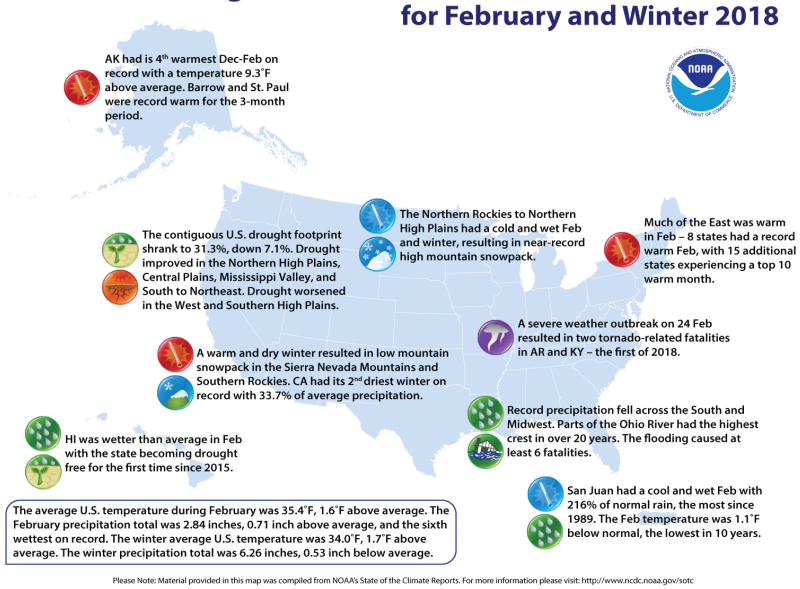
Quarterly Climate Impacts and Outlook

Southern

March 2018

National – *Significant Events for February and Winter, 2018*

U.S. Selected Significant Climate Anomalies and Events for February and Winter 2018



Highlights for the Region

Temperatures deviated slightly from normal this winter (December–February) for most of the Southern Region. Parts of Mississippi, western Texas, and southeastern Louisiana experienced above-normal temperatures.

Winter precipitation varied spatially throughout the Southern Region. Parts of Texas and Oklahoma received five percent or less of normal precipitation.

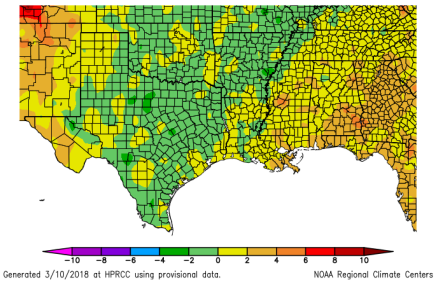
The main climate impact for winter in the Southern Region was drought. In January, drought was present throughout all six states. Also, extreme drought was present during all three months.

The average U.S. temperature during February was 35.4°F, 1.6°F above average. The February precipitation total was 2.84 inches, 0.71 inch above average, and the sixth wettest on record. The winter average U.S. temperature was 34.0°F, 1.7°F above average. The winter precipitation total was 6.26 inches, 0.53 inch below average. Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: http://www.ncdc.noaa.gov/sotc

Regional – *Climate Overview for December 2017 to February 2018*

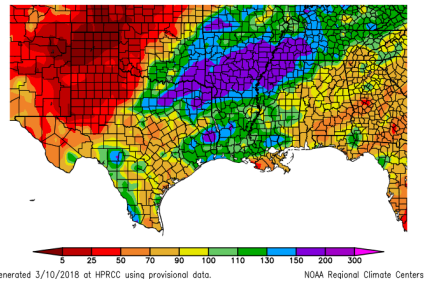
Temperature and Precipitation Anomalies

Departure from Normal (°F) 12/1/2017–2/28/2018



Overall, average temperatures throughout most of the Southern region were between 4°F below to 6°F above normal for the period spanning from December 2017 to February 2018. There were areas of 2°–6°F above normal temperatures in western Texas, southeastern Louisiana, and central Mississippi. There were a few areas in southern and central Texas and eastern Arkansas that were 2°–4°F below normal.

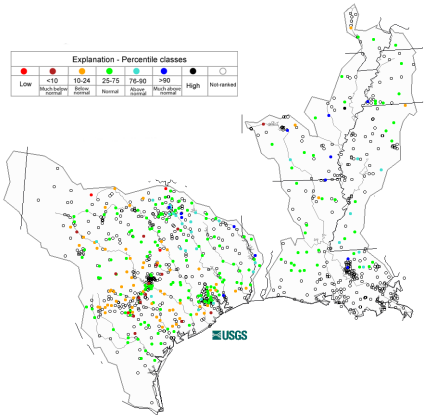
Departure from Normal (%) 12/1/2017–2/28/2018



Winter precipitation varied spatially throughout the Southern Region. Areas in western Oklahoma and northern Texas received 5 percent or less of normal precipitation. In contrast, areas of eastern Texas, southwestern Oklahoma, central and southern Arkansas, western Tennessee, and northwestern Mississippi received 150–200 percent of normal precipitation.

Streamflow

February average streamflow compared to historical streamflow



The above figure illustrates February average streamflows in the Texas Gulf and Lower Mississippi basins as compared to historical streamflows. Streamflows in Louisiana, Tennessee, and Mississippi are near normal. Parts of northeast Texas and southern Arkansas are experiencing above-normal streamflow. In contrast, central and southern Texas are experiencing below-normal streamflow.

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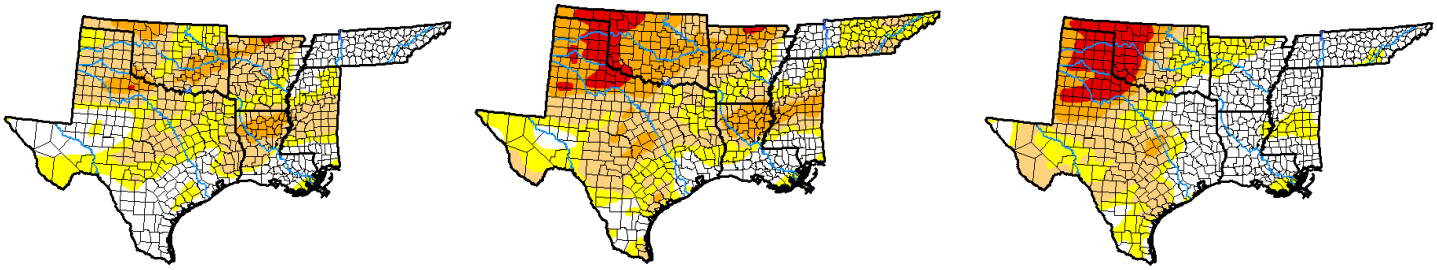
Regional Impacts – *For December 2017 through February 2018*

Dry Winter

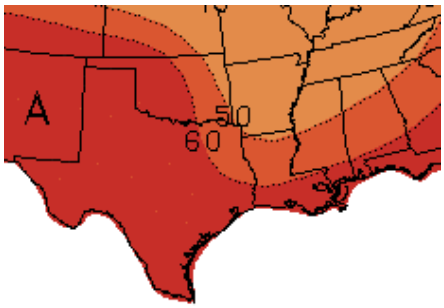
The Southern Region experienced many areas of drought over the winter months. In December 2017, drought conditions worsened from severe to extreme drought in north-central Arkansas and a small area in northern Texas. Conditions worsened from moderate to severe drought in northern Oklahoma, northern Texas, northern Louisiana, and central Mississippi. In contrast, conditions improved from extreme to severe and moderate drought in central Arkansas. Conditions improved from severe to moderate drought in northeast Texas, southeast Oklahoma, and southern Arkansas. Moderate drought improved to abnormally dry conditions in northern Mississippi and southeast and western Texas. Conditions improved to normal in extreme southern Mississippi and south-central Louisiana. In January 2018, drought conditions worsened from severe to extreme drought in western Oklahoma and northern Texas. Conditions worsened from moderate to severe drought in central Oklahoma and northern and central Texas. Moderate drought conditions expanded throughout southern and western Texas and in central and western Tennessee. Conditions improved from extreme to severe and moderate drought in central Arkansas. In February 2018, extreme drought conditions expanded throughout parts of western Oklahoma and northern Texas. Severe drought conditions remained present in central Oklahoma and northern and central Texas. Moderate drought conditions expanded throughout southern, central, and western Texas and central and northeastern Oklahoma. Southeastern Tennessee, central Mississippi, northeastern and extreme southeastern Louisiana, northern Arkansas, eastern Oklahoma, and western, northern, central, and southern Texas are classified as abnormally dry. In contrast, conditions improved from extreme to no drought in central Arkansas.



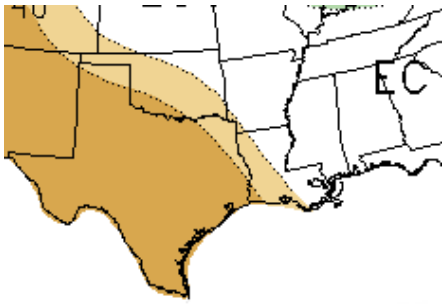
Above: Drought maps for December (left), January (middle), February (right).

CPC – *Three-Month Outlook*

Temperature



Precipitation



A = Above-normal temperatures
B = Below-normal rainfall
EC = Equal chances
N = Normal

According to the Climate Prediction Center, April to June temperatures for the Southern Region have a greater chance to be above normal in all six states, with the greatest chance for warmer temperatures in southwest Oklahoma, Texas, and along the Gulf.

April to June precipitation for the Southern Region has a greater chance to be below normal for Oklahoma, Texas, and Louisiana. The greatest chance for below-normal precipitation is throughout most of Texas and southwest Oklahoma.

Winter Snow

Over the months of December and January, two snow and ice events occurred throughout the Southern Region. Some areas in southeast Louisiana reported 6.5 inches of snow on December 8, 2017. Other areas reporting snow on December 8 were southern Texas, southern Mississippi, and eastern Tennessee. Areas of all six states in the region also experienced snow or ice on January 16, 2018.

Gulf Regional Partners

Earth Scan Laboratory at Louisiana State University
esl.lsu.edu

NOAA/NWS Climate Prediction Center
cpc.noaa.gov

NOAA/NOS Gulf of Mexico Coastal Services Center
csc.noaa.gov

NOAA Gulf of Mexico Collaboration Team
regions.noaa.gov

NOAA/NESDIS National Centers for Environmental Information
ncei.noaa.gov

NOAA/NWS Southern Region
srh.noaa.gov

Southern Climate Impacts Planning Program
southernclimate.org

Southern Regional Climate Center
srcc.lsu.edu

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