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Tennessee Climate Office Monthly Report

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4-1-2018

### 2018 April - Tennessee Monthly Climate Report

Tennessee Climate Office, East Tennessee State University

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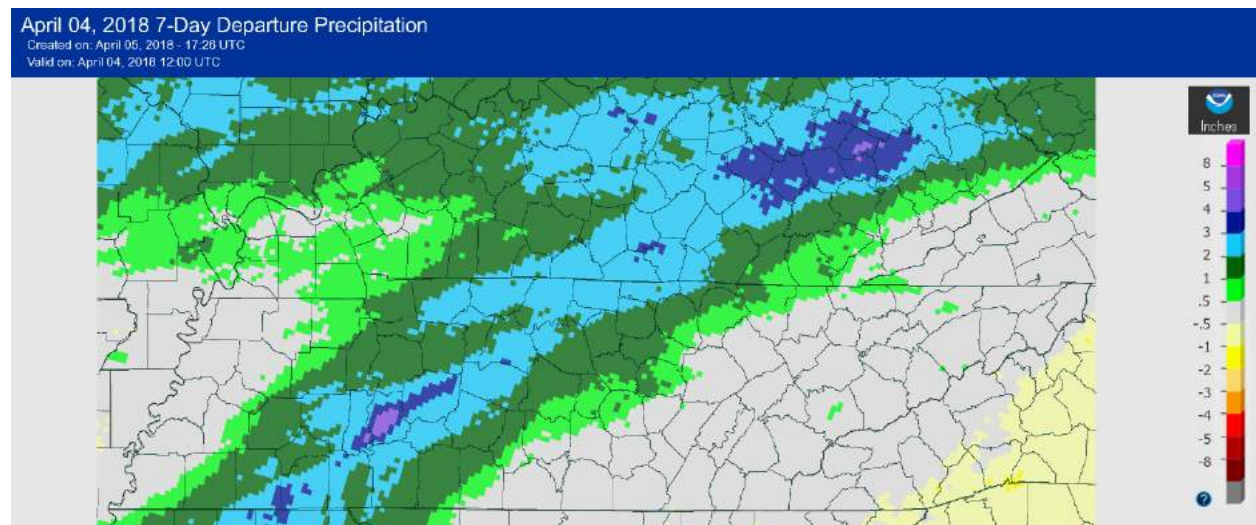
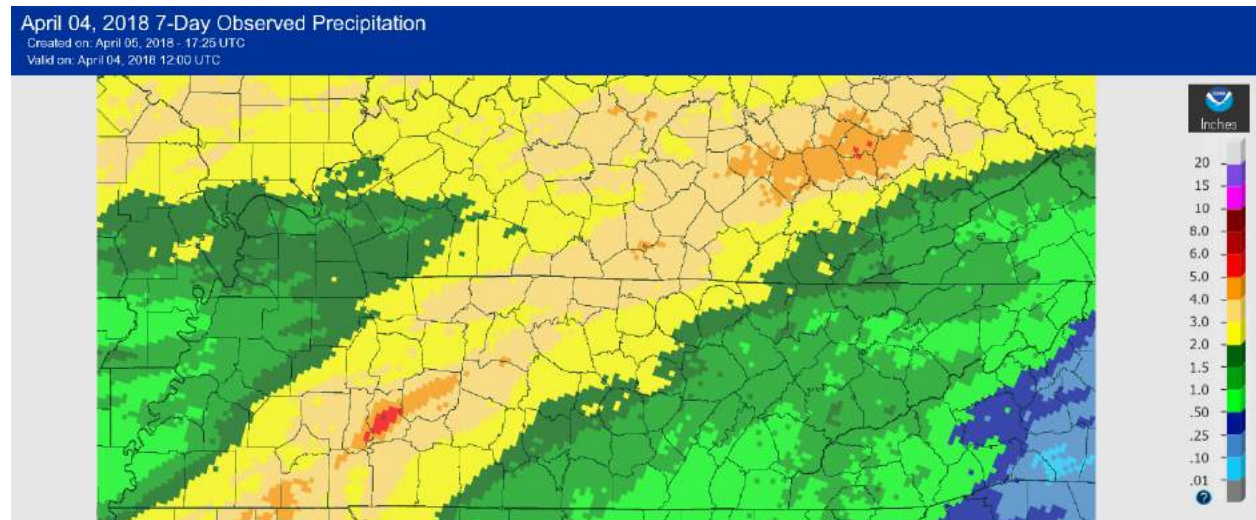
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## April 2018 Tennessee Weather and Climate Roundup:

### Week 1: (Thursday, March 29<sup>th</sup> - Wed, April 4<sup>th</sup>)

Precipitation was near or above average this week across the State, with the highest totals (greater than 3 inches) in a large swath from Hardeman to Wayne counties along the southern border northeast towards Montgomery to Pickett counties on the northern border. Highest totals were found in Perry County, where over 5-6 inches of rain was recorded. Precipitation resulted from frontal passages on the 29<sup>th</sup>-30<sup>th</sup> and April 1<sup>st</sup>-2<sup>nd</sup>.

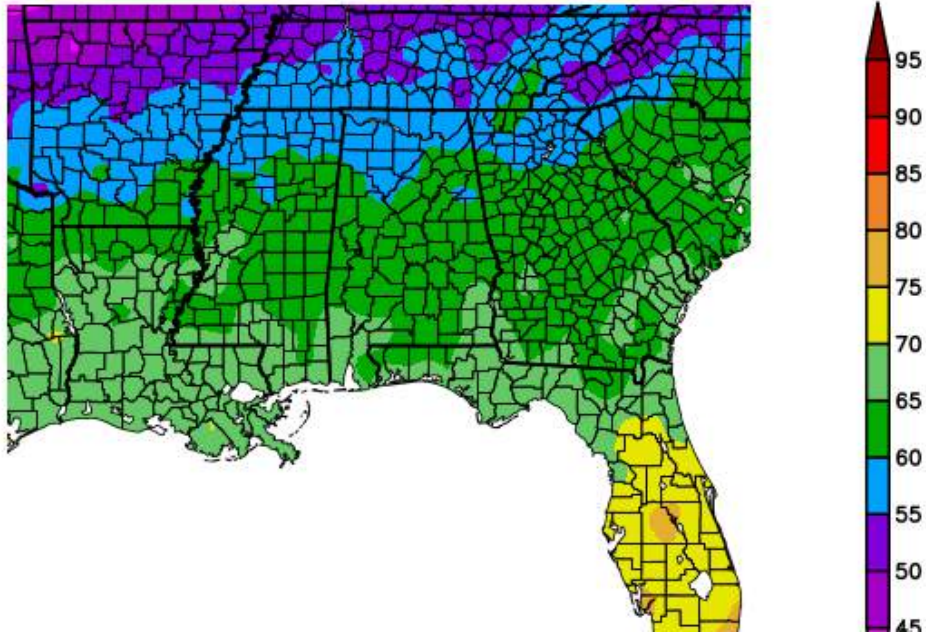
Rivers in the western part of the state are forecast to be near or at minor flood stage within the coming week due to heavy rains last week and this.



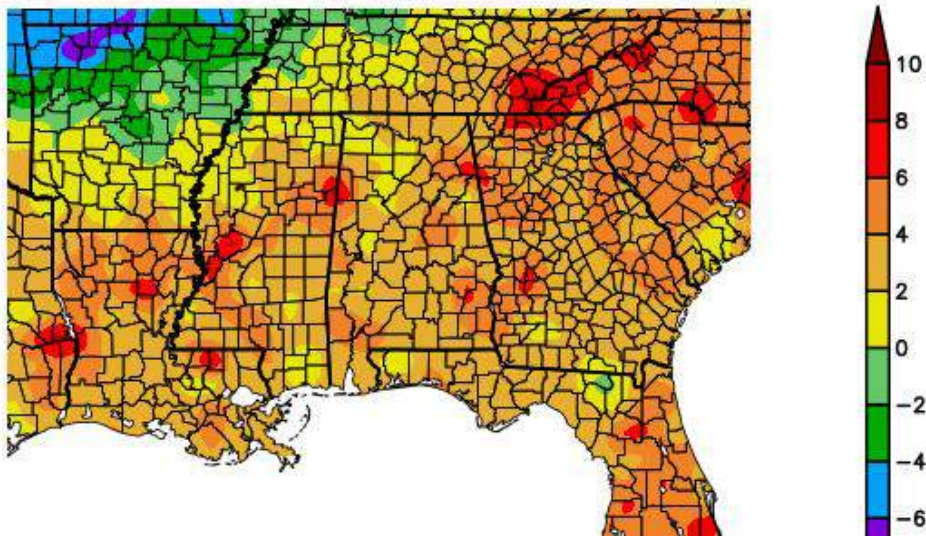
Average temperatures for the week ranged from 50 degrees to 65 degrees, with most areas in the northern half of the state in the 50-55 range, and the warmest location in the southeast corner of the state. This means, that most areas were above normal, the exception being the northwest corner of the

state where temperatures averaged out to 0-2 degrees below normal. The southeast part of the state, observed the most above normal conditions, with parts of Monroe and Polk counties in the 8-10 degrees above normal range.

### Temperature (F) 3/29/2018 – 4/4/2018



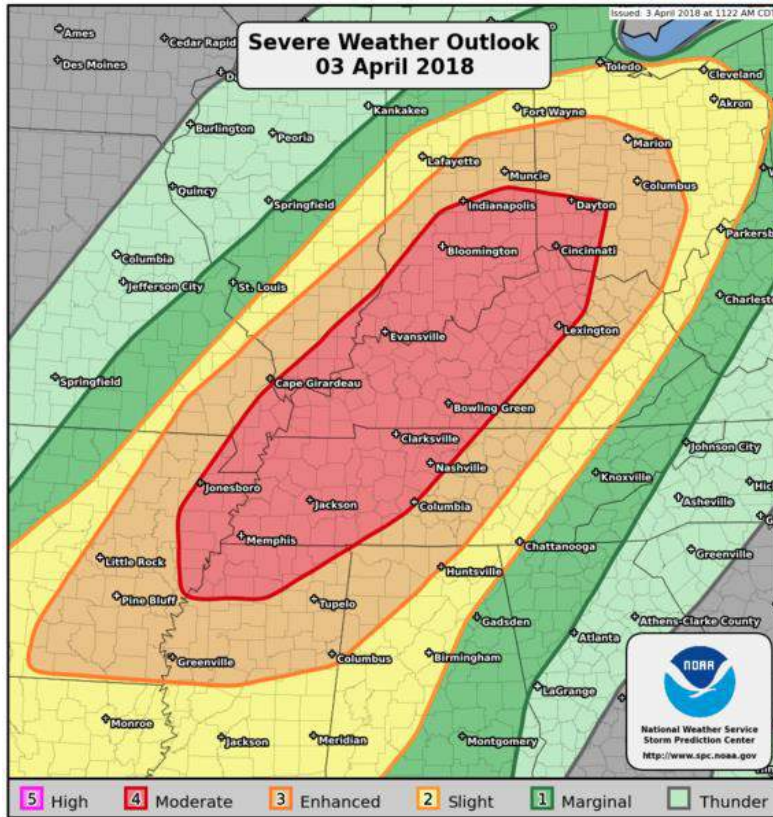
### Departure from Normal Temperature (F) 3/29/2018 – 4/4/2018



A strong frontal passage on from the afternoon Tuesday April 3<sup>rd</sup> into the early morning hours of April 4<sup>th</sup> produced severe storms and numerous reports of hail and wind damage across the state. The event



was well forecasted for Western and Middle TN, with the SPC issuing a Moderate threat advisory on the 3<sup>rd</sup>.



Week 2: (Thursday, April 5<sup>th</sup> - Wednesday, April 11<sup>th</sup>)

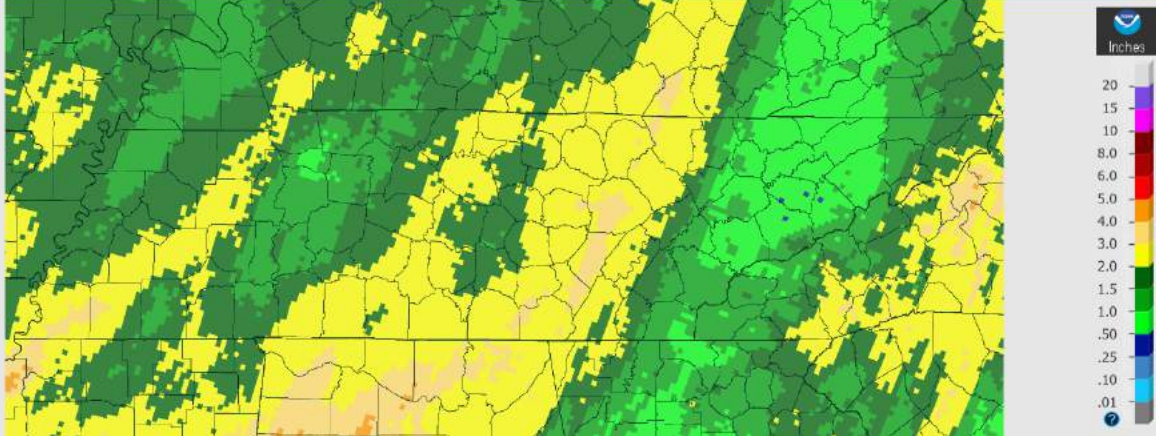
Week 3: (Thursday, April 12<sup>th</sup> – Wednesday, April 18<sup>th</sup>)

Another wild weather week for Tennessee with severe storms and even snowfall!

A strong but slow moving frontal system swept across the state late Friday through Sunday (13<sup>th</sup> 15<sup>th</sup>) producing large areas of high precipitation (bands in West, Middle, and on the Plateau produced areas of 2" precipitation totals). While some areas of the Tennessee Valley saw lower than normal precipitation (with a large area in the northern valley observing less than 1 inch, all areas were within ½ inch of normal. State continues to be drought free. No tornadoes were recorded in the state, but several high wind damage reports were collected. Peak snowfall coverage occurred on the 17<sup>th</sup> with a dusting to a couple of inches across the Cumberland Plateau and the East TN mountains (with some bursts putting down brief dustings in the northern TN valley).

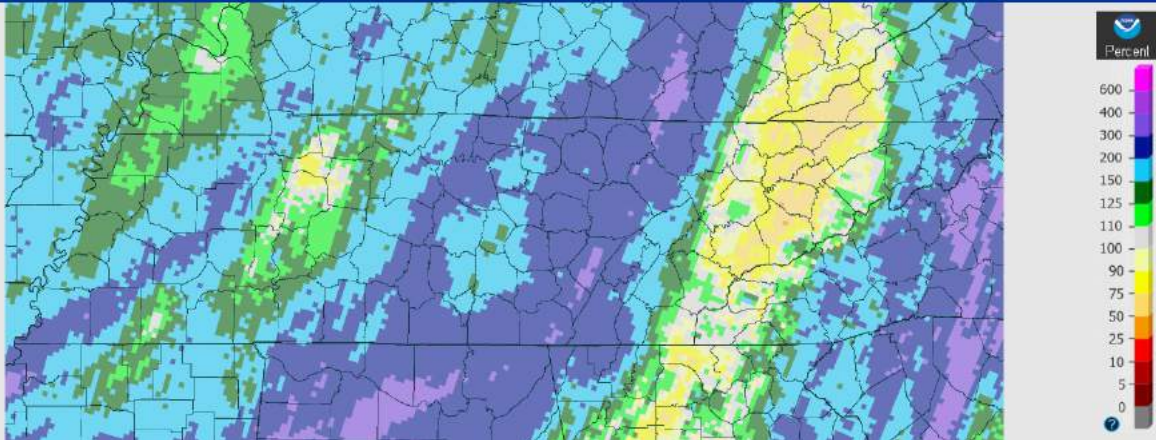
### April 18, 2018 7-Day Observed Precipitation

Created on: April 19, 2018 - 14:03 UTC  
Valid on: April 18, 2018 12:00 UTC

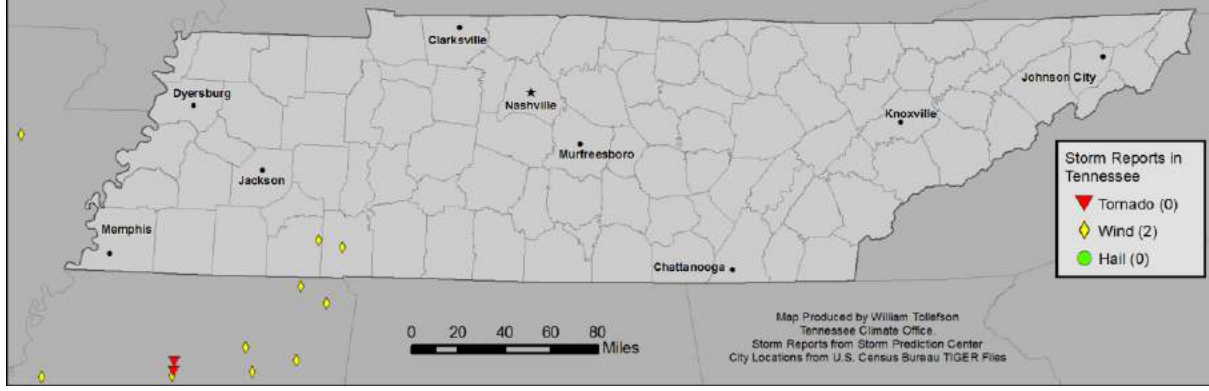


### April 18, 2018 7-Day Percent Precipitation

Created on: April 19, 2018 - 14:04 UTC  
Valid on: April 18, 2018 12:00 UTC

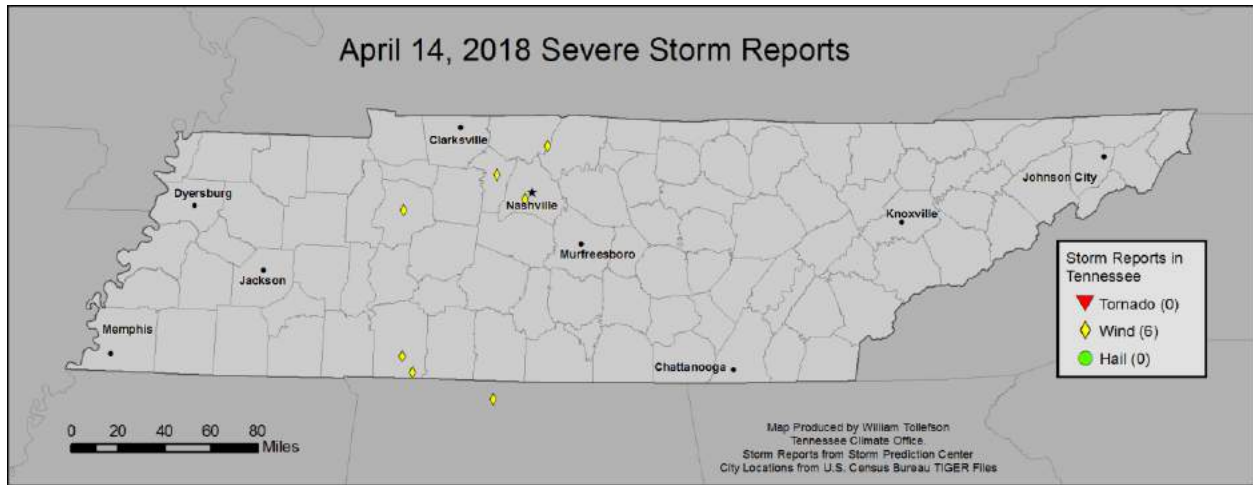


### April 13, 2018 Severe Storm Reports



Time	Speed	Location	County	Lat	Lon	Comments
11:10	UNK	ADAMSVILLE	MCNAIRY	35.23	-88.39	TREES DOWN. (MEG)

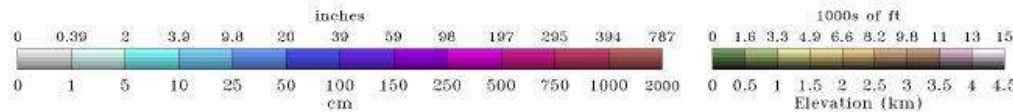
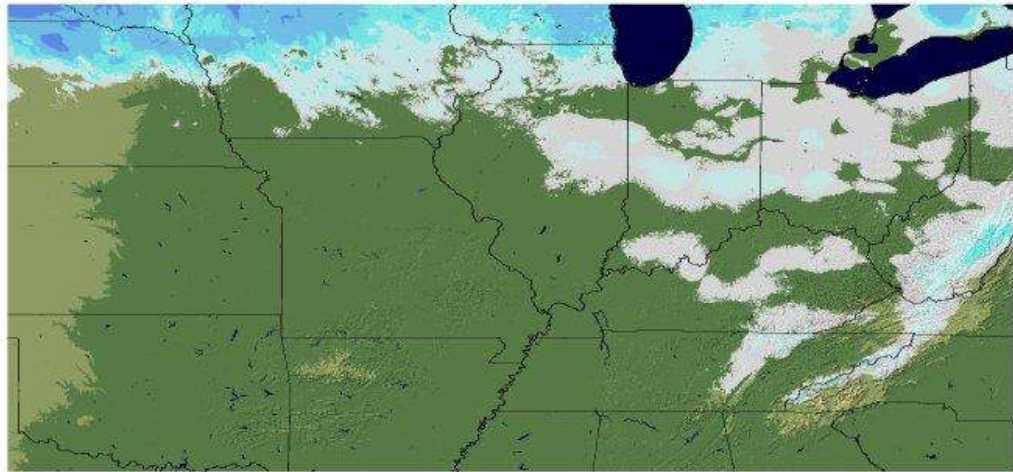
11:25	UNK	3 SE SAVANNAH	HARDIN	35.19	-88.21	A FEW UTILITY POLES WERE DOWN ALONG AIRPORT ROAD SOUTHEAST OF SAVANNAH. (MEG)
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Time (UTC)	Speed	Location	County	Lat	Lon	Comments
12:00	UNK	3 SSE WAVERLY	HUMPHREYS	36.05	-87.77	THE MAJORITY OF A TIN ROOF WAS REMOVED FROM A HOME ON NORTH BUCHANAN RD. EVENT TIME WAS ESTIMATED FROM RADAR. (OHX)
12:19	UNK	10 SSE COLLINWOOD	WAYNE	35.04	-87.68	RECEIVED A REPORT OF TREES AND POWER LINES DOWN IN THE 2500 BLOCK OF HIGHWAY 13. IN ADDITION THERE WAS ROOF AND CARPORT DAMAGE TO A STRUCTURE AT 2516. TIME IS ESTIMATED (OHX)
13:02	UNK	ASHLAND CITY	CHEATHAM	36.28	-87.06	DISPATCH REPORTED SEVERAL TREES DOWN IN THE NORTH CENTRAL PART OF THE COUNTY NEAR ASHLAND CITY. (OHX)
13:12	UNK	3 SSW COLLINWOOD	WAYNE	35.14	-87.76	RECEIVED A REPORT OF TREES AND POWER LINES DOWN IN THE 2500 BLOCK OF HIGHWAY 13. IN ADDITION THERE WAS ROOF AND CARPORT DAMAGE TO A STRUCTURE AT 2516. TIME IS ESTIMATED (OHX)
13:32	UNK	3 NNE BELLE MEADE	DAVIDSON	36.13	-86.84	REPORT OF TWO TREES LEANING ON WIRES. ONE IS ON LAUDERDALE ROAD... THE OTHER IS ON BEAR ROAD. TIME IS ESTIMATED FROM RADAR. (OHX)
13:36	UNK	WHITE HOUSE	ROBERTSON	36.46	-86.67	REPORT OF SEVERAL TREES DOWN. TIME IS ESTIMATED FROM THE RADAR. (OHX)



Snow Depth  
 2018-04-17 06 UTC



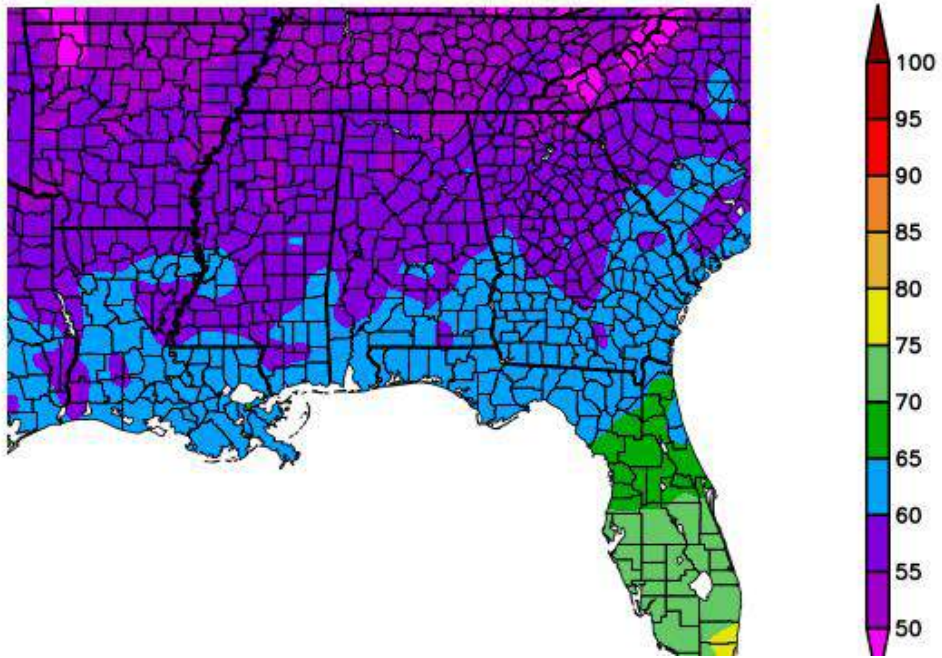
Stations with measurable snowfall:

Name	StationType	TotalSnowfall
MT LECONTE	COOP	1.5
ALLARDT	COOP	1.1
NEWFOUND GAP	COOP	1.1
CROSSVILLE 6.9 S	CoCoRaHS	0.6
CROSSVILLE 4.7 S	CoCoRaHS	0.5
CROSSVILLE EXP STN	COOP	0.3
CROSSVILLE 5.8 SSW	CoCoRaHS	0.1
BRISTOL TRI CITY AP	WBAN	0.1

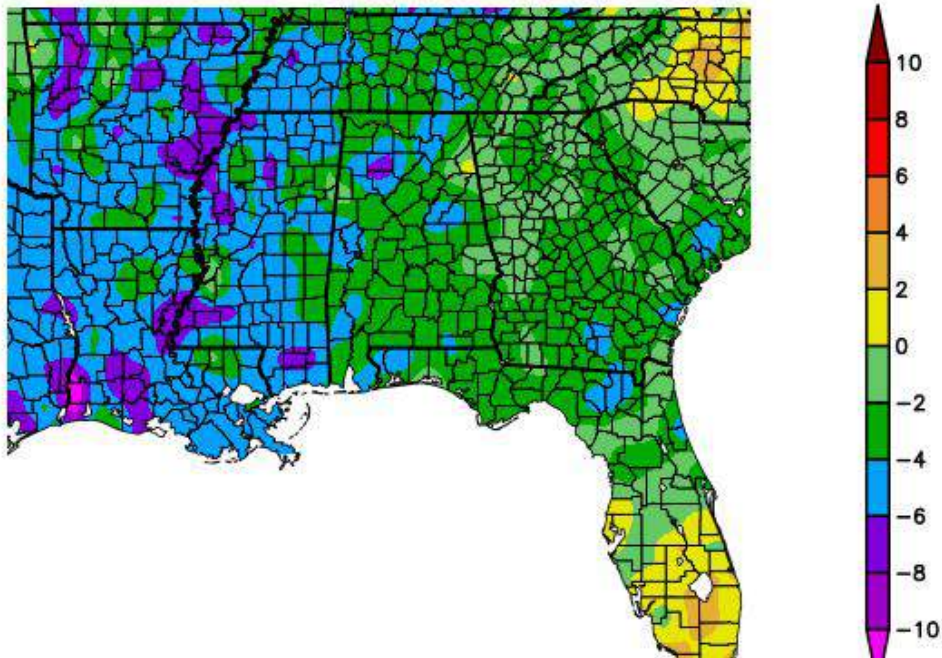
\*An additional 31 stations recorded a Trace of snow during the week.

Temperatures for the week averaged between 50 and 60 degrees for the week, with the coolest area in the Smokey Mountains and the northeast corner of the state. This meant that almost all areas of the state were below average for the week, with the western part of the state being the coolest with some small areas observing temperatures of 6-8 degrees below normal. However, the mean temperatures masked major swings in temperatures, on the 13<sup>th</sup> ahead of the front high temperatures were in the 70's and 80's, it cooled somewhat on the 14<sup>th</sup>, but a reinforcing shot of cold air moved into the state on the 16<sup>th</sup> and 17<sup>th</sup> (this cold snap produced widespread frosts and freezes across the state and even some snowfall in Middle and East TN) followed by a major warm up (for the west and middle on the 17<sup>th</sup> and the whole state on the 18<sup>th</sup> with 70s and 80's widespread again. Nashville observed a 50 degree temperature swing on the 17<sup>th</sup> from a morning low of 30F to an afternoon high of 80F when the high the previous day of 44F was the coolest high temperature for the 16<sup>th</sup> of April on the recordbook.

Temperature (F)  
4/11/2018 - 4/17/2018

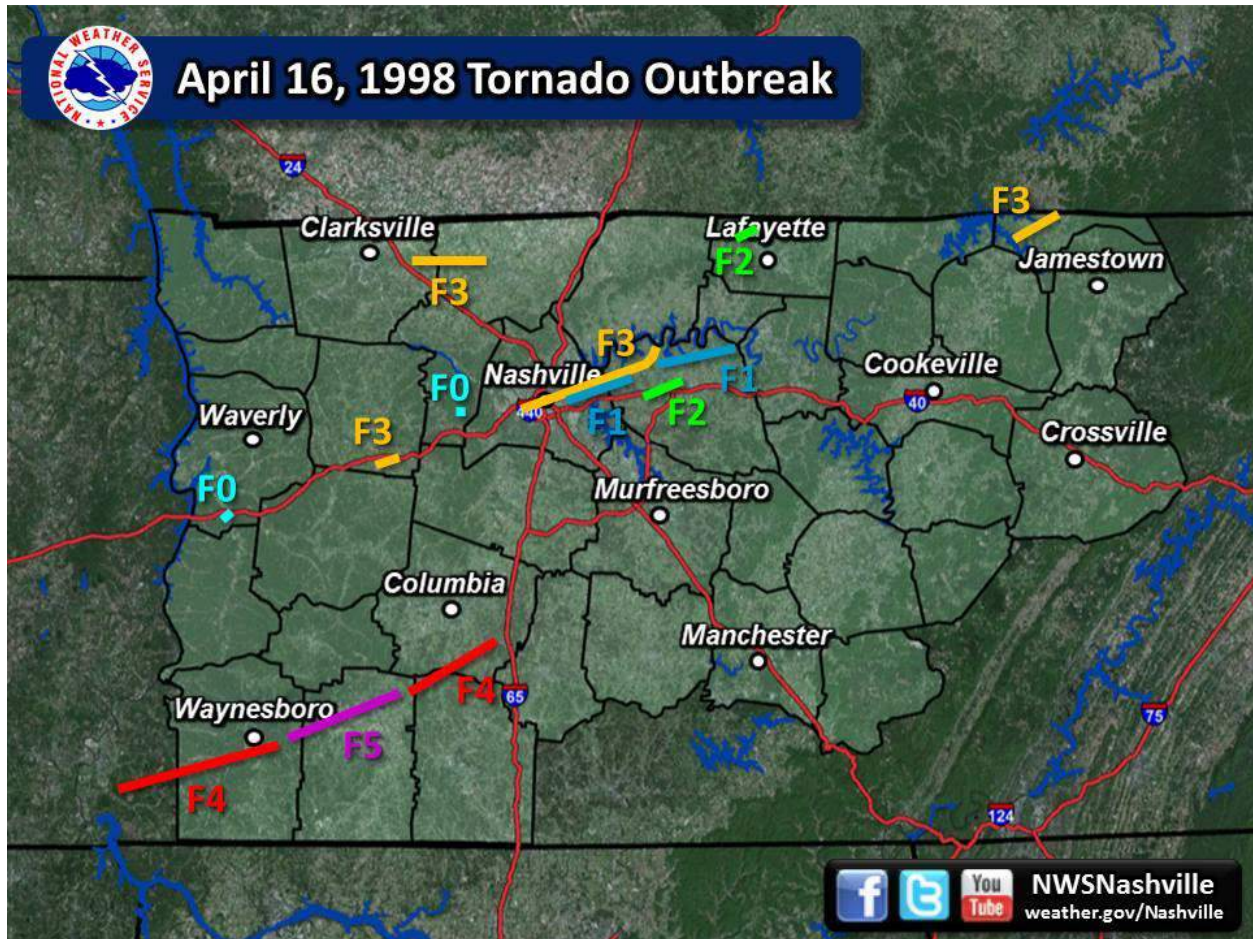


Departure from Normal Temperature (F)  
4/11/2018 - 4/17/2018





This week also marked the 20<sup>th</sup> anniversary of a major tornado outbreak across Middle Tennessee that included an EF5 in Wayne and Lawrence County, EF4s in Hardin, Wayne, Giles, and Maury counties, and the EF3 that hit downtown Nashville.



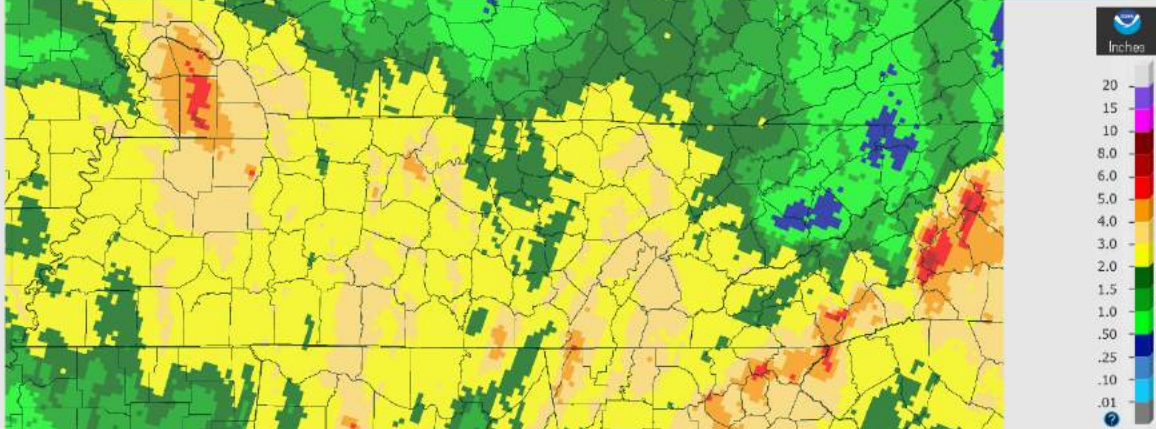
#### Week 4: (Thursday, April 19<sup>th</sup> – Wednesday, April 25<sup>th</sup>)

Wet and cool conditions were the main story for this week.

All areas of the state, except the northern TN valley, recorded above normal precipitation, with a large slow moving area of low pressure producing several days of cloudy and rainy weather for the second half of the week. However this pattern produced Southerly wind flow for the eastern half of the state, putting the northern Tennessee Valley in the area of down slopping winds and the rain shadow of the Appalachians, leading to below normal precipitation totals.

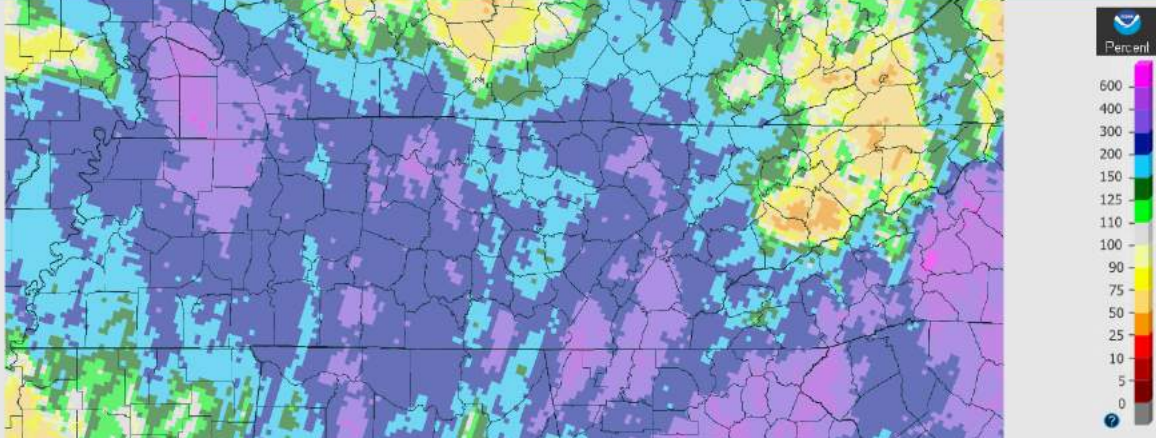
### April 25, 2018 7-Day Observed Precipitation

Created on: April 26, 2018 - 20:03 UTC  
Valid on: April 25, 2018 12:00 UTC



### April 25, 2018 7-Day Percent Precipitation

Created on: April 26, 2018 - 20:03 UTC  
Valid on: April 25, 2018 12:00 UTC



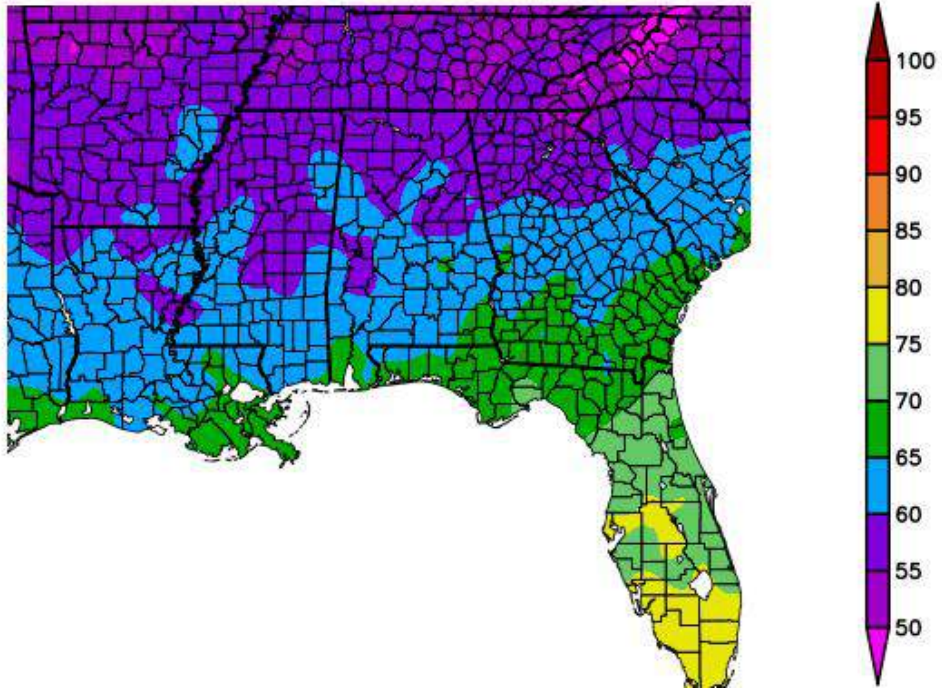
There was one report of hail on the 23<sup>rd</sup>: 21:42, 1", COOPERTOWN, ROBERTSON COUNTY, TN, 36.44, - 86.97, A TWITTER PICTURE OF HAIL TO THE SIZE OF QUARTERS. (OHX)

Average temperatures for the week ranged from 50 to 60 degrees, the same as last week, which put all areas of the state below normal, with parts of central West TN the most below normal with temperatures 6-10 degrees cooler than they should be this time of year. This was mainly due to the low pressure system that has become nearly stationary producing cloud cover for several days in a row.

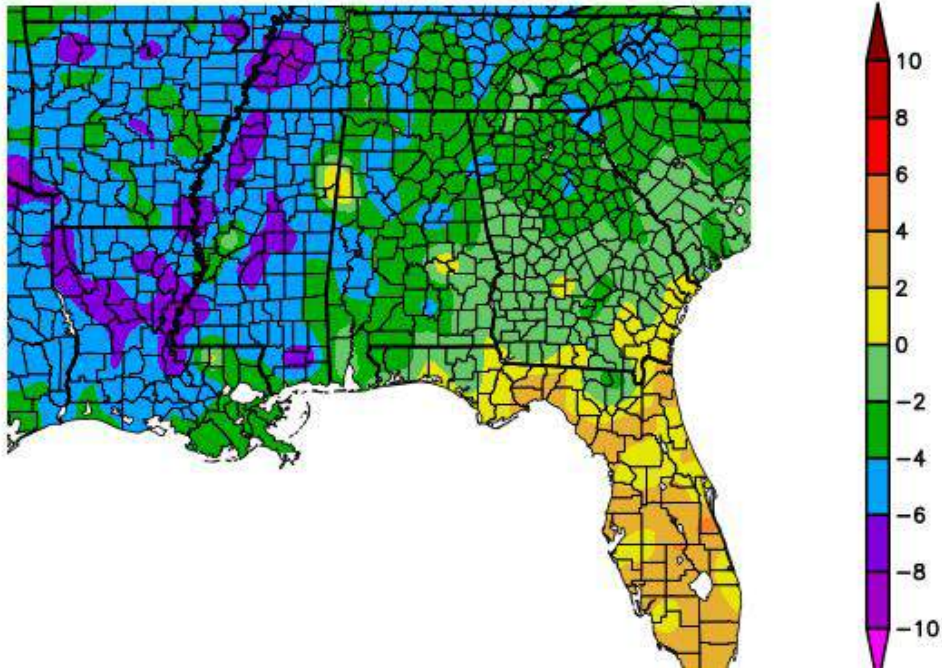
The week started out warm on the 18<sup>th</sup> with highs in the 70's and 80's but by the 20<sup>th</sup> mid-level northwest flow brought more seasonable temperatures, and even frosts (and isolated freezes). Then temperatures were moderated by cloud cover the rest of the week.



Temperature (F)  
4/19/2018 - 4/25/2018



Departure from Normal Temperature (F)  
4/19/2018 - 4/25/2018

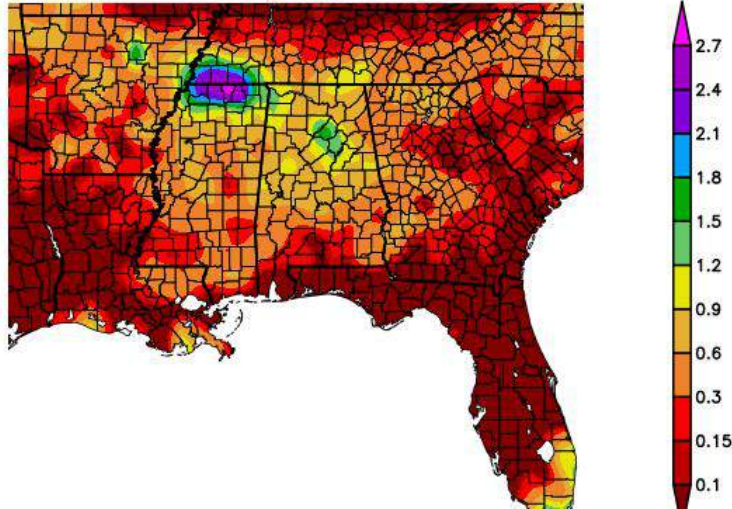




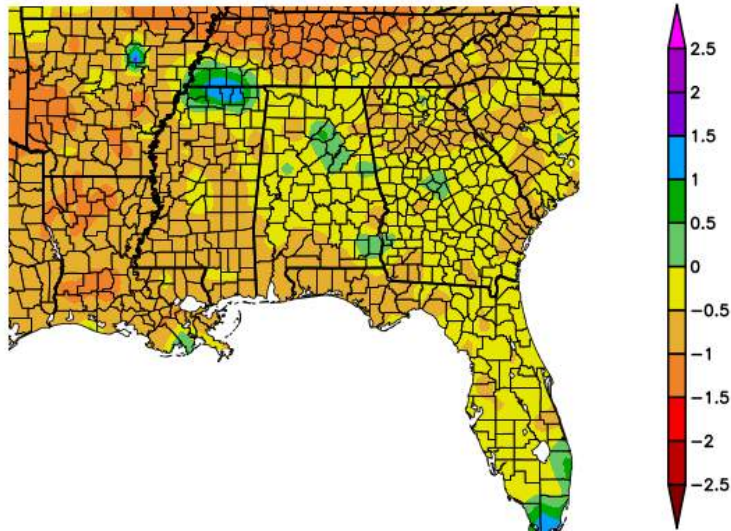
## Week 5: (Thursday, April 26<sup>th</sup> – Wednesday, May 2<sup>nd</sup>)

A much drier week to end April and Start May across the State, the one hotspot for rainfall was in southwest Tennessee (Shelby, Fayette, and Hardeman counties) where over two inches of rain was recorded. A 40 acre forest fire occurred in Carter County near the Pond Mountain Shooting Range in the Cherokee National Forest.

Precipitation (in)  
4/26/2018 – 5/2/2018

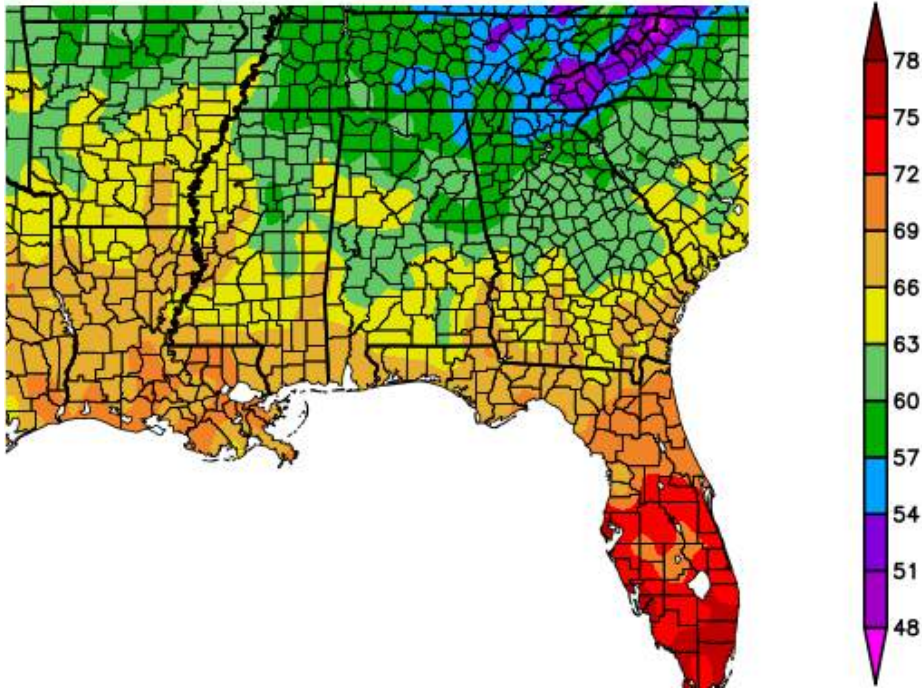


Departure from Normal Precipitation (in)  
4/26/2018 – 5/2/2018



Mean temperatures for the week ranged from 48 degrees in the northeast corner (Johnson County) to 63 degrees in western sections of Shelby, Tipton and Lauderdale counties. This put most of the state 2-4 degrees below average for the week.

Temperature (F)  
4/26/2018 - 5/2/2018



Departure from Normal Temperature (F)  
4/26/2018 - 5/2/2018

