

A Year of Extremes: Oklahoma's 2011 Weather in Review

Release date: 12/30/11

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Extreme weather grabbed headlines across the globe during 2011 and nowhere more so than right here in Oklahoma. The state experienced nearly every weather calamity possible, setting all-time records for heat, cold, drought, tornadoes, hail and snow. Damages due to weather-related disasters in Oklahoma rose into the billions of dollars. Agricultural damage alone from the drought and related heat has been estimated as high as \$2 billion. As if weather-related disasters were not enough, trouble was also brewing below the earth's surface. A series of relatively strong earthquakes shook the state during November, including a 5.6 intensity quake near Sparks on Nov. 5 – the strongest ever recorded in Oklahoma.

The year began and ended with tranquil weather, but it is that in-between period that will be indelibly etched in memory as one of most non-tranquil in state history. Here are the highlights – or lowlights – of Oklahoma's tumultuous year in weather.

- **Snowstorms** – A little more than a year after the powerful Christmas Eve blizzard of 2009, two more significant winter storms weather struck the state in late January and early February 2011. The first dumped up to 21 inches of snow in northeast Oklahoma with widespread reports of 6-12 inches over much of the state. Winds of up to 60 mph contributed to massive drifts of over 5 feet. During a second storm several days later, the state record for 24-hour snowfall was broken when 27 inches of snow fell in Spavinaw over Feb. 8-9. Another powerful High Plains blizzard blasted the western Oklahoma Panhandle in December. Up to 15 inches of snow fell in Cimarron County and high winds caused drifting that close roads across the area and stranded motorists for days.
- **Record cold** – On the morning of Feb. 10, light winds, clear skies and a fresh snowpack allowed temperatures to plummet into never-before-seen territory in Oklahoma. The Oklahoma Mesonet site at Nowata reached a low of 31 degrees below zero, shattering the state's previous low temperature record of 27 degrees below zero. Much of northern Oklahoma saw temperatures of 20 degrees below zero or lower. As another example of 2011's extreme weather, high temperatures seven days later were in the 70s and 80s across the state. Nowata's high temperature on Feb. 17 was 79 degrees, a remarkable 110-degree temperature swing within a week's time.
- **Drought** – Fed by La Nina, the drought that began in October 2010 intensified through spring in the western half of the state before exploding statewide during summer. Crops withered and a beleaguered cattle industry saw widespread sell-offs due to lack of forage and water. Widespread relief arrived during the fall with the 12th wettest November statewide since 1895. The year ended as the 11th driest on record statewide but for much of western Oklahoma, it ranked in the top three driest years. The Oklahoma Mesonet site at Hooker recorded 6.2 inches of precipitation for the year, the lowest total for an individual location ever recorded in Oklahoma. The previous record of 6.5 inches was held by the fellow Panhandle town of Regnier in 1956.
- **Summer heat** – With severe drought in place entering June, extreme summer heat was sure to follow. Simply put, Oklahoma experienced the hottest summer of any state since records began in 1895 with a statewide average of 86.9 degrees. July's average temperature was 89.3 degrees, becoming the hottest month for any state on record, besting over 67,000 other months. The state also experienced its second hottest June and

hottest August on record. The Oklahoma Mesonet site at Grandfield recorded 101 days above 100 degrees, breaking the previous state record of 86 days from Hollis in 1956. Oklahoma City's 63 100-degree days shattered its previous mark of 50 from 1980. Similar records were broken throughout western Oklahoma.

- **Tornadoes** – Oklahoma's preliminary 2011 tornado count stands at 118. That is the second highest total for the state since statistics began in 1950, next to 1999's 145. April's 50 tornadoes were the most on record for that month, an even odder statistic considering all occurred east of I-35. While several violent tornadoes struck the state during 2011, the most serious was the EF-5 twister that traveled from near Hinton to Guthrie on May 24, killing nine people. Along the way, that monster gave a glancing blow to the Oklahoma Mesonet site at El Reno. The El Reno Mesonet site recorded a maximum wind gust of 151 mph, setting the record for strongest surface wind ever measured (non-radar) in Oklahoma. The 14 deaths attributed to tornadoes in 2011 were the most since 1999's 42 fatalities. The preliminary count of 10 tornadoes during November was the second highest on record for that month. A violent EF-4 brute tore through southwestern Oklahoma on Nov. 7, becoming the most powerful November tornado on record for the state.
- **Hail** – Amidst the tornadoes and large hail reports of April and May, a supercell near Gotebo on May 23 dropped a monster 6-inch diameter hailstone, establishing a new record in that particular category for the state.

As the state enters 2012, the attention turns once again to dry weather with much of western Oklahoma still covered by severe-exceptional drought. And while another extreme weather year like 2011 should not be expected, veterans of Oklahoma's wild weather certainly understand it should never be discounted.