

September 2017 Mid-South Climate Summary

OVERVIEW

September, or the first month of climatological fall, was characterized by near average temperatures and drier than average conditions for the Mid-South.

TEMPERATURE

Save for portions of northeast Arkansas, much of the region experienced a near average September, with monthly average temperatures within half a degree of normal at three of the four official climate sites. Jonesboro was the exception; the site had a monthly average temperature which ended the month some 2.2° warmer than normal. Further, it was Jonesboro that recorded the warmest daily high temperature of the four sites with 94°. The site remains warmer than normal for 2017 to date, currently by 2.5°. Jackson's monthly average temperature was 0.4° above the normal, while the site currently holds the greatest departure from normal for the year to date of the four sites, currently at 2.8°. Jackson was the site with the coolest daily low temperature of the official sites, recording a cool 47°. Memphis, as usual, was the warmest of the official sites with its average temperature for the month, a temperature which was only 0.2° above the September normal. With nine months complete of the year, Memphis remains warmer than normal by 2.2°. Lastly, Tupelo's monthly average temperature was just 0.2° below the monthly normal value, while the site remains 2.5° warmer than normal for the year to date.

September Temperature Data for the Mid-South:

	Memphis	Jackson	Jonesboro	Tupelo
Average Temperature (MONTH)	75.4	71.8	74.1	73.9
Normal Avg. Temp (MONTH)	75.2	71.4	71.9	74.1
Departure from Normal (MONTH)	0.2	0.4	2.2	-0.2
Average Temperature (YEAR)	68.3	65.7	65.7	67.9
Normal Avg. Temp (YEAR)	66.1	62.9	63.2	65.4
Departure from Normal (YEAR)	2.2	2.8	2.5	2.5
Maximum Temperature	93.0	92.0	94.0	93.0
Minimum Temperature	55.0	47.0	50.0	50.0

PRECIPITATION

September rainfall totals were lacking around the entire region. In fact, aside from rainfall associated with the passage of remnants from Tropical Storm Irma, little rainfall fell during the month. Jonesboro was the driest site, recording its 6th driest September on record, with only 0.39” falling during the month, which was 2.67” drier than normal. However, despite the dry month of September, Jonesboro remains wetter than normal for the year to date by 5.84”. Conversely, Jackson is the driest of the four official sites for the year to date by 2.36” below normal. The site recorded a September rainfall total which was 1.97” drier than normal. Memphis had a September rainfall total 1.48” drier than normal, while currently near normal for the year to date by just 0.20” above. Tupelo was the site nearest to normal for the month, with a departure from normal of 1.16” above, while the site remains drier than normal for 2017 to date by 1.58”.

Precipitation Notables:

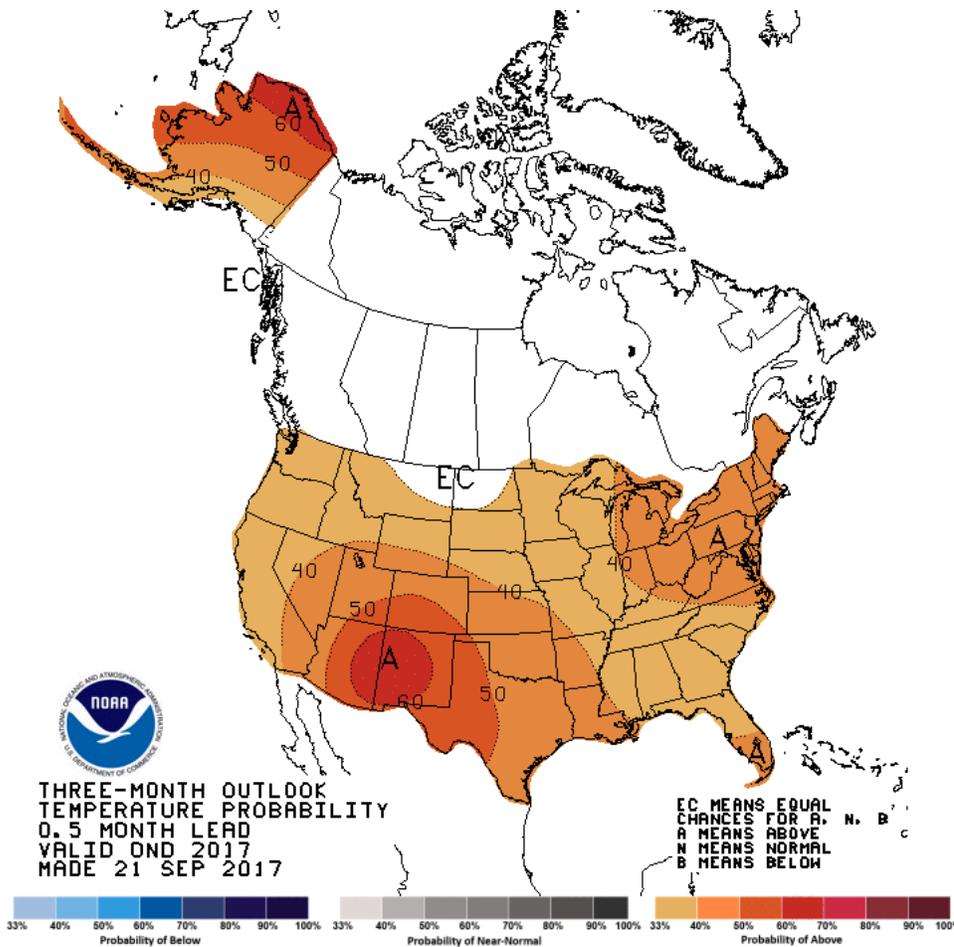
Jonesboro- #6 Driest Month of September on Record with 0.39”

September Precipitation Data for the Mid-South:

	Memphis	Jackson	Jonesboro	Tupelo
Total Precipitation (MONTH)	1.61	1.86	0.39	2.28
Normal Precipitation (MONTH)	3.09	3.83	3.06	3.44
Departure from Normal (MONTH)	-1.48	-1.97	-2.67	-1.16
Percent of Normal	52%	49%	13%	66%
Total Precipitation (YEAR)	38.27	36.89	40.01	38.33
Normal Precipitation (YEAR)	38.47	39.25	34.17	39.91
Departure from Normal (YEAR)	-0.20	-2.36	5.84	-1.58
Percent of Normal (YEAR)	99%	94%	117%	96%

CLIMATE OUTLOOK

TEMPERATURE

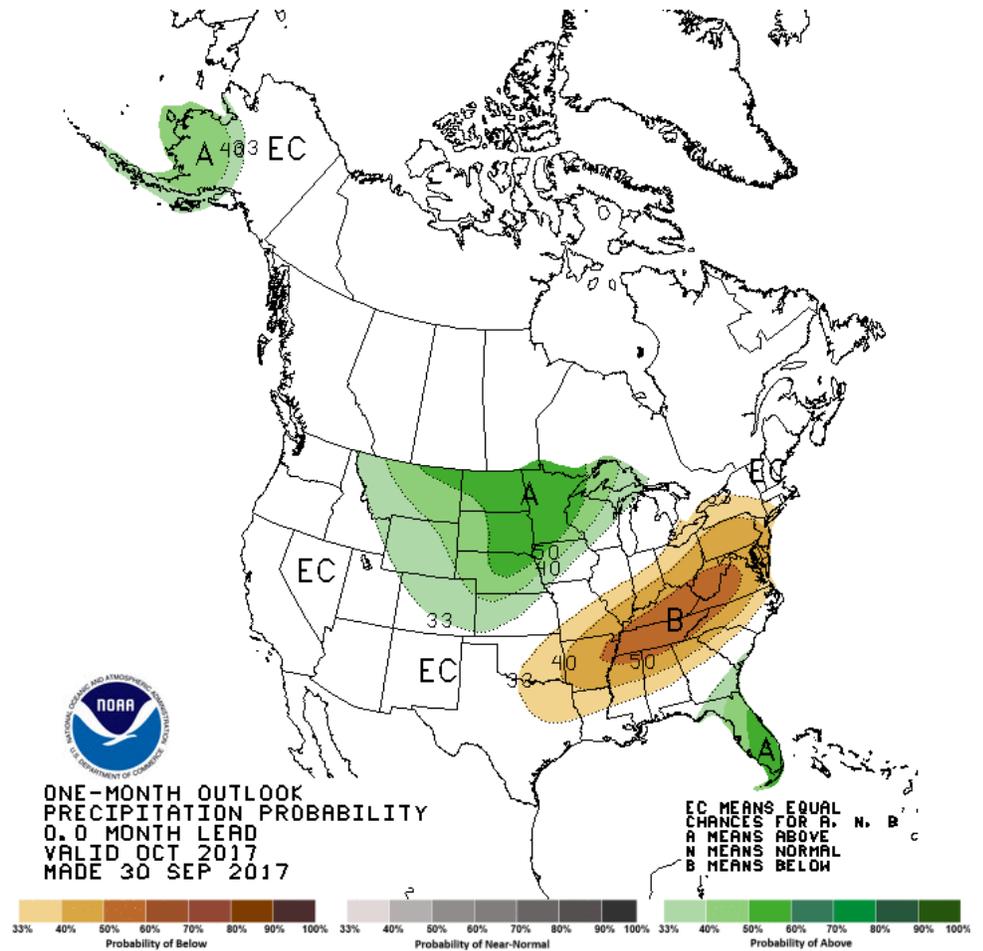


While the month of September was largely near average for the region, the month of October looks to be warmer than average. The current one month Climate Prediction Center (CPC) outlook for the month of October currently depicts enhanced odds of warmer than normal temperatures for the entire Mid-South. In addition, the latest 6-10 day outlook, which covers through the middle of October at the time of publication, highlights the region in favorable odds of warmer than average temperatures. Further, the latest three month outlook, collectively encompassing the months of October, November, and December, depicts enhanced odds of warmer than normal temperatures for the region. To

summarize, the outlooks currently depict the region possibly experiencing warmer conditions through the fall months. *The current three month temperature outlook for the months of October, November, and December collectively is featured.*

PRECIPITATION

With much of the region carrying a deficit on monthly rainfall headed into October, rainfall becomes crucial over the next few weeks. Dry conditions currently are a relief to those in agriculture as harvest is in full swing, but if prolonged the region could see drought conditions emerge. Judging by the latest CPC outlooks, unfortunately these dry conditions could continue. The latest one month outlook for the month of October depicts the region in an area of enhanced odds for drier than normal conditions. The latest 6-10 day outlook, extending through the middle of October at time of publication, also has drier than normal conditions for this time period. However, the 8-14 day outlook, covering a bit later into the month, has the region more favorable for near to wetter than normal conditions. Meanwhile, not much relief is offered by the seasonal, or three month, outlook. The outlook for the months of October, November, and December collectively currently has the region entrenched in a region of enhanced odds for drier than normal conditions. *This outlook can be found to the right.*



In summary, warmer and drier than normal conditions could continue as the region enters the fall season.

First Frost/Freeze: Coming Soon?

With the region now into the month of October, when the first freezes of the season have occurred historically, the question for interests in agriculture is: will we see a frost or freeze this October?

While the temperature outlook for October depicts the likelihood of warmer than normal temperatures persisting, this does not mean temperatures will not be cool from day to day. These outlooks are based on the monthly AVERAGE temperature, making extremes difficult to observe. This is where climatology comes in. Based upon data observed at the four official climate sites over the years it becomes evident when a first frost/freeze is LIKELY to occur. Note that a frost refers to the first instance of 36 degrees but not quite 32 degrees, while a freeze is the first instance of 32 degrees or cooler. The following are historical first, latest, and average dates of first frost and freezes around the Mid-South:

First Frost Data

Station	Earliest	Latest	Average
Memphis	Sept 29, 1942	Dec 1, 1931	Nov 2
Jackson, TN	Sept 22, 1983	Nov 9, 2004	Oct 17
Jonesboro, AR	Sept 21, 1918	Nov 20, 1944	Oct 21
Tupelo, MS	Sept 24, 1983	Dec 1, 2004	Oct 24
NWS Memphis - East Memphis	Oct 4, 1987	Nov 25, 2004	Oct 25

First Freeze Data

Station	Earliest	Latest	Average
Memphis	Oct 16, 1952	Dec 11, 1994	Nov 12
Jackson, TN	Oct 4, 1987	Nov 28, 2004	Oct 28
Jonesboro, AR	Oct 7, 1952	Dec 14, 1901	Nov 3
Tupelo, MS	Oct 3, 1974	Dec 2, 1946	Nov 4
NWS Memphis - East Memphis	Oct 9, 2000	Nov 28, 2004	Nov 7

While historically some of the earliest freezes have occurred in early October, the average dates of these first occurrences are not until late October and early November for much of the region. In fact, most of the Mid-South does not even experience 36 degrees, or a frost dependent on moisture availability, until mid to late October. The earliest freeze recorded at one of the four official sites occurred on October 3rd in Tupelo, while the latest occurrence of a first freeze was not until December 14th in Jonesboro. On average, Jackson records a first freeze before the other sites, with an average first occurrence date of October 28th. Memphis is climatologically the latest site to record a first freeze, with its average first freeze date not until November 12th. The map below is an interpolation of average first freeze dates around the region. Notice the tendency for earlier occurrences in eastern portions of the region, while areas west are within a week later on average.

