THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

The Alabama Climate Report

Brought to you by the Office of the Alabama Climatologist

Volume 4, Number 9, June 2014

Dr. John Christy, Alabama State Climatologist

There is hardly anyone around anymore, who remembers the summer of '54, although it was memorable. By some measures, the summer 60 years ago this year was the "worst" summer in at least the past 131 years.

It was also the end of a four-year stretch of summers that, in some ways, helped to change the face of Alabama for the past 60 years. More on that later. First, the numbers.

In an 1883-2013 reconstruction of summer daily high temperatures within 50 miles of Alabama's four biggest cities, the summer of 1954 was the hottest in that 131-year record. The summer of 1954 edges out 1902 by one tenth of a degree, with an average high temperature of 95.8° F. No other year is really close, although the summer of 1952 touched an average high of 95.03. (The 131-year average is 91.1° F, and no summer since 1954 has hit an average high of more than 93.5.)

That makes the summer of 1954 a few degrees warmer than normal, but how bad was it?

The average weather station in Alabama registers 73 days a year with temperatures of 90° F or warmer, ranging from only 45 days a year in Valley Head to 95 days a year in Brewton.

In 1954, looking at the entire state, the average weather station recorded 117 days with a high temperature of at least 90° F. Strung together, that's almost four months. By comparison, 1994 saw an average of only 33 days of 90° or higher temperatures.

Some days during the summer of 1954 were scorchers. The July 1, 1954, edition of the Huntsville Times, in addition to reporting on the French withdrawal from Indochina, noted:

'June Cracks All Records With 104 Degrees For City

An all-time record for June heat was set here yesterday at 3 p.m. when the thermometer hit 104 degrees at the local TVA sub-station.

Readings for the period of 2 through 4 p.m. were 101, 104 and 102 degrees. July started off today to bid fair for a crack at past records ...'

On July 1 the temperature at Huntsville's TVA sub-station hit 106. (Official temperatures at the Huntsville airport were slightly cooler: 98 on June 30 and 102 pm July 1.) That doesn't mean the airport was a cool place to hang out. The official weather record at the old Huntsville airport recorded 18 days in

June, July and August 1954 with a high temperature of 100° or higher, with an official high of 105° on three consecutive days (15-17) in August.

The rest of the state was just as toasty. Birmingham saw eleven days with highs of 100 or more, Muscle Shoals 18, Montgomery 20, and Tuscaloosa a wilting 28 summer days with a high temperature of at least 100°, including eight consecutive days in August.

The official high temperature for the year was 108°, reached three times: June 28 in Greenville and Selma, and August 16 in Belle Mina. The official record high in Alabama's recorded history is 112° on Sept. 5, 1925, in Centerville.

Did you know that when it gets hot and dry, rattlesnakes come out of the mountains? A newspaper story from Aug. 15, 1954, noted:

'Drought Bringing Out Rattlesnakes

Timber rattlesnakes appear to be on the move in this area now, evidently in search of water due to the drought.'

Which brings us to how the string of hot, dry summers in the early 1950s changed the face of Alabama. The four-summer stretch from 1951 through 1954 was the hottest four-consecutive-summer period in the 131-year record. It was also a period during which many farmers across Alabama were forced to get out of the farming business, a trend that continued for many years and turned Alabama from an agricultural powerhouse into something very different.

The average high temperature during that four-summer span was a blistering 94.4° F (1951 94.0°, 1952 95.0°, 1953 92.9° and 1954 95.8°). The second worst 4 consecutive summers (that did not include the years 1951 to 1954) was 1899-1902 at a mere 92.8°.

The hottest similar stretch since 1954 was mild by comparison; 91.7° in the summers of 2008 through 2011.

The six coolest summers, all under 88°, have occurred since the first such summer in 1967, with 2013 (last summer) being one of them.

But hot summers are usually also dry summers, and that is what happened in the 1950s. Summer 1954 tied 1902 as the driest summer in 120 years, with only eight inches of rainfall in three months. If we look at NOAA's Palmer drought index, it shows the summers from 1951 through 1957 all in varying degrees of drought. That is the longest unbroken string of drought summers since 1895.

The impact was significant.

The Huntsville Times, Aug. 16, 1954:

'Farm Situation Near Its Worst

Crops and pastures are nearing their worst conditions of the season, County Agent Loyd H. Little estimated today ...'

It has been four weeks since anything like a general rain has fallen in the county. In the last three weeks, only .07 of an inch of rain has fallen at the Huntsville sub-station.

Facing increased competition from farms in western states that benefited from billions of dollars in federally-subsidized irrigation projects and with almost no irrigation to help Alabama farmers deal with the drought, the state's farmland began to go fallow or to be used for other purposes.

Although agriculture (largely poultry) is still the state's largest industry, Alabama lost millions of acres of harvested cropland between 1950 and today, which is a big enough change to quite literally change the face of the state.

Fortunately, this summer to date seems to be neither generally dry nor unusually hot. Let's hope it stays that way.

- John Christy

July 1, 2014

(Released Thursday, Jul. 3, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	99.27	0.73	0.00	0.00	0.00	0.00
Last Week 6/24/2014	95.03	4.97	0.00	0.00	0.00	0.00
3 Months Ago 4/1/2014	75.45	24.55	3.37	0.00	0.00	0.00
Start of Calendar Year 12/31/2013	97.35	2.65	0.00	0.00	0.00	0.00
Start of Water Year 10/1/2013	96.85	3.15	0.00	0.00	0.00	0.00
One Year Ago 7/2/2013	82.34	17.66	0.00	0.00	0.00	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:
Anthony Artusa
NOAA/NWS/NCEP/CPC

http://droughtmonitor.unl.edu/

Alabama Monthly Climate Summaries

June 2014

	Station Began	June Mean June Norm	June Hi Temp Record Hi		June Low Temp Record Low		Total Precip. Normal Prec.	Wettest June Driest June		Heaviest Day Record Day	
Anniston	2/1903	77.8° 76.6°	92° 102°+	6/21/14 6/27/54	65° 42°	6/13/14 6/1/72	5.11" 4.14"	9.27" 0.00"	1982 1988	1.04" 3.60"	6/9-10/14 6/4/50
Auburn	1/1893	76.4° 78.3°	93° 107°	6/19/14 6/19/33	64° 39°	6/13/14 6/3/56	2.97" 4.17"	8.64" 0.57"	1909 1931	0.91" 3.64"	6/11/14 6/5/28
Birmingham	1/1930	78.3° 76.4°	92° 106°	6/30/14 6/29/31	64° 42°	6/14/14 6/1/66	4.81" 3.78"	9.04" 0.79"	1999 1988	1.06" 3.85"	6/9-10/14 6/23/57
Brewton	4/1977	77.3° 77.3°	92.5° 109°	6/20/14 6/18/33	64.8° 40°	6/14/14 6/3/56	7.20" 5.97"	13.80" 1.90"	1989 1998	3.90" 6.45"	6/8/14 6/3/70
Calera	9/1900	78.6° 76.0°	92° 103°	6/20/14 6/29/69	67° 37°	6/14/14 6/1/66	5.31" 4.15"	14.58" 0.06"	2003 1902	1.35" 5.04"	6/9-10/14 6/12/42
Clanton	2/1893	76.3° 76.0°	91.3° 106°	6/20/14 6/19/36	64.3° 42°	6/14/14 6/3/56	4.24" 4.16"	11.82" 0.69"	1991 1988	1.61" 7.82"	6/6/14 6/26/91
Courtland		75.5° M	91.3°	6/21/14 M	59.7°	6/14/14 M	7.14" M	M M		1.44"	6/26/14 M
Cullman	7/1907	73.9° M	88.7°	6/20-21/14 M	60.1°	6/14/14 M	10.54" M	M M		2.62"	6/26/14 M
Decatur	2/1880	77.1° 77.9°	93° 108°	6/20/14 6/10/14	60° 44°	6/14/14 6/3/56	5.81" 3.58"	11.07" 0.20"	1900 1931	1.18" 3.06"	6/6/14 6/4/34
Dothan	2/1902	80.6° 80.1°	95° 104°	6/29/14 6/27/52	67° 49°	6/14/14 6/3/56	2.48" 4.31"	8.52" 1.10"	1942 1945	1.27" 3.78"	6/22/14 6/22/49
Fairhope	8/1917	78.1° 79.2°	89.7° 100°+	6/21/14 6/11/54	64.3° 52°	6/14/14 6/1/84	8.79" 5.94"	18.52" 0.71"	1989 1977	3.28" 7.80"	6/10/14 6/9/89
Gadsden	7/1893	76.4° 75.8°	91° 102°	6/21/14 6/27/54	61° 42°	6/14/14 6/3/56	3.86" 4.34"	10.30" 0.13"	1994 1988	0.78" 3.10"	6/9/14 6/25/99
Gainesville Lock	6/1948	76.9° 77.2°	92.6° 101°	6/18/14 6/24/77	64.5° 42°	6/12/14 6/1/84	4.43" 4.07"	9.56" 0.61"	1983 1988	1.40" 3.49"	6/23/14 6/13/87
Greensboro	2/1890	76.7° 78.9°	92.6° 105°+	6/18/14 6/29/54	63.7° 41°	6/12/14 6/1/66	4.12" 3.72"	10.25" 0.66"	1999 1988	1.05" 5.50"	6/18/14 6/3/70
Highland Home	3/1892	76.3° 76.9°	90.6° 104°+	6/21/14 6/7/85	65.3° 45°	6/2/14 6/1/84	3.55" 4.70"	12.90" 1.22"	1983 1971	0.81" 4.30"	6/27/14 6/3/70
Huntsville	1/1959	78.2° 76.5°	94° 101°	6/18/14 6/29/69	62° 45°	6/14/14 6/1/72	7.13" 4.10"	14.99" 0.17"	1989 1988	1.38" 4.46"	6/7/14 6/14/69

Alabama Monthly Climate Summaries

June 2014

	Station Began	June Mean June Norm	June Hi Temp Record Hi		June Low Temp Record Lo		Total Precip. Normal Prec.	Wettest June Driest June		Heaviest Day Record Day	
Mobile	3/1900	78.5° 79.3°	93° 102°+	6/30/14 6/29/54	64° 49°	6/14/14 6/1/84	5.15" 5.01"	11.00" 1.26"	1982 1977	1.82" 6.08"	6/19/14 6/20/61
Montgomery	6/1948	80.6° 78.9°	97° 105°	6/21/14 6/28/54	67° 49°+	6/12/14 6/1/84	5.17" 4.13"	14.44" 0.33"	1989 1979	1.62" 3.91"	6/8/14 6/28/57
Muscle Shoals	12/1940	78.2° 76.5°	95° 104°	6/30/14 6/28/52	59° 44°	6/14/14 6/1/72	7.47" 4.90"	13.43" 1.03"	1989 1988	1.73" 5.60"	6/10/14 6/12/92
Russellville	9/1953	74.3° 73.7°	90.2° 102°	6/18/14 6/28/54	57.3° 36°+	6/14/14 6/4/69	7.46" 4.23"	12.71" 0.50"	1997 1988	1.74" 3.30"	6/9/14 6/8/94
Scottsboro	10/1891	74.0° 75.5°	90.1° 107°+	6/20/14 6/29/31	60° 39°	6/14/14 6/3/56	5.64" 4.38"	9.08" 0.65"	1989 1988	1.08" 3.72"	6/7/14 6/29/41
Selma	1/1895	77.5° 80.0°	94.4° 108°	6/20/14 6/28/54	64° 42°	6/12/14 6/1/84	1.76" 4.13"	10.32" 0.34"	1989 1988	0.53" 3.65"	6/10/14 6/25/91
Talladega	2/1888	76.3° 77.0°	93.5° 102°	6/30/14 6/27/54	63.6° 39°	6/14/14 6/1/72	3.57" 4.64"	11.97" 0.32"	1989 1988	0.94" 4.60"	6/7/14 6/22/97
Thomasville	9/1891	76.7° 78.7°	92.8° 108°	6/21/14 6/26/30	62.3° 46°+	6/12/14 6/1/84	2.77" 4.92"	12.69" 0.93"	1989 1988	1.17" 3.98"	6/22/14 6/29/43
Troy	6/1908	79.2° 77.5°	96° 105°	6/20/14 6/19/33	65° 43°	6/14/14 6/9/00	2.79" 4.78"	12.63" 1.04"	1989 1986	0.73" 4.36"	6/31/14 6/4/70
Tuscaloosa	6/1948	79.2° 78.7°	94° 105°	6/21/14 6/28/52	65° 45°	6/14/14 6/3/56	5.15" 4.20"	11.98" 1.22"	1989 1988	1.47" 3.41"	6/9-10/14 6/18/63
Valley Head	1/1893	72.4° 72.2°	88° 101°	6/19/14 6/28/52	61.2° 35°	6/14/14 6/1/66	7.69" 4.33"	9.19" 0.54"	1976 1988	1.29" 3.08"	6/7/14 6/10/61
Statewide June 2014		77.26°	97° Montgomery		57.3° Russellville		4.98"	18.52" Fairhope		3.90" Brewton	
June Norm		77.24°	109° Brewton		35° Valley Head		4.43"	0.00" Anniston		7.82" Clanton	

M: *Data is missing or not available*

**New Record*

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

^ This record differs from long-term data in the AOSC climate database:
http://nsstc.uah.edu/alclimate/climate/daily_climate_and_normals.php

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

June 2014

	Ave. Total Precip.	# Stations
Autauga	4.04	3
Baldwin	7.91	24
Barbour	n.a.	0
Bibb	4.13	1
Blount	6.21	9
Bullock	n.a.	0
Butler	n.a.	0
Calhoun	7.82	3
Chambers	n.a.	0
Cherokee	7.13	1
Chilton	4.54	2
Choctaw	4.68	1
Clarke	5.59	3
Clay	n.a.	0
Cleburne	n.a.	0
Coffee	3.29	1
Colbert	7.13	8
Conecuh	n.a.	0
Coosa	4.82	2
Covington	n.a.	0
Crenshaw	n.a.	0
Cullman	8.45	4
Dale	3.77	2
Dallas	3.05	1
DeKalb	8.09	2
Elmore	6.64	7
Escambia	4.87	1
Etowah	4.89	1
Fayette	4.68	3
Franklin	n.a.	0
Geneva	n.a.	0
Greene	n.a.	0
Hale	n.a.	0
Henry	n.a.	0

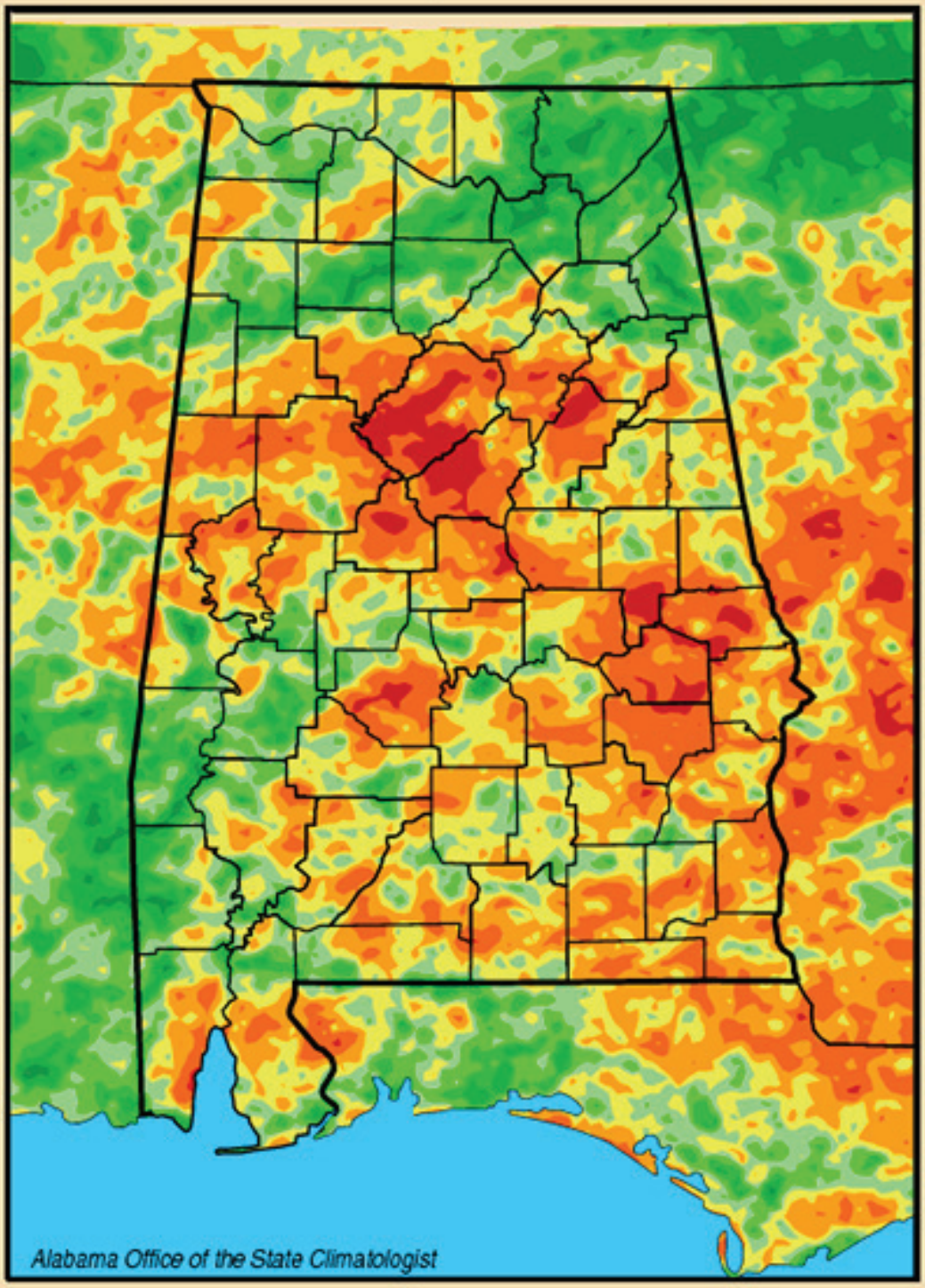
	Ave. Total Precip.	# Stations
Houston	6.26	1
Jackson	8.23	7
Jefferson	4.82	12
Lamar	6.63	1
Lauderdale	7.53	11
Lawrence	6.40	2
Lee	3.67	4
Limestone	7.12	12
Lowndes	n.a.	0
Macon	n.a.	0
Madison	6.62	55
Marengo	n.a.	0
Marion	8.77	1
Marshall	7.59	11
Mobile	4.24	18
Monroe	5.81	2
Montgomery	6.10	3
Morgan	7.53	9
Perry	n.a.	0
Pickens	4.71	1
Pike	n.a.	0
Randolph	4.19	1
Russell	4.23	2
St. Clair	6.87	4
Shelby	3.68	22
Sumter	n.a.	0
Talladega	6.17	6
Tallapoosa	5.71	5
Tuscaloosa	5.92	4
Walker	n.a.	0
Washington	5.73	1
Wilcox	3.26	2
Winston	9.44	2

Normal June Precipitation*

Abbeville	4.81"
Alberta	3.76"
Alex City	3.85"
Aliceville	3.38"
Andalusia	4.92"
Ashland	4.42"
Athens	3.95"
Bay Minette	5.32"
Bessemer	3.89"
Billingsley	4.10"
Centreville WSMO	4.06"
Chatom	4.62"
Claiborne L&D	4.39"
Clayton	4.26"
Dauphin Isl	4.90"
Elba	4.74"
Eufaula WR	4.11"
Evergreen	5.06"
Fayette	4.68"
Geneva 2	4.98"
Greenville	4.39"
Haleyville	4.20"
Hamilton 3S	4.27"
Heflin	4.35"
Hurtsboro	3.36"
Jasper	4.14"
Lafayette	3.60"
Livingston	3.76"
Melvin	3.76"
Milstead	3.72"
Moulton	3.77"
Oneonta	4.17"
Perryville	4.02"
Plantersville	4.02"
Rock Mills	3.95"
Rockford	4.02"
Sylacauga	4.22"
Union Springs	4.33"
Uniontown	3.61"
Vernon	4.43"
Warrior L&D	3.33"
Wetumpka	4.08"

*Southeast Regional Climate Center
www.sercc.com

Lawn-and-Garden Moisture Index for July 2, 2014



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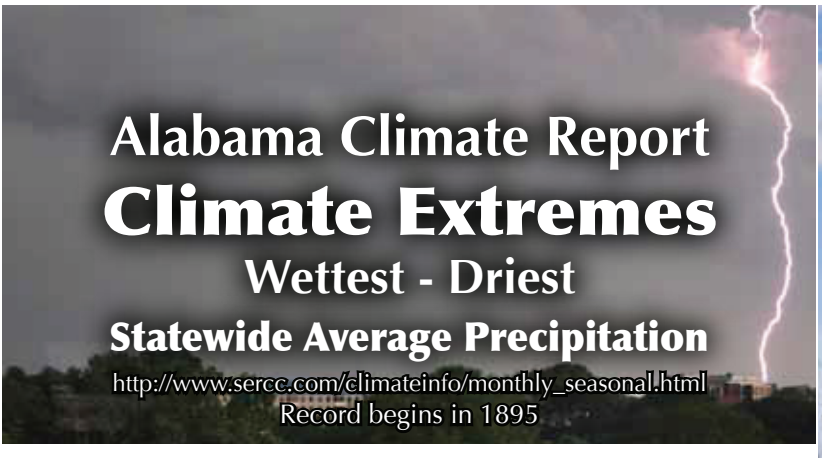

Alabama Climate Report
Climate Extremes
Wettest - Driest
Statewide Average Precipitation
http://www.sercc.com/climateinfo/monthly_seasonal.html
Record begins in 1895

Year to Date

Wettest	1.	1929	39.86″
	2.	1980	36.48″
	3.	1979	36.19″
	4.	1991	36.02″
	5.	1983	35.63″
	6.	1973	35.23″
	7.	1975	34.46″
	8.	1990	34.31″
	9.	1922	34.24″
	10.	1912	34.03″
	11.	1944	33.92″
	12.	1964	33.68″
	33.	**2014**	**28.03″**
January through May 2014	AVG		25.26″
	12.	1967	18.30″
	11.	1927	18.06″
	10.	2000	17.88″
	9.	1910	17.54″
	8.	1904	17.52″
	7.	1931	17.19″
	6.	1954	16.94″
	5.	1986	16.06″
	4.	1914	15.22″
	3.	1898	14.59″
	2.	1941	13.75″
Driest	1.	2007	13.18″

Office of Alabama Climatologist
The University of Alabama in Huntsville
nsstc.uah.edu/aosc/

Alabama Climate Report
Climate Extremes
Hottest - Coldest
Statewide Average Temperature
http://www.sercc.com/climateinfo/monthly_seasonal.html
Record begins in 1895

Year-to-date

Hottest	1.	2012	61.04°
	2.	1927	60.34°
	3.	1911	59.60°
	4.	1938	59.46°
		1950	59.46°
	6.	1974	59.32°
	7.	1921	58.94°
	8.	1957	58.86°
	9.	1922	58.72°
	10.	1945	58.68°
		1990	58.68°
	12.	1925	58.64°
January through May 2014	AVG		56.34°
	12.	1979	54.06°
	11.	**2014**	**53.90°**
	10.	2010	53.86°
	9.	1971	53.72°
	8.	1895	53.58°
	7.	1924	53.48°
	6.	1968	53.44°
	5.	1983	53.42°
	4.	1960	53.22°
	3.	1958	52.58°
	2.	1940	51.94°
Coldest	1.	1978	51.90°

Office of Alabama Climatologist
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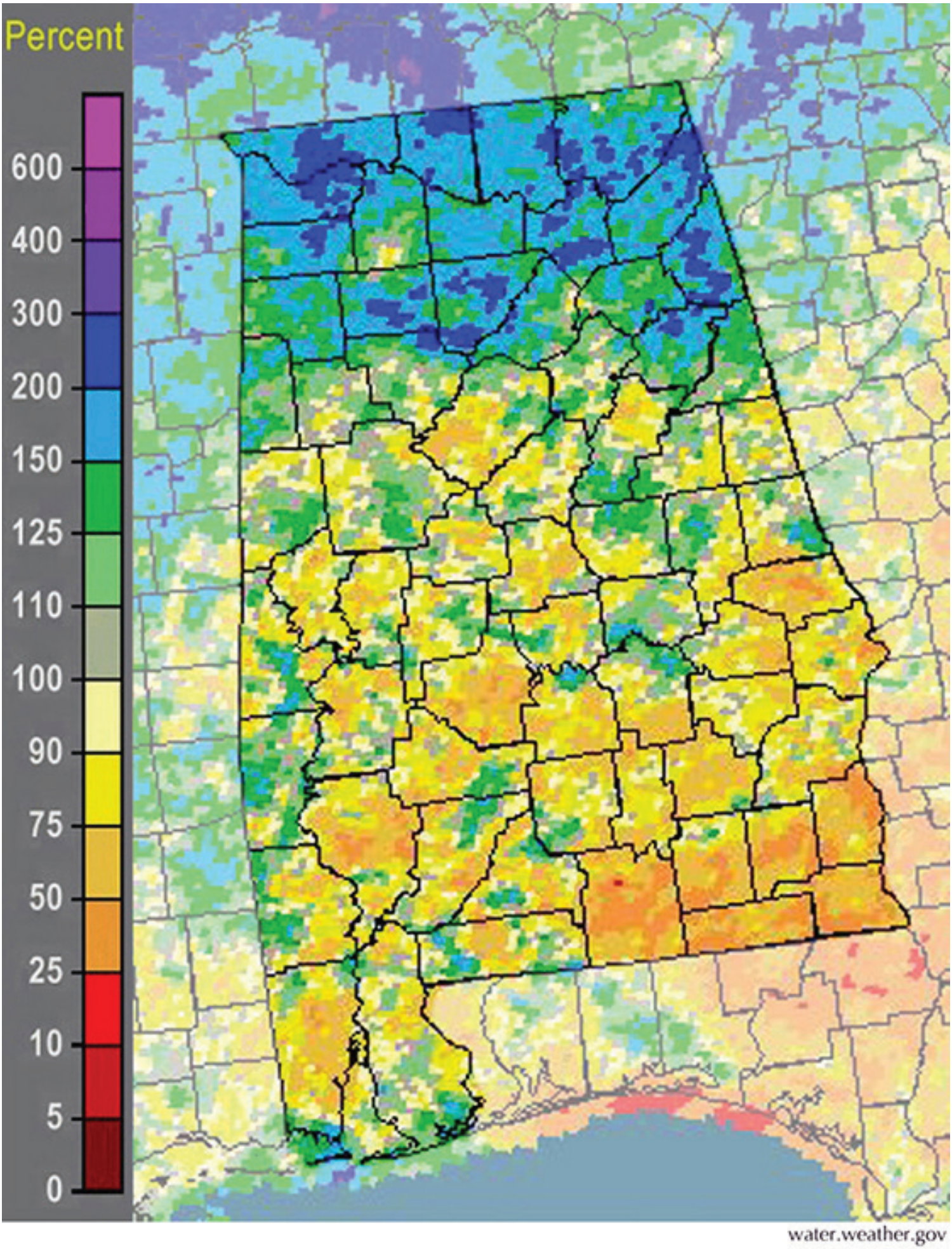
nsstc.uah.edu/aosc/



June 2014 NWS percentage of normal precipitation

New Local Climate Records[1]

June 2014

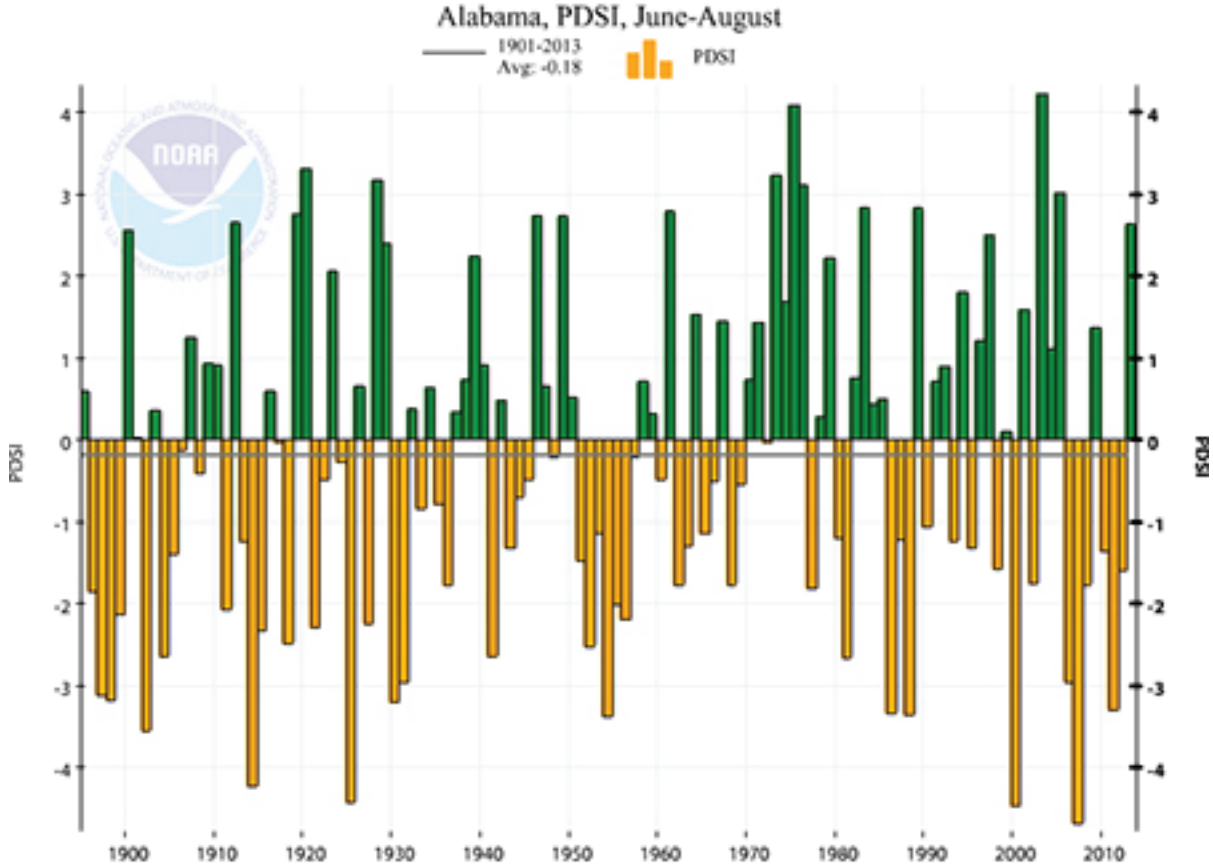
Minimum Low Temperature, Daily

	New Record	Previous Year	Previous Record	Period of Record
14 June 2014				
MOBILE DT AIRPORT	67	2000	70	65

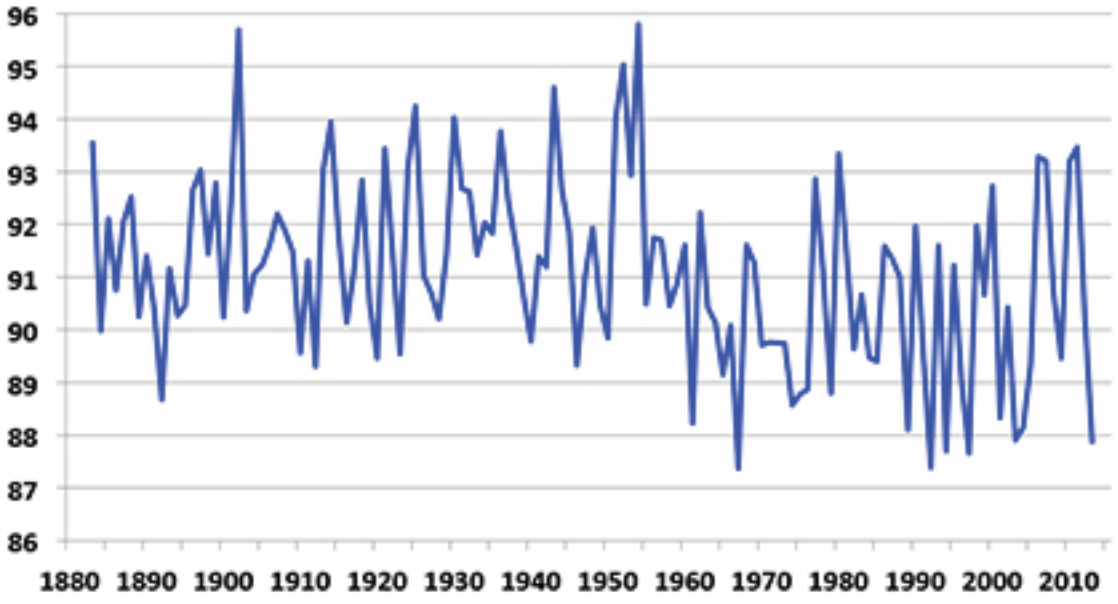
Precipitation, Daily

	New Record	Previous Year	Previous Record	Period of Record
3 June 2014				
COFFEEVILLE L&D	1.32	2010	0.60	31
6 June 2014				
HALEYVILLE	0.80	1952	0.60	111
7 June 2014				
ALBERTA	0.98	1971	0.94	73
ALEXANDER CITY	1.84	2003	0.50	44
BANKHEAD L&D	1.46	1965	1.45	57
JACKSONVILLE	2.15	2005	1.42	66
8 June 2014				
ATMORE, AL US	2014-06-08	2.05	1989-06-08	1.50
74	0.55			
HALEYVILLE, AL US	2014-06-08	2.20	1994-06-08	1.22
111	0.98			
9 June 2014				
ATHENS	1.46	1996	1.39	73
JONES BLUFF L&D	0.72	1989	0.65	33
RUSSELLVILLE # 2	2.00	1986	0.78	60
HUNTSVILLE INT APT	1.13	1965	0.30	55
10 June 2014				
SYLACAUGA 4 NE	1.40	1985	1.38	59
11 June 2014				
CALERA	1.26	1936	1.22	113
ONEONTA	1.20	1995	0.92	119
RUSSELLVILLE # 2	1.90	1972	1.66	60
13 June 2014				
CODEN	2.60	1959	1.88	57
19 June 2014				
MOBILE REG. AIRPORT	1.59	1986	1.58	66
23 June 2014				
CODEN, AL US	2014-06-23	0.78	2004-06-23	0.77
57	0.01			
24 June 2014				
ASHLAND	1.93	1957	1.57	74
CAHABA PUMP HOUSE	0.62	1991	0.60	32
CHILDERSBURG WTR PT	2.04	1957	1.84	57
GAINESVILLE	1.33	1997	1.20	66
SYLACAUGA 4 NE	2.28	1957	1.58	59
WALLACE 2 E	1.51	1961	1.50	73
26 June 2014				
COFFEEVILLE L&D	1.52	2007	1.31	31
HALEYVILLE	1.85	1976	1.79	111
27 June 2014				
ADDISON	1.44	1999	1.15	76
HAMILTON 3 S	1.48	1970	1.12	52

[1] http://lwf.ncdc.noaa.gov/extremes/records/



Alabama Summer Daily Maximum Temperature
Average of 4, 100-mile-diameter regions centered on
MOB, MGM, BHM and HSV, 1883-2013



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