

# Alabama Climate Report

Vol. 1, No. 3

Alabama Office of State Climatologist

The University of Alabama in Huntsville

December 2010

December's big weather news in the northern third of the state was the Christmas day snow, with continued light snowfall on the following day. The Birmingham Weather Forecast Office has a preliminary map out that is being updated as late reports come in:

[http://www.srh.noaa.gov/bmx/?n=event\\_12252010christmasdaysnow](http://www.srh.noaa.gov/bmx/?n=event_12252010christmasdaysnow)

A few of the heavier 2-day reports came in at more than 4 inches, while trace amounts of snow fell almost to the Florida line. On Christmas day the temperature was only near freezing, so the snow was heavy, sticky and perfect for snowballs, snowmen and snow forts. Shoveling was another issue as it felt like moving water-soaked cotton. After the hard freeze the next

day, however, the snow was hard and crusty.

Several daily records were set for temperatures and precipitation.

Annual averages for snow in Alabama are light, ranging from 4.7" at Valley Head to 0.4" in Mobile (though most years see zero there). Alabama's heaviest snow on record occurred on another winter holiday: New Years Eve to New Years day 1963-64. Unofficial reports of 24 inches of snow were noted in northwest Alabama; Huntsville reported 17.1".

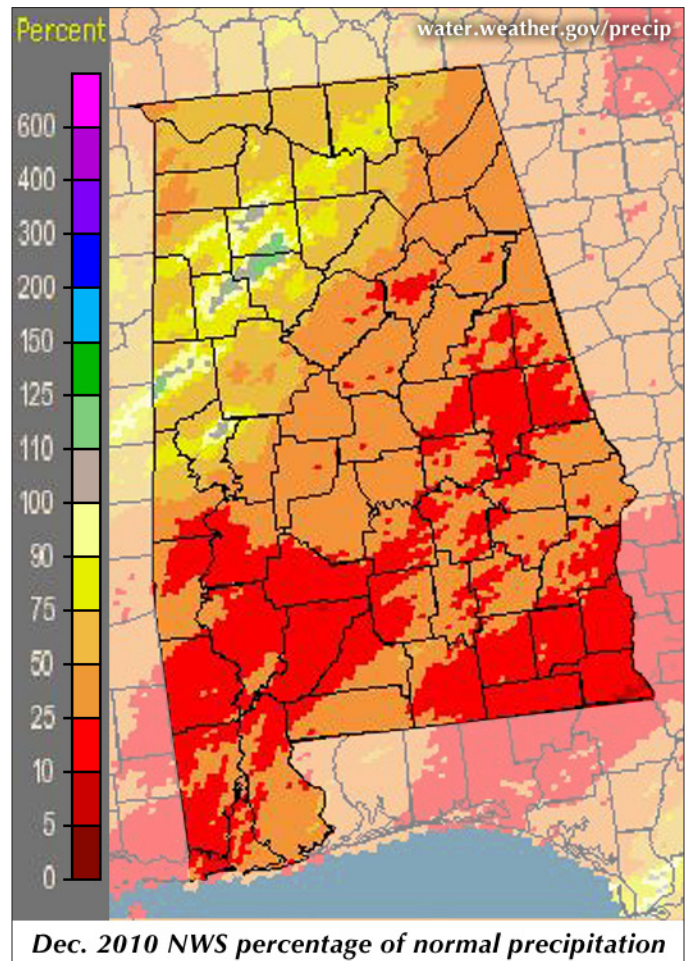
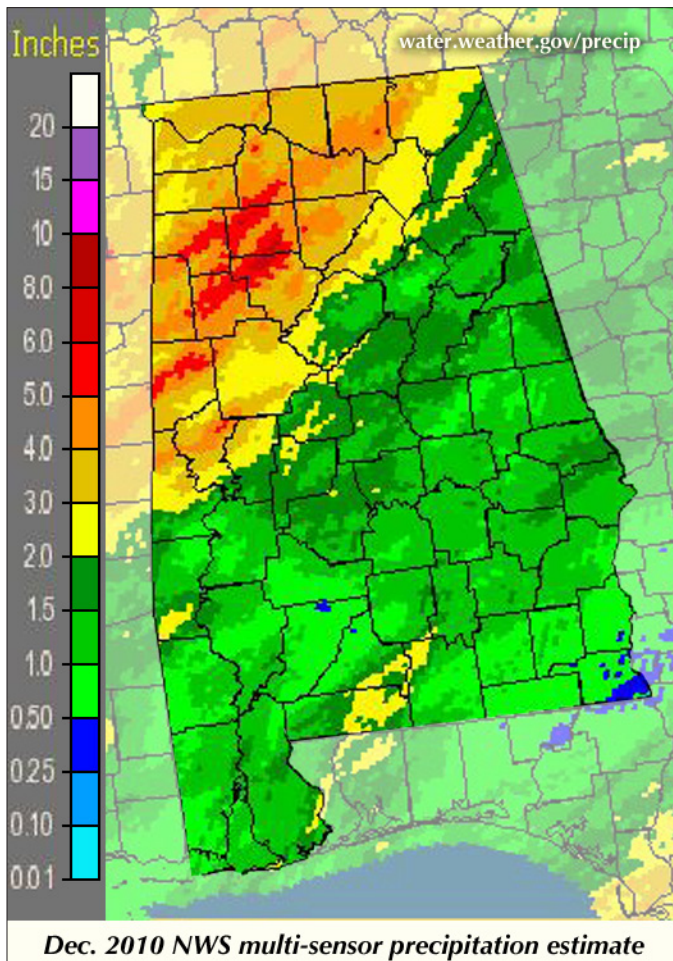
Another remarkable storm was the March blizzard of 1993. The band of heaviest snow went from Birmingham and Anniston (13" each) to Chattanooga (22") with lighter amounts

south (Montgomery 3.8") and north (Huntsville 7.3"). That storm came with a powerful punch of high winds and arctic air which set record low temperatures for March - down to a bitter +2° F at Birmingham.

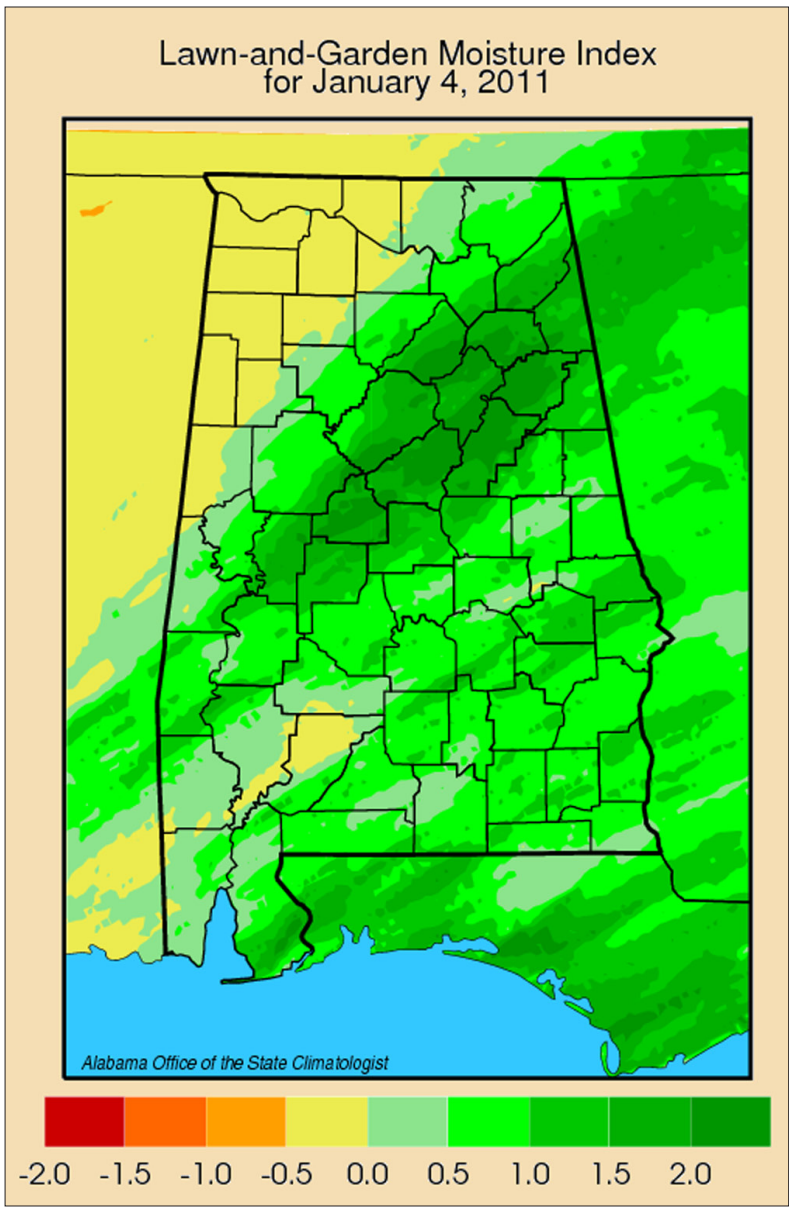
For the state's coldest temperature, we go back to 1966 and another blast of snow and cold. Ms. Lucille Hereford of New Market in Madison County was town postmistress and served as the volunteer weather observer. Every morning she faithfully checked the high and low temperature, and the precipitation.

I interviewed Ms. Hereford by phone in 1988 to get her story. She remembered that the sun was out on the morning of Jan. 30, 1966, and

*Continued on page 2*



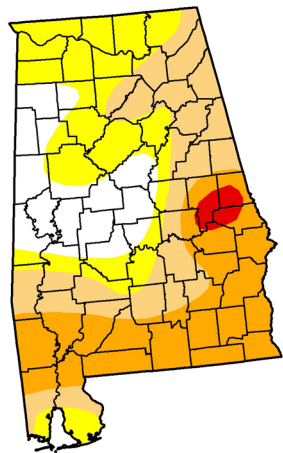
The lawn-and-garden moisture index measures the capacity of current soil moisture to sustain healthy lawns and gardens. The index is computed by estimating how much precipitation in the past three weeks contributes to current soil moisture. That rainfall is compared to a "standard" amount of rainfall 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	17.47	82.53	55.26	29.34	1.82	0.00
Last Week (12/21/2010 map)	29.64	70.36	50.15	19.91	1.82	0.00
3 Months Ago (09/28/2010 map)	3.64	96.36	66.34	25.17	4.40	0.00
Start of Calendar Year (12/29/2009 map)	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year (09/28/2010 map)	---	---	---	---	---	---
One Year Ago (12/22/2009 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, December 30, 2010  
 National Drought Mitigation Center

the ground was covered with 8" of new snow (Huntsville measured 7.3"). It was terribly cold. She walked out to the instrument shelter and opened the door. She couldn't believe what she saw so she called an acquaintance who happened to be trudging by and asked him to read the little indicator that rested at the coldest temperature since it was reset the day before. He said it looked like -28° Fahrenheit, but she thought it was closer to "only" 27 below. Since she was the official reader, the observation was reported as -27° F - Alabama's coldest ever recorded temperature.

The official story has a twist: For some reason the value was officially recorded as -17° that morning, not -27°. That was a bit warmer than the -24° F reported at Russellville that day.

Alabama had the coldest temperature in the lower 48 states that day, so it was reported nationwide that Russellville, at -24° F, was the coldest spot in the nation. A U.S. Army officer serving in Viet Nam remembers hearing the news that day that his hometown of Russellville earned the coldest-spot honors.

That distinction was not to last, however. Years later a Birmingham reporter was digging for a news story on Alabama's coldest periods. This was back in the day when official reports were all on paper, often buried in dusty archives. He discovered the mistake and the National Climatic Data Center corrected its records to show Alabama's record low temperature was -27° F set at New Market on Jan 30, 1966.

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# Alabama Monthly Climate Summaries

December 2010

	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
Anniston	38.5°	72° 12/31/10	13° 12/14/10	1.03"	10.32" 1983	.40" 12/11/10
	46.1°	80° 12/7/51	1° 12/13/62	4.11"	.71" 1980	4.11" 12/20/51
Auburn	41.2°	72° 12/31/10	18° 12/14/10	1.24"	14.27" 1953	.47" 12/12/10
	48.3°	84° 12/20/24	-1° 12/13/62	5.26"	.82" 1955	6.22" 12/4/53
Birmingham	40.1°	72° 12/31/10	14° 12/14/10	1.37"	12.63" 1983	1.1" 12/30-31/10
	45.6°	80° 12/7/51	1°+ 12/23/89	4.47"	.81" 1980	7.70" 12/27/42
Brewton	43.2°	75.4° 12/22/10	17.6° 12/28/10	2.07"	14.96" 1972	1.04" 12/31/10
	49.5°	84° 12/9/98	7° 12/13/62	4.78"	1.13" 1980	6.23" 12/21/72
Calera	41.2°	73° 12/31/10	16° 12/14/10	1.31"	13.61" 1983	.69" 12/11/10
	45.9°	79° 12/8/78	-5° 12/26/83	5.12"	.65" 1917	7.25" 12/28/42
Clanton	39.7°	70.5° 12/31/10	15.3° 12/14/10	1.27"	13.61" 1983	.85" 12/11/10
	45.2°	80°+ 12/9/78	2° 12/13/62	4.96"	2.20" 1980	5.10" 12/12/61
Courtland	36.9°	68.9° 12/31/10	10.2° 12/14/10	1.94"	M	.89" 12/11/10
	M	M	M	M	M	M
Cullman	36.5°	68.5° 12/31/10	11.5° 12/14/10	1.98"	M	.93" 12/11/10
	M	M	M	M	M	M
Decatur	37.1°	69° 12/31/10	10° 12/14/10	2.20"	11.52" 1911	.88" 12/13;31/10
	43.5°	78° 12/7/51	1° 12/15/1901	5.08"	.88" 1965	4.87" 12/29/54
Dothan	43.5°	75° 12/31/10	20° 12/14/10	1.48"	13.72" 1964	.66" 12/17-18/10
	51.3°	82° 12/6/51	7° 12/13/62	4.56"	.50" 1955	9.84" 12/25/64
Fairhope	45.4°	72.5° 12/22/10	16.7° 12/28/10	1.46"	8.04" 1982	.41" 12/25/10
	52.5°	84° 12/30/65	8° 12/13/62	4.40"	1.67" 1980	9.80" 12/6/53
Gadsden	34.6°	68° 12/31/10	10.2° 12/14/10	1.54"	10.33" 1983	.69" 12/11/10
	43.5°	78°+ 12/7/98	1° 12/13/62	4.89"	.43" 1980	5.85" 12/12/61
Gainesville	41.5°	72.7° 12/31/10	17.2° 12/14/10	1.24"	11.36" 1982	.73" 12/11/10
	46.1°	83° 12/4/78	2° 12/24/89	4.81"	.73" 1980	4.77" 12/26/73
Greensboro	41.4°	73° 12/31/10	17.1° 12/14/10	1.25"	13.36" 1973	.72" 12/11/10
	48.5°	82° 12/6/51	2° 12/23/89	4.76"	.37" 1980	6.12" 12/28/42
Guntersville	37.6°	68.9° 12/31/10	14° 12/14/10	1.23"	11.10" 1983	.58" 12/11/10
	42.7°	78° 12/6/98	-2° 12/23/89	4.76"	1.03" 1980	5.95" 12/28/42
Highland Home	42.5°	72.5° 12/31/10	17.8° 12/14/10	1.37"	9.05" 1972	.49" 12/11/10
	48.5°	83° 12/8/51	4°+ 12/26/83	4.60"	1.59" 1998	4.00"+ 12/17/92
Huntsville	38.2°	69° 12/31/10	13° 12/14/10	2.23"	18.68" 1990	3.89" 12/30-31/10
	43.1°	79° 12/4/98	-3° 12/22/89	5.59"	.76" 1965	9.07" 12/22/90

## Alabama Monthly Climate Summaries

December 2010

	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	47.2°	76° 12/22/10	22° 12/28/10	1.39"	8.86" 1995	1.06" 12/1/10
	52.3°	81°+ 12/7/98	8° 12/25/83	4.66"	1.29" 1980	4.68" 12/18/95
Montgomery	43.0°	76° 12/31/10	16° 12/28/10	1.03"	11.35" 1961	.38" 12/11/10
	49.0°	85° 12/2/82	5°+ 12/25/83	4.97"	1.39" 1980	3.92" 12/16/92
Muscle Shoals	37.3°	68.4° 12/31/10	11.8° 12/14/10	2.13"	19.19" 1990	1.02" 12/11/10
	43.3°	78°+ 12/24/64	-5° 12/23/89	5.44"	.65" 1980	5.20" 12/1/91
Russellville	36.7°	67.6° 12/31/10	9.5° 12/14/10	2.50"	17.45" 1990	.93" 12/11/10
	42.0°	85° 12/25/64	-7° 12/23/89	5.36"	1.02" 1980	5.31" 12/29/54
Scottsboro	34.7°	67.8° 12/31/10	9.1° 12/14/10	1.43"	14.73" 1990	.55" 12/11/10
	42.1°	80° 12/7/51	-1° 12/25/83	5.65"	1.34" 1980	6.80" 12/23/90
Selma	41.2°	73° 12/31/10	17.2° 12/28/10	1.24"	9.97" 1983	.70" 12/11/10
	49.2°	85°+ 12/6/51	5° 12/13/62	4.72"	1.29" 1980	7.08" 12/10/61
Talladega	38.2°	71.4° 12/31/10	13.3° 12/14/10	1.31"	8.43" 1983	.44" 12/11/10
	43.6°	80° 12/7/51	0° 12/13/62	4.24"	.98" 1979	3.80" 12/31/73
Thomasville	42.2°	71.1° 12/16/10	17.4° 12/28/10	1.31"	11.65" 1971	.76" 12/11/10
	59.6°	85° 12/11/33	3° 12/13/62	5.16"	1.12" 1980	6.29" 12/10/61
Troy	41.2°	72.5° 12/31/10	16.7° 12/28/10	1.22"	14.95" 1972	.63" 12/12/10
	50.4°	82° 12/3/12	4° 12/13/62	4.54"	.29" 1980	6.67" 12/6/72
Tuscaloosa	42.3°	74° 12/31/10	17° 12/14/10	1.62"	11.05" 1983	1.11" 12/30-31/10
	47.0°	82° 12/3/78	2° 12/23/89	4.87"	.69" 1980	3.64" 12/20/51
Valley Head	33.8°	64° 12/31/10	10.2° 12/28/10	1.36"	13.67" 1961	.48" 12/11/10
	41.3°	85° 12/28/42	-8° 12/13/62	4.86"	.77" 1904	4.28" 12/12/61
Statewide	40.93°	76° (2 stations)	9.1° Scottsboro	1.53"		3.89" Huntsville
	47.15°	85° (4 stations)	-8° Valley Head	4.81"		9.84" Dothan

M: Data is missing or not available

\*New Record

## Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

December 2010

	Ave. Total Precip.	# Stations
Autauga	3.00	4
Baldwin	1.94	31
Barbour	2.58	1
Bibb	4.30	2
Blount	3.31	7
Bullock	---	0
Butler	---	0
Calhoun	2.23	5
Chambers	3.29	1
Cherokee	4.76	1
Chilton	3.16	2
Choctaw	1.18	1
Clarke	2.51	2
Clay	---	0
Cleburne	---	0
Coffee	2.56	2
Colbert	4.18	7
Conecuh	---	0
Coosa	0.36	2
Covington	---	0
Crenshaw	---	0
Cullman	3.74	4
Dale	2.84	1
Dallas	4.28	1
DeKalb	4.34	4
Elmore	2.54	9
Escambia	2.95	1
Etowah	5.54	2
Fayette	4.32	3
Franklin	2.56	2
Geneva	---	0
Greene	---	0
Hale	0.08	1
	1.87	2

	Ave. Total Precip.	# Stations
Houston	2.69	2
Jackson	4.41	7
Jefferson	3.65	12
Lamar	3.88	1
Lauderdale	4.39	17
Lawrence	3.68	2
Lee	3.03	5
Limestone	3.40	15
Lowndes	---	0
Macon	2.88	1
Madison	4.99	63
Marengo	---	0
Marion	4.27	1
Marshall	3.21	12
Mobile	2.57	20
Monroe	---	0
Montgomery	2.73	3
Morgan	5.71	10
Perry	---	0
Pickens	1.18	1
Pike	---	0
Randolph	3.00	3
Russell	3.40	3
St. Clair	4.77	4
Shelby	3.98	18
Sumter	---	0
Talladega	3.14	5
Tallapoosa	3.11	8
Tuscaloosa	2.17	4
Walker	2.70	1
Washington	7.95	1
Wilcox	3.42	2
Winston	5.90	2

**Normal  
December  
Precipitation\***

Abbeville .....	4.51"
Alex City .....	5.07"
Aliceville .....	5.55"
Andalusia .....	4.72"
Bay Minette .....	5.08"
Centreville .....	5.24"
Coffeeville LD .....	4.45"
Dauphin Isl. ....	4.64"
Eufaula .....	4.69"
Fayette .....	5.36"
Geneva .....	4.29"
Haleyville .....	5.87"
Hamilton .....	5.85"
Hurtsboro .....	4.38"
Jasper .....	5.72"
Lafayette .....	5.09"
Livingston .....	5.04"
Melvin .....	6.03"
Pine Apple .....	5.04"
Plantersville .....	5.19"
Rock Mills .....	4.68"
Rockford .....	4.96"
Sylacauga .....	4.78"
Union Springs ..	4.74"
Vernon .....	5.61"
Wetumpka .....	4.92"

\*NOAA Climatological Annual  
Summary, Alabama 2009

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

## December 2010

### Minimum Low Temperature

	New Record	Previous Record	Previous Year	Period of Record				
<b>6 December 2010</b>					<b>28 December 2010</b>			
DOTHAN AP .....	28.0°F	30.0°F	2009	67	ANNISTON METRO AP* .....	15.0°F	18.0°F	1904 68
OPELIKA .....	22.0°F	23.0°F	2005	47	ATMORE .....	21.0°F	26.0°F	1997 47
<b>8 December 2010</b>					BANKHEAD L&D .....	20.0°F	21.0°F	2001 50
LIVINGSTON .....	19.0°F	20.0°F	2006	89	BESSEMER 3 WSW .....	18.0°F	22.0°F	1980 31
<b>9 December 2010</b>					BIRMINGHAM AP* .....	18.0°F	20.0°F	1997 80
ATMORE .....	21.0°F	23.0°F	2006	45	BREWTON 3 SSE .....	18.0°F	21.0°F	1980 81
BIRMINGHAM AP* .....	16.0°F	17.0°F	1937	80	CENTREVILLE 6 SW .....	16.0°F	19.0°F	2001 34
BREWTON 3 ENE .....	18.0°F	20.0°F	2006	33	CLAYTON .....	21.0°F	22.0°F	2002 48
CLAYTON .....	21.0°F	24.0°F	1976	46	CODEN .....	23.0°F	26.0°F	2001 48
FAYETTE .....	16.0°F	17.0°F	2006	70	DAUPHIN IS #2 .....	32.0°F	35.0°F	1980 32
MOBILE DOWNTOWN .....	25.0°F	26.0°F	2006	50	DOTHAN AP .....	21.0°F	22.0°F	1902 69
MOBILE RGNL AP .....	22.0°F	25.0°F	2006	62	ENTERPRISE 2 W .....	20.0°F	24.0°F	1977 36
MOULTON 2 .....	14.0°F	15.0°F	1968	52	FAYETTE .....	17.0°F	19.0°F	1978 68
MUSCLE SHOALS AP* .....	15.0°F	16.0°F	2006	70	GADSDEN .....	19.0°F	20.0°F	1977 52
OPELIKA .....	16.0°F	19.0°F	1984	46	GAINESVILLE LOCK .....	19.0°F	22.0°F	1978 51
VERNON .....	15.0°F	16.0°F	2006	53	GENEVA #2 .....	17.0°F	24.0°F	2001 33
<b>10 December 2010</b>					GUNTERSVILLE .....	19.0°F	20.0°F	1961 53
TROY MUNICIPAL AP .....	20.0°F	26.0°F	2006	30	HAMILTON 3 S .....	13.0°F	14.0°F	2001 48
<b>11 December 2010</b>					HEFLIN .....	13.0°F	15.0°F	1977 49
GENEVA #2 .....	21.0°F	24.0°F	1995	34	LAFAYETTE 2 W .....	13.0°F	16.0°F	1995 59
LIVINGSTON .....	14.0°F	17.0°F	1995	92	LIVINGSTON .....	14.0°F	18.0°F	1902 91
<b>13 December 2010</b>					MOBILE DOWNTOWN .....	22.0°F	27.0°F	1997 49
ENTERPRISE 2 W .....	22.0°F	25.0°F	1982	38	MOBILE RGNL AP .....	22.0°F	26.0°F	1995 62
<b>14 December 2010</b>					MONTGOMERY AP* .....	16.0°F	22.0°F	1995 62
ANNISTON METRO AP .....	13.0°F	14.0°F	1960	68	MOULTON 2 .....	15.0°F	16.0°F	1977 52
ATMORE .....	21.0°F	23.0°F	1962	46	MUSCLE SHOALS AP* .....	18.0°F	19.0°F	1961 70
BAY MINETTE .....	22.0°F	23.0°F	1962	82	OPELIKA .....	15.0°F	18.0°F	2001 48
BESSEMER 3 WSW .....	15.0°F	17.0°F	1985	33	PINSON .....	15.0°F	18.0°F	1997 30
BIRMINGHAM AP .....	14.0°F	18.0°F	1985	80	ROBERTSDALE .....	21.0°F	24.0°F	1977 73
CENTREVILLE 6 SW .....	16.0°F	20.0°F	1985	35	ROCK MILLS .....	13.0°F	17.0°F	1977 48
DOTHAN AP .....	20.0°F	22.0°F	1962	68	SYLACAUGA 4 NE .....	16.0°F	19.0°F	2001 48
FAIRHOPE 2 NE .....	22.0°F	24.0°F	1962	86	TUSCALOOSA ACFD .....	20.0°F	21.0°F	1995 62
GENEVA #2 .....	21.0°F	24.0°F	1989	33	TUSCALOOSA MUNI AP* ...	19.0°F	21.0°F	1977 47
HUNTSVILLE INTL AP* .....	13.0°F	15.0°F	1985	52	<b>29 December 2010</b>			
LAFAYETTE 2 W .....	13.0°F	16.0°F	1962	59	ATMORE .....	21.0°F	22.0°F	1961 46
LIVINGSTON .....	15.0°F	17.0°F	1917	91	ENTERPRISE 2 W .....	20.0°F	26.0°F	1995 37
MOBILE DOWNTOWN .....	24.0°F	27.0°F	1989	50	GENEVA #2 .....	18.0°F	25.0°F	1995 33
MOBILE RGNL AP .....	24.0°F	26.0°F	1962	62	GREENVILLE .....	17.0°F	20.0°F	1961 80
MONTGOMERY AP .....	18.0°F	19.0°F	1962	62	LAFAYETTE 2 W .....	13.0°F	14.0°F	1995 60
MOULTON 2 .....	10.0°F	12.0°F	1960	51	LIVINGSTON .....	15.0°F	18.0°F	2000 91
SAND MT SUBSTN .....	10.0°F	13.0°F	1960	59	SYLACAUGA 4 NE .....	16.0°F	17.0°F	1995 48
THORSBY EXP STN .....	16.0°F	19.0°F	1989	49	<sup>1</sup> <a href="http://lwf.ncdc.noaa.gov/extremes/records.php">http://lwf.ncdc.noaa.gov/extremes/records.php</a>			
<b>15 December 2010</b>					* This record differs from long-term (100+ year) data in the AOSC climate database: <a href="http://nsstc.uah.edu/alclimate/climate/daily_climate_and_normals.php">http://nsstc.uah.edu/alclimate/climate/daily_climate_and_normals.php</a>			
BELLE MINA 2 N .....	7.0°F	12.0°F	1963	58				
CODEN .....	24.0°F	25.0°F	2004	48				
<b>27 December 2010</b>								
MOBILE DOWNTOWN .....	25.0°F	32.0°F	2006	49				
MOBILE RGNL AP .....	24.0°F	25.0°F	1977	62				

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

## December 2010

### Maximum High Temperature

	New Record	Previous Record	Previous Year	Period of Record
<b>22 December 2010</b>				
MOBILE DOWNTOWN AP ...	77.0°F	75.0°F	1949	50
<b>31 December 2010</b>				
LIVINGSTON.....	85.0°F	81.0°F	1984	89

### Snowfall

	New Record	Previous Record	Previous Year	Period of Record
<b>14 December 2010</b>				
GUNTERSVILLE .....	0.1 in	Trace	1914	106
<b>25 December 2010</b>				
ANNISTON METRO AP .....	1.0 in	Trace	1993	107
ATHENS .....	1.9 in	Trace	1995	69
HUNTSVILLE INTL AP.....	2.5 in	0.3 in	1989	52
MOULTON 2.....	2.3 in	0.5 in	1985	53
MUSCLE SHOALS AP .....	2.4 in	Trace	1993	70
RUSSELLVILLE #2.....	2.0 in	Trace	1961	57
SCOTTSBORO.....	0.5 in	0.3 in	1909	119
<b>26 December 2010</b>				
BRIDGEPORT 5 NW .....	0.3 in	Trace	1985	114
HUNTSVILLE INTL AP.....	0.3 in	Trace	1992	52
MOULTON 2.....	0.8 in	Trace	1969	53
MUSCLE SHOALS AP .....	1.0 in	0.0 in	2009	70
SCOTTSBORO.....	2.5 in	Trace	1928	119
VALLEY HEAD .....	3.8 in	0.9 in	1993	117
<b>27 December 2010</b>				
VALLEY HEAD .....	0.3 in	Trace	2000	117

### Precipitation

	New Record	Previous Record	Previous Year	Period of Record
<b>1 December 2010</b>				
ATMORE, AL .....	1.65 in	1.58 in	1996	70
DAUPHIN IS #2, AL.....	0.69 in	0.58 in	2009	35
LAY DAM, AL.....	1.2 in	1.08 in	1981	73
MITCHELL DAM, AL.....	1.26 in	1.19 in	1981	73
SAND MT SUBSTN, AL .....	2.01 in	1.78 in	1981	61
SELMA, AL.....	2.24 in	1.15 in	1996	115
TALLADEGA, AL.....	1.73 in	1.5 in	1996	122
<b>11 December 2010</b>				
ATHENS, AL.....	0.81 in	0.62 in	1960	69
<b>12 December 2010</b>				
ADDISON, AL.....	0.82 in	0.78 in	1985	72
<b>25 December 2010</b>				
BESSEMER 3 WSW, AL .....	0.27 in	0.24 in	1981	33
<b>26 December 2010</b>				
ADDISON, AL.....	3.0 in	2.21 in	1938	72
BREWTON 3 ENE, AL .....	0.42 in	0.27 in	2004	33

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

