

Alabama Climate Report

Vol. 1, No. 4

Alabama Office of State Climatologist

The University of Alabama in Huntsville

January 2011

Snow was the newsmaker again in January 2011 for the northern half of the state. While the event was not an all-time record-breaker for snowfall, 6 to 9 inch amounts were common and it was in the top 5 in many locations north of Birmingham.

One interesting note is that the ground in Huntsville was covered by at least one inch of snow for eight days – the longest continuous period on record.

At the same time, locations south of I-20 continue to limp along with less than adequate precipitation despite a Jan. 1-2 storm that dropped between one and five inches of rain over most of the state.

The dry area in east central Alabama continues to see its rainfall

Colder than 'normal'	Dec 2009, 2010 (°F)	Jan 2010, 2011 (°F)	Feb 2010 (°F)
Huntsville	-0.6, -4.9	-2.9, -2.5	-6.1
Muscle Shoals	-1.4, -4.8	-3.8, -2.5	-6.9
Anniston	-2.6, -7.6	-5.3, -3.9	-8.0
Birmingham	-1.4, -7.6	-3.7, -2.4	-6.9
Tuscaloosa	-2.4, -5.7	-5.0, -3.8	-8.0
Auburn*	-3.6, -7.1	-7.5, -6.0	-9.2
Montgomery	-2.8, -6.0	-4.9, -3.6	-7.9
Thomasville*	-2.8, -6.0	-5.3, -3.4	-7.9
Dothan*	-2.2, -7.8	-6.2, -5.9	-9.0
Mobile	-1.9, -5.1	-4.0, -2.0	-7.9

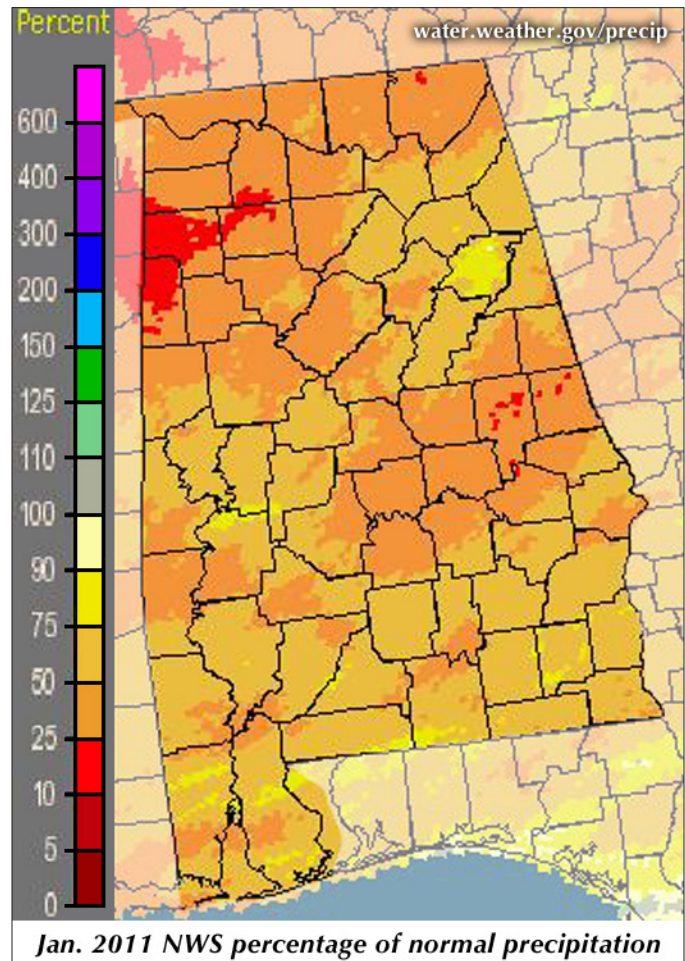
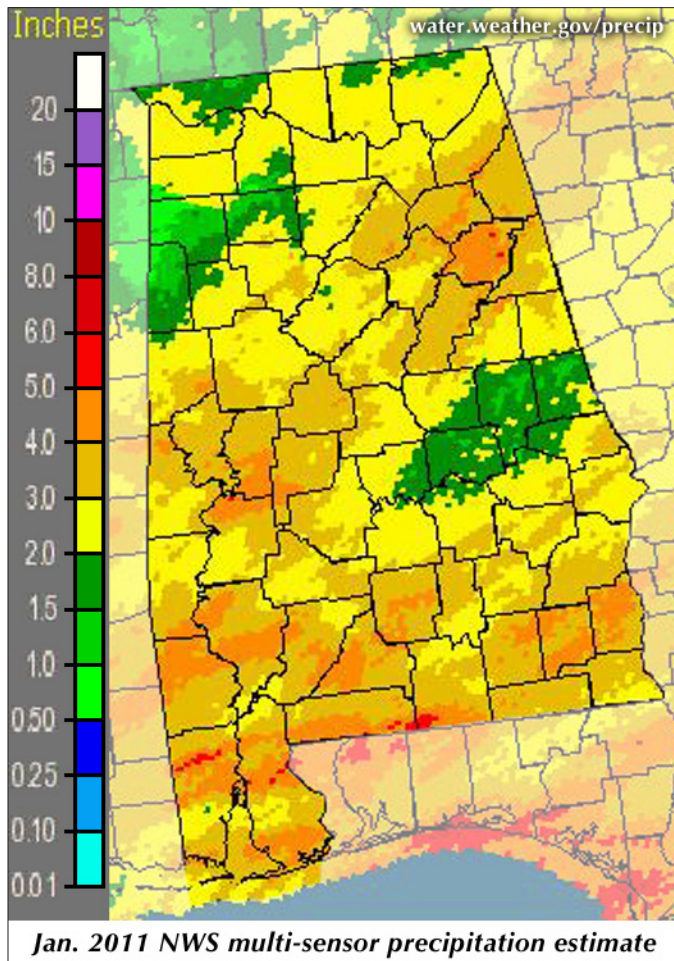
*Normal based on entire period of record (up to 110 years). Other stations based on 1971-2000 as "normal." Since the entire period's temperature on average was warmer than 1971-2000, these three station's current departures appear colder than the others.

deficit rise. The general rule is that when winter temperatures are below average, so too is precipitation.

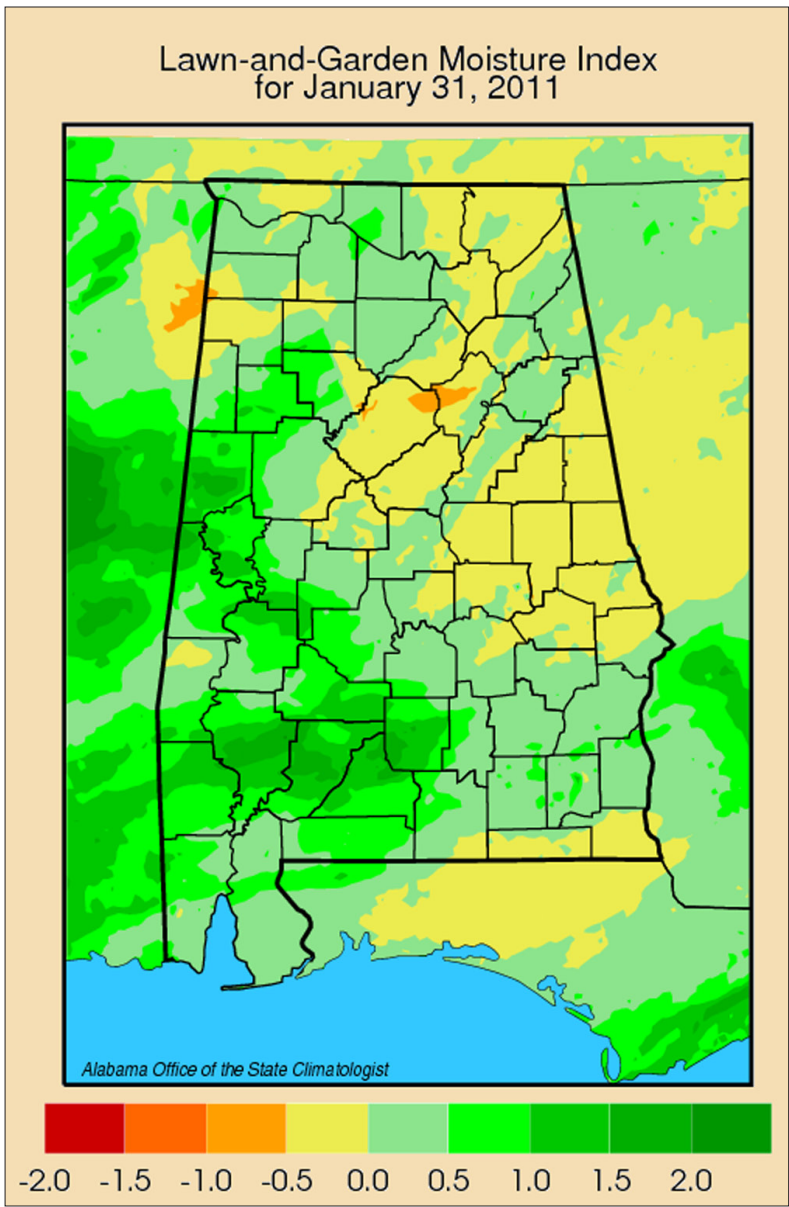
Arctic air sent temperatures downward in January, to as low as 2° F in Decatur and single digits in many

other locations. It was 21° F in Mobile on the 13th, one of their 6 days with a "hard freeze" (temperatures below 29° F) for January; Mobile had seven hard freeze days in December.

Continued on page 2



The lawn-and-garden moisture index measures the capacity of current soil moisture to sustain healthy lawns and gardens. The index is computed by estimating how much precipitation in the past three weeks contributes to current soil moisture. That rainfall is compared to a "standard" amount of rainfall considered to be adequate for that time of year to sustain healthy lawns and gardens. The difference is the lawn-and-garden moisture index.



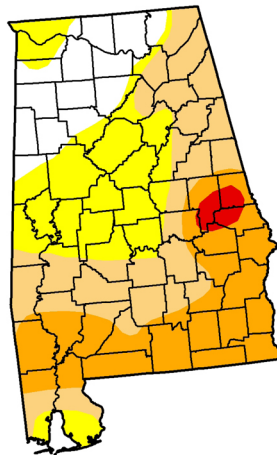
	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.22	84.78	57.83	28.77	1.82	0.00
Last Week (01/25/2011 map)	14.54	85.46	57.83	28.77	1.82	0.00
3 Months Ago (11/02/2010 map)	0.00	100.00	77.66	35.74	12.42	0.00
Start of Calendar Year (12/28/2010 map)	17.47	82.53	55.26	29.34	1.82	0.00
Start of Water Year (09/28/2010 map)	3.64	96.36	66.34	25.17	4.40	0.00
One Year Ago (01/26/2010 map)	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

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

**U.S. Drought Monitor
Alabama**

<http://drought.unl.edu/dm>



Released Thursday, February 3, 2011
R. Heim/L. Love-Brotak, NCDC/NOAA

For an average winter season, Mobile sees 22 days with temperatures at or below freezing (32° F). With February and March yet to go, they've already seen 24.

January's temperature as a whole was cooler than normal. That, coupled with the same story for December, has made for a chilly winter so far. And remember, last year was a cold one too. The chart on page one shows departures from average for some long-term stations for the past 2 years - and all I see are minuses.

During two such cold winters, it is lucky that some Auburn and Alabama fans were able to spend some time in Glendale, AZ, and Pasadena, CA.

Just for fun I checked the 15 winters in which an Alabama team has brought home the college football championship, and 9 of those had below average temperatures. For the last seven national championships brought home to Auburn or Tuscaloosa, beginning in 1965, all were won when Alabama had a colder than average winter.

Statewide, the coldest two winters in a row were 1976-77 and 1977-78. That record should survive this stretch: 1976-1977 was 1.9° F colder than 2009-10.

I think we are about due for a warm winter next year - based only on probability.

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Alabama Monthly Climate Summaries

January 2011

	Jan. Mean Jan. Norm	Jan. Hi Temp Record Hi	Jan. Low Temp Record Lo	Total Precip. Normal Prec.	Wettest Jan. Driest Jan.	Heaviest Day Record Day
Anniston	39.4°	72°	14°	3.09"	12.69" 1972	1.67"
	43.5°	80°+	-5°	5.34"	.95" 1986	5.07" 1/1/11 1/4/72
Auburn	41.7°	70°	18°	1.95"	12.09" 1936	.90"
	47.7°	81°	0°	4.75"	.49" 1927	5.23" 1/1/11 1/29/12
Birmingham	40.2°	73°	16°	3.71"	9.59" 1996	2.03"
	42.6°	81°	-6°	5.45"	1.09" 1981	4.71" 1/1/11 1/26/96
Brewton	44.5°	73.2°	17.2°	4.17"	12.55" 1991	1.67"
	47.7°	85°	3°	6.19"	1.46" 1981	6.45" 1/5/11 1/25/78
Calera	40.7°	72°	17°	3.39"	12.59" 1947	2.11"
	42.8°	78°	-2°	5.06"	.74" 1927	4.77" 1/1/11 1/24/20
Clanton	40.3°	72.1°	15.3°	2.91"	13.48" 1972	1.80"
	42.8°	84°	-4°	5.98"	1.15" 1986	4.64" 1/1/11 1/19/36
Courtland	36.2°	70.0°	8.1°	3.71"	M	1.63"
	M	M	M	M	M	M 1/1/11
Cullman	37.1°	70.5°	7.9°	5.28"	M	3.41"
	M	M	M	M	M	M 1/1/11
Decatur	36.3°	69°	2°	3.91"	12.98" 1949	2.57"
	42.2°	79°	-5°	5.04"	1.00" 1958	4.62" 1/1/11 01/06/50
Dothan	44.5°	72°	20°	3.93"	16.88" 1936	1.03"
	50.7°	83°	10°	4.27"	.34" 1927	6.42" 1/1-2/11 1/18/36
Fairhope	46.3°	68.4°	17.8°	2.94"	16.33" 1998	.98"
	50.2°	82°	5°+	6.11"	.87" 1989	9.58" 1/5/11 1/25/78
Gadsden	36.6°	66.9°	7.5°	4.39"	9.01" 1996	2.61"
	40.3°	76°	-6°+	5.85"	1.48" 1981	4.05" 1/11/11 1/16/54
Gainesville	41.6°	76.1°	16.3°	5.19"	10.80" 1998	2.60"
	43.2°	81°	-2°+	5.87"	1.30" 1981	3.40" 1/1/11 1/20/63
Greensboro	41.6°	74.8°	16.2°	4.32"	11.69" 1972	2.54"
	45.7°	83°	-2°	6.12"	1.31" 1986	5.58" 1/1/11 1/18/87
Guntersville	39.3°	70.2°	15.3°	5.04"	9.37" 1982	3.26"
	40.0°	75°+	-11°	5.08"	.93" 1986	4.85" 1/1/11 1/5/49
Highland Home	43.5°	70.9°	18.1°	3.54"	10.49" 1978	1.41"
	45.8°	84°	-3°+	5.48"	.92" 1981	4.02" 1/1/11 1/25/78
Huntsville	37.3°	71°	8°	5.81"	10.92" 1982	4.23"
	39.9°	77°	-11°	4.99"	1.32" 1986	4.83" 1/1/11 1/3/82

Alabama Monthly Climate Summaries

January 2011

	Jan. Mean Jan. Norm	Jan. Hi Temp Record Hi	Jan. Low Temp Record Lo	Total Precip. Normal Prec.	Wettest Jan. Driest Jan.	Heaviest Day Record Day
Mobile	48.1°	73° 1/18;29/11	21° 1/13/11	3.38"	16.92" 1998	1.17" 1/18/11
	50.1°	84° 1/11/49	3° 1/21/85	5.75"	1.23" 1981	6.16" 1/7/98
Montgomery	43.0°	76° 1/29/11	15° 1/14/11	2.15"	10.16" 1990	1.17" 1/1/11
	46.6°	83° 1/11/49	0° 1/21/85	5.04"	1.12" 1986	4.16" 1/23/65
Muscle Shoals	36.5°	70° 1/29/11	10.2° 1/14/11	3.79"	11.77" 1974	1.67" 1/1/11
	39.9°	80° 1/10/49	-11° 1/21/85	4.97"	.60" 1986	4.41" 1/31/51
Russellville	36.4°	71.4° 1/29/11	4.5° 1/14/11	4.15	12.48" 1998	2.18 1/1/11
	38.9°	78° 1/25/72	-24°+ 1/31/66	5.44"	.93" 1986	3.20" 1/19/2001
Scottsboro	36.1°	68.9° 1/29/11	8.2° 1/14/11	4.43"	10.92" 1996	2.56" 1/1/11
	39.0°	81° 1/11/49	-10° 1/26/40	6.01"	.84" 1986	4.12" 1/2/37
Selma	42.3°	73.6° 1/29/11	14.7° 1/14/11	2.44"	12.24" 1972	1.22" 1/1/11
	47.0°	83°+ 1/30/50	0.0° 1/21/85	5.64"	1.07" 1986	4.20" 1/6/32
Talladega	38.8°	72° 1/29/11	13.3° 1/14/11	3.20"	15.59" 1972	1.98" 1/1/11
	41.0°	80°+ 1/25/50	-5°+ 1/21/85	6.12"	1.05" 1986	4.01" 1/4/72
Thomasville	42.6°	73.2° 1/29/11	16° 1/14/11	3.34"	14.37" 1925	1.74" 1/1/11
	47.4°	86° 1/20/1913	-1° 1/21/85	5.13"	.79" 1902	5.04" 1/16/25
Troy	42.6°	72.1° 1/29/11	15.8° 1/14/11	3.45"	9.81" 1978	1.07" 1/1/11
	46.7°	83° 1/12/49	-1° 1/21/85	5.11"	.98" 1981	5.43" 1/19/36
Tuscaloosa	41.4°	75° 1/29/11	17° 1/13-14/11	2.96"	10.18" 1979	2.13" 1/1/11
	45.2°	82° 1/10/49	-1°+ 1/21/85	5.72"	1.22" 1986	4.26" 1/26/96
Valley Head	35.0°	67.3° 1/29/11	5.9° 1/14/11	4.45"	10.42" 1974	2.63" 1/1/11
	37.2°	77°+ 1/26/50	-14°+ 1/22/85	6.06"	1.70" 1981	4.00" 1/5/49
Statewide	40.77°	76.1° (Gainesville)	2° Decatur	3.69"		4.23" Huntsville
	44.0°	86° (Thomasville)	-24° Russellville	5.48"		9.58" Fairhope

M: Data is missing or not available

*New Record

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

January 2011

Normal

January

Precipitation*

	Ave. Total Precip.	# Stations
Autauga	2.19	4
Baldwin	3.57	30
Barbour	4.04	2
Bibb	3.89	3
Blount	4.45	8
Bullock	0.00	0
Butler	0.00	0
Calhoun	2.79	5
Chambers	1.59	1
Cherokee	5.40	1
Chilton	3.46	2
Choctaw	4.48	1
Clarke	2.20	2
Clay	0.00	0
Cleburne	0.00	0
Coffee	4.22	2
Colbert	4.50	7
Conecuh	0.00	0
Coosa	0.46	2
Covington	0.00	0
Crenshaw	0.00	0
Cullman	5.82	4
Dale	4.58	1
Dallas	1.48	1
DeKalb	5.24	3
Elmore	2.11	9
Escambia	6.69	1
Etowah	4.01	1
Fayette	6.35	3
Franklin	4.11	2
Geneva	0.00	0
Greene	0.00	0
Hale	0.00	1
Henry	1.58	1

	Ave. Total Precip.	# Stations
Houston	4.34	3
Jackson	5.50	6
Jefferson	3.54	13
Lamar	5.58	1
Lauderdale	4.38	18
Lawrence	3.85	2
Lee	1.95	5
Limestone	4.41	16
Lowndes	0.00	0
Macon	3.35	1
Madison	4.90	65
Marengo	0.00	0
Marion	5.45	1
Marshall	4.87	13
Mobile	3.89	20
Monroe	0.00	0
Montgomery	2.69	3
Morgan	5.78	10
Perry	0.00	0
Pickens	4.95	1
Pike	0.00	0
Randolph	2.90	3
Russell	3.22	3
St. Clair	2.78	3
Shelby	5.63	19
Sumter	0.00	0
Talladega	3.47	5
Tallapoosa	1.76	8
Tuscaloosa	3.79	4
Walker	5.56	1
Washington	3.65	1
Wilcox	3.90	2
Winston	6.47	2

Abbeville	5.14"
Alex City	5.14"
Aliceville	5.47"
Andalusia	5.03"
Ashland	5.50"
Ashville	5.29"
Athens	6.07"
Autaugaville	5.08"
Bay Minette	5.39"
Centre	5.60"
Centreville	5.48"
Chatom	5.49"
Dauphin Isl.	5.58"
Elba	4.96"
Eufaula	4.53"
Evergreen	5.44"
Fayette	5.69"
Frisco City	5.21"
Geneva	4.55"
Greenville	4.98"
Haleyville	5.78"
Hamilton	5.74"
Hayneville	4.54"
Heflin	5.26"
Hurtsboro	4.91"
Jasper	5.73"
Lafayette	5.29"
Livingston	4.85"
Melvin	5.29"
Milstead	4.83"
Oneonta	5.43"
Ozark	4.61"
Perryville	5.05"
Pine Apple	5.37"
Plantersville	5.39"
Rock Mills	5.20"
Rockford	5.33"
Sylacauga	5.14"
Union Springs ..	4.71"
Uniontown	5.05"
Vernon	6.00"
Warrior L&D ...	5.45"
Waterloo	5.96"
Wetumpka	4.80"

*Southeast Regional Climate Center
www.serrc.com

New Daily Local Climate Records¹

January 2011

Precipitation

	New Record	Previous Record	Previous Year	Period of Record
1 January 2011				
HAMILTON 3 S.....	5.02 in	2.05 in	1979	49
ADDISON.....	4.06 in	0.82 in	1996	72
JASPER.....	4.0 in	1.2 in	2003	50
ALICEVILLE L&D.....	3.65 in	0.72 in	2003	30
HUNTSVILLE INTL AP.....	3.48 in	1.75 in	1979	52
CARBON HILL.....	3.42 in	1.57 in	1989	72
VERNON.....	3.14 in	2.9 in	1979	72
BERRY 3 NW.....	3.12 in	0.96 in	1942	70
MOULTON 2.....	3.05 in	2.2 in	1979	53
SCOTTSBORO.....	2.92 in	2.1 in	1911	119
BELLE MINA 2 N.....	2.7 in	0.88 in	1979	61
RUSSELLVILLE #2.....	2.59 in	1.7 in	1979	57
SAND MT SUBSTN.....	2.4 in	0.89 in	1964	62
TUSCALOOSA ACFD.....	2.3 in	1.69 in	1985	62
ATHENS.....	2.05 in	1.9 in	1947	69
BIRMINGHAM AP*.....	2.03 in	1.6 in	1937	81
FAYETTE.....	2.01 in	1.15 in	1961	118
WALNUT GROVE.....	2.01 in	2.0 in	2007	69
LIVINGSTON.....	2.0 in	1.36 in	1938	119
LEEDS.....	1.9 in	1.31 in	1964	93
BESSEMER 3 WSW.....	1.83 in	1.6 in	1979	33
WEST BLOCTON.....	1.75 in	1.58 in	1948	70
PINSON.....	1.69 in	1.05 in	1983	30
ANNISTON METRO AP.....	1.67 in	1.53 in	1955	107
ONEONTA.....	1.57 in	1.3 in	1964	116
TROY MUNICIPAL AP*.....	1.54 in	0.24 in	2006	41
HIGHTOWER.....	1.4 in	1.12 in	1955	69
CHILDERSBURG WTP.....	1.06 in	0.89 in	1979	53
2 January 2011				
CENTREVILLE 6 SW.....	2.48 in	2.03 in	1979	36
WARRIOR L&D.....	2.4 in	1.52 in	1983	52
CHILDERSBURG WTP.....	1.92 in	1.75 in	1983	53
DEMOPOLIS L&D.....	1.8 in	1.46 in	1979	59
MILLERS FERRY L&D.....	1.76 in	0.68 in	1985	30
LAY DAM.....	1.51 in	0.79 in	1937	74
10 January 2011				
VERNON.....	4.0 in	1.88 in	1968	72
HEFLIN.....	2.5 in	2.05 in	2000	55
BERRY.....	1.75 in	0.93 in	1950	70
HURTSBORO.....	0.55 in	0.3 in	1999	32
19 January 2011				
BAY MINETTE.....	1.8 in	1.1 in	1943	97
25 January 2011				
BERRY 3 NW.....	0.28 in	0.18 in	2010	70
26 January 2011				
BERRY 3 NW.....	0.72 in	0.64 in	1941	70
31 January 2011				
LIVINGSTON.....	2.0 in	1.54 in	1907	120

¹<http://lwf.ncdc.noaa.gov/extremes/records.php>

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

Minimum Low Temperature

	New Record	Previous Record	Previous Year	Period of Record
13 January 2011				
CLAYTON.....	17.0° F	19.0° F	1985	47
14 January 2011				
BELLE MINA 2 N.....	3.0° F	5.0° F	1963	60
HUNTSVILLE INTL AP.....	8.0° F	9.0° F	1963	52
SAND MT SUBSTN.....	9.0° F	10.0° F	1963	61
LIVINGSTON.....	12.0° F	14.0° F	1917	92
ROCK MILLS.....	12.0° F	16.0° F	1973	57
SYLACAUGA 4 NE.....	13.0° F	13.0° F	1955	51
ANNISTON METRO AP*.....	14.0° F	15.0° F	1948	67
GREENVILLE.....	14.0° F	19.0° F	1975	79
MONTGOMERY AP.....	15.0° F	20.0° F	1964	63
TROY MUNICIPAL AP*.....	15.0° F	21.0° F	1975	30
ALEXANDER CITY.....	16.0° F	18.0° F	1981	41
SELMA.....	18.0° F	19.0° F	1963	107
15 January 2011				
SCOTTSBORO.....	10.0° F	11.0° F	1964	111
CENTREVILLE 6 SW.....	14.0° F	15.0° F	1979	36
GREENVILLE.....	15.0° F	16.0° F	1948	78
GENEVA #2.....	16.0° F	19.0° F	1982	34
ATMORE.....	20.0° F	21.0° F	1963	49

Maximum High Temperature

1 January 2011				
CENTREVILLE 6 SW.....	73.0° F	71.0° F	1997	35
30 January 2011				
GAINESVILLE L&D.....	77.0° F	76.0° F	1975	49

Snowfall

9 January 2011				
ATHENS.....	6.5 in	0.0 in	2010	69
HUNTSVILLE INTL AP.....	6.5 in	4.3 in	1962	52
MUSCLE SHOALS AP.....	5.0 in	Trace	1989	70
10 January 2011				
MOULTON 2.....	7.7 in	2.5 in	1962	53
RUSSELLVILLE #2.....	7.5 in	6.0 in	1962	57
BELLE MINA 2 N.....	7.0 in	1.5 in	1962	61
FT PAYNE.....	6.5 in	3.0 in	1962	75
VALLEY HEAD.....	6.2 in	4.5 in	1962	118
GUNTERSVILLE.....	5.0 in	0.5 in	1962	106
MUSCLE SHOALS AP.....	4.0 in	Trace	1987	70
HUNTSVILLE INTL AP.....	2.4 in	2.0 in	1997	52
ATHENS.....	1.8 in	Trace	1997	69
BIRMINGHAM AP*.....	1.0 in	0.3 in	1962	81
11 January 2011				
GUNTERSVILLE.....	0.1 in	Trace	1917	106
20 January 2011				
ATHENS.....	0.5 in	0.0 in	2007	69

Local Climate Records¹

January 2011

Snowfall, January one-day record

	New Record	Previous Record	Previous Year	Period of Record
9 January 2011				
ATHENS	6.5 in	5.5 in	1Jan2001	69
10 January 2011				
RUSSELLVILLE #2	7.5 in	7.0 in	29Jan1966	58
BELLE MINA 2 N	7.0 in	4.0 in	20Jan1985	61

Precipitation, Jan. one-day record

	New Record	Previous Record	Previous Year	Period of Record
1 January 2011				
HAMILTON 3 S	5.02 in	3.98 in	10Jan1968	49
JASPER	4.0 in	3.74 in	26Jan1994	50

¹<http://lwf.ncdc.noaa.gov/extremes/records.php>



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