NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	**U.S. DEPARTMENT OF COMMERCE** NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS	HYDROLOGIC SERVICE AREA (HSA): **Tulsa, Oklahoma (TSA)** REPORT FOR: MONTH **February** YEAR **2021**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE **Steven F. Piltz** (Meteorologist-in-Charge) DATE **March 15, 2021**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

[X] An "X" in the box indicates no flood stages were reached in this Hydrologic Service Area (HSA) during the month above.

While most of eastern OK and northwest AR had below normal rainfall in February 2021, much of the area saw significant snowfall. Monthly average temperatures across the region were generally 8°F -11°F below normal due to an extended period of below freezing temperatures mid-month. Normal precipitation across the HSA in February ranges from 1.8 inches in Osage County to 3.2 inches in Choctaw County. In the Ozark region of northwest AR, the normal monthly precipitation is 2.9 inches. This report, past E-5 reports, and monthly hydrology and climatology summaries can be found at http://www.weather.gov/tsa/hydro-monthly-summary.

Monthly Summary

Using the radar-derived estimated observed precipitation from the RFCs (Fig. 1a), rainfall totals for February 2021 ranged from around 0.25" to near 4" generally from northwest to southeast across eastern OK and northwest AR. These rainfall totals correspond to 10% to 90% of the normal February rainfall for locations across eastern OK and northwest AR, with most of the area receiving 25%-50% of the normal February rainfall (Fig. 1b).

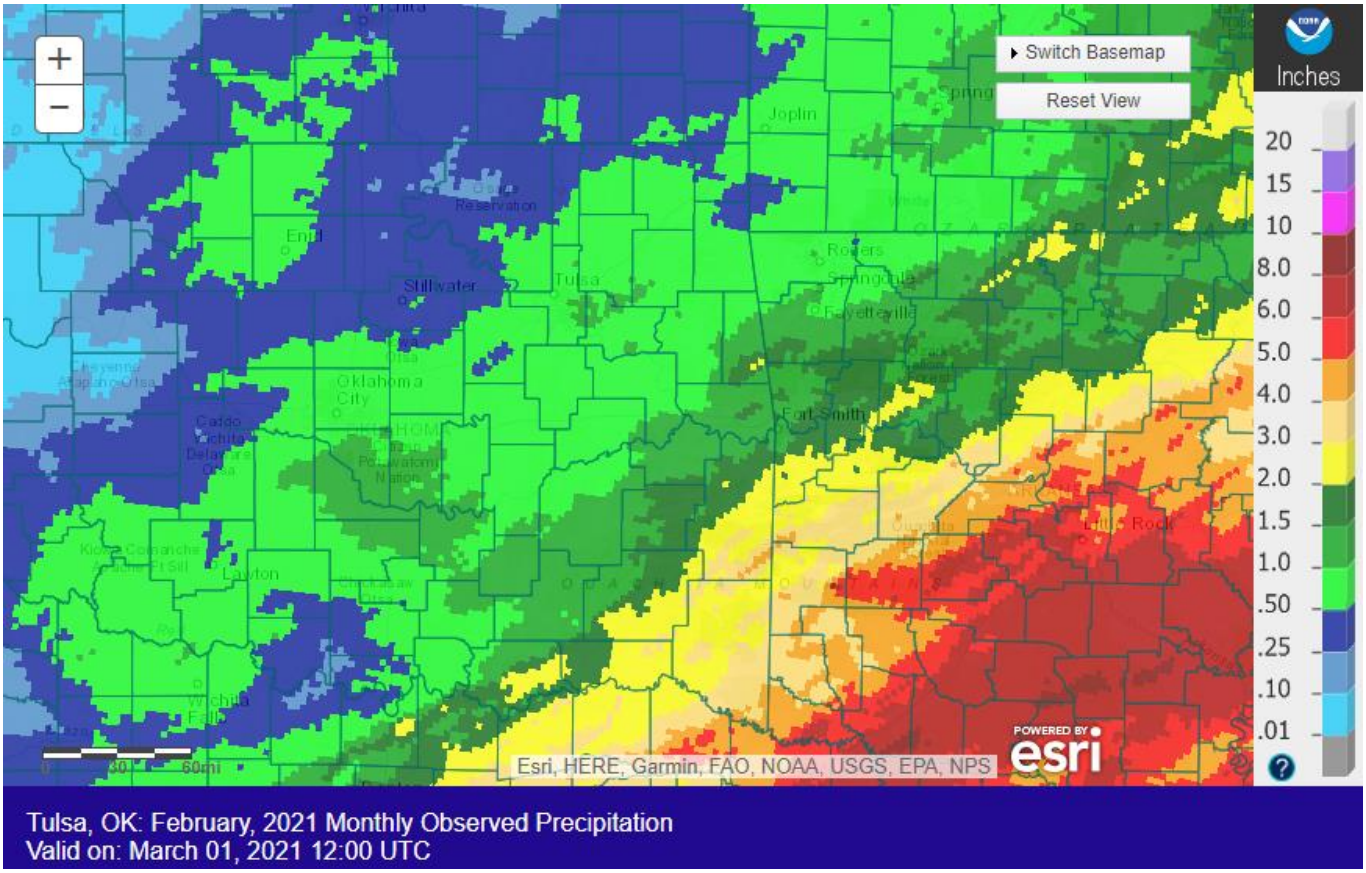


Fig. 1a. Estimated Observed Rainfall for February 2021

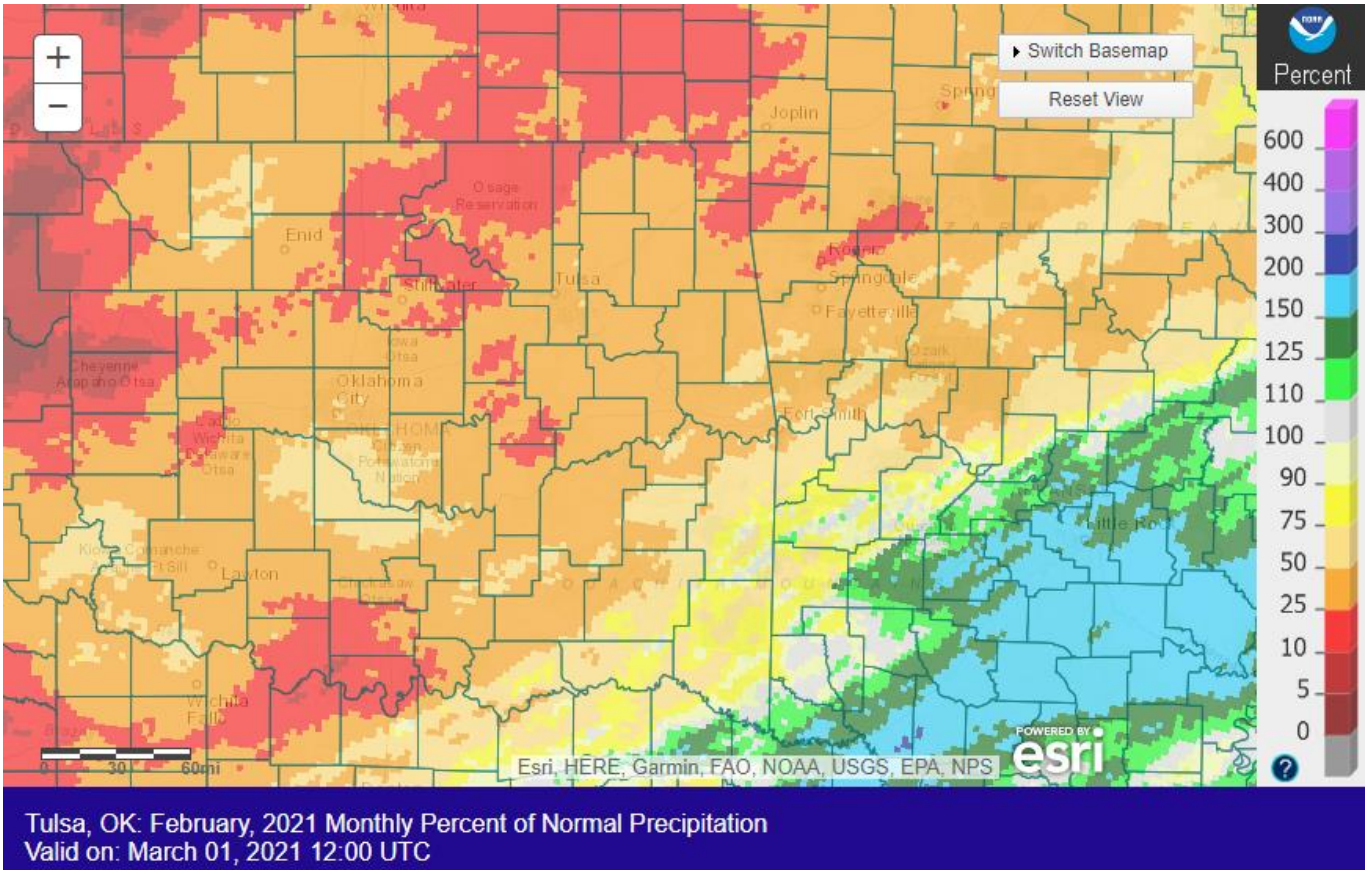


Fig. 1b. Estimated % of Normal Rainfall for February 2021

In Tulsa, OK, February 2021 ranked as the 4th coldest February (31.4°F, tied 1929; since records began in 1905), the 26th driest February (0.72"; since records began in 1888), and the 4th snowiest February (10.0"; since records began in 1900). Fort Smith, AR had the 7th coldest February (35.7°F; since records began in 1883), the 35th driest February (1.32", tied 1926; since records began in 1883), and the 15th snowiest February (6.0"; tied 1902; since records began in 1884). Fayetteville, AR had the 2nd coldest (31.3°F), the 7th driest (0.97", tied 1954), and the 9th snowiest (6.9") February since records began in 1950.

Some of the larger precipitation reports (in inches) for February 2021 included:

Cloudy, OK (meso)	2.65	Hugo, OK (meso)	2.37	Antlers, OK (meso)	2.17
Hugo 1.9ENE, OK (coco)	2.01	Talihina, OK (meso)	1.92	Greenwood 0.9S, AR (coco)	1.75
Clayton, OK (meso)	1.75	Wister, OK (meso)	1.71	Wilburton, OK (meso)	1.58

Some of the lowest precipitation reports (in inches) for February 2021 included:

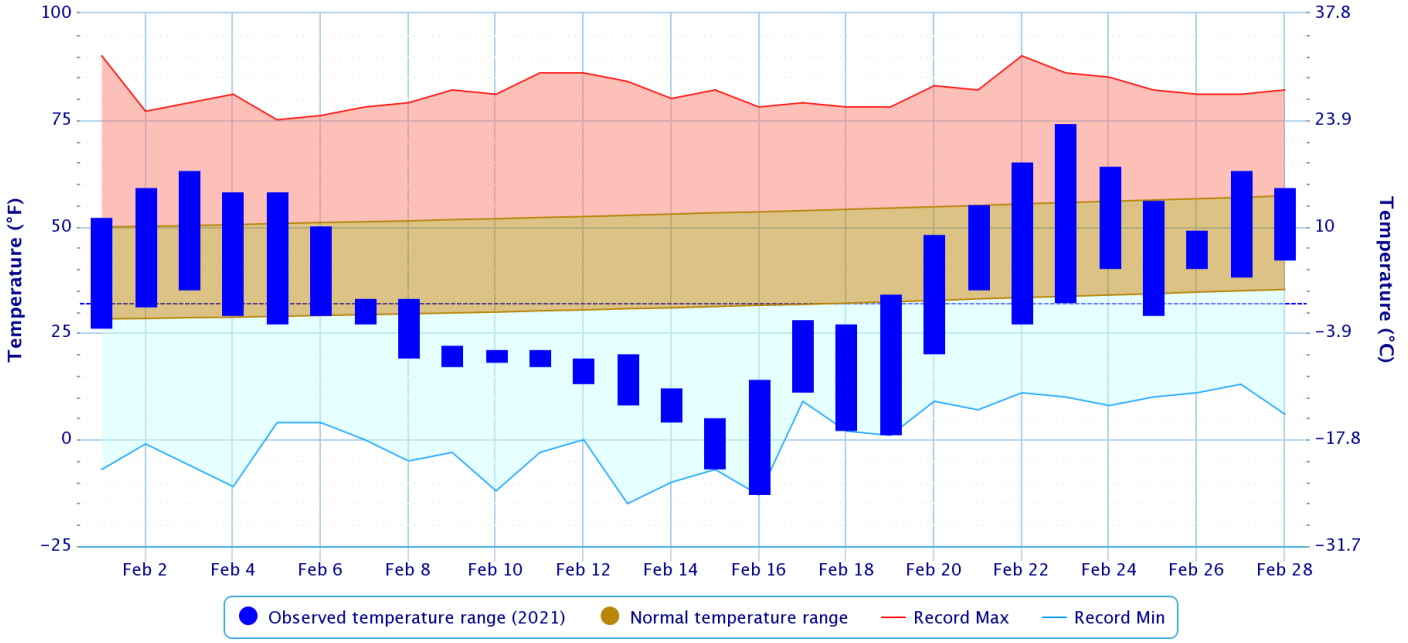
Bartlesville, OK (ASOS)	0.28	Terlton 3.7ESE, OK (coco)	0.30	Talala, OK (meso)	0.33
Pawnee, OK (meso)	0.33	Gentry 5.6ENE, AR (coco)	0.36	Foraker, OK (meso)	0.37
Nowata, OK (meso)	0.38	Vinita, OK (meso)	0.39	Burbank, OK (meso)	0.41

According to statistics from the Oklahoma Climatological Survey (OCS) Mesonet:

Rank since 1921	Last 30 Days (Jan 30 – Feb 28)	Winter 2020-21 (Dec 1 – Feb 28)	Last 120 Days (Nov 1 – Feb 28)	Water Year-to-Date (Oct 1, 2020 – Feb 28, 2021)	Cool Season (Sep 1 – Feb 28)	Year-to-Date (Jan 1 – Feb 28)	Last 365 Days (Mar 1, 2020 – Feb 28, 2021)
Northeast OK	30th driest	25th wettest	37th wettest	30th wettest	38th wettest	36th wettest	31st wettest
East Central OK	28th driest	48th driest	34th driest	42nd driest	50th driest	35th driest	18th wettest
Southeast OK	37th driest	45th wettest	37th driest	29th driest	46th wettest	35th driest	14th wettest
Statewide	25th driest	39th wettest	46th driest	48th wettest	48th driest	34th driest	40th wettest

Daily Temperature Data – Tulsa Area, OK (ThreadEx)

Period of Record – 1905-01-06 to 2021-03-03. Normals period: 1981-2010. Click and drag to zoom chart.



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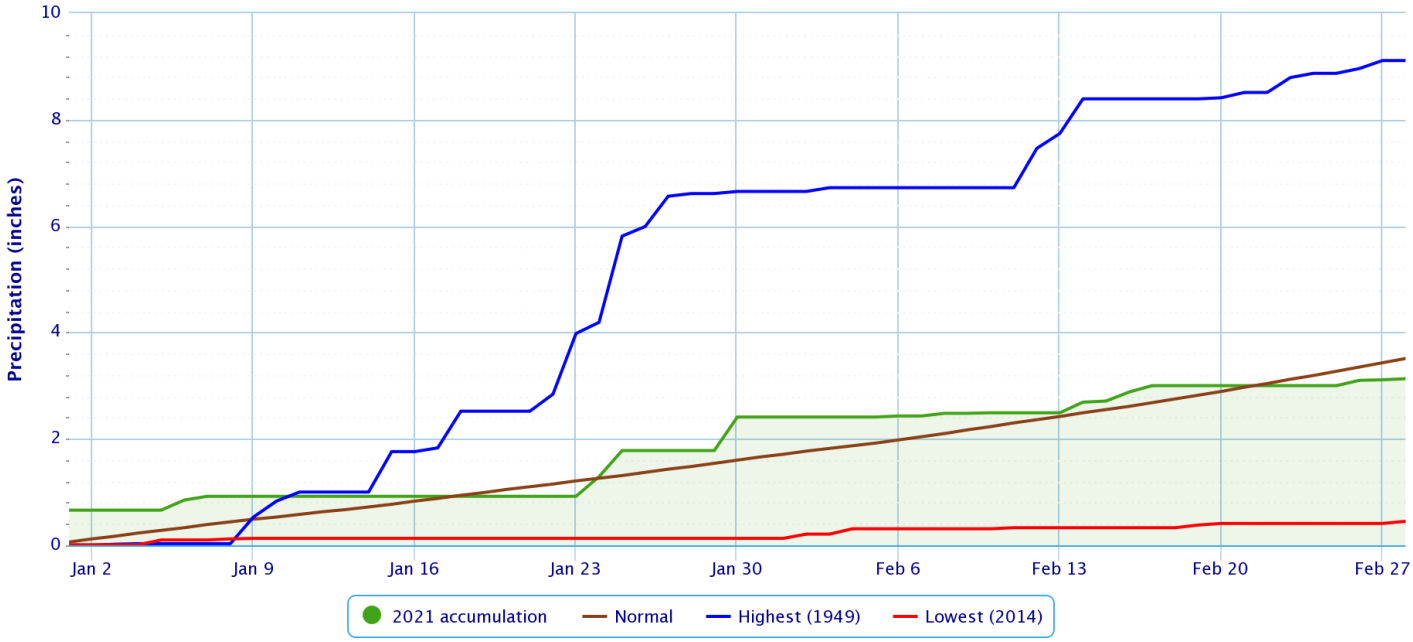
Accumulated Precipitation – Tulsa Area, OK (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Daily Temperature Data – Tulsa Area, OK (ThreadEx)

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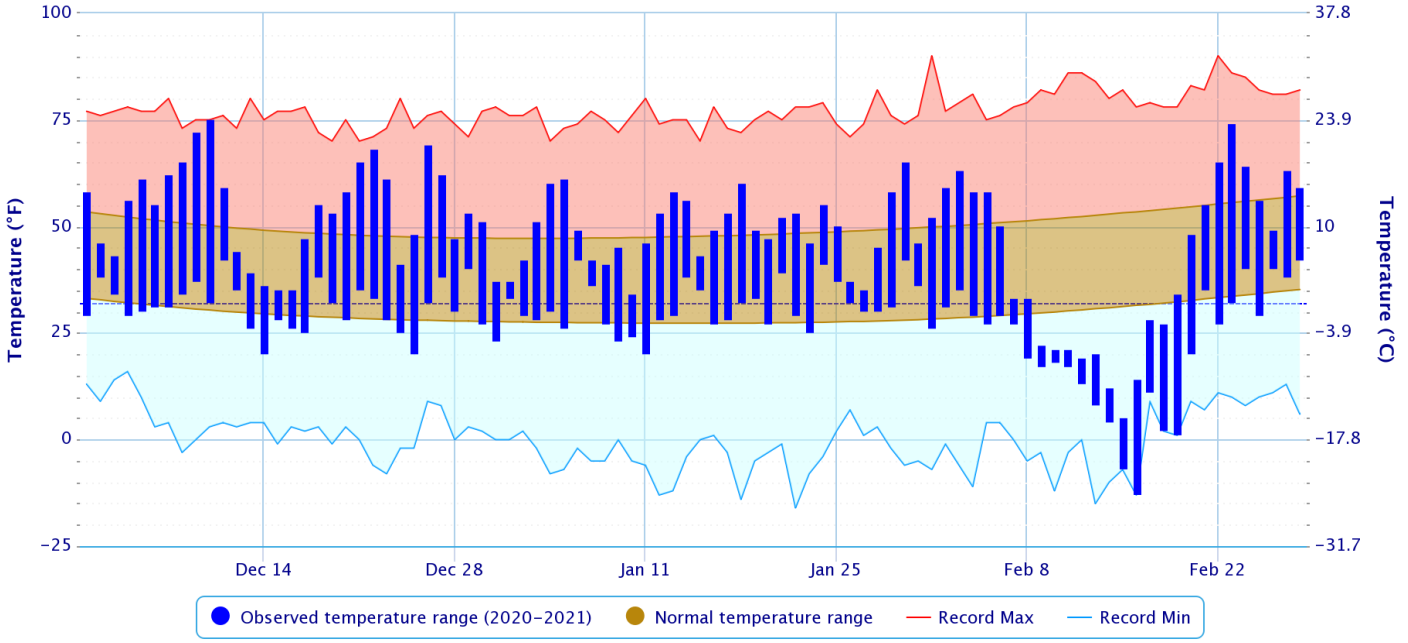

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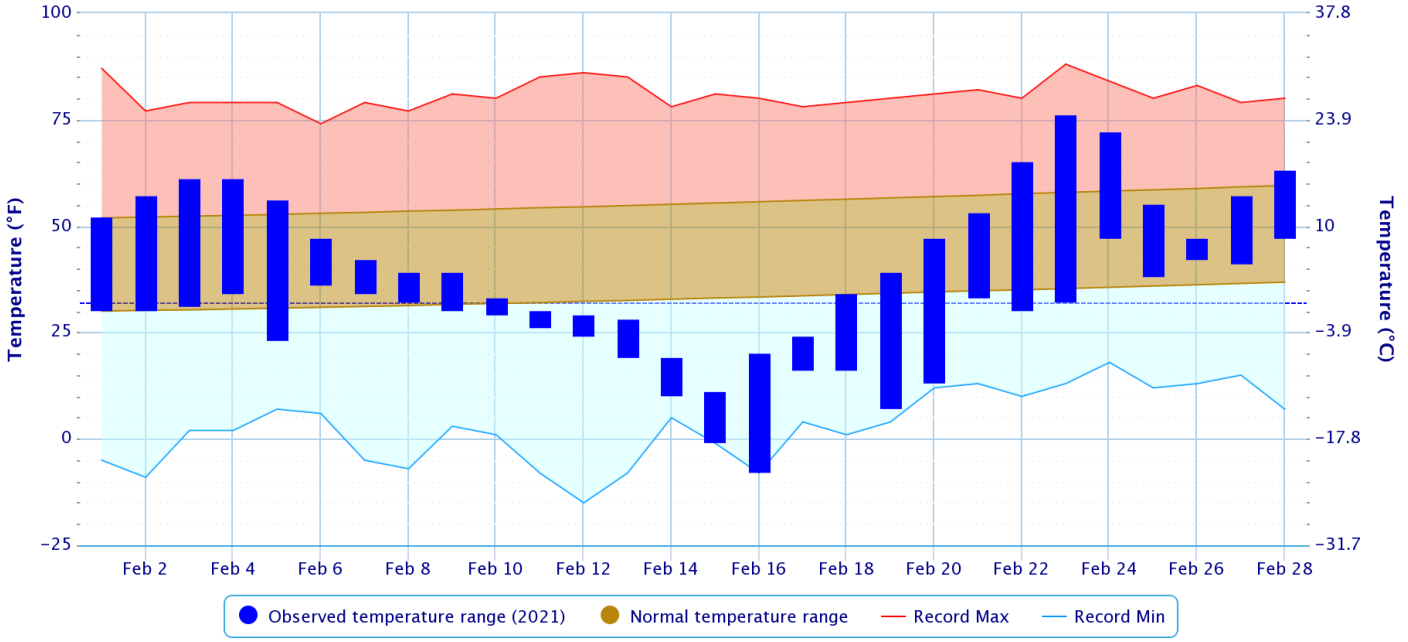
Daily Temperature Data – Fort Smith Area, AR (ThreadEx)

Period of Record – 1882-06-01 to 2021-03-03. Normals period: 1981-2010. Click and drag to zoom chart.



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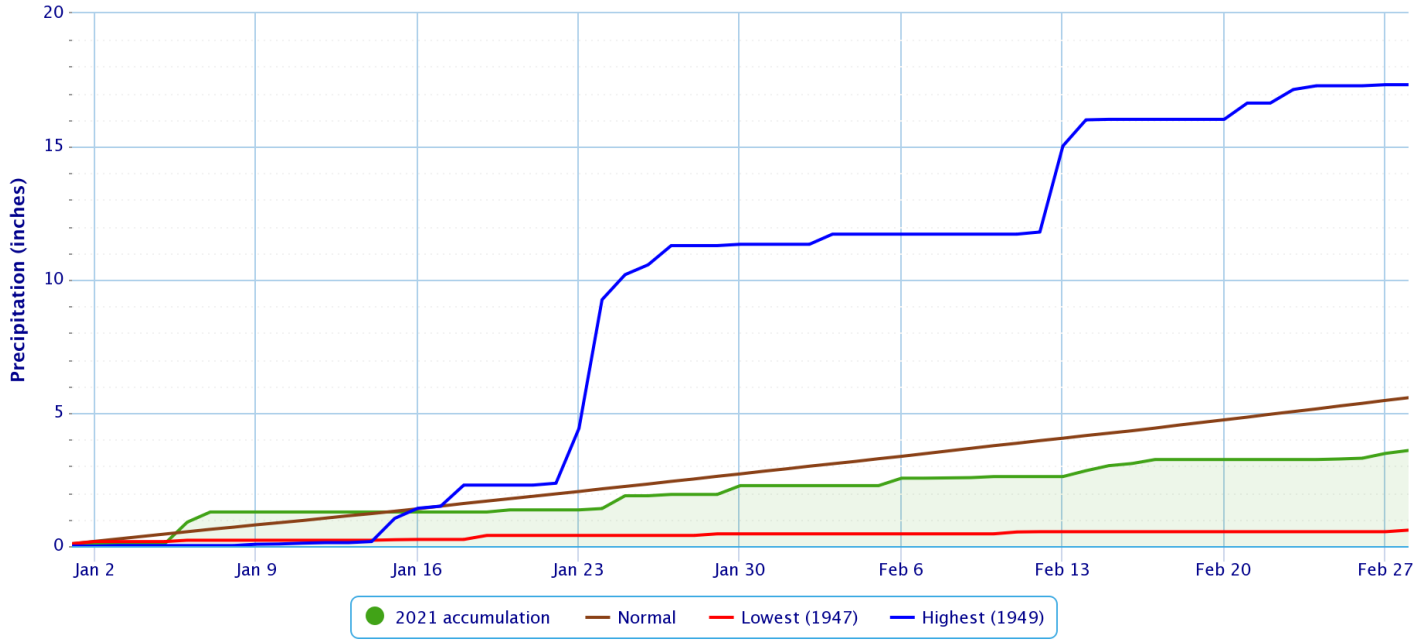
Accumulated Precipitation – Fort Smith Area, AR (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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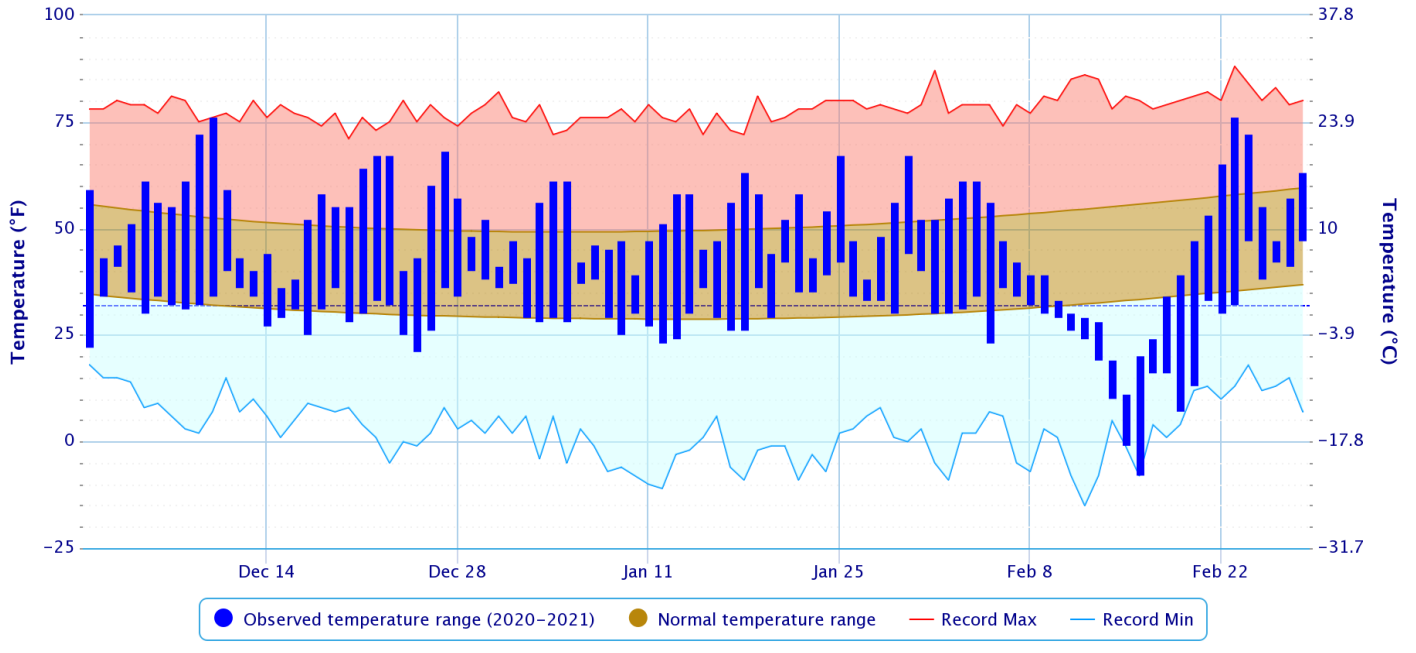
Daily Temperature Data – Fort Smith Area, AR (ThreadEx)

Period of Record – 1882-06-01 to 2021-03-04. Normals period: 1981-2010. Click and drag to zoom chart.



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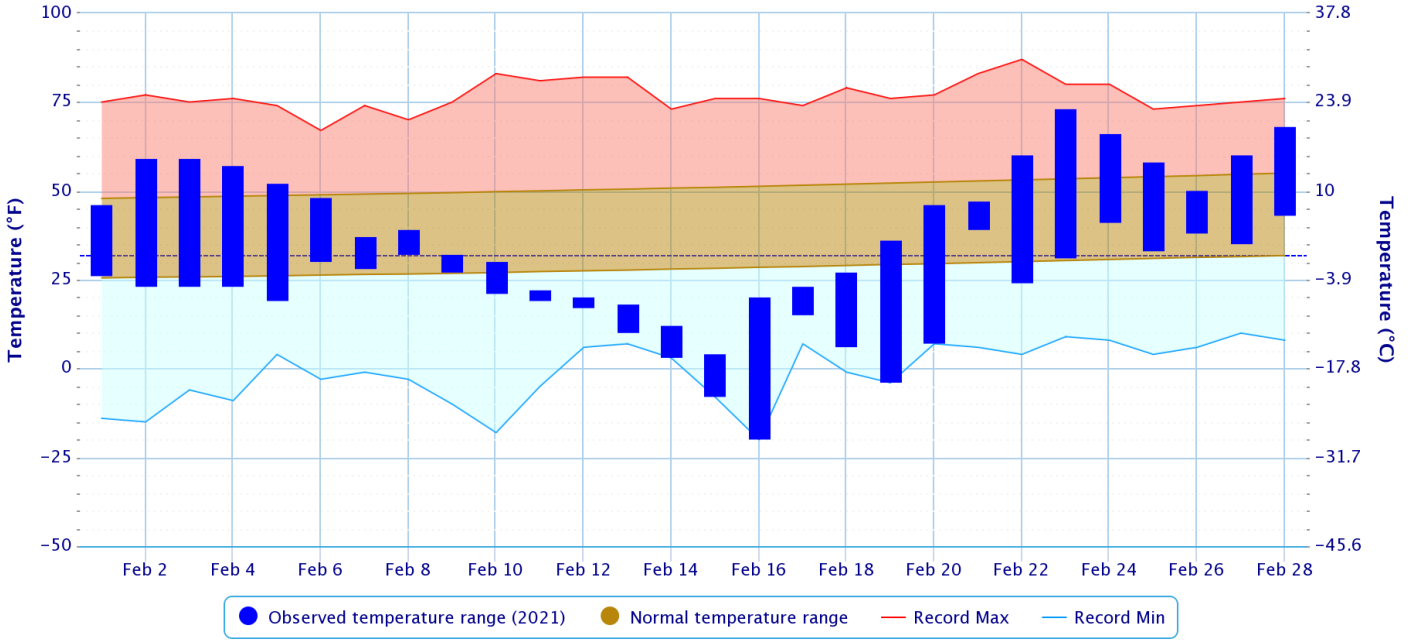
Daily Temperature Data – FAYETTEVILLE DRAKE FIELD, AR

Period of Record – 1949-07-14 to 2021-03-03. Normals period: 1981-2010. Click and drag to zoom chart.



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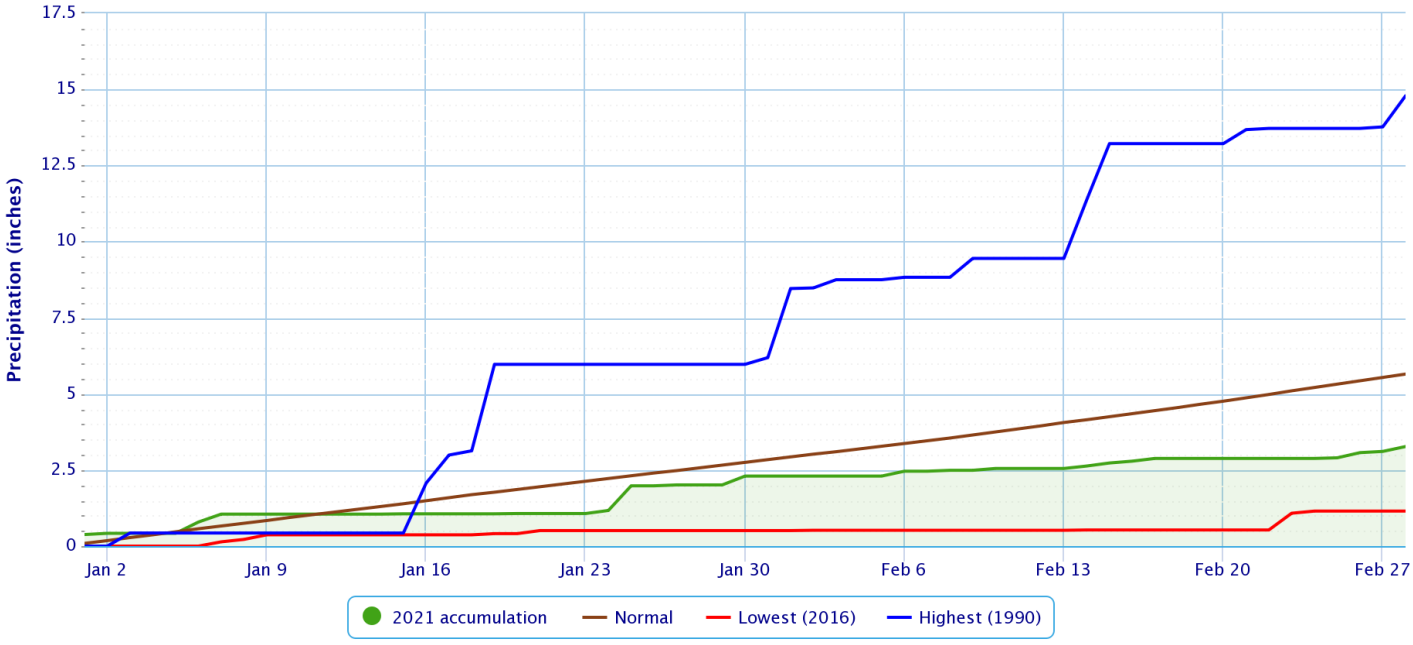
Accumulated Precipitation – FAYETTEVILLE DRAKE FIELD, AR

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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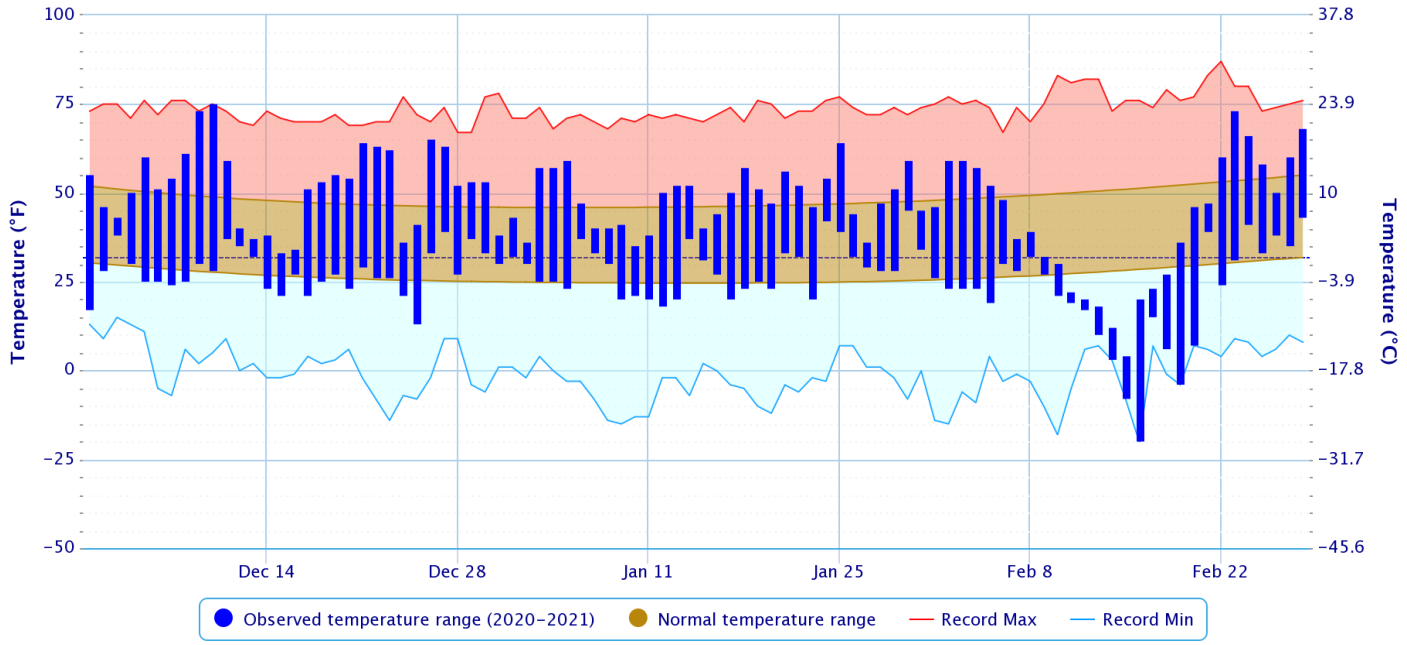
Daily Temperature Data – FAYETTEVILLE DRAKE FIELD, AR

Period of Record – 1949-07-14 to 2021-03-04. Normals period: 1981-2010. Click and drag to zoom chart.



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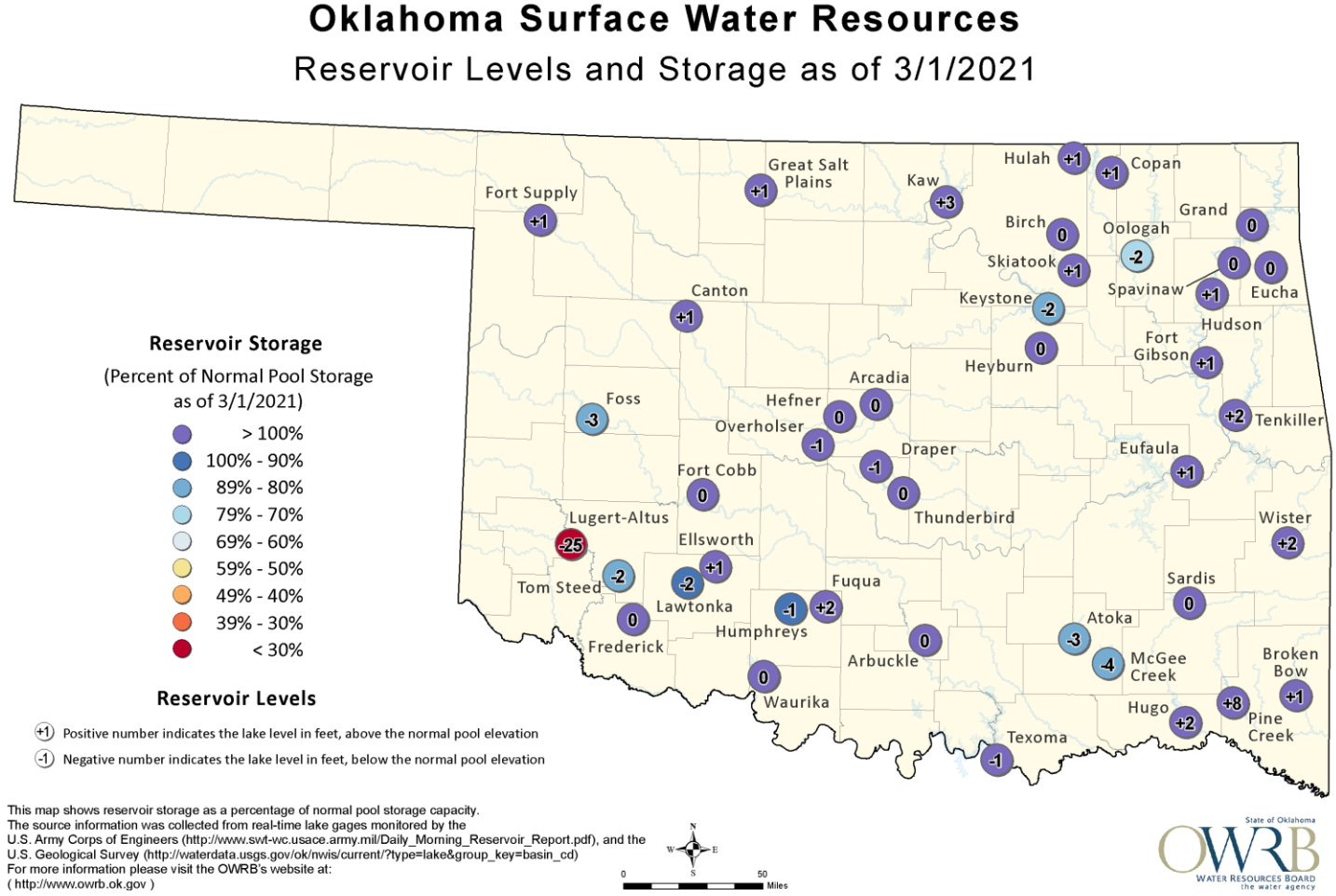
Reservoirs



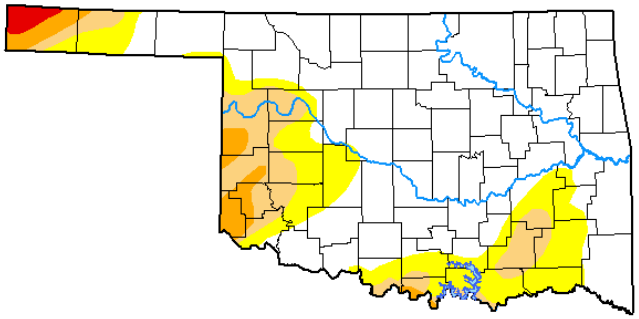
According to the USACE, most of the lakes in the HSA were within ±3% of top of their conservation pools as of 3/01/2021. However, a few lakes were using a higher percentage of their flood control pools: Kaw Lake 6%, Hudson Lake 4%, Tenkiller Lake 4%, Wister Lake 4%, and Lake Eufaula 4%. Two lakes were operating below 3% of the top of their conservation pools: Keystone Lake 88% (for maintenance/survey) and Oologah Lake 86%.

Winter (December-January-February) 2020-21

In Tulsa, OK, Winter 2021 ranked as the 32nd coldest Winter (38.1°F; since records began in 1905-06) and the 39th wettest Winter (6.47", tied 2004-05; since records began in 1888-89). Fort Smith, AR had the 41st coldest Winter (40.3°F; since records began in 1882-83) and the 64th driest Winter (7.68"; since records began in 1882-83). Fayetteville, AR had the 20th coldest (36.6°F) and the 17th driest (6.16") Winter since records began in 1949-50.

Drought

According to the U.S. Drought Monitor (USDM) from March 2, 2021 (Figs. 3a, 3b), Moderate (D1) drought conditions were present in portions of Pittsburg and Pushmataha Counties in eastern OK. Abnormally Dry (but not in drought) conditions were occurring in a portion of Pittsburg, Haskell, Latimer, Pushmataha, and Choctaw Counties in eastern OK. No drought or abnormally dry conditions were present in northwest AR.



U.S. Drought Monitor
Oklahoma

March 2, 2021
(Released Thursday, Mar. 4, 2021)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	69.00	31.00	14.33	4.38	0.86	0.00
Last Week 02-23-2021	69.33	30.67	14.82	4.17	0.23	0.00
3 Months Ago 12-01-2020	42.85	57.15	25.18	7.79	1.45	0.00
Start of Calendar Year 12-29-2020	56.83	43.17	25.21	7.75	1.45	0.00
Start of Water Year 09-29-2020	66.79	33.21	17.71	11.97	1.55	0.00
One Year Ago 03-03-2020	85.63	14.37	4.66	0.84	0.00	0.00

Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
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

Author:
Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

Fig. 3a. Drought Monitor for Oklahoma

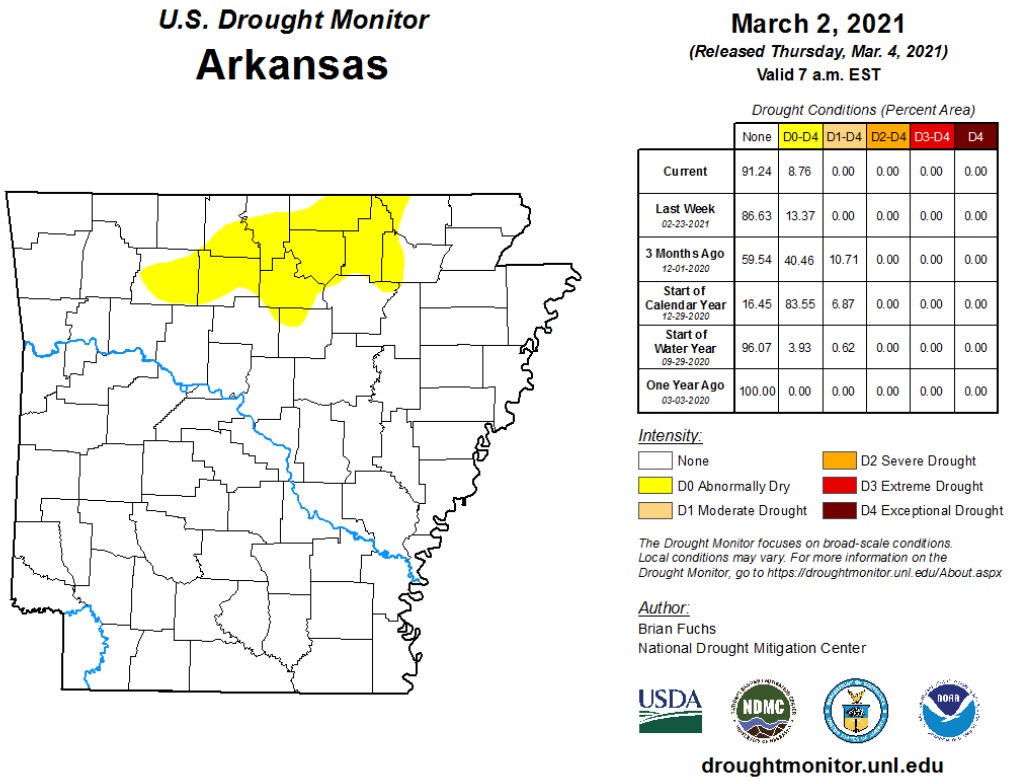


Fig. 3b. Drought Monitor for Arkansas

Outlooks

The Climate Prediction Center (CPC) outlook for March 2021 (issued February 28, 2021) indicates an enhanced chance for above normal temperatures and an equal chance for above, near, and below median precipitation across all of eastern OK and northwest AR. This outlook was largely based on dynamical model output combined with the influence from La Niña and the Madden-Julian Oscillation (MJO).

For the 3-month period March-April-May 2021, CPC is forecasting an enhanced chance for above normal temperatures across all of eastern OK and northwest AR, a slightly enhanced chance for below median precipitation across eastern OK, and an equal chance for above, near, and below median precipitation across northwest AR (outlook issued February 18, 2021). This outlook is based strongly on La Niña impacts, as well as incorporating both statistical and dynamical forecast tools. According to CPC, the combined effect of the ocean-atmosphere system is consistent with La Niña conditions. There is a 60% chance of La Niña transitioning to ENSO-neutral during late spring (April through June). CPC continues the La Niña Advisory.

Summary of Heavy Precipitation Events Daily quality-controlled rainfall maps can be found at: http://water.weather.gov/precip/index.php?location_type=wfo&location_name=tsa

A strong storm system translated into the Southern Plains from the Southern Rockies on the 14th and 15th. Arctic air had spread into eastern OK and northwest AR on the 8th, and gradually deepened across the region. Precipitation began as freezing drizzle across the area on the 8th, with ice accumulation up to a quarter of an inch reported in some areas as the freezing drizzle persisted for 24 to 48 hours. As the cold air deepened, the freezing drizzle became periods of snow flurries and light snow. This was especially true in areas downwind of some of the lakes in northeast OK and northwest AR. Lake effect snow produced up to 1.5” of snow in some areas, a rare occurrence indeed. Heavy snow began across the area with the approach of the main storm system during the early morning hours of the 14th. Several rounds of widespread heavy snow produced 4”-8” of snow accumulation (Fig. 4) as the snow continued into the early afternoon hours of the 15th in some areas as the storm system moved away from the region. All of eastern OK and northwest AR received snow, with the heaviest snow falling in a swath along and south of I-44, and north of I-40 across portions of Okfuskee, Creek, Okmulgee, Tulsa, Wagoner, Rogers, Mayes, Cherokee, and Delaware Counties. In northwest AR, the highest snow accumulations were in Franklin County, and portions of Washington, Crawford, and Madison

Counties. Liquid equivalent values were less than half an inch for this event, with many locations receiving less than a quarter of an inch.

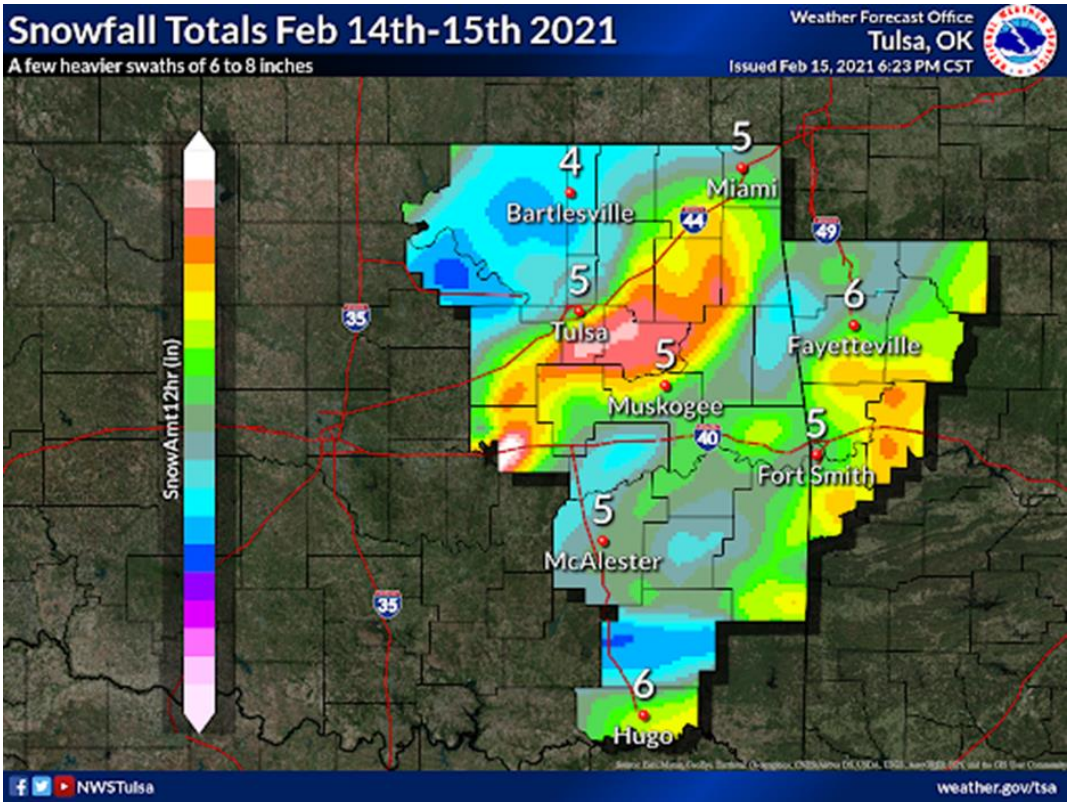


Fig. 4. Estimated snowfall totals based on measurements received for the Feb. 14-15, 2021 winter storm.

Another strong storm system on the heels of the first translated along a similar path to the winter storm that impacted the area on February 14th-15th, moving into the Southern Plains from the Southern Rockies on the 16th. Precipitation developed across portions of eastern Oklahoma during the early evening of the 16th and became widespread across the region during the evening and overnight. Due to the deep arctic air that remained entrenched across the region, the precipitation fell as snow. A general 3"-5" snowfall occurred across much of eastern OK and across portions of northwest AR. A band of snow persisted across northeast OK into the morning hours of the 17th, and snow persisted across far southeast OK and west central AR into the afternoon of the 17th. Liquid equivalent values were generally one tenth to around a quarter of an inch.

Snow-to-liquid ratios were generally in the 15:1 to 20:1 range for both snow events, resulting in a dry snow. No flooding occurred during melting. Both winter storms occurred during an extended period of extreme cold (Fig. 14, 15), which was also impacting a large part of the United States (Figs. 5, 6, 16). The power grid suffered, resulting in some rolling black outs. Power generation from USACE dams in eastern OK and northwest AR helped to provide additional power to the grid during this time (Fig. 7). The 15th was coldest day for maximum temperatures (Figs. 8, 9), with the coldest minimum temperatures occurring on the morning of the 16th (Figs. 10, 11). Tulsa had 10 consecutive days below freezing, tying for 5th highest consecutive number of days below freezing. Bartlesville tied 1983 for the record number of days below freezing with 12 days. McAlester had 10 consecutive days below freezing, ranking 2nd highest consecutive number of days below freezing. Fayetteville Drake Field was at or below freezing for 10 consecutive days, the 3rd highest consecutive number of days below freezing since records began in 1950. Fort Smith was at or below freezing for 7 consecutive days, tying as the 6th highest consecutive number of days below freezing. According to the Oklahoma Mesonet, stations in eastern OK recorded temperatures at or below freezing for generally 210 to 310 consecutive hours (Figs. 12, 13) as of 12:40 pm on the 19th. Some of these sites logged a few more hours on the 19th as temperatures warmed above freezing during the afternoon hours. Numerous daily temperature records (all in degrees Fahrenheit) were set from the 10th through the 20th:

Tulsa (Tulsa County in northeast OK):
Period of record: 1905-01-06 to 2021-02-20
Coldest Maximum Daily Temperature Records
2/10 21° 2021 (old record 23° in 1986)
2/11 21° 2021 (tied old record 21° in 1981)
2/14 12° 2021 (old record 23° 1951)
2/15 5° 2021 (old record 17° 1909) - Coldest maximum temperature on record in the month of February
2/16 14° 2021 (old record 16° in 1979)
Coldest Minimum Daily Temperature Records
2/15 -7° 2021 (old record 3° 1905)
2/16 -13° 2021 (old record 3° 1920)
2/18 2° 2021 (tied old record 1936)
2/19 1° 2021 (old record 9° 1978)

Bartlesville (Washington County in northeast OK):
Period of record: 1920-01-01 to 2021-02-20
Coldest Maximum Daily Temperature Records
2/11 19° 2021 (ties record 19° in 1988)
2/12 16° 2021 (old record 27° in 1995)
2/13 19° 2021 (ties old record 19° in 1948)
2/14 9° 2021 (old record 20° in 1951)
2/15 5° 2021 (old record 19° in 1936) - Coldest maximum temperature on record in the month of February and ties with Dec. 22, 1989 and Dec. 24 1983 as the coldest maximum temperature on record for any day of the year.
2/16 11° 2021 (old record 18° in 1936)
Coldest Minimum Daily Temperature Records
2/13 4° 2021 (old record 5° in 1958)
2/14 0° 2021 (tied old record 0° in 1936)
2/15 -9° 2021 (old record 6° in 1936)
2/16 -18° 2021 (old record 3° in 1979)
2/18 -1° 2021 (old record 0° in 1942, 1936)
2/19 -3° 2021 (old record 4° in 1942)
2/20 7° 2021 (old record 12° in 1938)

McAlester (Pittsburg County in southeast OK):
Period of record: 1953-06-18 to 2021-02-20
Coldest Maximum Daily Temperature Records
2/10 26° 2021 (ties record 26° in 1986)
2/11 22° 2021 (old record 23° in 1981)
2/12 20° 2021 (old record 28° in 1958)
2/13 20° 2021 (old record 34° in 1968)
2/14 17° 2021 (old record 27° in 2007)
2/15 9° 2021 (old record 25° in 2007) - Coldest maximum temperature on record in February.
2/16 20° 2021 (old record 22° in 1979)
Coldest Minimum Daily Temperature Records
2/14 5° 2021 (old record 19° in 1960)
2/15 -2° 2021 (old record 17° in 2007)
2/16 -11° 2021 (old record 8° in 2007) - Coldest minimum temperature on record in February.
2/20 17° 2021 (old record 20° in 1978, 1970, 1967)

Fort Smith (Sebastian County in west central AR):
Period of record: 1882-06-01 to 2021-02-20
Coldest Maximum Daily Temperature Records
2/14 19° 2021 (old record 32° in 1936)
2/15 11° 2021 (old record 24° in 1909)
2/16 20° 2021 (old record 22° in 1903)
Coldest Minimum Daily Temperature Records
2/15 -1° 2021 (old record 10° in 1905)
2/16 -8° 2021 (old record 10° in 1903)
2/20 13° 2021 (old record 16° in 1978)

Fayetteville Drake Field (Washington County in northwest AR):
Period of record: 1949-07-14 to 2021-02-20
There is another site in Washington County in northwest AR, the Fayetteville Experimental Station. It's records prior to 2021 are noted in blue for reference. Period of record for this site is 1890-05-20-present, but we will not receive all of the data for Feb. 2021 until after the end of the month.
Coldest Maximum Daily Temperature Records
2/12 20° 2021 (old record 24° in 1958) (-2° 1899)
2/13 18° 2021 (old record 35° in 2012) (3° 1905)
2/14 12° 2021 (old record 26° in 2007) (16° 1905)
2/15 4° 2021 (old record 23° in 2007) - coldest maximum temperature on record in the month of February at Drake Field (25° 2007)
2/16 20° 2021 (old record 23° in 1958) (19° 1903)
Coldest Minimum Daily Temperature Records
2/14 3° 2021 (old record 11° in 1960) (-14° 1905)
2/15 -8° 2021 (old record 10° in 1963) (0° 1905)
2/16 -20° 2021 (old record 7° in 2007, 1958) - coldest minimum temperature on record in the month of February and coldest maximum temperature on record for any day of the year at Drake Field only (the record coldest minimum temperature for any day at Fayetteville Exp. Station is -24° on Feb. 12, 1899) (2° 1903)
2/19 -4° 2021 (old record -1° 1978) (-2° 1978)
2/20 7° 2021 (old record 15° 1978) (6° 1921)

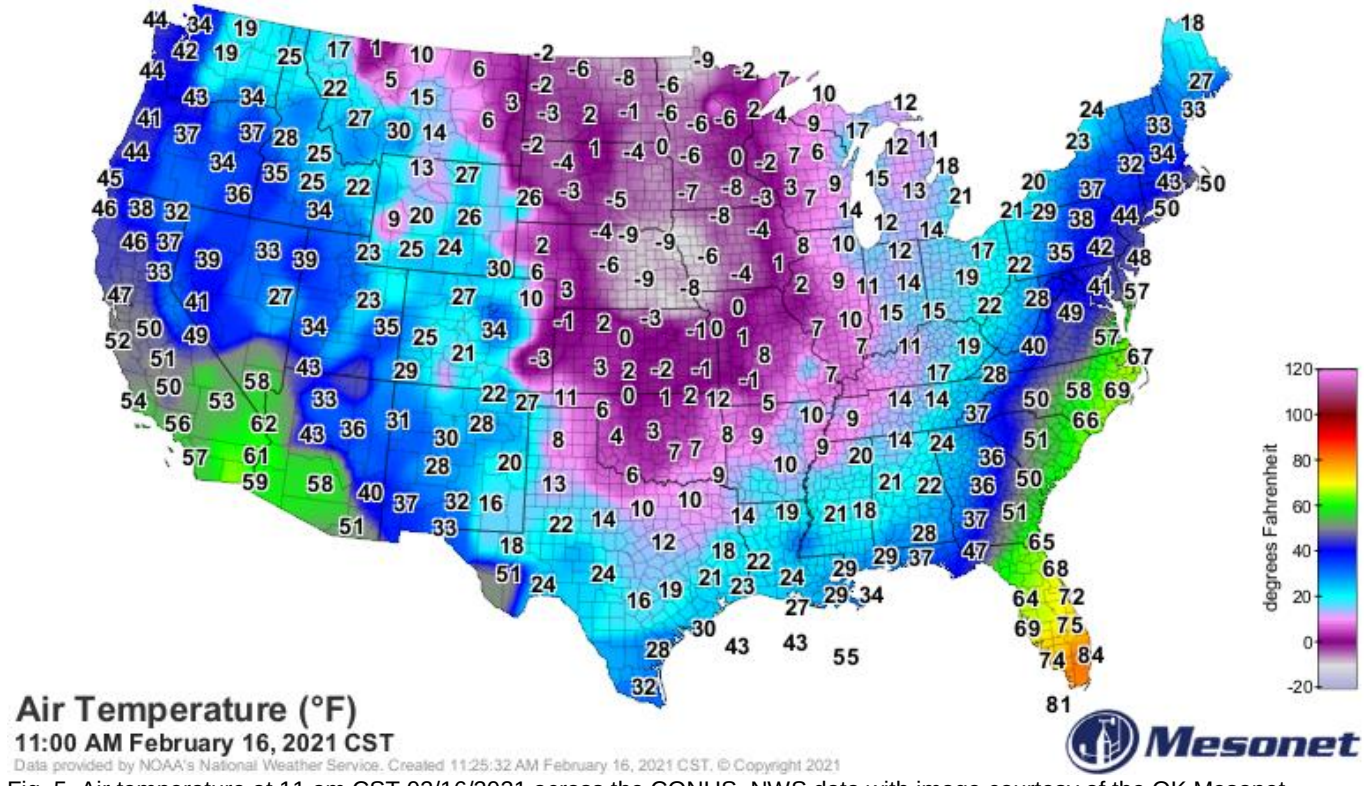


Fig. 5. Air temperature at 11 am CST 02/16/2021 across the CONUS. NWS data with image courtesy of the OK Mesonet.

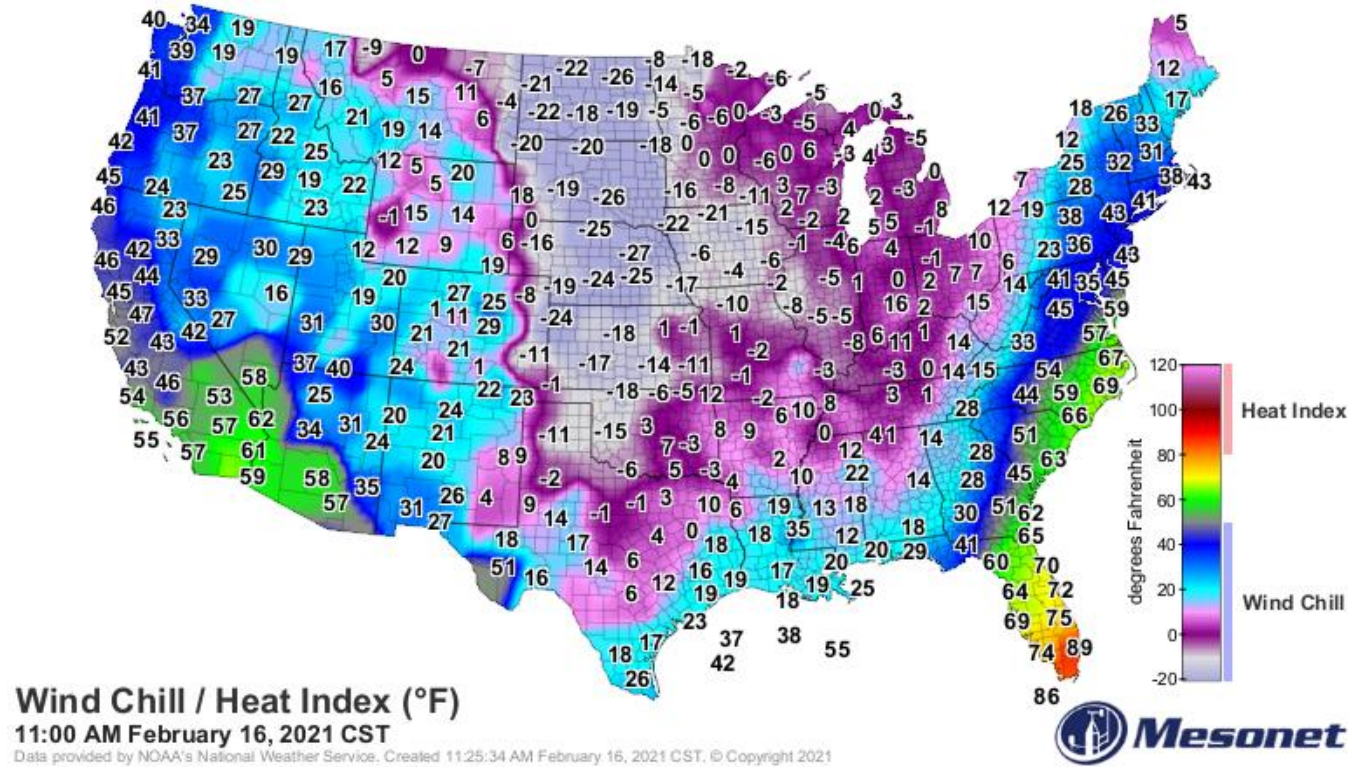


Fig. 6. Wind chill temperature at 11 am CST 02/16/2021 across the CONUS. NWS data with image courtesy of the OK Mesonet.

Tulsa District, U.S. Army Corps of Engineers
27 mins ·

*** EMERGENCY POWER UPDATE ***

Our hydroelectric power plants are currently helping in key areas across the region to assist with the current emergency power demands.

Tulsa District's power plants are used to supplement the power grid and help prevent rolling blackouts during power emergencies and times of peak demand.

The Federal hydropower units we manage and operate include Keystone Lake, Fort Gibson Lake, Eufaula Lake, Tenkiller Lake, Webber Falls Lock and Dam, Robert S. Kerr Lock and Dam, Lake Texoma and Broken Bow Lake.

All of our available hydropower generators at these reservoirs have been made available to the Southwestern Power Administration (SWPA) for continual operation (not just peaking operations), as long as there is a declared power emergency.

Fig. 7. Facebook post by USACE Tulsa District on 02/17/2021 at 10:30 am CST.

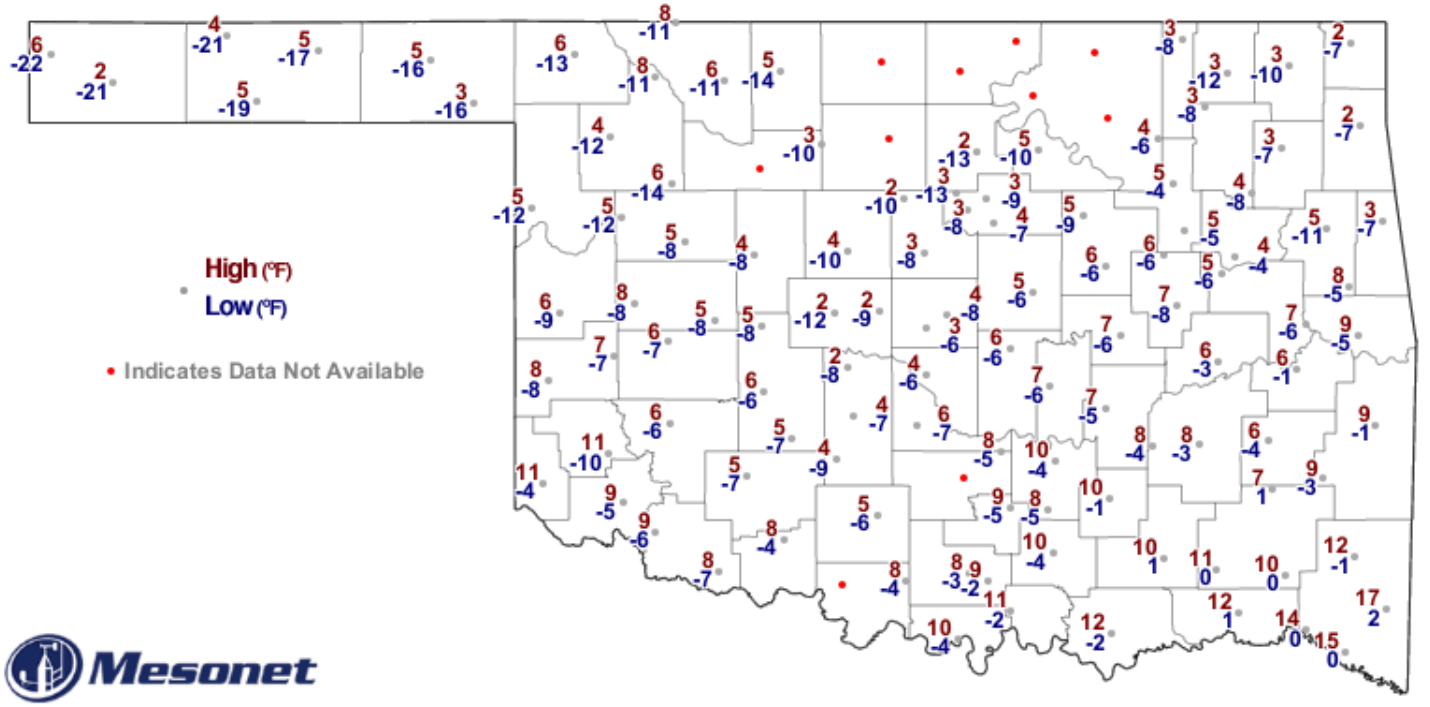


Fig. 8. Maximum and minimum Air Temperature at the Oklahoma Mesonet stations February 15, 2021.

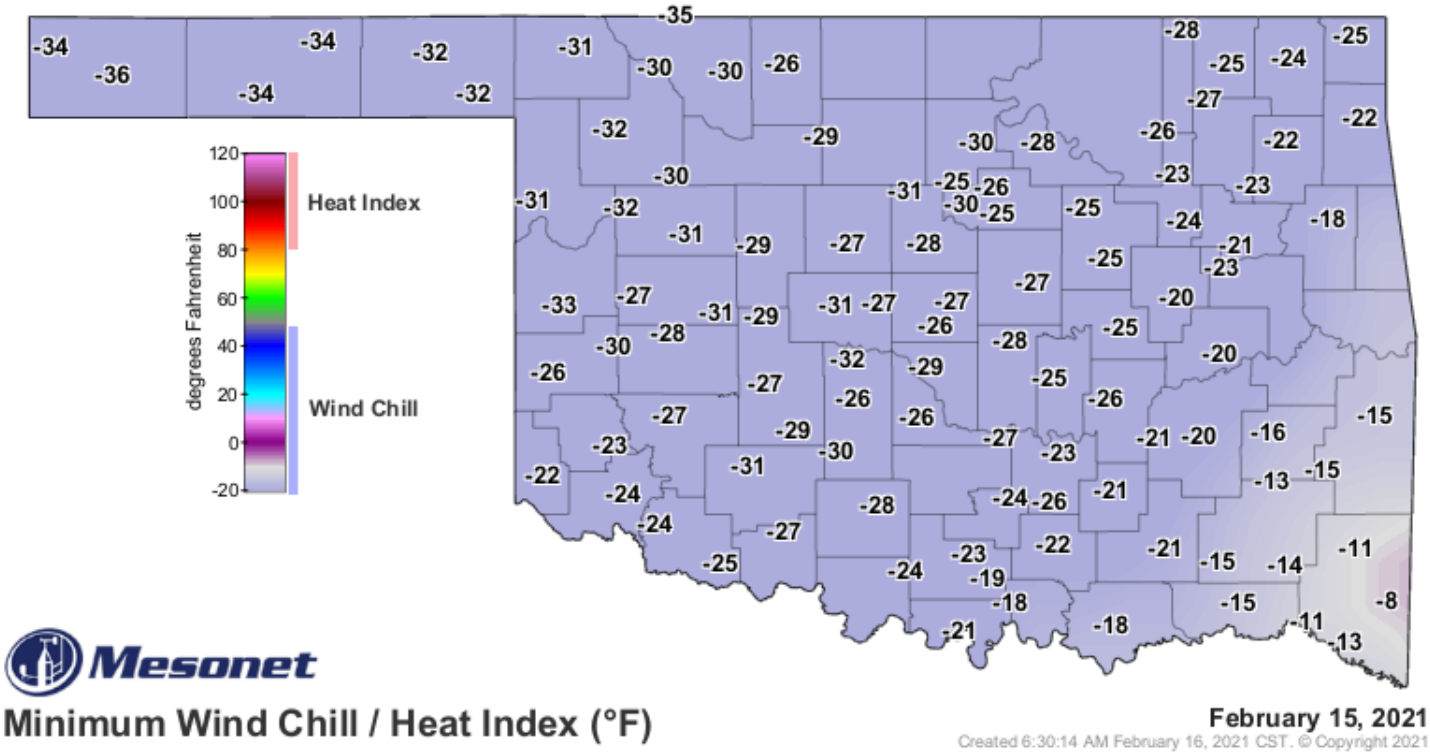


Fig. 9. Minimum wind chill temperatures at the Oklahoma Mesonet Stations for February 15, 2021.

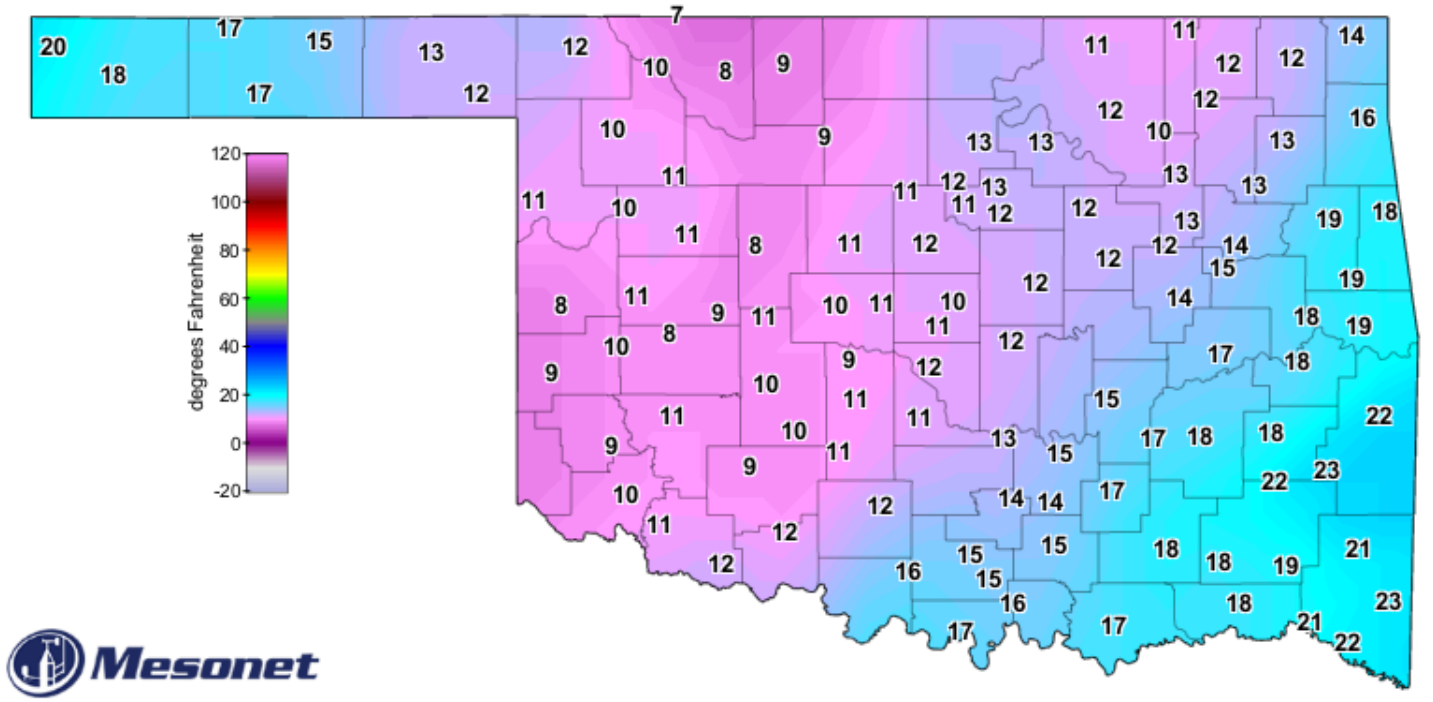


Fig. 10. Maximum Air Temperature at the Oklahoma Mesonet stations February 16, 2021.

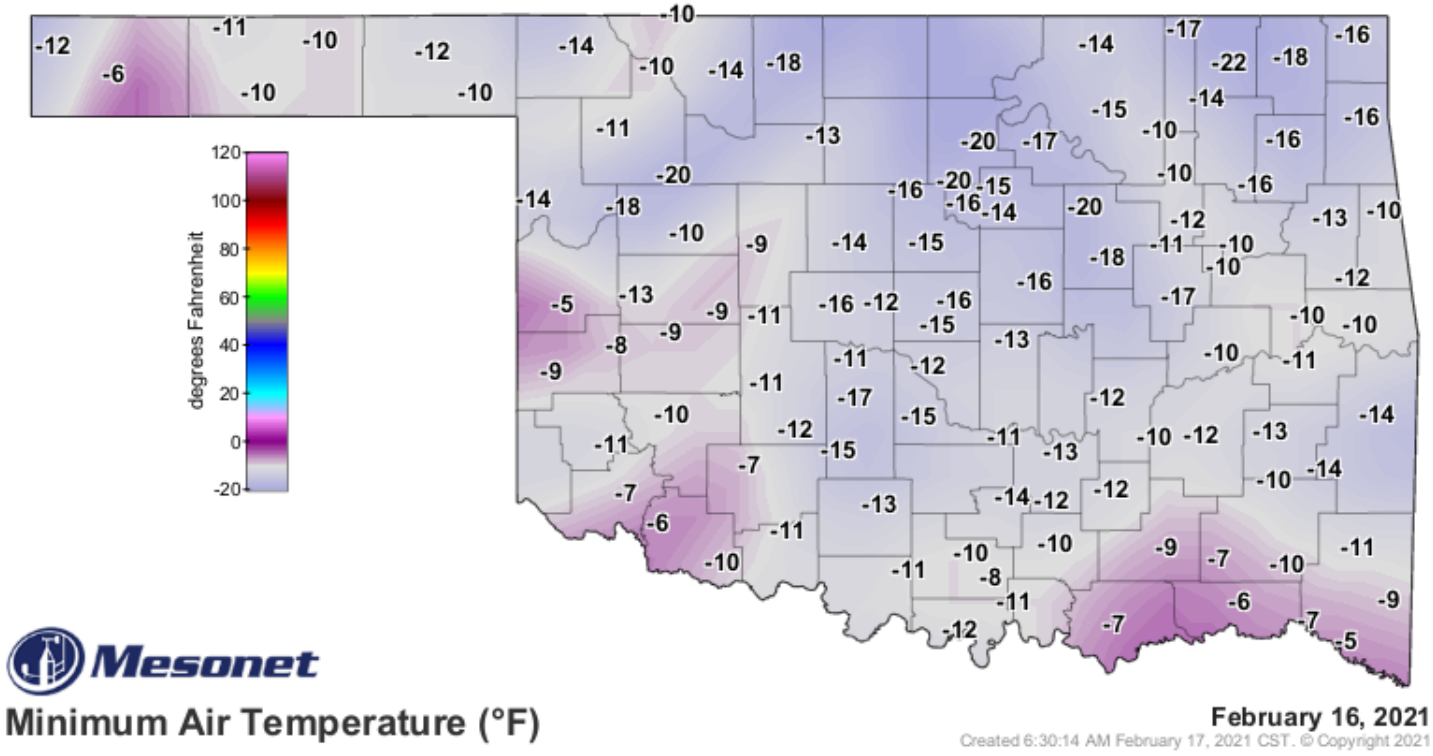


Fig. 11. Minimum Air Temperature at the Oklahoma Mesonet stations February 16, 2021.

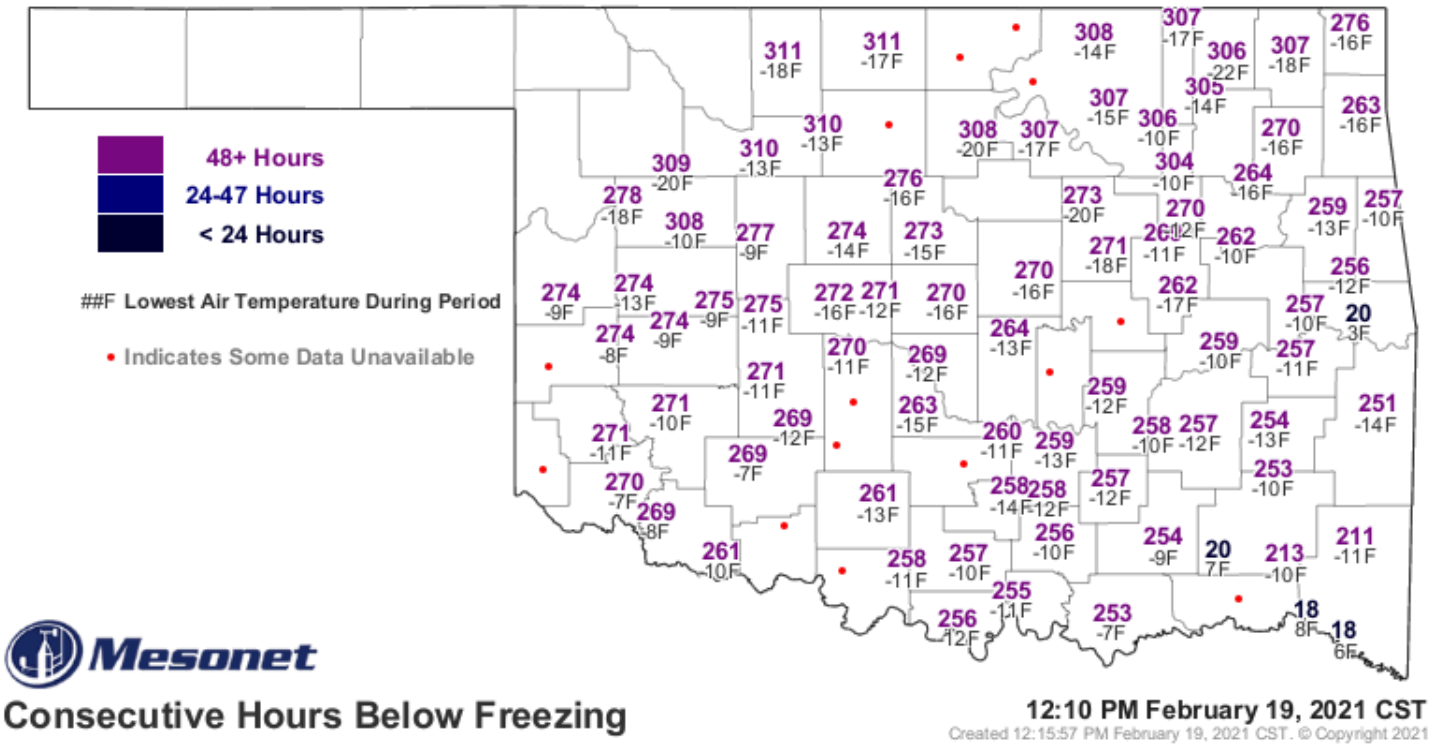


Fig. 12. Consecutive number of hours below freezing at the Oklahoma Mesonet stations as of 12:10 pm 02/19/2021.

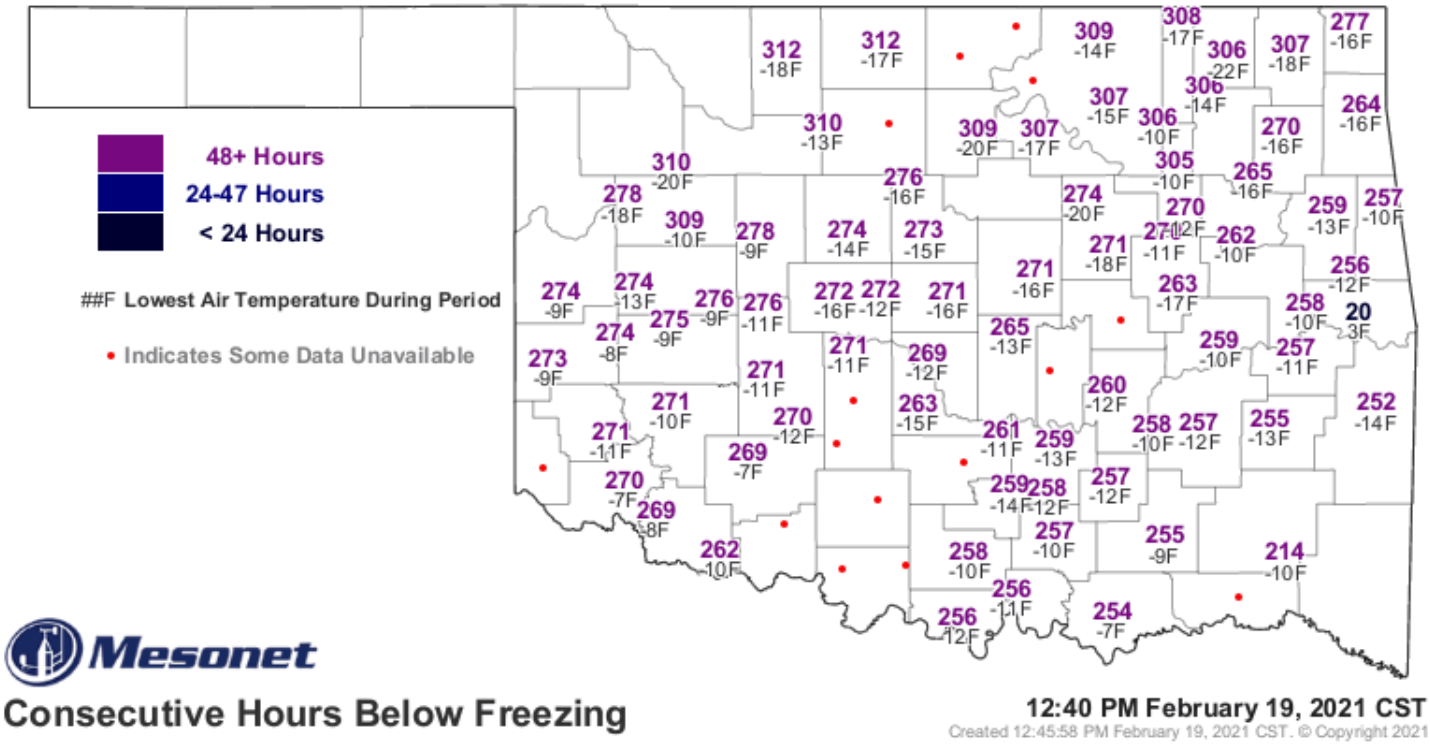


Fig. 13. Consecutive number of hours below freezing at the Oklahoma Mesonet stations as of 12:40 pm 02/19/2021.

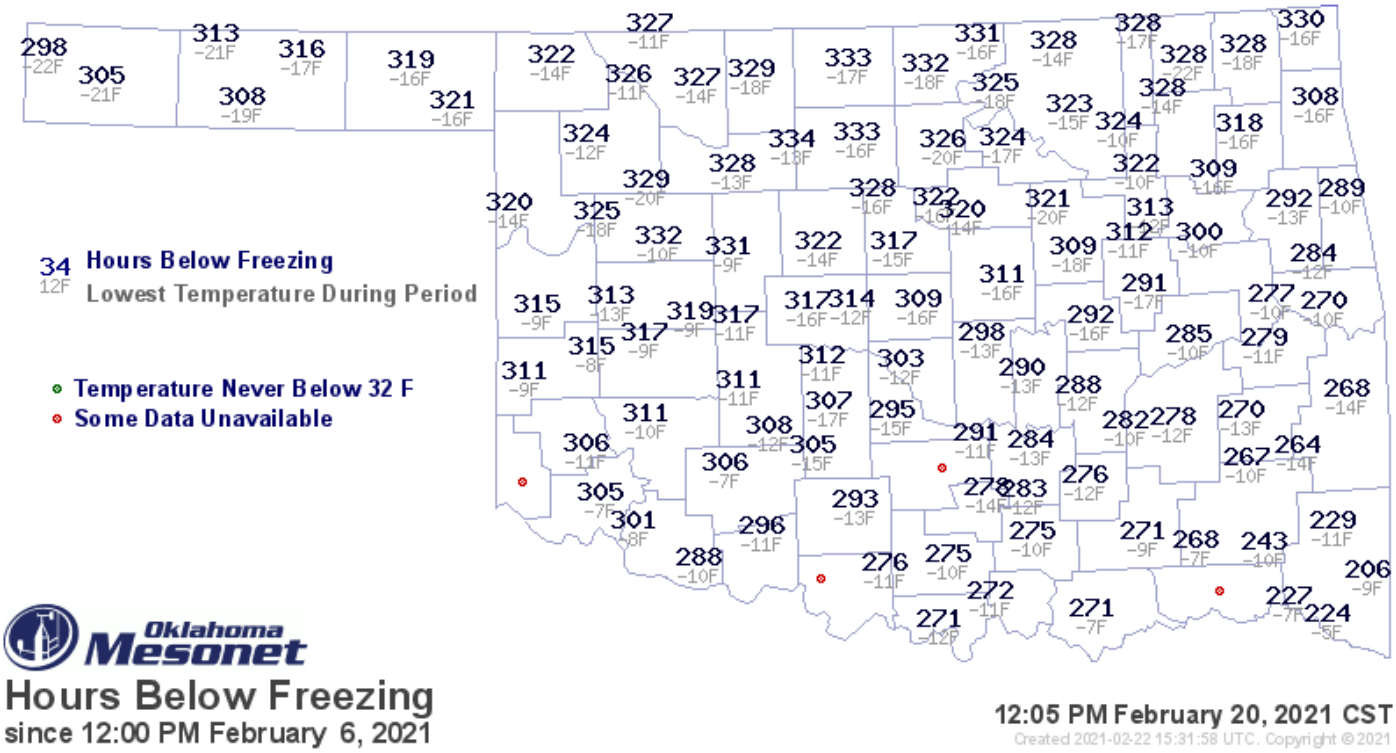


Fig. 14. Total number of hours below freezing (not consecutive) from noon 02/06/2021 through 12:05 pm 02/20/2021.

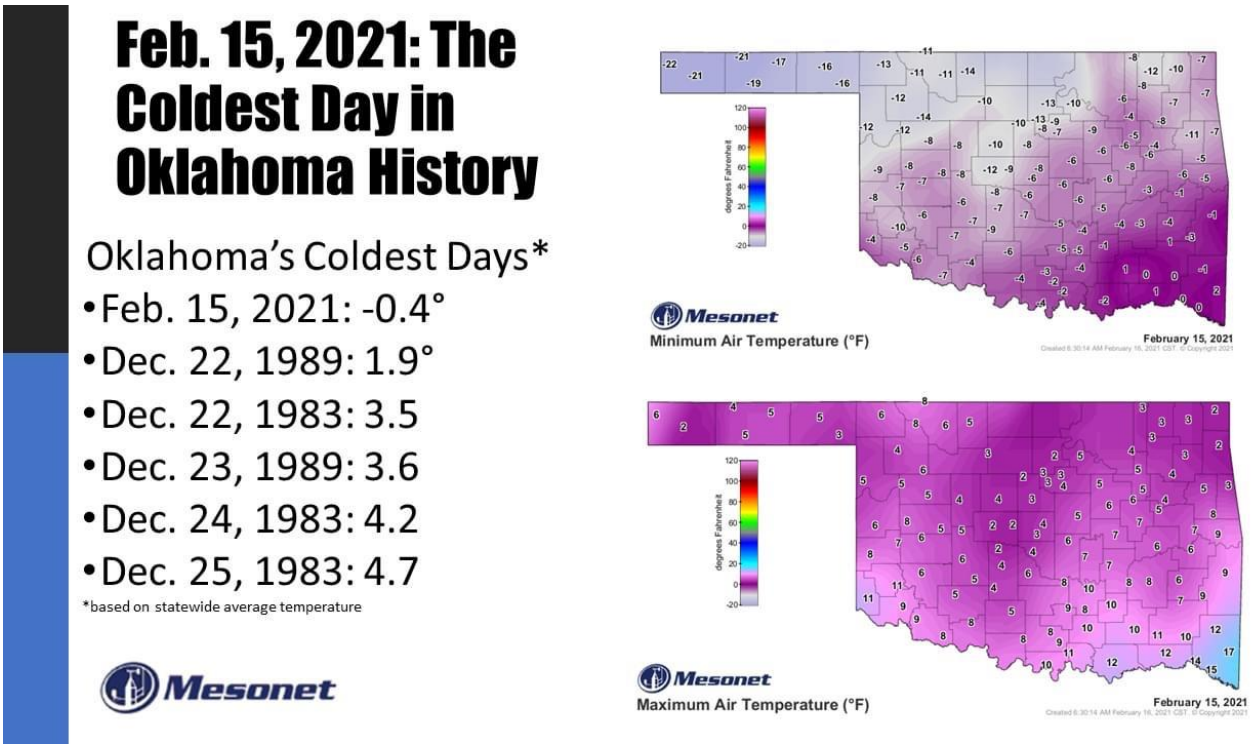


Fig. 15. Image courtesy of the Oklahoma Mesonet listing top 6 coldest days since 1915 statewide for Oklahoma.

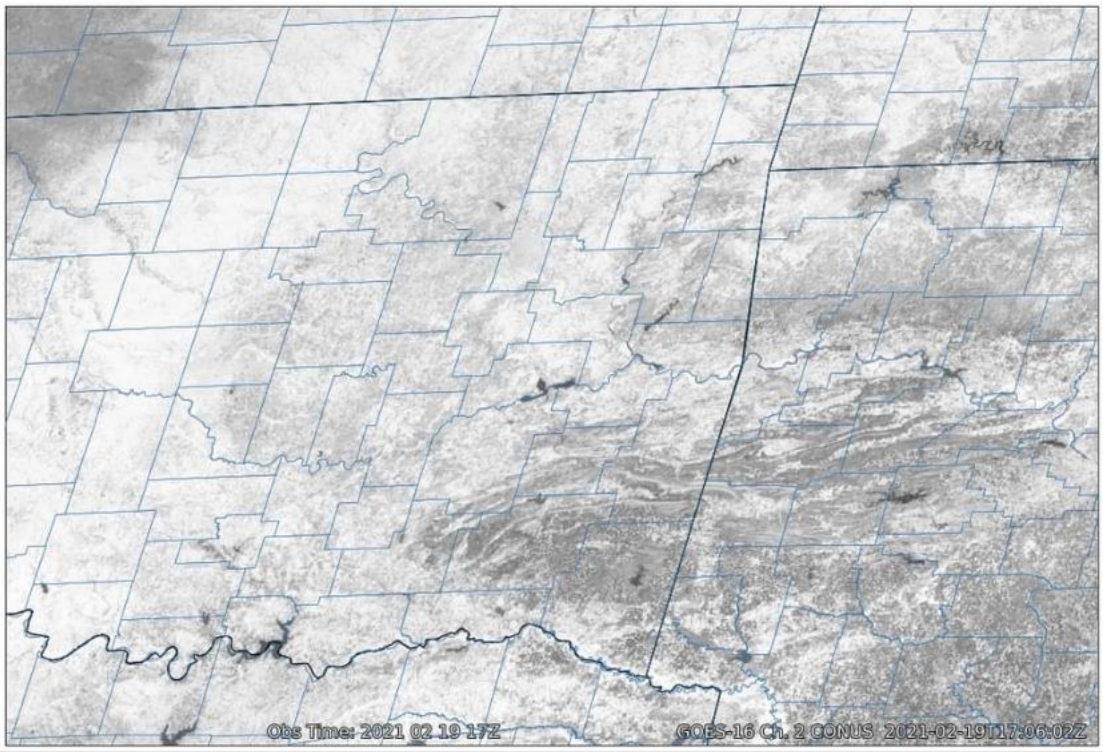


Fig. 16. Visible satellite imagery from 11:06 am CST 02/19/2021 showing widespread snow (white) across eastern OK and northwest AR, as well as the surrounding region.

On February 24, 2021, FEMA announced a Major Disaster Declaration pertaining to the Oklahoma Severe Winter Storms (DR-4587-OK) with an incident period start date of February 8, 2021 and incident end date of February 20, 2021. All 77 counties were approved for public assistance and (as of this writing) 16 counties were approved for individual assistance (Fig. 17). As of the time of this writing, no disaster had been declared for Arkansas.

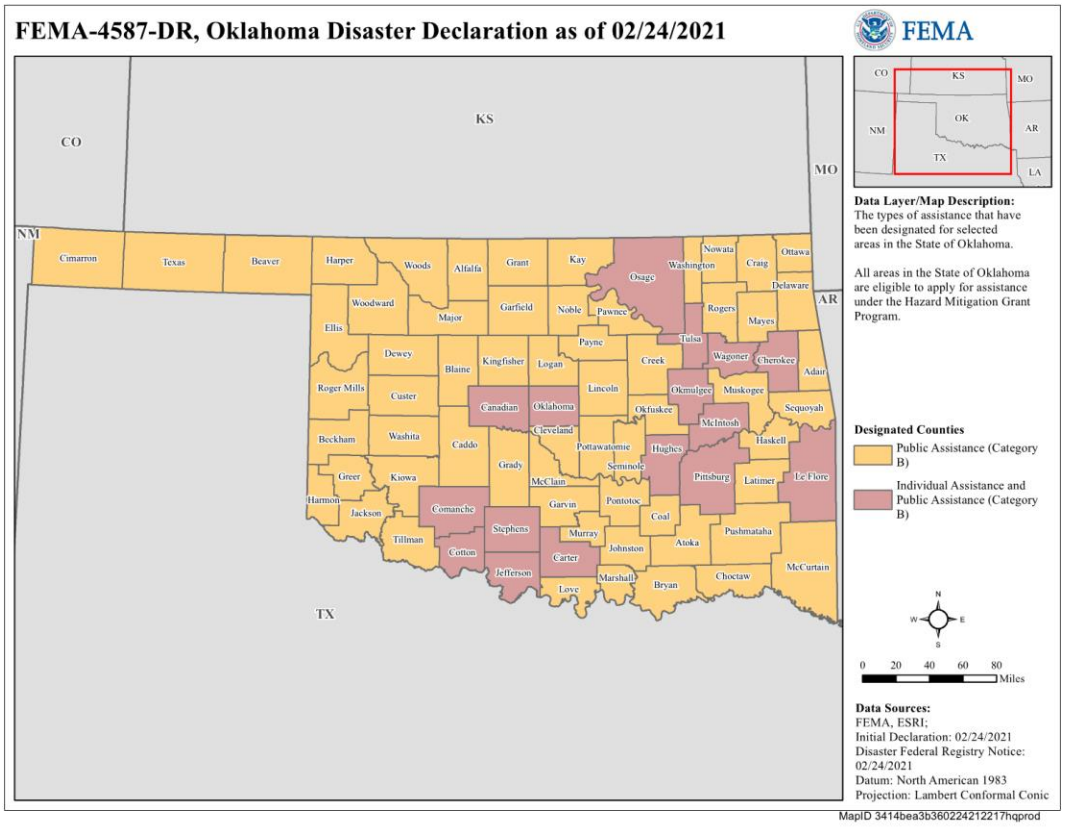
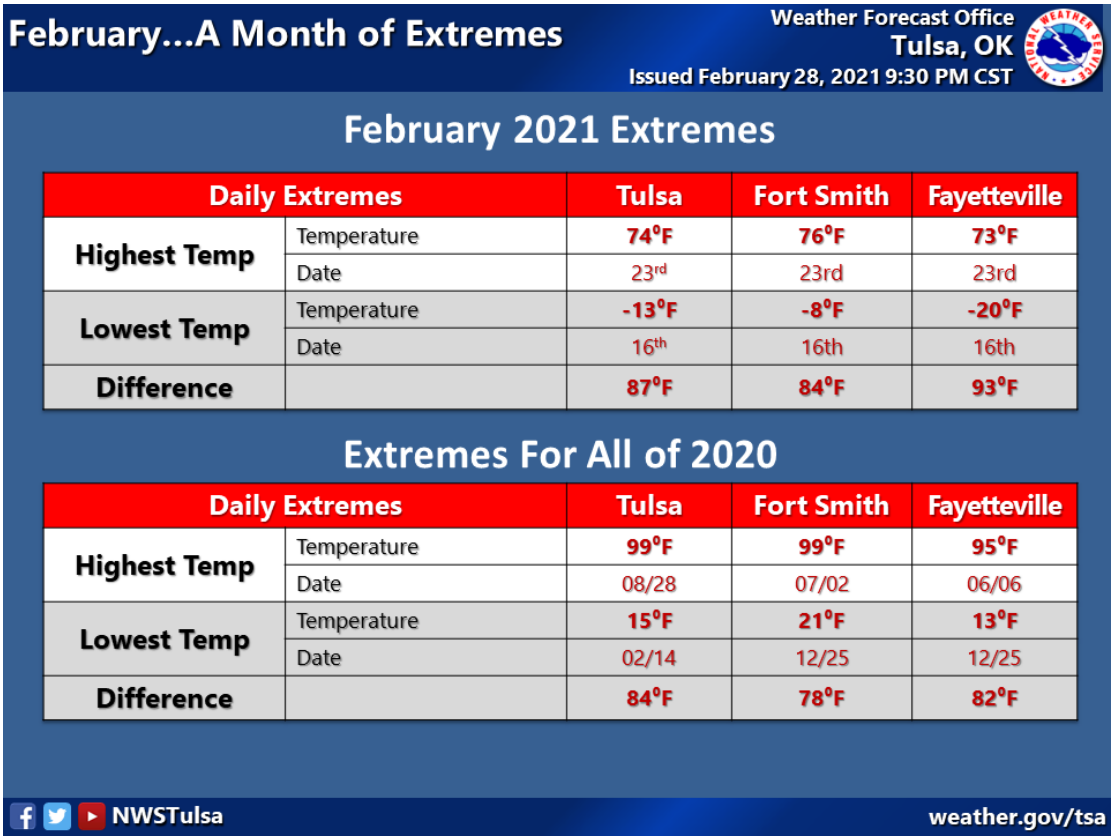


Fig. 17. Map of DR-4587-OK.

Just one week later on the 23rd, temperatures soared into the mid-70s across eastern OK and northwest AR, resulting in a temperature swing of 80°-95°F in one week for most of the area (Fig. 18)!



February...A Month of Extremes

Weather Forecast Office
Tulsa, OK
Issued February 28, 2021 9:30 PM CST

February 2021 Extremes

Daily Extremes		Tulsa	Fort Smith	Fayetteville
Highest Temp	Temperature	74°F	76°F	73°F
	Date	23rd	23rd	23rd
Lowest Temp	Temperature	-13°F	-8°F	-20°F
	Date	16th	16th	16th
Difference		87°F	84°F	93°F

Extremes For All of 2020

Daily Extremes		Tulsa	Fort Smith	Fayetteville
Highest Temp	Temperature	99°F	99°F	95°F
	Date	08/28	07/02	06/06
Lowest Temp	Temperature	15°F	21°F	13°F
	Date	02/14	12/25	12/25
Difference		84°F	78°F	82°F

NWSTulsa weather.gov/tsa

Fig. 18. Highest and lowest temperatures, and their difference, in February 2021 and the entire year of 2020 at Tulsa, Fort Smith, and Fayetteville.

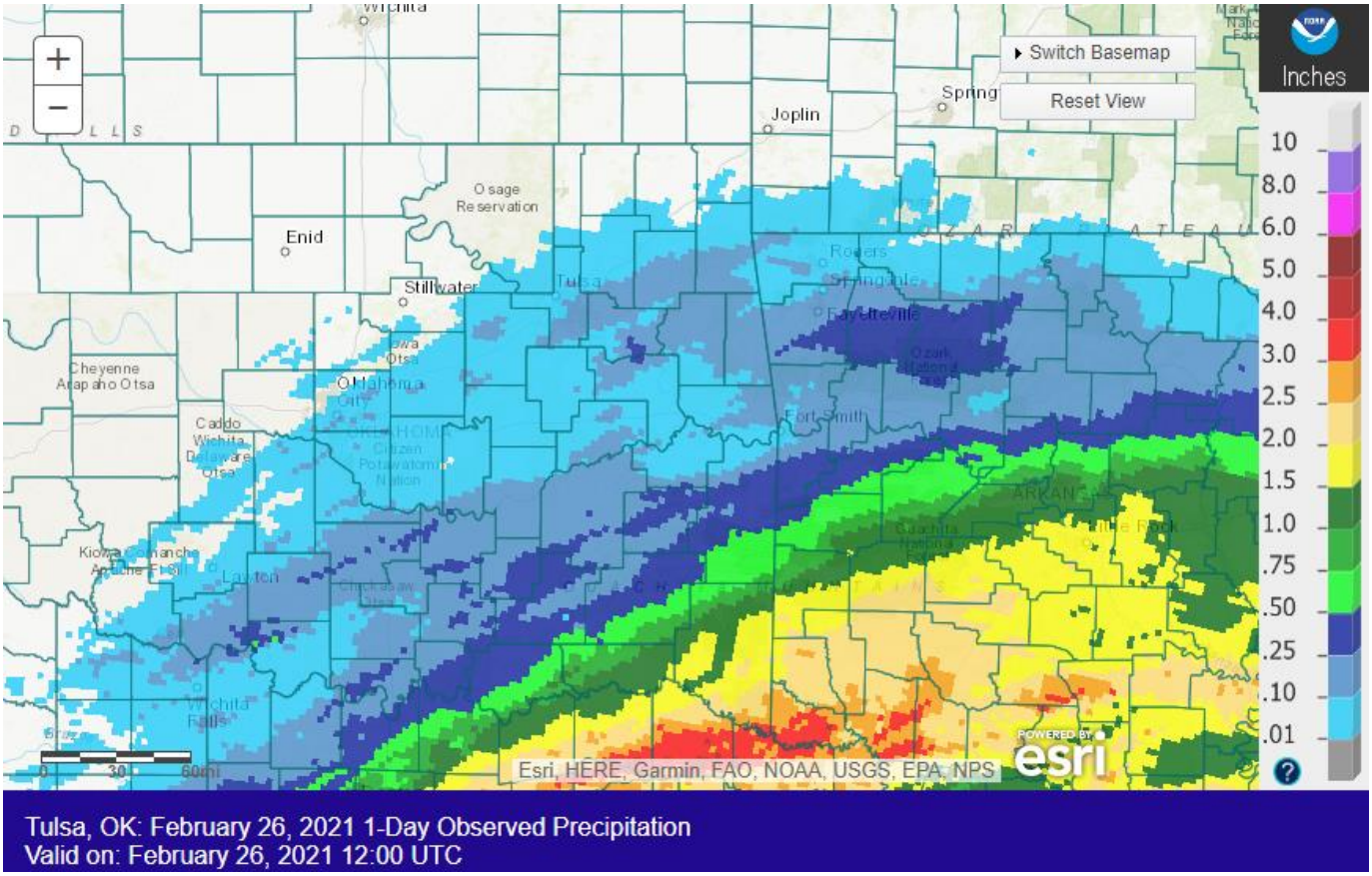


Fig. 19. 24-hour Estimated Observed Rainfall ending at 6am CST 02/26/2021.

Showers and thunderstorms developed over southeast OK during the late afternoon of the 25th in response to an approaching short-wave trough. Some scattered showers and isolated thunderstorms spread north, while most of the activity remained across southeast OK and west central AR during the evening and overnight hours. Portions of Choctaw, Pushmataha, and Le Flore Counties received 0.50" to 1.5" of rain, while the rest of the area to the north received 0.50" or less (Fig. 19).

Warm and moist air residing over east Texas advected north during the morning of the 28th. As a cold front approached, a subtle wave in the southwest flow increased lift, and convection broke out from southeast OK through northwest AR during the mid- to late-morning hours. Instability was sufficient for isolated severe thunderstorms across far southeast OK. This activity continued to push eastward through the afternoon as the front moved through, with just some lingering showers into the early evening. Rainfall totals from southeast OK into northwest AR ranged from 0.10" to near 2" (Fig. 20).

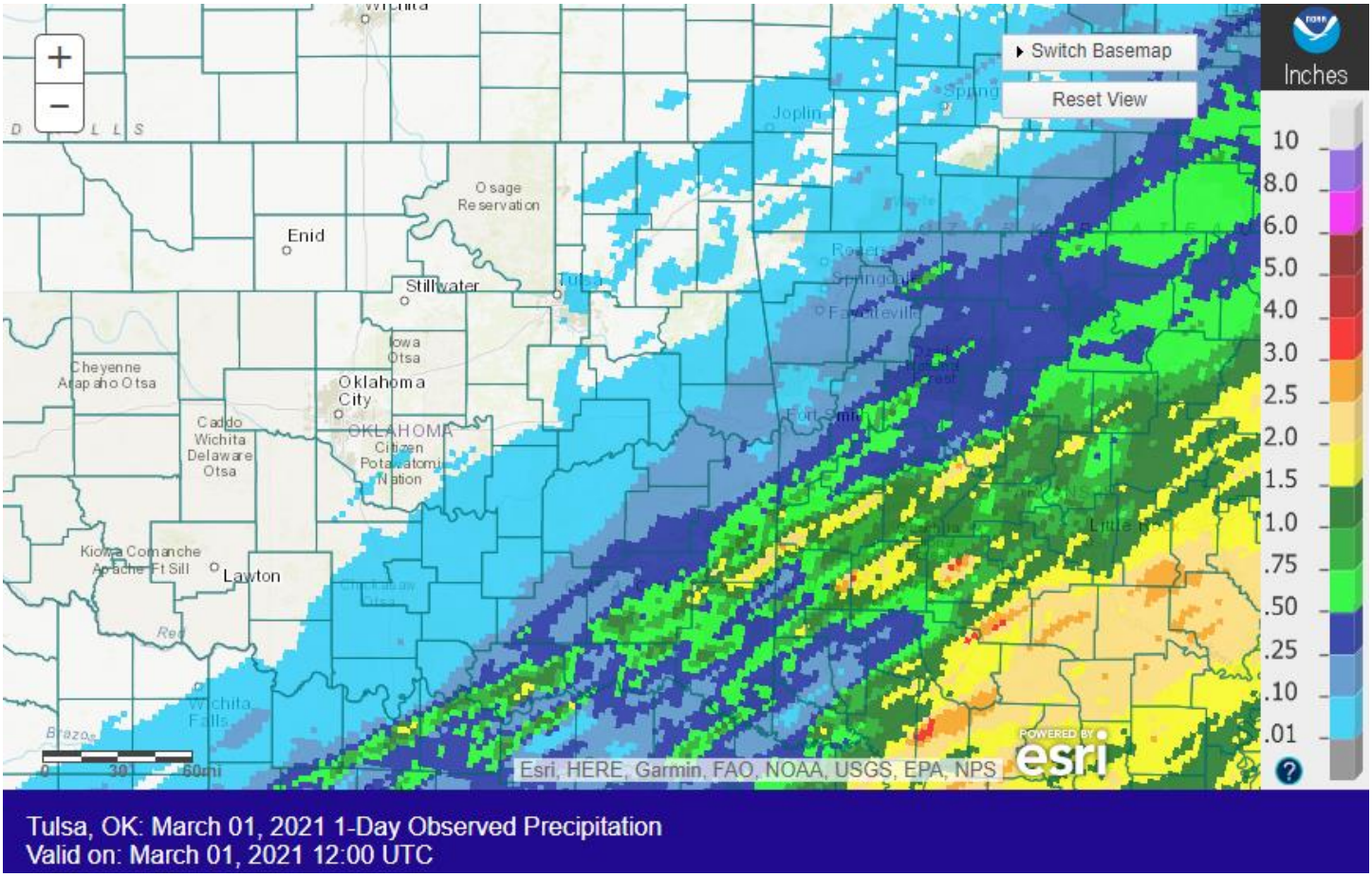


Fig. 20. 24-hour Estimated Observed Rainfall ending at 6am CST 03/01/2021.

Written by:
Nicole McGavock
Service Hydrologist
WFO Tulsa

Products issued in February 2021:

*CWYO2 became a daily river forecast point September 7, 2016
*MLBA4 and OZGA4 transferred to NWS Tulsa HSA February 5, 2014
*Mixed case River Flood products began July 31, 2013

0 Flash Flood Warnings (FFW)
0 Flash Flood Statements (FFS)
0 Flash/Areal Flood Watches (FFA) (0 Watch FFA CON/EXT/EXA/EXB/CAN)
0 Urban and Small Stream Advisories (FLS)
0 Areal Flood Warnings (FLW)
0 Areal Flood Statements (FLS)
0 River Flood Warnings (FLW) (includes category increases)
0 River Flood Statements (FLS)
0 River Flood Advisories (FLS) (1 Advisory FLS CON/EXT/CAN)
0 River Flood Watches (FFA) (0 Watch FFA CON/EXT/CAN)
0 River Statements (RVS)
0 Hydrologic Outlooks (ESF)
0 Drought Information Statements (DGT)

Preliminary Hydrographs:

None