

Alabama Climate Report

Vol. 1, No. 7

Alabama Office of State Climatologist

The University of Alabama in Huntsville

April 2011

A month ago I wrote about March and April being the most dangerous months of the year when it comes to deadly tornadoes. I was not trying to be prophetic.

Today we are struggling to recover from last week's horrific tornadic outbreak.

The EF-5 tornado that cut a swath through Northwestern Alabama and the EF-4 tornado that hit Tuscaloosa and Jefferson counties are now the two deadliest tornadoes in Alabama history.

With search crews still looking for victims, the death toll for the Hackleburg/Phil Campbell tornado stands at 70, while the Tuscaloosa tornado killed

at least 65 people, with more than 1,000 people injured.

Both eclipse the March 21, 1932, tornado that killed 49 people and injured 150 between Perry County to Coosa County.

Preliminary counts from April 27 are that the state was hit by 35 confirmed tornadoes. That includes the state's first EF-5 tornado in more than a decade.

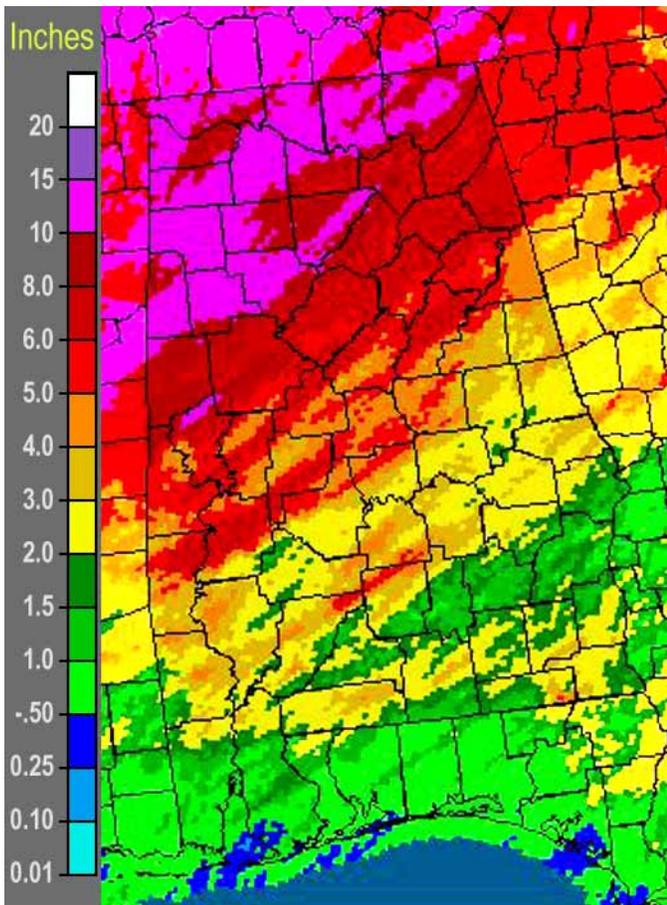
The media is reporting that the total death toll from the April 27 storms is 236, although that number may rise. That makes this Alabama's second deadliest storm system in history, trailing only the 268 people killed by tornadoes on March 21, 1932.

No doubt, many lives were saved on April 27 by early warnings given by the National Weather Service and transferred to the public by the media.

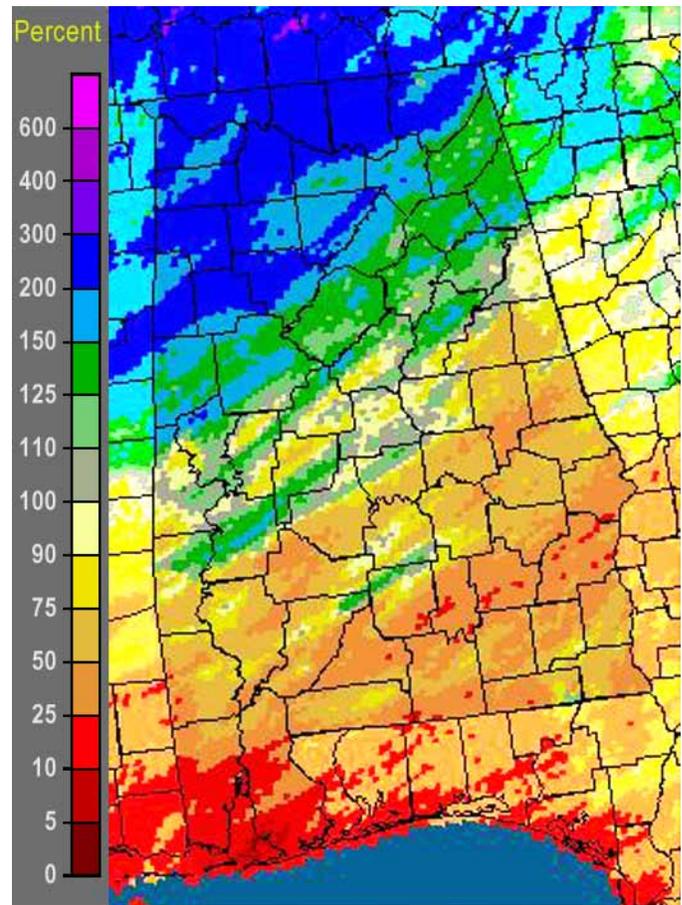
Almost forgotten, due to the extreme nature of the April 27 storms, are the tornadic storms that hit the state only two weeks earlier. The National Weather Service reported that 30 tornadoes hit Alabama on April 11, killing at least eight people. In all, four rounds of severe weather including flooding, strong straight-line wind and powerful tornadoes hit Alabama in April.

Unfortunately, Alabama's climate is such that outbreaks like the one on

Continued on page 2

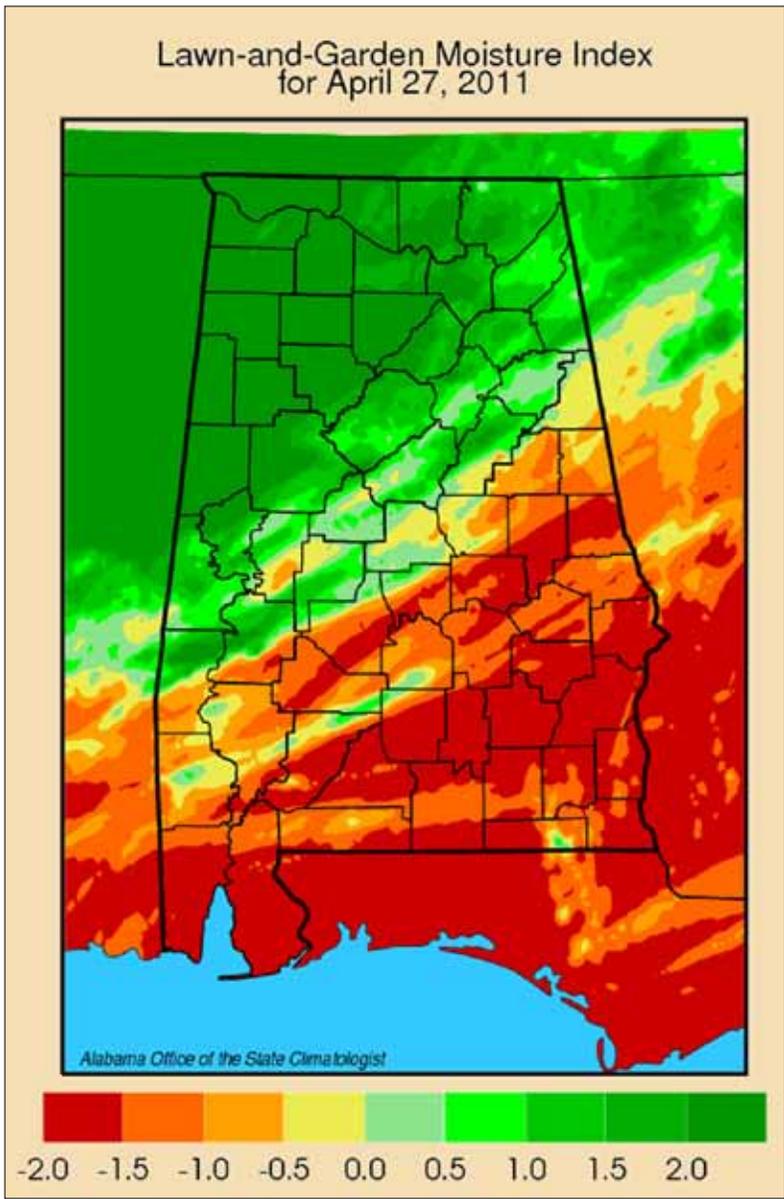


April 2011 NWS multi-sensor precipitation estimate



April 2011 NWS percentage of normal precipitation

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.



April 27 are possible every few decades. The state sits in the zone where warm, moist air flowing north from the Gulf of Mexico meets and interacts with cold weather systems coming south and east from the Great Plains.

One provides the energy, the other the trigger, and the boundary between the two different air flows a wind shear that contributes to rotation.

It is this combination that makes this a tornado-active region – although less active in terms of raw numbers than “tornado alley” from North Texas to Nebraska.

The outlook for May is better, but we cannot relax: While the previous list of the state’s 25 most deadly tornadoes included ten each from March and April, three of the remaining five were in May (1884, 1945 and 1956).

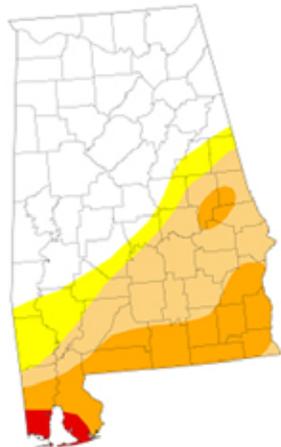
On another note, the northwestern half of Alabama has received significant rainfall since mid-March and has been lifted out of drought status. But that blessing has not been distributed evenly: While Russellville had more than 12.5 inches of rain in April and several places in North Alabama had more than ten inches, Fairhope had less than one inch of rain for the entire month of April. Mobile had barely more than one inch and other places around Southeast Alabama saw below normal rainfall for the month.

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.58	47.42	38.01	17.11	1.39	0.00
Last Week (04/26/2011 map)	52.58	47.42	38.01	16.84	0.00	0.00
3 Months Ago (02/01/2011 map)	15.22	84.78	57.83	28.77	1.82	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 (04/27/2010 map)	61.32	38.68	0.00	0.00	0.00	0.00

Intensity:

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



John R. Christy, Ph.D.
Alabama State Climatologist
University of Alabama in Huntsville
john.christy@nsstc.uah.edu

Bob Clymer
Assistant State Climatologist
bob.clymer@nsstc.uah.edu

**U.S. Drought Monitor
Alabama**

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



Released Thursday, May 5, 2011
Rich Tinker, NOAA/NWS/NCEP/CPC

Alabama Monthly Climate Summaries

April 2011

	April Mean April Norm	April Hi Temp Record Hi	April Low Temp Record Lo	Total Precip. Normal Prec.	Wettest April Driest April	Heaviest Day Record Day
Anniston	64.7°	87° 4/9/11	35° 4/6/11	5.17"	17.30" 1979	2.26" 4/15/11
	61.7°	93° 4/17/55	27° 4/1/87	4.87"	.17" 1986	6.15" 4/29/63
Auburn	68.0°	88° 4/22;27/11	39° 4/6/11	1.52"	17.66" 1964	.60" 4/27/11
	64.0°	94° 4/30/42	27° 4/13/40	4.92"	.50" 1915	5.15" 4/8/64
Birmingham	66.3°	89° 4/9/11	38° 4/6/11	5.45"	13.75" 1979	1.49" 4/4/11
	61.3°	92° 4/21/87	26° 4/11/73	4.67"	.42" 1986	4.61" 4/12/79
Brewton	68.0°	87.6° 4/9/11	35.6° 4/6/11	3.84"	11.13" 1975	1.76" 4/15/11
	63.5°	95° 4/30/43	25° 4/7/50	4.50"	.50" 1981	9.60" 4/14/55
Calera	66.0°	85° 4/11;24/11	38° 4/6/11	3.64"	18.32" 1979	.90" 4/15/11
	62.4°	90° 4/24/60	25° 4/11/73	5.15"	.10" 1925	5.33" 4/13/79
Clanton	65.3°	86.4° 4/9/11	35.6° 4/6/11	5.65"	22.00" 1979	2.00" 4/27/11
	61.3°	93°+ 4/30/43	26° 4/13/40	5.43"	.12" 1986	9.00" 4/8/38
Courtland	64.0°	87.4° 4/9/11	34.9° 4/17/11	10.96"	M	4.4" 4/27/11
	M	M	M	M	M	M
Cullman	62.8°	84.7° 4/9/11	31.3° 4/6/11	9.76"	M	3.73" 4/15/11
	M	M	M	M	M	M
Decatur	64.4°	89° 4/9/11	37° 4/17/11	7.62"	13.57" 1911	2.18" 4/4/11
	61.6°	92° 4/29/1899	26° 4/6/1898	4.50"	.58" 1930	4.38" 4/6/1892
Dothan	69.8°	90° 4/23;27/11	42° 4/6/11	3.75"	10.32" 1944	1.59" 4/4-5/11
	67.3°	95° 4/30/42	31° 4/13/40	4.11"	.54" 1967	4.25" 4/6/37
Fairhope	68.8°	85.3° 4/20/11	35.1° 4/6/11	.94"	13.53" 1980	.72" 4/4/11
	65.9°	91°+ 4/23/87	34° 4/11/73	4.53"	.11" 1999	8.31" 4/15/96
Gadsden	61.7°	82.4° 4/9/11	34.2° 4/17/11	7.00"	12.65" 1979	2.22" 4/15/11
	60.3°	91°+ 4/30/87	22° 4/4/87	5.21"	.57" 1986	4.60" 4/13/79
Gainesville	66.5°	87.6° 4/9/11	38.3° 4/6/11	3.83"	18.41" 1979	1.09" 4/21/11
	61.6°	92°+ 4/28/87	29° 4/1/87	5.37"	.34" 1976	7.55" 4/13/79
Greensboro	66.8°	87.4° 4/9/11	37.4° 4/6/11	4.52"	12.37" 1979	1.28" 4/4/11
	63.9°	95° 4/30/43	28°+ 4/3/92	5.33"	.59" 1987	4.46" 4/5/56
Guntersville	64.5°	85.6° 4/9/11	36.7° 4/6/11	10.22"	10.45" 1979	3.18" 4/15/11
	59.2°	94° 4/26/86	25°+ 4/3/92	4.81"	.77" 1986	5.01" 4/29/63
Highland Home	67.6°	84.9° 4/22/11	40.6° 4/1/11	1.87"	9.89" 1979	1.55" 4/4/11
	62.9°	94° 4/23/87	24° 4/4/87	4.39"	.43" 1986	7.57" 4/27/64
Huntsville	64.5°	89° 4/9/11	38° 4/6;17/11	10.11"	12.55" 1964	3.50" 4/27/11
	61.3°	92° 4/16/67	25° 4/7/07	4.60"	.42" 1986	3.85" 4/5/83

Alabama Monthly Climate Summaries

April 2011

	April Mean April Norm	April Hi Temp Record Hi	April Low Temp Record Lo	Total Precip. Normal Prec.	Wettest April Driest April	Heaviest Day Record Day
Mobile	70.5°	86° 4/23;27/11	41° 4/6/11	1.02"	15.43" 1980	.57" 4/4/11
	66.1°	94° 4/21/87	32° 4/5/87	5.06"	.08" 1999	13.36" 4/13/55
Montgomery	67.9°	89° 4/9/11	38° 4/6/11	3.16"	11.50" 1983	1.66" 4/4/11
	64.3°	91°+ 4/5/88	28° 4/1/87	4.38"	.52" 1986	4.54" 4/8/64
Muscle Shoals	63.6°	86.9° 4/9/11	35.6° 4/17/11	10.18"	12.81" 1983	3.52" 4/27/11
	60.6°	92° 4/30/87	27° 4/11/89	4.43"	.36" 1986	5.34" 4/5/83
Russellville	63.4°	87.3° 4/9/11	32.2° 4/17/11	12.58"	14.00" 1991	5.43" 4/27/11
	58.0°	89°+ 4/11/01	22° 4/11/73	4.97"	.57" 1986	3.85" 4/6/83
Scottsboro	62.4°	86.9° 4/9/11	32.5° 4/6/11	10.50"	9.57" 2000	3.26" 4/15/11
	58.7°	92° 4/30/43	23°+ 4/3/92	4.52"	1.22" 1976	3.72" 4/29/63
Selma	66.8°	88.5° 4/27/11	35.4° 4/6/11	2.88"	10.02" 1973	1.51" 4/4/11
	63.5°	93°+ 4/22/87	29° 4/13/40	4.33"	.22" 1986	8.74" 4/8/38
Talladega	64.6°	87.4° 4/10/11	34° 4/6/11	5.69"	18.27" 1979	2.05" 4/15/11
	59.8°	92° 4/18/55	24°+ 4/3/92	4.80"	.35" 1986	5.72" 4/4/74
Thomasville	67.3°	86.9° 4/9/11	35.6° 4/6/11	2.71"	12.02" 1979	1.09" 4/15/11
	64.1°	94° 4/22/87	27° 4/13/40	4.64"	.49" 1987	5.47" 4/3/79
Troy	66.8°	88° 4/27/11	34.7° 4/6/11	1.24"	8.41" 1979	.97" 4/4/11
	63.4°	94° 4/30/42	29° 4/13/40	4.25"	.73" 1986	4.52" 4/15/34
Tuscaloosa	66.5°	88° 4/9/11	36° 4/6/11	7.18"	14.41" 1979	2.42" 4/15/11
	63.9°	94° 4/21/87	29° 4/1/87	5.10"	.30" 1987	6.44" 4/12/79
Valley Head	61.4°	84.2° 4/9/11	30.7° 4/6/11	6.87"	10.08" 1979	2.83" 4/15/11
	55.9°	88°+ 4/27/86	19° 4/3/92	4.73"	1.10" 1976	4.18" 4/30/63
Statewide	68.30°	90° Dothan	30.7° Valley Head	5.38"	22.0" Clanton	5.43" Russellville
	64.53°	95° (3 sites)	19° Valley Head	4.75"	0.08" Mobile	13.36" Mobile

M: Data is missing or not available

**New Record*

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

April 2011

Normal

April

Precipitation*

	Ave. Total Precip.	# Stations
Autauga	2.47	4
Baldwin	1.10	26
Barbour	1.26	1
Bibb	5.27	2
Blount	7.18	8
Bullock	NA	0
Butler	NA	0
Calhoun	4.58	3
Chambers	5.33	1
Cherokee	6.18	1
Chilton	5.29	2
Choctaw	4.13	1
Clarke	2.92	2
Clay	NA	0
Cleburne	NA	0
Coffee	0.94	2
Colbert	9.84	7
Conecuh	NA	0
Coosa	3.35	2
Covington	NA	0
Crenshaw	NA	0
Cullman	7.45	7
Dale	2.00	1
Dallas	4.24	1
DeKalb	6.37	3
Elmore	2.59	9
Escambia	2.04	2
Etowah	4.85	1
Fayette	11.11	3
Franklin	4.29	1
Geneva	NA	0
Greene	NA	0
Hale	NA	0
Henry	0.54	2

	Ave. Total Precip.	# Stations
Houston	3.58	3
Jackson	9.48	6
Jefferson	6.12	12
Lamar	11.99	1
Lauderdale	8.32	18
Lawrence	7.05	2
Lee	2.73	2
Limestone	6.87	16
Lowndes	NA	0
Macon	2.07	1
Madison	7.90	64
Marengo	NA	0
Marion	9.42	1
Marshall	7.04	11
Mobile	1.39	19
Monroe	NA	0
Montgomery	2.51	4
Morgan	8.77	8
Perry	NA	0
Pickens	6.99	1
Pike	NA	0
Randolph	4.10	3
Russell	2.37	3
St. Clair	6.09	3
Shelby	5.28	18
Sumter	NA	0
Talladega	7.08	6
Tallapoosa	3.74	5
Tuscaloosa	6.36	4
Walker	NA	0
Washington	3.15	1
Wilcox	2.37	2
Winston	8.08	2

Abbeville	4.15"
Alex City	4.41"
Aliceville	5.24"
Andalusia	4.92"
Ashland	4.61"
Athens	4.45"
Bay Minette	5.25"
Bessemer	4.86"
Billingsley	4.92"
Centreville	5.00"
Chatom	4.90"
Claiborne L&D	4.20"
Clayton	4.24"
Dauphin Isl.	4.47"
Elba	4.65"
Eufaula WR	3.66"
Evergreen	4.57"
Fayette	5.39"
Geneva 2	4.29"
Greenville	4.70"
Haleyville	5.35"
Hamilton 3S	5.55"
Heflin	5.12"
Hurtsboro	4.17"
Jasper	5.57"
Lafayette	5.10"
Livingston	5.14"
Melvin	5.44"
Milstead	4.59"
Moulton	4.84"
Oneonta	5.04"
Perryville	5.03"
Pine Apple	4.38"
Plantersville	5.08"
Rock Mills	4.66"
Rockford	5.10"
Sylacauga	4.68"
Union Springs	4.49"
Uniontown	4.59"
Vernon	5.14"
Warrior L&D	5.18"
Wetumpka	4.66"

*Southeast Regional Climate Center
www.serrc.com

New Local Climate Records¹

April 2011

Maximum High Temperature, Daily

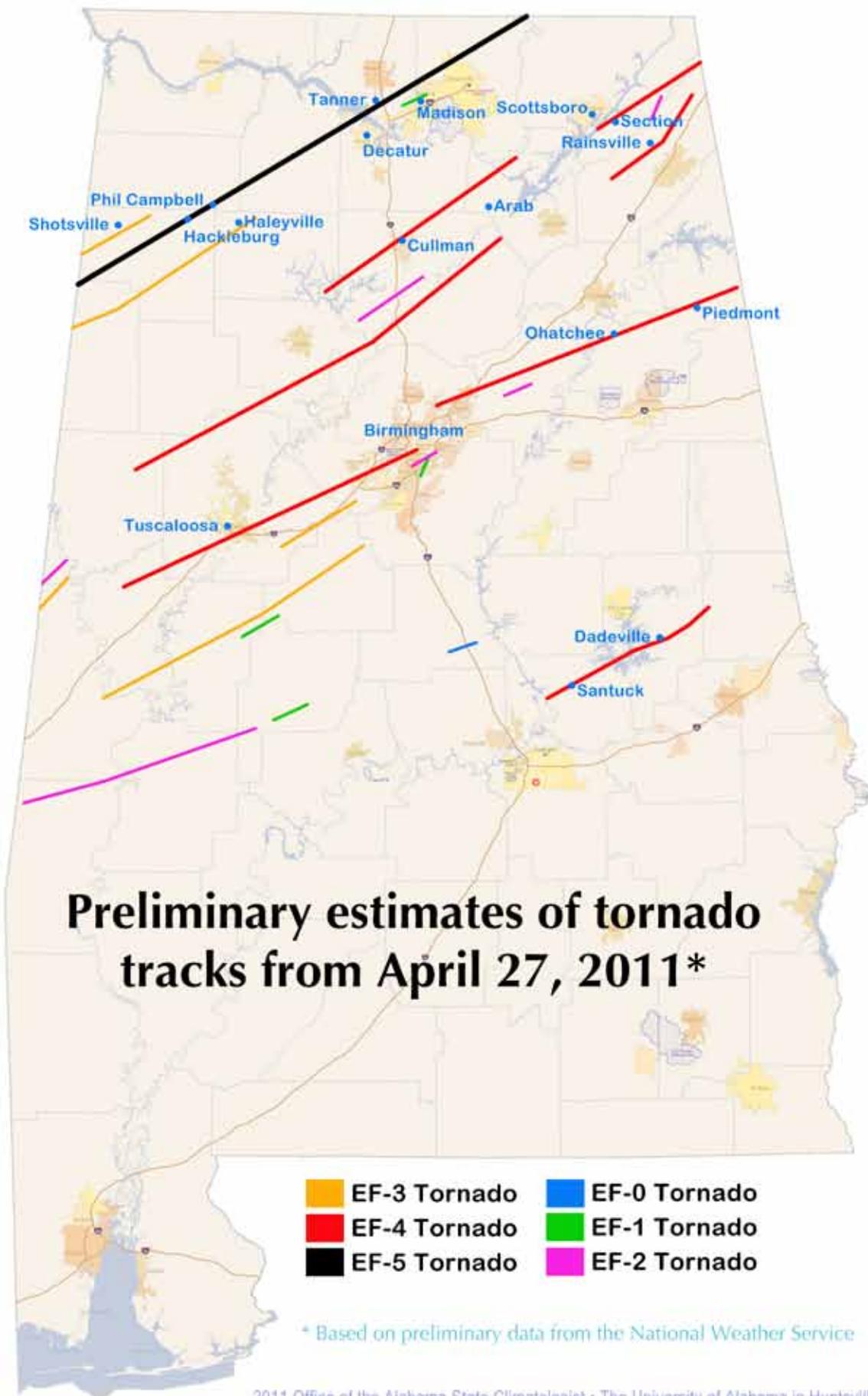
	Period of Record	New Record	Previous Record	Previous Year
2 April 2011				
MOBILE REGIONAL AP.....	63	84.92°	82.94°	2007
8 April 2011				
MUSCLE SHOALS AP.....	70	87.0°	86.0°	1978
MONTGOMERY AP.....	63	87.0°	86.0°	1978
9 April 2011				
MUSCLE SHOALS AP.....	70	91.0°	88.0°	1995
PINSON.....	30	91.0°	88.0°	1995
HUNTSVILLE INTL AP.....	52	89.0°	88.0°	1999
BIRMINGHAM AP.....	81	89.0°	87.0°	1965
MONTGOMERY AP.....	63	89.0°	85.0°	1999
GADSDEN.....	55	88.0°	87.0°	1978
TROY MUNICIPAL AP.....	31	86.0°	84.0°	1999
HAMILTON 3 S.....	48	92.0°	89.0°	1965
10 April 2011				
GENEVA #2.....	34	91.0°	89.0°	1978
BELLE MINA 2 N.....	61	91.0°	87.0°	1999
GAINESVILLE LOCK.....	50	89.0°	86.0°	1999
ALEXANDER CITY.....	41	89.0°	86.0°	1978
CENTREVILLE 6 SW.....	36	88.0°	87.0°	1978
SCOTTSBORO.....	115	88.0°	86.0°	1999
SYLACAUGA 4 NE.....	50	87.0°	86.0°	1995
GUNTERSVILLE.....	53	86.0°	84.0°	1999
11 April 2011				
EUFULA WILDLIFE REF.....	41	90.0°	88.0°	1999
TUSCALOOSA MUNI AP.....	49	87.0°	86.0°	2008
BIRMINGHAM AP.....	81	86.0°	85.0°	2001
12 April 2011				
EUFULA WILDLIFE REF.....	41	90.0°	86.0°	1999
21 April 2011				
FAIRHOPE 2 NE.....	89	88.0°	88.0°	2006
24 April 2011				
GENEVA #2.....	34	90.0°	89.0°	2009
25 April 2011				
BANKHEAD L&D.....	51	90.0°	89.0°	1965

Precipitation, Daily

	Period of Record	New Record	Previous Record	Previous Year				
4 April 2011								
FAYETTE.....	119	2.68 in	2.02 in	1957	JASPER.....	50	1.18 in	0.91 in 1994
HUNTSVILLE INTL AP.....	52	2.25 in	1.65 in	1989	LEEDS.....	94	2.5 in	2.18 in 1994
TROY MUNI AP.....	42	1.16 in	0.58 in	2001	MITCHELL DAM.....	74	2.29 in	0.93 in 1956
5 April 2011								
BELLE MINA 2 N.....	61	2.17 in	1.84 in	1977	MOULTON 2.....	54	1.46 in	0.94 in 1972
BERRY 3 NW.....	71	2.2 in	0.65 in	2008	PINE APPLE.....	43	2.0 in	1.2 in 1994
CARBON HILL 4SE.....	73	2.4 in	2.03 in	1977	PLANTERSVILLE 2 SSE.....	71	3.25 in	2.4 in 1954
HAMILTON 3 S.....	49	2.7 in	1.37 in	2008	SAND MT SUBSTN.....	62	2.19 in	1.31 in 1994
RUSSELLVILLE #2.....	57	2.0 in	1.9 in	1977	T'LOOSA OLIVER DAM.....	111	2.55 in	1.81 in 1912
VERNON.....	73	2.53 in	2.0 in	1977	UNIONTOWN.....	117	3.62 in	3.1 in 1921
12 April 2011								
ALICEVILLE L&D.....	30	0.78 in	0.76 in	2005	VALLEY HEAD.....	118	2.93 in	2.68 in 1956
15 April 2011								
ATHENS.....	69	2.05 in	0.95 in	1958	VERNON.....	73	4.66 in	1.74 in 1970
FAYETTE.....	119	2.42 in	2.0 in	1991	WALLACE 2 E.....	69	1.26 in	1.15 in 1985
GADSDEN.....	58	1.95 in	1.32 in	1968	17 April 2011			
HUNTSVILLE INTL AP.....	52	1.81 in	0.67 in	1999	BANKHEAD L&D.....	54	1.2 in	0.66 in 1970
MUSCLE SHOALS AP.....	70	3.07 in	1.39 in	1994	HURTSBORO.....	32	0.01 in	0.0 in 2010
TUSCALOOSA ACFD.....	62	2.25 in	1.35 in	1956	21 April 2011			
TUSCALOOSA MUNI AP.....	62	2.42 in	0.99 in	1994	ALICEVILLE L&D.....	30	3.01 in	02.68 in 1995
16 April 2011								
ADDISON.....	73	2.16 in	1.02 in	1994	BOAZ.....	73	2.03 in	1.65 in 1995
BANKHEAD L&D.....	54	1.2 in	1.08 in	1994	GUNTERSVILLE.....	106	2.8 in	1.93 in 1920
BELLE MINA 2 N.....	61	2.0 in	1.7 in	1954	RUSSELLVILLE #2.....	57	2.5 in	2.25 in 1966
BILLINGSLEY 3 NE.....	72	2.45 in	2.4 in	1954	WALNUT GROVE.....	69	1.48 in	1.25 in 1993
CARBON HILL.....	73	3.91 in	2.4 in	1954	27 April 2011			
CENTREVILLE 6 SW.....	36	0.99 in	0.35 in	1982	BERRY 3 NW.....	71	0.95 in	0.46 in 2005
CLAIBORNE L&D.....	58	2.44 in	1.33 in	1954	HUNTSVILLE INTL AP.....	52	3.5 in	1.43 in 1964
CHILDERSBURG WTP.....	54	3.23 in	1.46 in	1994	MOULTON 2.....	54	1.84 in	1.5 in 1964
HAMILTON 3 S.....	49	2.19 in	1.19 in	1972	MUSCLE SHOALS AP.....	70	2.92 in	1.29 in 1994
HOLT L&D.....	30	1.56 in	0.99 in	1994	TUSCALOOSA MUNI AP.....	62	1.48 in	1.47 in 1991
JACKSON.....	49	1.91 in	1.52 in	1994	28 April 2011			
JACKSONVILLE.....	62	1.54 in	0.34 in	1982	BRIDGEPORT 5 NW.....	114	4.0 in	1.71 in 1963
					MOULTON 2.....	54	4.75 in	2.53 in 1963
					PALMERDALE.....	62	1.73 in	1.69 in 1991
					ROCK MILLS.....	72	2.13 in	1.72 in 1966

Highest One-Day Precip., Month

	Period of Record	New Record	Previous Record	Previous Date
28 April 2011				
MOULTON 2.....	54	4.75 in	3.4 in	83/04/05



2011 Office of the Alabama State Climatologist • The University of Alabama in Huntsville