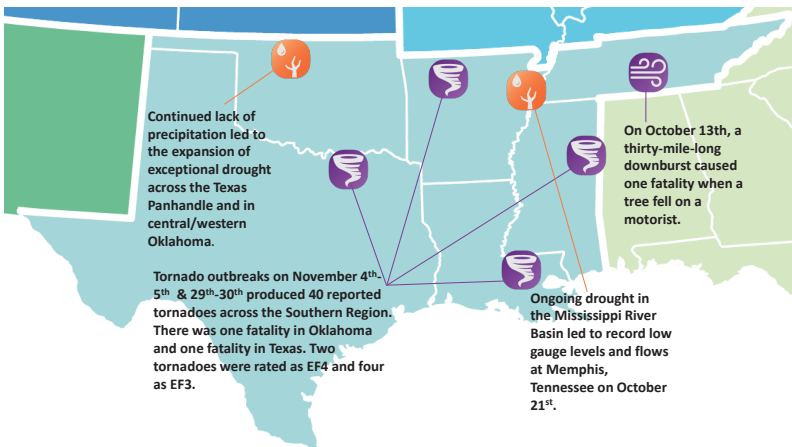


Southern Region Significant Events — Fall 2022



Two tornado outbreaks in November signaled the return of severe weather to the Southern Region after a relatively quiet fall. Significant damage was reported across five states, including 23 injuries and two fatalities. Damage from straight-line winds was also substantial, resulting in one reported fatality in October.

Overview

Fall started off dry and warm across much of the Southern Region with warmer than normal temperatures and precipitation less than 50% of normal in September. Tennessee was the only state to see below normal temperatures. Worsening drought conditions were common.

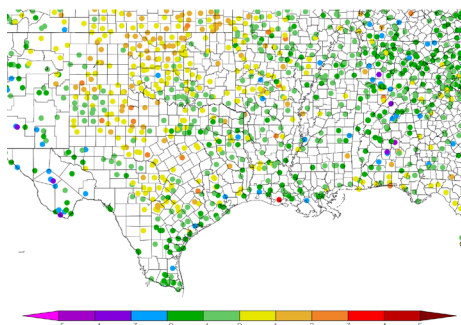
October saw cooler than normal temperatures in the east and average temperatures in the west of the region. Below normal precipitation persisted across the region, with Louisiana receiving just 30% of normal precipitation. Record low flows on the Mississippi River occurred at Memphis on October 21st.

During November cooler than normal temperatures were observed in the west and warmer than normal temperature in the east. Precipitation was above normal for the region, with Tennessee and Arkansas being the only states below normal. Drought conditions generally degraded in the eastern areas of the region, particularly in Tennessee.

Regional Climate Overview — Fall 2022

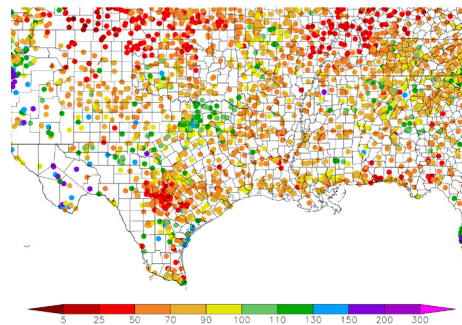
Temperature and Precipitation

Departure from Normal Temperature °F
9/1/2022 – 11/30/2022



Fall 2022 temperatures were near normal across much of the Southern region, with most stations averaging 1F below to 1F above normal. In far western Texas, temperatures at many stations were 2F to 4F below normal, and in much of Tennessee and coastal Texas and Louisiana, temperatures were mostly 1F to 2F below normal.

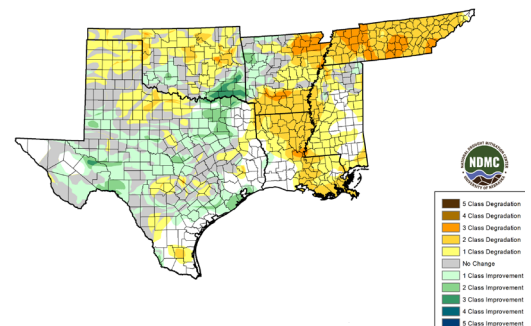
Percent of Normal Precipitation (%)
9/1/2022 – 11/30/2022



Below normal precipitation was common in central to western Oklahoma, northern Texas Panhandle, western Tennessee, northeastern Arkansas, and the area surrounding San Antonio with many stations receive 25 percent to 50 percent of normal precipitation. Above normal precipitation was common around Dallas-Ft. Worth and far western Texas. Near normal conditions prevailed across the remainder of the region.

Drought

Overall Change
9/6/2022 – 11/29/2022



Drought conditions were mixed across the Southern Region during the Fall. Conditions generally degraded across Louisiana, Mississippi, Tennessee, Arkansas. Improvement was notable along much of the Gulf Coast, eastern Texas, eastern Oklahoma, southwestern Louisiana, and portions of Mississippi with November rainfall. Drought persisted across much of Oklahoma and the Texas Panhandle.

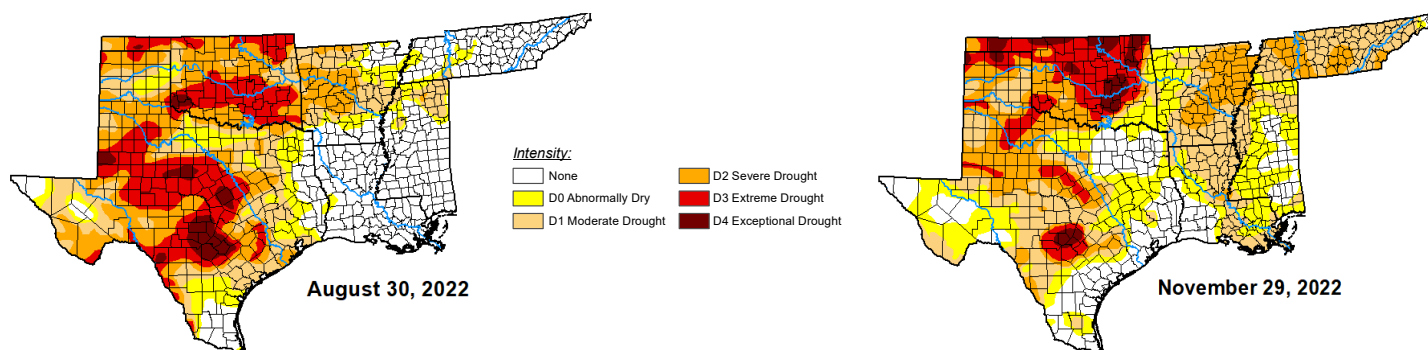
Southern Regional Impacts

Drought, Agriculture, and Water Supply

Fall 2022 saw an increase in the total area experiencing moderate drought conditions, mostly in the eastern portion of the region. Extreme and exceptional drought improved across much of Texas and eastern Oklahoma, though central and western Oklahoma saw increased severity of exceptional drought throughout the fall. Increases in moderate drought were especially large in Louisiana expanding from no drought to 52% and Tennessee expanding from just 2% to 95%.

The continued drought in the region and areas north in the Mississippi River Basin contributed to low water levels and flows on the Mississippi which led to reduced transit capacity and increased shipping prices. Record modern day low river stages were reached at Memphis, Tennessee and Greenville, MS during October.

Ongoing drought conditions have led to reduced quality and failures in maturing crops, particularly cotton. Poor forage conditions and drying up of surface ponds in Oklahoma have been reported. High beef prices are impacting consumers and have led to reports of consumers pooling resources to save money in Texas.

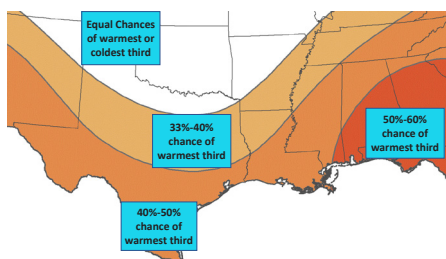


US Drought Monitor depiction of the Southern Region. The US Drought Monitor is produced by the National Drought Mitigation Center, the USDA, and NOAA.

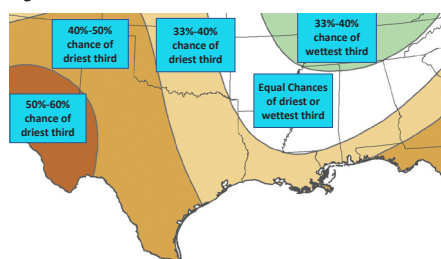
Seasonal Outlook

Temperature

Outlook for January-March 2023



Precipitation



The seasonal temperature outlook from NOAA's Climate Prediction Center call for equal chances of above-normal or below-normal temperatures for Oklahoma, western Arkansas, and northern Texas, while chances for above-normal temperatures are greater across much of Texas, Louisiana, Mississippi, Tennessee, and eastern Arkansas. This is supported by forecasts of weakening La Niña conditions and concerns of Arctic air outbreaks across the southern Great Plains through February.

The precipitation outlook continues to support patterns typical of La Niña conditions, as La Niña has yet to begin weakening. Below-normal precipitation is likely for the western areas of the region and along the Gulf Coast. Across northern Louisiana and much of Mississippi and Arkansas there are equal chances for wetter or drier than normal conditions. The northeastern portions of the region have the greatest chance of wetter than normal conditions.

ENSO Outlook

La Niña conditions are expected to persist at least into the winter months, making this the third consecutive La Niña winter. By spring, neutral conditions are forecasted. If La Niña ends early, chances of a wetter late winter and spring improve.

Southern Partners

NOAA/NWS Climate Prediction Center
(cpc.ncep.noaa.gov)

NOAA National Centers for Coastal Ocean Science (coastalscience.noaa.gov)

NOAA Gulf of Mexico Collaboration Team
(regions.noaa.gov/gulf-mexico)

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

NOAA/NWS Southern Region (weather.gov/srh)

Southern Climate Impacts Planning Program
(southernclimate.org)

Southern Regional Climate Center
(srcc.tamu.edu)