## Storm Data and Unusual Weather Phenomena - September 2024

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details	
ARKANSAS, Northwest					
(AR-Z001) BENTON, (AR-Z002) CARROLL, (AR-Z010	09/17/24 00:00 CST	11) MADISON	0	Drought	
	09/30/24 23:59 CST		0	Diought	
Much of western Arkansas received less than two i Madison Counties receiving less than one half inch September corresponded to less than 25 percent o and Carroll Counties received less than 5 percent o deficit and seasonally typical hot weather, severe ( Carroll, Washington, and Madison Counties. Monet	n of rain for the month. T f the normal average pre of the normal average pre (D2) drought conditions	he rainfall across cipitation for the ecipitation for the developed during	much of northwe month. Portions o month. As a resu the month acros	stern Arkansas during of Benton, Washington, ilt of this large rainfall s portions of Benton,	
OKLAHOMA, Eastern					
(OK-Z049) PUSHMATAHA, (OK-Z053) CHOCTAW, (O	, , , ,				
OTTAWA, (OK-Z059) PAWNEE, (OK-Z060) TULSA, (0	OK-Z061) ROGERS, (OK- 09/01/24 00:00 CST	Z062) MAYES, (O	K-Z063) DELAWA 0	RE, (OK-Z069) ADAIR Drought	
	09/30/24 23:59 CST		0	Drought	
overage precipitation for the month. Portions of no or the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie	rtheastern Oklahoma rec it and seasonally typical s, and developed across	ceived less than 5 hot weather, se much of northea	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r	ormal average precipitation conditions expanded north of Highway 412.	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result o	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portio of the drought were not a	ceived less than 5 hot weather, see much of northea ons of Osage, Wa	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result o PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77	rtheastern Oklahoma rec tit and seasonally typical s, and developed across the month across portion of the drought were not a	ceived less than 5 hot weather, see much of northea ons of Osage, Wa	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata	percent of the normal ormal average precipitation conditions expanded north of Highway 412.	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result o PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77	rtheastern Oklahoma rec tit and seasonally typical s, and developed across the month across portion of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST	ceived less than 5 hot weather, sev much of northea ons of Osage, Was vailable.	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measure	rtheastern Oklahoma rec tit and seasonally typical s, and developed across the month across portion of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu	ceived less than 5 hot weather, sev much of northea ons of Osage, Was vailable.	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37,	rtheastern Oklahoma rec tit and seasonally typical s, and developed across the month across portion of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu	ceived less than 5 hot weather, sev much of northea ons of Osage, Was vailable.	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37,	rtheastern Oklahoma rec tit and seasonally typical s, and developed across the month across portion of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu	seived less than 5 hot weather, sev much of northea ons of Osage, Was vailable.	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph.	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portion of the drought were not a 71 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:05 CST tional vehicles (RV) at a c	terived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portion of the drought were not a 71 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:05 CST tional vehicles (RV) at a c	terived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portion of the drought were not a 71 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:05 CST tional vehicles (RV) at a c	terived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey	
Average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measure PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80]	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portion of the drought were not a 71 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:05 CST tional vehicles (RV) at a c	terived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0	percent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey	
Average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80]	rtheastern Oklahoma rec sit and seasonally typical s, and developed across the month across portion of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:05 CST tional vehicles (RV) at a c ed.	terived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa	Spercent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey wnee Lake. Two people were injured and	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80]	rtheastern Oklahoma rec sit and seasonally typical s, and developed across the month across portion of the drought were not a 7 09/19/24 17:55 CST 09/19/24 17:55 CST red thunderstorm wind gu 96.80] 09/19/24 18:00 CST 09/19/24 18:00 CST 09/19/24 18:00 CST 09/19/24 18:00 CST	eived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5 1 2 campground on the	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa 5K 0	gercent of the normal         prmal average precipitation         conditions expanded         north of Highway 412.         , Craig, Rogers, and Mayes         Thunderstorm Wind (MG 63 kt)         Source: Mesonet         Ites, with a maximum gust of 72 mph.         Thunderstorm Wind (EG 70 kt)         Source: NWS Storm Survey         wnee Lake. Two people were injured and         Thunderstorm Wind (EG 65 kt)         Source: Law Enforcement	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80] Strong thunderstorm wind blew down numerous powe	rtheastern Oklahoma rec sit and seasonally typical s, and developed across the month across portic of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:00 CST tional vehicles (RV) at a c ad.	eived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5 1 2 campground on the	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa 5K 0	gercent of the normal         prmal average precipitation         conditions expanded         north of Highway 412.         , Craig, Rogers, and Mayes         Thunderstorm Wind (MG 63 kt)         Source: Mesonet         Ites, with a maximum gust of 72 mph.         Thunderstorm Wind (EG 70 kt)         Source: NWS Storm Survey         wnee Lake. Two people were injured and         Thunderstorm Wind (EG 65 kt)         Source: Law Enforcement	
The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80] Strong thunderstorm wind blew down numerous power PAWNEE COUNTY 4.0 NW MARAMEC [36.29, -96	rtheastern Oklahoma rec sit and seasonally typical s, and developed across the month across portic of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:00 CST tional vehicles (RV) at a c ad.	eived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5 1 2 campground on the	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa 5K 0	gercent of the normal         prmal average precipitation         conditions expanded         north of Highway 412.         , Craig, Rogers, and Mayes         Thunderstorm Wind (MG 63 kt)         Source: Mesonet         Ites, with a maximum gust of 72 mph.         Thunderstorm Wind (EG 70 kt)         Source: NWS Storm Survey         wnee Lake. Two people were injured and         Thunderstorm Wind (EG 65 kt)         Source: Law Enforcement	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80] Strong thunderstorm wind blew down numerous power PAWNEE COUNTY 4.0 NW MARAMEC [36.29, -96	rtheastern Oklahoma rec sit and seasonally typical s, and developed across the month across portice of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:00 CST tional vehicles (RV) at a c ad. 09/19/24 18:00 CST 09/19/24 18:00 CST er poles and trees. Severa	eived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5 1 2 campground on the	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa 5K 0 closed due to the	Fipercent of the normal ormal average precipitation conditions expanded north of Highway 412. , Craig, Rogers, and Mayes Thunderstorm Wind (MG 63 kt) Source: Mesonet ates, with a maximum gust of 72 mph. Thunderstorm Wind (EG 70 kt) Source: NWS Storm Survey average the second stress and the second stress are second stress. Thunderstorm Wind (EG 65 kt) Source: Law Enforcement significant amount of debris in the road.	
average precipitation for the month. Portions of no for the month. As a result of this large rainfall defic across much of Choctaw and Pushmataha Countie Extreme (D3) drought conditions developed during Counties. Monetary damage estimates as a result of PAWNEE COUNTY 2.7 NE PAWNEE [36.36, -96.77 The Oklahoma Mesonet station near Pawnee measur PAWNEE COUNTY 1.3 SE PAWNEE ARPT [36.37, Strong thunderstorm wind overturned multiple recreat a man was killed when the RV they were in overturne Direct Fatalities: M64VE PAWNEE COUNTY PAWNEE [36.33, -96.80] Strong thunderstorm wind blew down numerous powe	rtheastern Oklahoma rec it and seasonally typical s, and developed across the month across portio of the drought were not a 7] 09/19/24 17:55 CST 09/19/24 18:05 CST red thunderstorm wind gu -96.80] 09/19/24 18:00 CST 09/19/24 18:00 CST tional vehicles (RV) at a c ad. 09/19/24 18:00 CST 09/19/24 18:00 CST er poles and trees. Severa	eived less than 5 hot weather, sev much of northea ons of Osage, Was vailable. sts of more than 5 1 2 campground on the	ed to less than 25 percent of the no vere (D2) drought stern Oklahoma r shington, Nowata 0 0 8 mph for 10 minu 0.10M 0 e east shore of Pa 5K 0 closed due to the 20K	Fercent of the normal ormal average precipitation conditions expanded north of Highway 412. , craig, Rogers, and Mayes          Thunderstorm Wind (MG 63 kt)         Source: Mesonet         Ites, with a maximum gust of 72 mph.         Thunderstorm Wind (EG 70 kt)         Source: NWS Storm Survey         wnee Lake. Two people were injured and         Thunderstorm Wind (EG 65 kt)         Source: Law Enforcement         significant amount of debris in the road.         Hail (1.75 in)	

## Storm Data and Unusual Weather Phenomena - September 2024

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/19/24 18:20 CST		15K	Thunderstorm Wind (EG 65 kt)
	09/19/24 18:20 CST		0	Source: Broadcast Media

Strong thunderstorm wind blew much of the roof off of an outbuilding.

Strong to severe thunderstorms developed into northeastern Oklahoma during the evening of the 19th, as a cold front approached the area. Very strong instability combined with increasing deep layer shear to result in one of the thunderstorms evolving into a supercell. This storm was high-based with a deep layer of relatively dry air between the cloud base and the ground. This environment enabled the storm to produce very strong and damaging downbursts, which likely gusted to up to 95 mph at times. The storm moved across Pawnee Lake in Pawnee County, rolling multiple recreational vehicles at a campground. One person was killed when the RV he was in rolled, and two others were injured. This severe thunderstorm also produced large hail up to golf ball size.

MCINTOSH COUNTY PIERCE [35.43, -95.72]		
09/24/24 20:20 CST	0	Hail (1.00 in)
09/24/24 20:20 CST	0	Source: Emergency Manager

Strong to severe thunderstorms developed over central Oklahoma during the late afternoon of the 24th, to the northeast of a low pressure system over southwestern Oklahoma and near a warm front over central Oklahoma into eastern Oklahoma. Strong instability combined with very strong deep layer wind shear associated with an approaching strong upper level storm system supported the development of some supercells. These storms produced very large hail over central Oklahoma. Thunderstorms developed into eastern Oklahoma during the evening, the strongest of which produced large hail up to quarter size.