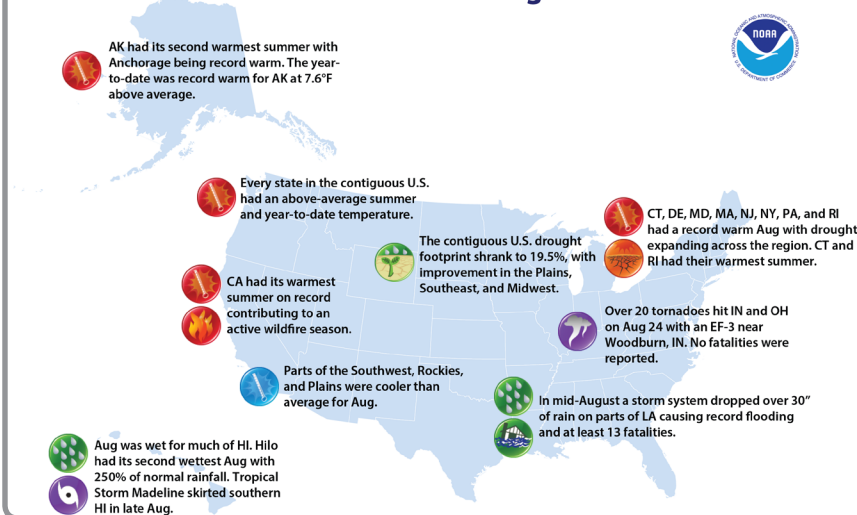


National – Significant Events for August and Summer 2016

U.S. Selected Significant Climate Anomalies and Events August and Summer 2016



The average U.S. temperature during August was 73.6°F, 1.5°F above average. The summer U.S. temperature was 73.5°F, 2.1°F above average and the fifth highest on record. August U.S. precipitation was 3.47 inches, 0.85 inches above average and the second wettest on record. The summer precipitation total was 8.92 inches, 0.60 inches above normal. Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information, visit: www.ncdc.noaa.gov/sotc.

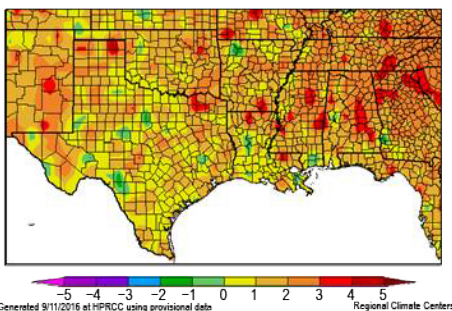
Highlights for the Region

- It was a slightly warmer-than-normal summer (June–August) for the Southern Region with all six states reporting warmer-than-normal temperatures in June and July and all states remaining warmer than normal through August, except for Texas.
- Precipitation was abundant along eastern Texas, western Tennessee, and Arkansas. In Louisiana, an unexpected and historic flood in the southern parishes devastated the state in mid-August.
- Hurricane season reached its prime time in late August, and by early September, storm counts are now on pace to meet NOAA-forecasted expectations. To date, no hurricanes or tropical storms have impacted the Southern Region.

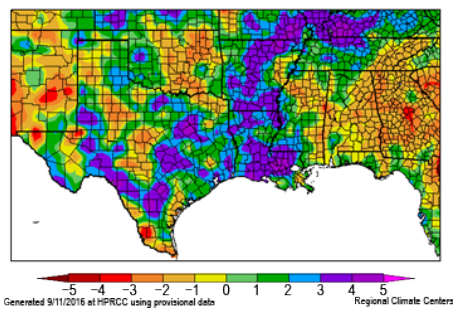
Regional – Climate Overview for June–August 2016

Temperature and Precipitation Anomalies

Departure from Normal Temperature (°F)
6/1/2016–8/31/2016

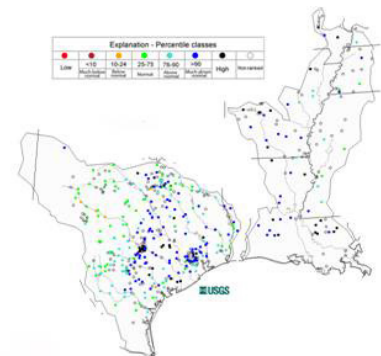


Percent of Normal Precipitation (%)
6/1/2016–8/31/2016



Streamflows

August average streamflow compared to historical streamflow



Overall, temperatures averaged between 2°–3°F above normal for most of the period spanning from June to August. Temperatures in Tennessee and Mississippi were slightly higher with a majority of stations averaging between 2°–4°F above normal. Both states had temperature rankings in the top 20 on record for June through August. For the region as a whole, the three-month period ranks 15th warmest with a regional average temperature of 81.64°F.

The summer in the Southern Region started off a bit on the dry side in June. In July, conditions remained dry in the South, but the three northern states experienced a slightly wetter than normal month. In August, precipitation totals rose dramatically in eastern Texas and southern Arkansas. In Louisiana, a stalled low-pressure system on Aug 11–13 delivered between 15–30 inches of rain in just three days. In fact, some stations in southern Louisiana received up to 20 inches of rain in just 24 hours.

The above figure illustrates the August average streamflow in the Texas Gulf and Lower Mississippi basins as compared to historical streamflow. Record-setting precipitation totals in Louisiana combined with well-above-normal precipitation in eastern Texas have both led to streamflow values that are consistently within the 90th percentile or higher. Several rivers in Louisiana set records for flood stage following the August flooding event.

Regional – Impacts for June–August 2016

Louisiana Flood of 2016

Over the period spanning August 11–14, a semistationary and well-organized low-pressure system stalled over southern Louisiana producing a historic flood that is regarded by many as the worst U.S. natural disaster since Hurricane Sandy in 2012. Precipitation totals from this event ranged from 15 to 25 inches in Baton Rouge and Lafayette, to over 30 inches in Livingston Parish. Some stations recorded between 15 to 20 inches in just 24 hours. In the city of Lafayette, the U.S. Climate Reference Network (USCRN) station set a record for the highest two-day total of any USCRN station in the contiguous United States, recording a two-day total of 22.89 inches. As a result of the heavy rainfall, many rivers rose well above flood stage, setting record water levels and flooding communities across the south-central parishes. The Amite River, for example, crested at just over 46 feet, a value that smashed the previous record by over 5 feet. Some of the cities that were hardest hit by the flooding included: Baton Rouge, Lafayette, Baker, and Denham Springs. Flooding resulted in the evacuation of over 30,000 residents. Rescue efforts were hampered by flooded roads and an inundated Interstate 12, but a group of Louisiana boat owners volunteered to assist in rescue efforts and emergency supply distribution. This group, known by the media as the Cajun Navy, responded to social media evacuation requests, and it is believed to have rescued over 1,000 residents and pets. Hundreds of homeless residents took shelter in local churches. The city of Baton Rouge also opened up the River Center Entertainment Complex as a shelter for flood victims. Reports are indicating that as many as 140,000 homes were damaged by this flooding event. Thirteen parishes in Louisiana were declared disaster areas so that residents could apply for disaster aid from FEMA. It is believed that over 100,000 residents have already applied. In addition to the above, the flooding event had a major impact on schools. As many as 250,000 children were out of school, some for as long as three weeks.



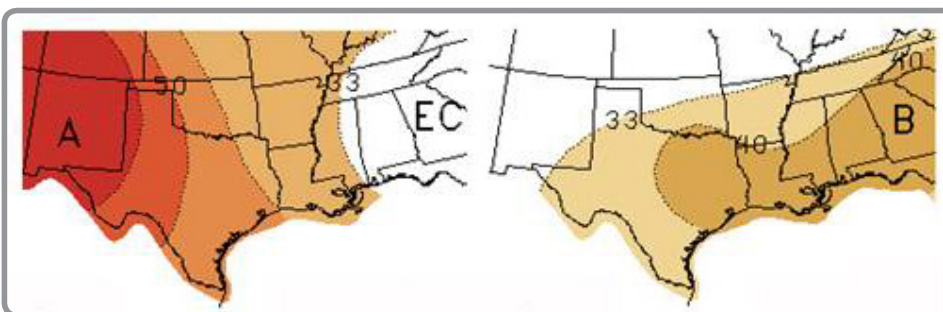
Above: The Baton Rouge River Center shifted from hosting concerts and events to hosting homeless flood victims (left). The Cajun Navy seen here proved invaluable in its relentless and tenacious efforts to rescue stranded residents and pets (center). Downtown Denham Springs underwater after historic precipitation totals devastated southern Louisiana (right). Photo Credits: Courtesy of *The Advocate*, Left–Elizabeth Crisp, Center–Travis Spradling, Right–Patrick Dennis, (www.theadvocate.com).

CPC Three-Month Outlook

Temperature

Precipitation

Outlook for October–December 2016



EC = Equal Chances

A = Above normal temperatures

B = Below normal rainfall

According to the Climate Prediction Center, fall (October to December) temperatures for the Southern Region are expected to be above normal in all six states, with the exception of Tennessee and eastern Mississippi. Precipitation totals are also expected to be lower than normal, with slightly higher chances of dry conditions in eastern Texas, southern Mississippi, and Louisiana. Image courtesy of the Climate Prediction Center (www.cpc.ncep.noaa.gov).

2016 Hurricane Season

As of September 15, 2016, there have been a total of 10 named storms and 4 hurricanes. These values are as expected for this time of year based on previously forecasted storm counts. To date, no named 2016 storms have impacted the Southern Region.

Southern Region Partners

Earth Scan Lab at Louisiana State University
www.esl.lsu.edu

NOAA/NWS Climate Prediction Center
www.cpc.noaa.gov

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

NOAA Gulf of Mexico Collaboration Team
www.regions.noaa.gov

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

NOAA/NWS Southern Region
www.srh.noaa.gov

Southern Climate Impacts Planning Program
www.southernclimate.org

Southern Regional Climate Center
www.srcc.lsu.edu