17	16.5° 12/31/17	5.40"	M	2.35" 12/20/17
		M	M	M	M	M	M
Decatur	2/1880	41.4	69° 12/20/17	16° 12/31/17	3.60"	11.52" 1911	1.54" 12/20/17
		43.5	78° 12/7/51	1° 12/15/1901	5.08"	0.88" 1965	4.87" 12/29/54
Dothan	2/1902	53.0	80° 12/5/17	29° 12/10/17	2.91"	13.72" 1964	1.29" 12/8/17
		51.3	82° 12/6/51	7° 12/13/62	4.56"	0.50" 1955	9.84" 12/25/64
Fairhope	8/1917	52.7	78° 12/5/17	28.9° 12/10/17	2.42"	8.04" 1982	0.78" 12/8/17
		52.5	84° 12/30/85	8° 12/13/62	4.40"	1.67" 1980	9.80" 12/6/53
Gadsden	7/1893	42.0	66.7° 12/23/17	16.9° 12/31/17	4.16"	10.33" 1983	1.99" 12/20/17
		43.5	78+ 12/7/98	1° 12/13/62	4.89"	0.43" 1980	5.85" 12/12/61
Gainesville Lock	6/1948	45.7	76.5° 12/20/17	23.5° 12/16/17	2.80"	11.36" 1982	0.76" 12/20/17
		46.1	83° 12/4/78	2° 12/24/89	4.81"	0.73" 1980	4.77" 12/26/73
Greensboro	2/1890	46.1	75.3° 12/5/17	23.3° 12/16/17	3.54"	13.36" 1973	0.81" 12/8/17
		48.5	82° 12/6/51	2° 12/23/89	4.76"	0.37" 1980	6.12" 12/28/42
Highland Home	3/1892	48.7	74.9° 12/5/17	26.3° 12/31/17	3.13"	9.05" 1972	0.61" 12/8/17
		48.5	83° 12/8/51	4+ 12/26/83	4.80"	1.59" 1998	4.00"+ 12/17/92
Huntsville	1/1959	43.5	71° 12/23/17	17° 12/31/17	4.48"	18.88" 1990	1.74" 12/20/17
		43.1	79° 12/4/98	-3° 12/22/89	5.59"	0.76" 1965	9.07" 12/22/90

# Alabama Monthly Climate Summaries

December 2017

	Station Began	Dec. Mean Dec. Norm	Dec. Hi Temp Record Hi	Dec. Low Temp Record Lo	Total Precip. Normal Prec.	Wettest Dec. Driest Dec.	Heaviest Day Record Day
Mobile	3/1900	52.9	80° 12/22/17	29° 12/10/17	4.37"	8.86" 1995	1.20" 12/17/17
		52.3	81°+ 12/7/98	8° 12/25/83	4.66"	1.29" 1980	4.68" 12/18/95
Montgomery	6/1948	48.3	77° 12/5/17	24° 12/16/17	2.61"	11.35" 1961	0.91" 12/8/17
		49.0	85° 12/2/82	5°+ 12/25/83	4.97"	1.39" 1980	3.92" 12/16/92
Muscle Shoals	12/1940	42.9	71° 12/23/17	16° 12/31/17	5.36"	19.19" 1990	2.07" 12/5/17
		43.3	78°+ 12/24/84	-5° 12/23/89	5.44"	0.65" 1980	5.20" 12/1/91
Russellville	9/1953	41.7	69.5° 12/23/17	15.2° 12/31/17	5.63"	17.45" 1990	1.96" 12/20/17
		42.0	85° 12/25/64	-7° 12/23/89	5.36"	1.02" 1980	5.31" 12/29/54
Scottsboro	10/1891	41.7	68.2° 12/23/17	18.3° 12/31/17	3.81"	14.73 1990	1.83" 12/20/17
		42.1	80° 12/7/51	-1° 12/25/83	5.65"	1.34" 1980	6.80" 12/23/90
Selma	1/1895	46.0	78.7° 12/5/17	19.4° 12/16/17	3.56"	9.97" 1983	1.04" 12/8/17
		49.2	85°+ 12/6/51	5° 12/13/82	4.72"	1.29" 1980	7.08" 12/10/81
Talladega	2/1888	44.5	70.1° 12/23/17	20.4° 12/10/17	4.15"	8.43" 1983	1.96" 12/20/17
		43.6	80° 12/7/51	0° 12/13/82	4.24"	0.98" 1979	3.80" 12/31/73
Thomasville	9/1891	47.0	78° 12/5/17	23.4° 12/10/17	4.54"	11.65" 1971	0.97" 12/17/17
		47.0	85° 12/11/33	3° 12/13/82	5.16"	1.12" 1980	6.29" 12/10/81
Troy	6/1908	49.6	78° 12/5/17	25° 12/10/17	2.72"	14.95" 1972	0.60" 12/8/17
		50.4	82° 12/3/1912	4° 12/13/82	4.54"	0.29" 1980	6.67" 12/6/72
Tuscaloosa	6/1948	46.2	76° 12/20/17	23° 12/16/17	2.37"	11.05" 1983	0.70" 12/5/17
		47.0	82° 12/3/78	2° 12/23/89	4.87"	0.69" 1980	3.64" 12/20/51
Valley Head	1/1893	40.9	67.4° 12/23/17	17.1° 12/31/17	4.07"	13.67" 1961	2.39" 12/20/17
		41.3	85° 12/28/42	-8° 12/13/82	4.86"	0.77" 1904	4.28" 12/12/81
Statewide Dec. 2017		46.24° /	80° 2 stations	15.2° Russellville	3.60"	19.19" M. Shoals	2.39" Valley Head
Dec. Norm		46.59° /	85°+ Selma	-8° Valley Head	4.87"	0.29" Troy	9.84" Dothan

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)

December 2017

	Total Precip.	# Stations
Autauga	3.54	2
Baldwin	2.70	24
Barbour	n.a.	0
Bibb	3.85	1
Blount	4.60	8
Bullock	n.a.	0
Butler	n.a.	0
Calhoun	3.42	2
Chambers	n.a.	0
Cherokee	n.a.	0
Chilton	3.39	1
Choctaw	3.46	1
Clarke	5.22	1
Clay	n.a.	0
Cleburne	n.a.	0
Coffee	2.08	1
Colbert	5.56	5
Conecuh	3.67	2
Coosa	3.23	2
Covington	n.a.	0
Crenshaw	n.a.	0
Cullman	5.34	3
Dale	3.43	1
Dallas	5.24	1
DeKalb	4.89	5
Elmore	4.66	4
Escambia	4.21	2
Etowah	n.a.	0
Fayette	5.88	1
Franklin	n.a.	0
Geneva	1.92	1
Greene	n.a.	0
Hale	n.a.	0
Henry	n.a.	0

	Total Precip.	# Stations
Houston	2.12	2
Jackson	4.22	5
Jefferson	4.63	13
Lamar	n.a.	0
Lauderdale	5.02	8
Lawrence	3.87	3
Lee	1.27	2
Limestone	4.91	7
Lowndes	n.a.	0
Macon	3.33	1
Madison	4.31	21
Marengo	n.a.	0
Marion	6.07	1
Marshall	4.78	9
Mobile	4.01	14
Monroe	4.35	2
Montgomery	3.65	4
Morgan	5.25	5
Perry	n.a.	0
Pickens	n.a.	0
Pike	n.a.	0
Randolph	3.37	2
Russell	2.98	2
St. Clair	4.60	5
Shelby	3.58	17
Sumter	n.a.	0
Talladega	3.82	4
Tallapoosa	2.81	1
Tuscaloosa	4.11	5
Walker	n.a.	0
Washington	4.99	1
Wilcox	4.31	2
Winston	6.16	2

### Normal December Precipitation\*

Abbeville	4.62"
Alberta	5.22"
Alex City	4.84"
Aliceville	4.76"
Andalusia	5.04"
Ashland	5.09"
Athens	5.73"
Bay Minette	5.15"
Bessemer	4.90"
Billingsley	5.03"
Centreville WSMO	4.77"
Chatom	5.83"
Claiborne L&D	5.30"
Clayton	4.48"
Dauphin Isl.	4.34"
Elba	4.55"
Eufaula WR	4.73"
Evergreen	4.05"
Fayette	5.08"
Geneva 2	4.48"
Greenville	5.12"
Haleyville	5.80"
Hamilton 3S	5.80"
Heflin	4.94"
Hurtsboro	4.42"
Jasper	6.07"
Lafayette	4.95"
Livingston	4.96"
Melvin	6.15"
Milstead	4.96"
Moulton	5.70"
Oneonta	5.06"
Perryville	5.16"
Plantersville	5.35"
Rock Mills	5.10"
Rockford	5.03"
Sylacauga	5.01"
Union Springs	4.68"
Uniontown	4.88"
Vernon	5.14"
Warrior L&D	4.82"
Wetumpka	4.94"

\*Southeast Regional Climate Center  
www.serc.com

# New Local Climate Records<sup>1</sup>

## December 2017

### Precipitation, Daily

	New Record	Previous Year	Previous Record	Period of Record
<b>05 December 2017</b>				
ATHENS	2.01	2004-12-05	1.47	77
HALEYVILLE	1.80	1994-12-05	1.65	115
HUNTSVILLE INT'L AIRPORT	1.50	2011-12-05	0.93	59
<b>06 December 2017</b>				
ALICEVILLE LAND D	1.55	2016-12-06	1.22	37
BELLE MINA	1.49	1971-12-06	1.48	67
<b>09 December 2017</b>				
ENTERPRISE 2 W	0.43	1989-12-09	0.38	51
JORDAN DAM	1.00	1966-12-09	0.67	80
<b>18 December 2017</b>				
CAHABA PUMP HOUSE	0.80	2016-12-18	0.14	36
<b>20 December 2017</b>				
ADDISON	3.05	1995-12-20	1.11	80
FAYETTE	2.00	1992-12-20	0.92	109
FORT PAYNE	1.98	1957-12-20	1.84	82
GUNTERSVILLE	1.55	2002-12-20	1.50	113
HALEYVILLE	3.00	1992-12-20	1.39	115
HAMILTON 3 S	2.10	1992-12-20	1.58	56
JASPER	1.39	1992-12-20	1.29	57
MOULTON 2	2.46	1993-12-20	1.20	61
RUSSELLVILLE No 2	2.00	1970-12-20	1.45	64
WALNUT GROVE	2.38	1957-12-20	2.22	77
<b>21 December 2017</b>				
ALICEVILLE LAND D	0.80	1993-12-21	0.77	37
<b>27 December 2017</b>				
COFFEEVILLE LOCK & DAM	0.75	2011-12-27	0.68	35
PINE APPLE	0.93	1981-12-27	0.55	50

### Maximum High Temperature, Daily

	New Record	Previous Hottest Day	Previous Record	Period of Record
<b>01 December 2017</b>				
ENTERPRISE 2 W	80	2015-12-01	78	51
<b>20 December 2017</b>				
FT BENNING LAWSON FD	74	1951-12-20	72	69
MOBILE DTOWN A'PORT	77	2008-12-20	76	69
<b>21 December 2017</b>				
FT BENNING LAWSON FD	74	1970-12-21	74	68
<b>22 December 2017</b>				
MOBILE REG'L AIRPORT	80	1970-12-22	78	69
<b>23 December 2017</b>				
HAMILTON 3 S	75	1982-12-23	70	55
JACKSON	79	2011-12-23	73	33
RUSSELLVILLE No 2	70	1990-12-23	68	63
MOBILE D'TOWN A'PORT	78	1964-12-23	76	68

### Deepest Snow Fall, Daily

	New Record	Previous Year	Previous Record	Period of Record
<b>08 December 2017</b>				
BIRMINGHAM AIRPORT	4.02	1937-12-08	0.79	87
MOBILE REG'L AIRPORT	0.98	(no previous on 12/08)		69
<b>09 December 2017</b>				
CHATOM	1.10	(no previous on 12/09)		67
EVERGREEN	0.20	"		101
GADSDEN	0.31	"		64
PINE APPLE	2.99	"		49
SELMA	1.89	1898-12-09	T	101

### Deepest Snow Depth, Daily

	New Record	Previous Year	Previous Record	Period of Record
<b>08 December 2017</b>				
BIRMINGHAM AIRPORT	4.02	1937-12-08	0.98	87
CAHABA PUMP HOUSE	0.98	(no previous on 12/08)		35
CALERA	2.01	"		69
FAYETTE	0.98	"		87
ONEONTA	4.02	"		69
WALNUT GROVE	0.98	"		69
<b>09 December 2017</b>				
ALICEVILLE LAND D	2.99	(no previous on 12/09)		37
ATMORE	0.98	"		69
BANKHEAD LOCK & DAM	0.98	"		60
BIRMINGHAM AIRPORT	2.01	1937-12-09	T	87
CALERA	4.02	(no previous on 12/09)		69
DEMOPOLIS LOCK & DAM	0.98	"		66
EVERGREEN	2.01	"		69
FORT PAYNE	0.98	"		69
GADSDEN	0.98	"		64
GUNTERSVILLE	0.98	"		90
JACKSON	2.01	"		55
ROCK MILLS	2.99	"		79
WALNUT GROVE	2.01	"		69

<sup>1</sup> [ncdc.noaa.gov/cdo-web/datatools/records](http://ncdc.noaa.gov/cdo-web/datatools/records)



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GUNTERSVILLE	1.55	2002-12-20	1.50	113
HALEYVILLE	3.00	1992-12-20	1.39	115
HAMILTON 3 S	2.10	1992-12-20	1.58	56
JASPER	1.39	1992-12-20	1.29	57
MOULTON 2	2.46	1993-12-20	1.20	61
RUSSELLVILLE No 2	2.00	1970-12-20	1.45	64
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<b>21 December 2017</b>				
ALICEVILLE LAND D	0.80	1993-12-21	0.77	37
<b>27 December 2017</b>				
COFFEEVILLE LOCK & DAM	0.75	2011-12-27	0.68	35
PINE APPLE	0.93	1981-12-27	0.55	50

### Maximum High Temperature, Daily

	New Record	Previous Hottest Day	Previous Record	Period of Record
<b>01 December 2017</b>				
ENTERPRISE 2 W	80	2015-12-01	78	51
<b>20 December 2017</b>				
FT BENNING LAWSON FD 74	74	1951-12-20	72	69
MOBILE DTOWN A'PORT	77	2008-12-20	76	69
<b>21 December 2017</b>				
FT BENNING LAWSON FD 74	74	1970-12-21	74	68
<b>22 December 2017</b>				
MOBILE REG'L AIRPORT	80	1970-12-22	78	69
<b>23 December 2017</b>				
HAMILTON 3 S	75	1982-12-23	70	55
JACKSON	79	2011-12-23	73	33
RUSSELLVILLE No 2	70	1990-12-23	68	63
MOBILE D'TOWN A'PORT	78	1964-12-23	76	68

<sup>1</sup> [ncdc.noaa.gov/cdo-web/datatools/records](http://ncdc.noaa.gov/cdo-web/datatools/records)

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