February 2003 Weather in Review for Oklahoma

Gary McManus Climatologist Oklahoma Climatological Survey 2/28/03

NORMAN - February saw winter return with a vengeance, in stark contrast to the decidedly dull weather of January. Pleasant weather early in the month provided hope to both warm weather fanatics and non-believers in the groundhog's prediction of six more weeks of winter. Any hopes for an early spring were dashed quite emphatically, however, by a powerful late-month blast of record-breaking glacial weather. Tulsa experienced the snowiest February in its history, and Oklahoma City suffered through its coldest day in seven years. In a rather ironic twist, this month and season were predicted to be warmer and wetter than normal because of El Niño ended being up colder and drier than normal.

According to preliminary data from the Oklahoma Mesonet, the month finished as the 26th-coldest and 59th-driest February since record-keeping began in 1892. At 1.49 inches, 0.28 inches below normal, the statewide-averaged precipitation is undoubtedly an underestimate, since a large part of the frozen precipitation that fell is not included. The heavy snowfall in the northern areas of the state will not register as actual liquid precipitation until melting occurs. The statewide-averaged temperature finished 4.2 degrees below normal at 38.1 degrees – the 2nd-coldest February since 1989, when it was 33.1 degrees. Bolstered by the cold February, this winter season finished as the 30th-coolest since 1893 with a statewide-averaged temperature of 38.4 degrees, 1.2 degrees below normal. Oklahoma's coldest winter occurred in 1979, with an average temperature equal to 32.2 degrees. The meager precipitation totals of January ensured that the winter would finish 0.62 inches below normal with 4.60 inches of liquid precipitation – the 55th-driest winter on record.

The month started out on a high note, as birds sung of highs in the 70s and 80s across the state. The state's high temperature for the month, 87 degrees, occurred at Altus on the 2nd, setting a new statewide record high for that date. The previous high temperature for February 2nd was 86 degrees and was measured at two locations: El Reno in 1911 and Hollis in 1995. The warmth of the 2nd was short-lived, however, as a strong cold front dropped temperatures below normal and set the stage for February's first taste of wintry precipitation. A low pressure system approached the state from the west and combined with the cold air already in place to dump 2 to 4 inches of snow across an area generally north of I-40. Locally heavier amounts up to 6 inches were found in northwestern and west central Oklahoma.

A brief warm-up was cut abruptly short a few days later on the 9th, when another winter storm traversed the state. This second storm in three days brought additional snowfall totals of 2 to 4 inches across the northern half of the state. Snowfall amounts were

greatest in the northeast, where heavy bands of snow dropped up to 10 inches in Wagoner, Cherokee, and southern Delaware Counties. Snow fell across southwestern and central portions of the state, but rising temperatures quickly melted the snow as the afternoon progressed. Temperatures statewide rose into the 50s and 60s on the following day and ushered in a period of more seasonable weather. Severe thunderstorms rumbled across the northern portions of the state on the 15th, producing strong winds, heavy rains, and 1-inch diameter hail in the Tulsa area.

The seasonable weather came to an end on the 23rd when a large dome of arctic air plunged into the state from the north. Temperatures over parts of northern Oklahoma remained below freezing for the next five days – over 130 consecutive hours in all. The frigid air combined with a series of upper-level storms to produce significant snowfall amounts across the state. The first upper-level storm affected the state on the 23rd, covering the northern-third of the state with 6 to 10 inches of snow. Public reports from Kildare, in Kay County indicated that 18 inches of snow fell, while Ponca City reported 15 inches. Numerous accounts of 10 to 15 inches of snow were reported from Kay, Osage, Washington, and Nowata counties. Blizzard conditions forced road closings along the Oklahoma-Kansas border as 40 mph winds drifted snow across highways. The white-out conditions contributed to a 30-car pileup along I-44 near Miami.

A second round of snow struck overnight on the 24th and affected the southern half of the state. The extreme southeastern counties received the heaviest snowfall, with totals of 6 to 8 inches being commonly reported, prompting rare school closings across the region. Clayton in Pushmataha County received the highest reported amount of 10 inches. The average temperature of 12 degrees in Oklahoma City was the coldest day it had experienced since February 3, 1996. A light dusting of snow fell in Tulsa to bring its monthly total to 10.2 inches – a new record for the snowiest February in Tulsa. The previous record was 10.1 inches, set in 1960.

The icy weather held throughout the remainder of the month. On the 25th and 26th, another storm moved across the state and produced a light band of freezing drizzle, which was enough to cause numerous accidents on Oklahoma streets and highways. Another 4 to 5 inches of snowfall fell across parts of northwestern Oklahoma overnight on the 26th. Roads were closed in several areas of the state as they simply became too slick for travel.

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