July Follows Summer Script Aug. 1, 2017

July followed Mother Nature's customary script for mid-summer in Oklahoma, complete with long stretches of sun and scorching temperatures, wildly varying rainfall, and rapidly intensifying drought conditions. Rainfall fortunes were separated roughly between the haves to the southeast of I-44 and the have-nots to the northwest. Parts of the southeast saw more than 10 inches of rain, while less than an inch fell from central though west central Oklahoma. The precipitation extremes exemplified the moisture disparity within the state. Fittstown led the Mesonet's 121 sites with a whopping 11.8 inches of rain, and three other southeastern sites – Antlers, Valliant and Hugo – recorded at least 10 inches. Even the far western Panhandle got into the act with Kenton receiving over 7 inches, more than a third of their annual average of 18.03 inches. Meanwhile, Kingfisher recorded the lowest July total at 0.39 inches and nine other central and west central Oklahoma sites reported less than an inch.

Thanks to the hefty totals in the southeast, the statewide average came in about half an inch above normal at 3.41 inches, the 43<sup>rd</sup> wettest July since records began in 1895. Southeastern Oklahoma's average total of 7.69 inches was over 4 inches above normal and the eighth wettest July for that region. In contrast, west central Oklahoma experienced their 37<sup>th</sup> driest July at nearly an inch below normal. The first two months of climatological summer, June through July, averaged 5.5 inches statewide, nearly 2 inches below normal and the 39<sup>th</sup> driest such period on record. The January-July average was 23.47 inches, 1.52 inches above normal and the 34<sup>th</sup> wettest such period on record.

The Mesonet site at Hooker set the standard for triple-digit temperatures during July, reaching that mark 16 times. Hooker also led all Mesonet sites for the year through July with 25 readings at or above 100 degrees. Kingfisher scored the highest July temperature with 108 degrees on the 22<sup>nd</sup>. The Oklahoma Mesonet recorded at least one triple-digit temperature on 22 of July's 31 days. Throw humidity into the mix and the oppressive heat reached dangerous levels. The Mesonet calculated a heat index of at least 110 degrees 82 times at its 121 sites, with Copan reaching a punishing 115 degrees on July 22. Only at month's end did Mother Nature give the state a reprieve. A cool front and northwesterly flow aloft provided relatively pleasant weather statewide with highs in the 80s and low 90s. The month finished right at normal with a statewide average of 81.5 degrees, although it was cooler than normal in the southeast and warmer in the northwest, owed largely to the rainfall disparity. The year was still on pace to finish as one of the warmest on record for the state with a January-July average of 62.1 degrees, 2.6 degrees above normal for that period and the fifth warmest on record.

The flash drought that erupted in June continued to intensify during July. At the end of June, 12 percent of the state was considered in moderate drought with another 57 percent considered abnormally dry, per the U.S Drought Monitor. The last report in July had 12 percent of the state again in moderate drought, but another 4 percent intensifying to severe drought. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification.

While August often brings the worst that Oklahoma summers have to offer, the latest outlooks from the Climate Prediction Center (CPC) give hope for milder and wetter weather to end summer. The August temperature and precipitation outlooks see increased odds of below normal temperatures and above normal precipitation across the entire state. CPC's monthly drought outlook calls for improvement and possible removal of drought by the end of August.