# **OCTOBER 2023**



The flash drought that had plagued the southwestern half of Oklahoma since mid-July appeared poised to explode across the entire state during October. As it began its northward advance, however, assistance arrived in the form of three distinct storm systems that not only halted the drought's advance but reversed its course. The first storm originated from the Tropical Pacific off the West Coast of Mexico. The remnants of Hurricane Norma journeyed over Mexico and into the Southern Plains on October 24, depositing 1-2 inches of tropical-style rain across parts of southern and central Oklahoma. This was swiftly followed by a more

#### **October 2023 Statewide Extremes**

Description	Extreme	Station	Day
High Temperature	94°F	Several	Several
Low Temperature	11°F	Kenton	30
High Precipitation	9.74 in.	Ardmore	
Low Precipitation	0.36 in.	Beaver	

conventional storm system from the west that brought another round of rainfall to the state and ushered in significantly cooler weather. The last system arrived during the month's final weekend, accompanied by a blast of Arctic air, offering Oklahoma an early taste of winter. Freezing rain, mixed with sleet and snow, created hazardous driving conditions across the Panhandle and far northwestern Oklahoma on the 28th and 29th, while the rest of the state experienced a cold rain in blustery conditions. Another surge of cold air greeted Oklahoma's trick-or-treaters, leading to a frigid Halloween night with wind chills in the 20s and 30s on the evening of the 31st.

The statewide average precipitation total for the month stood at 3.88 inches, based on preliminary data from the Oklahoma Mesonet, surpassing the normal by 0.52 inches and ranking as the 37th wettest October since records began in 1895. The late-month storms contributed to surpluses of 3-6 inches across south central Oklahoma, making it the 15th wettest October on record for that region of the state, exceeding the normal by 2.92 inches. However, far northwestern

#### **October 2023 Statewide Statistics**

#### **Temperature**

Period	Average	Departure	Rank (1895-2023)
Month (October	61.9°F	0.6°F	60th Warmest
Season-to-Date (Sep-Oct)	69.2°F	2.2°F	21st Warmest
Year-to-Date (Jan-Oct)	64.7°F	1.1°F	19th Warmest

#### Precipitation

Period	Total	Departure	Rank (1895-2023)
Month (October)	3.88 in.	0.52 in.	37th Wettest
Season-to-Date (Sep-Oct)	6.54 in.	-0.14 in.	52nd Wettest
Year-to-Date (Jan-Oct)	32.42 in.	0.49 in.	42nd Wettest

Departure from 30-year normal

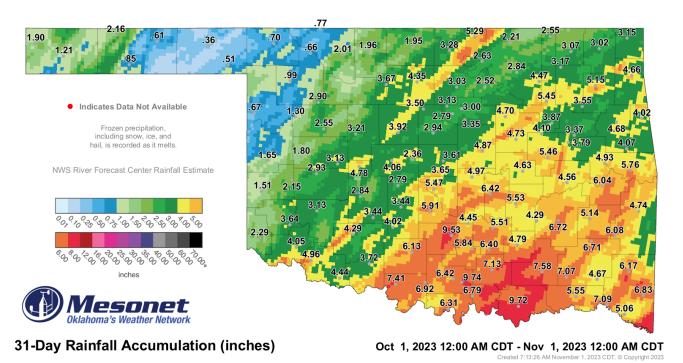
Oklahoma and the eastern Panhandle received limited rainfall, resulting in deficits of 1 to 2 inches. Ardmore led the month with 9.74 inches of rainfall, while Beaver had the lowest total at 0.36 inches. An additional 31 sites of the Mesonet's 119 active locations recorded at least 5 inches of rainfall, while nine sites in the far northwest and Panhandle ended the month with

less than an inch. The first ten months of the year concluded with a statewide average of 32.42 inches, surpassing the normal by 0.49 inches and ranking as the 42nd wettest January through October since records began in 1895.

The statewide average temperature for the month was 61.9 degrees, exceeding the normal by 0.6 degrees and ranking as the 60th warmest October on record. Temperatures ranged from 94 degrees at four separate sites during the month to 11 degrees at Kenton on October 30. This marked the lowest temperature recorded in the state since Eva dropped to 5 degrees on March 19 of this year. Wind chill values also reached their lowest levels since March during the late-month cold snap. Boise City recorded a wind chill of zero degrees on October 30, the lowest reading for the month. The statewide average for the first ten months of the year was 64.7 degrees, exceeding the normal by 1.1 degrees and ranking as the 19th warmest such period since records began in 1895.

Drought coverage had surged to nearly 50% of the state in early October, according to the U.S. Drought Monitor. Timely rains alleviated conditions in the middle of the month, but drought had started to advance northward once again before the end-of-month moisture arrived. The Drought Monitor's final report for October, on October 24, showed that 49% of the state was in at least moderate drought, with another 23% of the state experiencing abnormally dry conditions indicating areas at risk of further drought development. The precipitation that fell during the final week will be reflected in the following week's U.S. Drought Monitor report. The Climate Prediction Center's November drought outlook reflects these changes, with expected improvements in parts of south central and north central Oklahoma. Drought is anticipated to persist through November in other parts of the state. The temperature and precipitation outlooks predict abovenormal temperatures with an equal probability of above-normal, below-normal, or near-normal moisture.

### OCTOBER 2023 OBSERVED PRECIPITATION



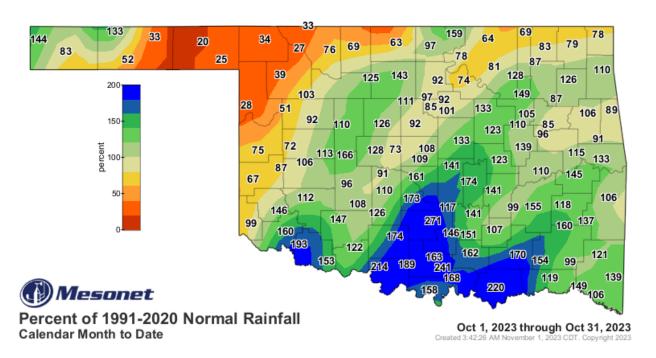
The accumulated rainfall for October ranged from 0.36 inches at Beaver to 9.72 inches at Durant.

### OCTOBER 2023 DEPARTURE FROM NORMAL PRECIPITATION



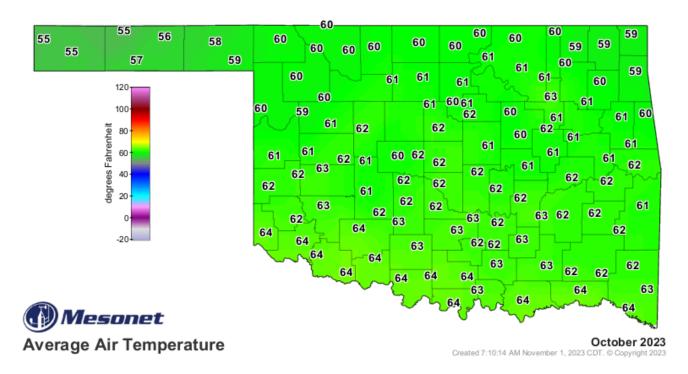
Comparing the October rainfall accumulation to the 1990 to 2020 normal rainfall, Kenton and Eva were about a half inch above normal with the rest of the panhandle and western counties below normal by a range of a half inch to 1.8 inches. Two areas from Apache to Stillwater to Miami and Haskell to Westville were below normal by a half to an inch. The rest of the state received above normal rainfall. The wettest area was around Durant which received 5.3 inches above normal.

## **OCTOBER 2023 PERCENT OF NORMAL PRECIPITATION**



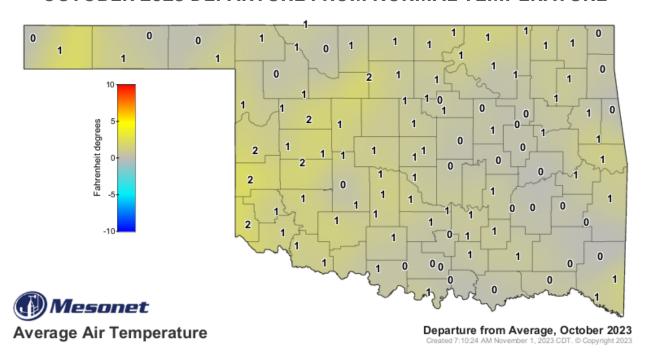
The lowest percent of normal rainfall values covered an area from Beaver to north of Cherokee to Arnett with values ranging from a low of 20% at Buffalo to 39% at Woodward. The majority of the state saw more than 100% of normal rainfall. The wettest area extended from south of Shawnee down to Tishomingo and over to Antlers and south to the Red River from Durant to Waurika. In this region, Byars had the lowest value at 117% and Ardmore received 241% of normal. Altus benefited with 193% of normal rainfall.

## OCTOBER AVERAGE TEMPERATURE IN DEGREES FAHRENHEIT



Temperatures ranged from mid 50s in the panhandle to upper 50s in northeast to the low 60's across the rest of the state. Lowest average temperature was 55°F at Kenton, Boise City, and Eva and the highest average temperature was 64°F at sites along the Red River.

### OCTOBER 2023 DEPARTURE FROM NORMAL TEMPERATURE



The temperature departure from normal ranged from 0°F to 2°F above normal statewide.

# **MESONET MONTHLY SUMMARY FOR OCTOBER 2023**

#### PANHANDLE

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Arnett	60.8	92	20	21	30	215	86	.67	.33	25
Goodwell	58.2	92	20	14	30	257	45	.85	.56	2
Beaver	58.5	92	20	18	30	269	67	.36	.35	28
Hooker	57.8	91	20	15	30	265	43	.61	.46	2
Boise City	56.4	87	20	12	30	282	15	1.21	.71	2
Kenton	55.2	87	20	11	30	313	9	1.83	.99	1
Buffalo	60.4	93	20	21	30	237	94	.70	.44	28
Slapout	59.5	91	20	19	30	243	72	.51	.23	28
Eva	55.8	90	20	12	30	305	19	2.16	1.52	2

#### NORTH CENTRAL

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Alva	60.4	91	22	23	30	227	86	2.01	1.27	4
May Ranch	60.2	91	12	23	30	238	89	.77	.51	28
Blackwell	60.8	93	1	23	31	221	93	3.28	1.80	24
Medford	60.8	91	1	25	30	229	99	1.95	.85	24
Breckinridge	27.1	93	1	***	23	209	95	4.35	1.80	24
Newkirk	60.8	92	1	24	30	218	87	5.29	3.83	24
Cherokee	61.3	91	1	25	31	218	103	1.96	.47	4
Red Rock	61.2	92	1	24	31	212	96	3.03	1.05	29
Freedom	60.7	93	12	20	30	232	99	.66	.20	24
Seiling	60.5	91	20	23	31	225	85	2.90	1.09	25
Lahoma	62.3	91	1	28	31	***	***	3.67	1.20	24
Woodward	60.7	90	20	21	30	221	89	.99	.44	25
Lahoma	***	***	***	***	***	***	***	***	***	***

#### NORTHEAST

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Bixby	61.7	90	1	24	31	182	80	3.87	1.72	4
Pawnee	***	***	***	***	***	***	***	2.52	1.11	29
Burbank	61.2	94	1	21	31	210	93	2.63	1.11	24
Porter	61.8	89	1	24	31	180	79	3.37	.81	4
Copan	61.1	91	1	20	31	209	87	2.55	.93	29
Pryor	60.9	90	1	21	31	201	73	5.15	2.59	4
Foraker	61.0	92	1	22	31	210	86	2.21	.85	24
Skiatook	61.8	89	1	28	31	186	87	4.47	1.65	4
Inola	61.1	90	1	23	31	196	74	3.55	1.23	4
Talala	61.1	89	1	23	31	203	81	3.17	1.13	29
Jay	60.2	89	1	22	31	222	73	4.66	2.43	4
Tulsa	63.2	89	1	31	30	***	***	5.45	1.85	4
Miami	59.6	88	1	23	31	230	64	3.15	1.00	29
Vinita	59.8	89	1	22	31	225	64	3.02	.86	29
Nowata	60.0	90	1	19	31	226	71	3.07	1.22	29
Wynona	61.3	91	1	23	31	198	84	2.84	1.41	29

#### WEST CENTRAL

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Bessie	63.5	93	21	26	31	179	132	2.93	1.52	24
Erick	62.6	94	20	25	31	181	108	1.51	.83	24
Butler	61.8	94	21	21	31	201	103	1.80	.81	24
Putnam	62.4	90	20	25	30	***	***	2.55	.88	24
Camargo	60.2	92	20	22	31	229	80	1.30	.39	25
Watonga	62.9	91	10	28	30	187	124	3.21	1.41	24
Cheyenne	62.3	91	20	25	30	***	***	1.65	.59	24
Weatherford	62.9	93	21	26	31	187	122	3.13	1.24	24
Elk City	63.4	93	20	27	30	181	130	2.15	1.08	24

#### CENTRAL

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Acme	63.1	91	1	22	31	185	127	4.02	1.72	4
Norman	62.8	90	21	26	31	179	110	5.47	2.58	4
Bristow	61.2	90	1	22	31	196	78	4.73	1.67	4
Oilton	60.7	90	1	21	31	212	80	4.70	1.21	4
Lake Carl Blac	61.1	92	1	20	31	216	95	3.13	1.42	24
OKC East	62.6	90	1	26	31	185	109	3.65	1.40	24
Chandler	62.0	89	1	24	31	190	98	4.87	1.15	25
Okemah	61.7	89	1	24	31	190	87	4.63	1.71	4
Chickasha	63.1	92	1	25	31	174	116	3.44	1.48	24
Perkins	62.5	91	1	26	31	188	110	3.35	1.08	24
El Reno	61.4	91	21	21	31	207	94	4.06	1.52	4
Seminole	62.5	90	1	27	31	171	95	6.42	2.92	4
Guthrie	63.0	92	1	26	31	190	130	2.94	1.34	24
Shawnee	62.5	90	1	26	31	185	109	4.97	1.27	24
Kingfisher	***	***	***	***	***	***	***	3.92	2.27	24
Spencer	62.8	91	1	26	31	192	123	3.61	1.49	24
Marena	62.1	92	1	24	31	***	***	2.79	1.34	24
Stillwater	61.7	92	1	24	31	***	***	3.00	1.47	24
Minco	63.2	92	21	28	31	179	122	2.79	1.01	24
Washington	63.2	93	1	25	31	169	112	5.91	2.28	24
Marshall	62.0	93	1	26	31	***	***	3.50	1.77	24
Yukon	62.5	91	21	26	31	195	116	2.36	1.18	24

## EAST CENTRAL

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Cookson	61.6	90	1	23	31	182	77	4.07	1.02	26
Sallisaw	63.0	90	1	25	31	157	95	5.76	1.49	29
Eufaula	62.7	89	1	27	31	167	94	4.56	1.21	28
Stigler	62.2	88	1	25	31	172	86	6.04	1.45	26
Haskell	61.3	89	1	24	31	190	76	3.79	.99	28
Stuart	63.2	89	1	27	31	164	109	4.29	1.56	25
Hectorville	62.2	89	1	26	31	179	91	4.10	1.62	4
Tahlequah	60.9	89	1	21	31	204	78	4.68	2.16	28
Holdenville	62.9	91	1	26	31	170	105	5.53	1.97	4
Webbers Falls	61.9	91	1	26	31	177	80	4.93	1.42	28
McAlester	62.5	90	1	24	31	168	90	6.72	3.91	25
Westville	60.1	88	1	23	31	214	61	4.02	.97	26
Okmulgee	61.3	88	1	25	31	188	73	5.46	2.33	4

#### SOUTHWEST

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Altus	64.6	93	12	28	31	151	141	4.05	1.55	24
Hollis	64.5	93	20	27	31	151	136	2.29	.78	25
Apache	62.8	89	20	25	31	181	112	3.44	1.21	4
Mangum	63.0	93	20	22	31	***	***	3.64	1.60	24
Fort Cobb	61.9	91	21	24	31	***	***	2.84	1.48	24
Medicine Park	64.9	91	20	29	31	158	155	4.29	2.59	24
Grandfield	65.5	94	12	27	31	142	158	4.44	1.47	4
Tipton	30.5	92	2	***	17	146	138	4.96	2.15	24
Hinton	62.5	92	21	26	31	191	112	4.78	2.10	24
Walters	64.4	91	3	28	31	148	129	3.72	1.12	24
Hobart	63.8	92	20	25	31	***	***	3.13	1.65	24

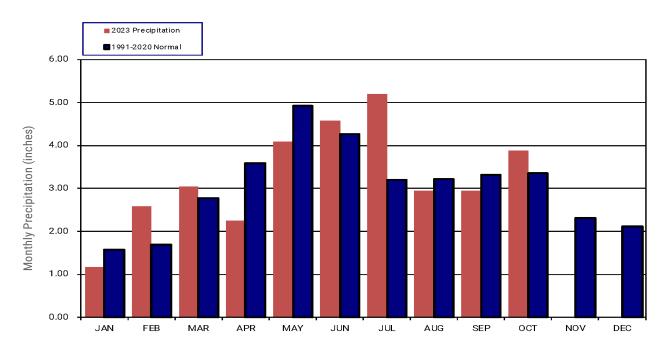
#### SOUTH CENTRAL

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Ada	63.1	92	1	24	31	167	108	5.51	1.68	4
Lane	63.5	93	1	27	31	***	***	7.58	3.30	25
Ardmore	64.6	92	1	28	31	141	127	9.74	4.65	4
Madill	64.3	92	1	27	31	149	129	6.79	1.94	4
Burneyville	64.7	93	1	24	31	148	138	6.31	1.53	4
Newport	64.4	92	2	26	31	146	127	6.42	1.67	4
Byars	63.8	90	1	27	31	164	127	4.45	1.29	28
Pauls Valley	63.6	93	4	27	31	159	115	9.53	3.85	4
Centrahoma	63.1	92	1	24	31	164	105	4.79	1.83	25
Ringling	64.3	91	20	26	31	150	128	6.92	2.09	25
Durant	65.1	93	1	28	31	134	139	9.72	2.50	4
Sulphur	62.5	91	1	22	31	177	99	5.84	1.74	4
Fittstown	62.5	90	1	25	31	175	98	6.40	1.90	4
Tishomingo	63.2	91	1	27	31	160	106	7.13	3.42	4
Ketchum Ranch	64.0	92	4	25	31	159	128	6.13	2.08	24
Waurika	64.5	93	4	26	31	146	131	7.41	2.03	24

#### SOUTHEAST

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
Antlers	63.3	93	1	26	31	151	100	7.07	2.01	26
Mt Herman	63.0	89	1	27	31	142	81	6.17	1.76	4
Broken Bow	63.7	90	1	28	31	123	82	6.83	3.39	4
Talihina	62.7	91	1	25	31	155	84	6.08	2.02	26
Clayton	***	***	***	***	***	***	***	6.71	2.40	26
Valliant	***	***	***	***	***	***	***	7.09	3.91	4
Cloudy	63.1	90	1	26	31	144	84	4.67	1.24	4
Wilburton	62.2	89	1	26	31	171	84	5.14	1.91	25
Hugo	64.7	92	1	28	31	130	119	5.55	1.63	26
Wister	62.0	90	1	24	31	166	72	4.74	1.35	28
Idabel	64.6	91	1	29	31	114	100	5.06	2.10	4

# 2023 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL IN INCHES



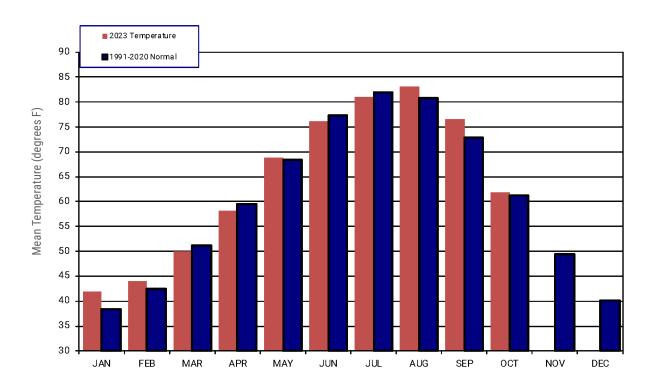
# TABLE OF 2023 STATEWIDE PRECIPITATION MONTHLY TOTALS AND NORMALS IN INCHES

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023	1.17	2.58	3.04	2.26	4.09	4.58	5.19	2.95	2.95	3.88		
1991-2020	1.57	1.69	2.78	3.59	4.93	4.26	3.20	3.23	3.32	3.36	2.32	2.11

# **OCTOBER 2023 MESONET PRECIPITATION COMPARISON**

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Oct-22 (inches)
Panhandle	0.99	-0.86	58th Driest	6.84 (1923)	0.03 (2001)	0.23
North Central	2.57	-0.35	50th Wettest	8.97 (1998)	0.00 (1952)	0.92
Northeast	3.48	-0.29	58th Wettest	14.98 (1941)	0.05 (1952)	2.33
West Central	2.25	-0.37	53rd Wettest	9.57 (1923)	0.00 (1952)	2.12
Central	4.01	0.60	35th Wettest	13.34 (1941)	0.03 (1952)	2.71
East Central	4.92	0.69	37th Wettest	14.00 (1941)	0.15 (1963)	4.23
Southwest	3.78	1.01	31st Wettest	11.03 (1983)	0.00 (1952)	4.18
South Central	6.92	2.92	15th Wettest	14.83 (1981)	0.09 (1921)	4.57
Southeast	5.92	1.26	30th Wettest	12.89 (1984)	0.20 (1924)	4.90
Statewide	3.88	0.52	37th Wettest	10.75 (1941)	0.14 (1952)	2.85

# 2023 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL IN DEGREES FAHRENHEIT



# TABLE OF 2023 STATEWIDE TEMPERATURE MONTHLY TOTALS AND NORMALS IN DEGREES FAHRENHEIT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023	41.9	44.1	50.0	58.1	68.8	76.2	81.0	83.1	76.6	61.9		
1991-2020	38.3	42.4	51.2	59.5	68.4	77.3	81.9	80.8	72.9	61.3	49.4	40.1

# **OCTOBER 2023 MESONET TEMPERATURE COMPARISON**

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Oct 22 (F)
Panhandle	58.0	0.4	64th Coolest	65.9 (1963)	50.1 (1925)	59.6
North Central	60.9	0.8	56th Warmest	68.9 (1963)	51.6 (1925)	61.6
Northeast	61.0	0.5	65th Coolest	70.2 (1963)	53.9 (1925)	61.2
West Central	62.5	1.8	32nd Warmest	68.5 (1963)	52.1 (1925)	61.8
Central	62.3	0.5	63rd Coolest	70.2 (1963)	55.0 (2009)	62.3
East Central	62.0	0.0	54th Coolest	70.9 (1963)	55.5 (1976)	62.4
Southwest	63.9	1.0	41st Warmest	70.2 (1963)	55.4 (1925)	63.4
South Central	63.8	0.3	64th Coolest	71.0 (1963)	56.8 (1976)	63.4
Southeast	63.2	0.8	51st Warmest	69.8 (1963)	55.3 (1976)	62.5
Statewide	61.9	0.6	60th Warmest	69.5 (1963)	54.6 (1925)	62.0

# **MESONET EXTREMES FOR OCTOBER 2023**

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	93	20th	Buffalo	11	30th	Kenton	2.16	Eva	1.52	2nd	Eva
North Central	93	12th	Freedom	20	30th	Freedom	5.29	Newkirk	3.83	24th	Newkirk
Northeast	94	1st	Burbank	19	31st	Nowata	5.45	Tulsa	2.59	4th	Pryor
West Central	94	21st	Butler	21	31st	Butler	3.21	Watonga	1.52	24th	Bessie
Central	93	1st	Marshall	20	31st	Lake Carl Blackwell	6.42	Seminole	2.92	4th	Seminole
East Central	91	1st	Webbers Falls	21	31st	Tahlequah	6.72	McAlester	3.91	25th	McAlester
Southwest	94	12th	Grandfield	22	31st	Mangum	4.96	Tipton	2.59	24th	Medicine Park
South Central	93	1st	Burneyville	22	31st	Sulphur	9.74	Ardmore	4.65	4th	Ardmore
Southeast	93	1st	Antlers	24	31st	Wister	7.09	Valliant	3.91	4th	Valliant
Statewide	94	12th	Grandfield	11	30th	Kenton	9.74	Ardmore	4.65	4th	Ardmore

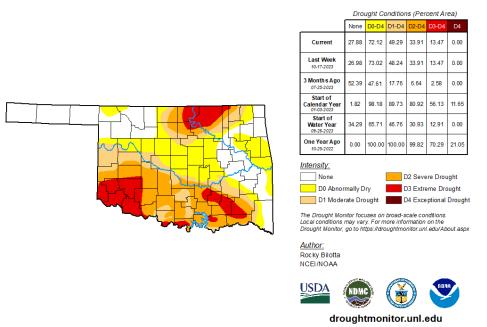
### **Oklahoma Climate Divisions**



Climate Division	Counties
Panhandle - Division 1	Beaver, Cimarron, Ellis, Harper, and Texas
North Central - Division 2	Alfalfa, Garfield, Grant, Kay, Major, Noble, Woods, and Woodward
Northeast - Division 3	Craig, Delaware, Mayes, Nowata, Osage, Ottawa, Pawnee, Rogers, Tulsa, and Washington
West Central - Division 4	Beckham, Blaine, Custer, Dewey, Roger Mills, and Washita
Central - Division 5	Canadian, Cleveland, Creek, Grady, Kingfisher, Lincoln, Logan, McClain, Okfuskee, Oklahoma, Payne, Pottawatomie, and Seminole
East Central - Division 6	Adair, Cherokee, Haskell, Hughes, McIntosh, Muskogee, Okmulgee, Pittsburg, Sequoyah, and Wagoner
Southwest - Division 7	Caddo, Comanche, Cotton, Greer, Harmon, Jackson, Kiowa, and Tillman
South Central - Division 8	Atoka, Bryan, Carter, Coal, Garvin, Jefferson, Johnston, Love, Marshall, Murray, Pontotoc, and Stephens
Southeast - Division 9	Choctaw, Latimer, LeFlore, McCurtain, and Pushmataha

# U.S. Drought Monitor Oklahoma

#### October 24, 2023 (Released Thursday, Oct. 26, 2023) Valid 8 a.m. EDT



Drought condition intensity levels used for the US Drought Monitor are None, D0 Abnormally Dry, D1 Moderate Drought, D2 Severe Drought, D3 Extreme Drought, and D4 Exceptional Drought.

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor go to https://droughtmonitor.unl.edu/About.aspx.

# U.S. DROUGHT MONITOR FOR OKLAHOMA DROUGHT CONDITIONS (PERCENT AREA)

OCTOBER 24, 2023 (RELEASED THURSDAY, OCT. 26, 2023) VALID 8 A.M. EDT

Period	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	27.88	72.12	49.29	33.91	13.47	0.00
Last Week 10-17-2023	26.98	73.02	48.24	33.91	13.47	0.00
3 Months Ago 07-25-2023	52.39	47.61	17.76	6.64	2.58	0.00
Start of Current Year 01-03-2023	1.82	98.18	89.73	80.92	56.13	11.65
Start of Water Year 09-26-2023	34.29	65.71	46.76	30.93	12.91	0.00
One Year Ago 10-25-2022	0.00	100.00	100.00	99.82	70.29	21.05

#### INTERPRETATION INFORMATION

**MEAN DAILY TEMPERATURE:** Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this may differ from the "true" daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

**DEGREE DAYS:** Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/CDD are qualitative measures of how much heating/cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value.

#### **ADDITIONAL RESOURCES**

**SUNRISE / SUNSET TABLES** 

U.S. NAVAL OBSERVATORY: https://aa.usno.navy.mil/data/

**SEVERE STORM REPORTS** 

STORM PREDICTION CENTER: https://spc.noaa.gov/climo/

NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION:

https://www.ncdc.noaa.gov/stormevents/

**SEASONAL OUTLOOKS** 

**CLIMATE PREDICTION CENTER:** 

https://www.cpc.ncep.noaa.gov/products/OUTLOOKS\_index.php/

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION

OKLAHOMA CLIMATOLOGICAL SURVEY:

https://climate.ok.gov/



Oklahoma Climatological Survey is the State Climate Office for Oklahoma

Dr. Kevin Kloesel Director

Dr. Chris Fiebrich Associate Director

**EDITOR** 

Gary D. McManus State Climatologist

**CONTENT AND LAYOUT ASSISTANT** 

Andrea Dawn Melvin Outreach Program Manager, K20

FOR MORE INFORMATION, CONTACT:

Oklahoma Climatological Survey The University of Oklahoma 120 David L. Boren Blvd., Suite 2900 Norman, OK 73072-7305

TEL: 405-325-2541 FAX: 405-325-7282 E-MAIL: ocs@ou.edu

**Disclaimer:** This report is preliminary. Records and rankings will change as new data is collected. Refer to the National Centers for Environmental Information (NCEI) for the most up-to-date information.