

November Tornadoes, Ice Wreak Havoc Across Oklahoma
Dec. 1, 2015

Records were threatened, tornadoes were spotted, and ice crippled half of the state while the other half flooded, all thanks to two powerful storm systems during one of the wildest stretches of November weather in state history. The first system struck around mid-month and resembled a classic springtime severe weather setup. A series of supercells sprung up across the High Plains and marched east, dropping as many as five tornadoes in Oklahoma and many more across Texas and Kansas. The system then produced a squall line that marched across the state with heavy rainfall, large hail and severe winds. An estimated gust of 80 mph was reported near Hydro late on the 16th, and the Mesonet site at Red Rock recorded a gust of 99 mph early on the 17th. In its final act, the backside of the storm produced blizzard conditions across the High Plains, including Cimarron County where Boise City reported 6 inches of snow and visibilities down to one-eighth of a mile at times. Two other tornadoes had touched down previously on the fifth to bring the month's preliminary total to seven and the annual total to 105.

The second storm system came just in time for the Thanksgiving holiday, slowly approaching from the west as strong southerly winds pumped abundant moisture into the Southern Plains from the Gulf of Mexico. This storm system also had help from the remnants of Pacific Hurricane Sandra which had moved northwest into Mexico. A strong cold front blasted thorough the state, setting the stage for a bout with freezing rain, sleet and flooding rainfall. Interstate 44 seemed to be the general dividing line between ice versus liquid water as the freezing line slowly fluctuated to the northwest and southeast. Radial ice thicknesses of more than an inch were reported in parts of western and central Oklahoma, particularly across Grady, Canadian and western Oklahoma counties. Widespread tree damage was reported, and more than 150,000 electrical utility customers were without power at one point. The pervasive flooding in the southeastern half of the state was somewhat overshadowed by the ice. While the northwestern one-half of the state saw from 2-4 inches of moisture, the southeastern half reported widespread amounts of 4-8 inches, with Hugo leading the way at 9.84 inches. Governor Fallin declared a state of emergency for all 77 counties in Oklahoma due to the ice and flooding.

The rain from those two systems spurred the statewide average for November to historic levels. According to preliminary data from the Oklahoma Mesonet, the month tied 2004 as the wettest November since records began in 1895 with a statewide average of 5.97 inches, 3.46 inches above normal. Mt. Herman led the Mesonet with 14.95 inches, although 10 additional sites had at least 10 inches of rainfall. The January-November statewide average surged into first place with the additional moisture at 47.53 inches, 13.09 inches above normal. That leaves 2015 just 0.35 inches behind 1957's mark of 47.88 inches as Oklahoma's wettest calendar year on record. The Tishomingo Mesonet site has recorded 77.1 inches for the year thus far, enough to break the Mesonet's calendar year record of 76.41 inches from Broken Bow in 2009. The Mesonet's precipitation records date to 1994. The NWS cooperative observing site at Tuskahoma holds the record for highest annual total for any observing site in the state with 88.27 inches in 1990. Those records date back to the 1880s. By the end of November, drought was all but eliminated in the state thanks to the abundant moisture.

Despite the late-month arctic plunge, temperatures were well above normal during November with a statewide average of 50.8 degrees, 1.5 degrees above normal to rank as the 27th warmest on record. The January-November average of 62.5 degrees stood 0.6 degrees above normal to rank as the 34th warmest such period on record.

The December outlooks from the Climate Prediction Center call for increased odds of above normal precipitation across the western half of the state and above normal temperatures over most of the state. The odds of wetter than normal weather were projected to continue through early spring, especially across the western half of the state.