



National Weather Service

Storm Data and Unusual Weather Phenomena



October 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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ARKANSAS, Northwest

Benton County									
Maysville	05	0140CST			0	0	0.10K		Thunderstorm Wind

Large tree limbs were blown down.

Benton County									
Garfield	05	0230CST			0	0	0.10K		Thunderstorm Wind

A large tree was blown down over a road.

Benton County									
Gentry	05	0300CST			0	0			Thunderstorm Wind (G57)

Madison County									
Pettigrew	05	1430CST			0	0	0.10K		Thunderstorm Wind

Large tree limbs were blown down.

Carroll County									
Busch	05	1445CST			0	0			Thunderstorm Wind (G52)

Later at Berryville, half-inch diameter hail was reported.

Summary of events for October 5 1998:

Two separate severe thunderstorms associated with a large severe weather outbreak over Oklahoma moved east into Benton County during the early morning of October 5. The main threat from these storms was wind strong enough to blow down several trees and tree limbs. Both storms weakened below severe limits by the time they moved east to Carroll County. These storms formed in advance of a slow-moving cold front with the approach of a powerful upper level storm system. By sunrise on the 5th, flooding was becoming the main threat as a solid line of thunderstorms made very slow progress across northwest Arkansas. See the separate flash flood event entry for more details on the flooding.

By the afternoon of the 5th, daytime heating allowed several thunderstorms along the front to become marginally severe over Madison and Carroll Counties.

Benton County									
Countywide	05	0430CST 1500CST			0	0			Flash Flood

Several low-water crossings were flooded in and around Rogers. Several county roads near Maysville were flooded. There was residential street flooding in Rogers by early afternoon.

Washington County									
Countywide	05	0900CST 1700CST			0	0			Flash Flood

Water covered AR Hwy 45 near Cane Hill.

Sebastian County									
Countywide	05	1300CST 1900CST			0	0			Flash Flood

Several streets were flooded in Mansfield. Several streets in Fort Smith were closed during the evening by high water.

Franklin County									
Countywide	05	1500CST 2000CST			0	0			Flash Flood

Several streets were flooded in Charleston.

Summary of flash flood events for October 5 1998:

A slow-moving solid line of thunderstorms took most of the day on October 5 to move from the northwest corner of Arkansas to the area south of Fort Smith. Rainfall amounts of 3 to 5 inches were common over a large area, leading to flash flooding along small creeks and streams as well as street flooding in urban areas.

Some storm-total rainfalls from October 5 include (in inches): Prarie Grove...5.35, Drake Field in Fayetteville (FYV)...4.90, Devils Den State Park...4.90, Cincinnati_2NE...4.37, Huntsville...3.85, St. Paul...3.77, Berryville...3.70, Greenwood...3.68, Natural Dam ...3.55, Mountainsburg...3.43, Fort Smith Regional Airport (FSM)...3.11, and Bentonville_4S...3.08.

ARZ019									
Crawford	06	0600CST			0	0			Flood
	07	0900CST							

The Arkansas River at Van Buren rose above the flood stage of 22 feet to crest at a level of 24.1 feet at 9 PM CDT on October 6.



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ARKANSAS, Northwest

Benton County									
3 S Cave Spgs	16	2020CST			0	0	0.10K		Thunderstorm Wind

A large tree was blown down.

Franklin County									
Alix	16	2210CST			0	0	25K		Thunderstorm Wind

Seven power poles were blown down within a half-mile area between Alix and Denning, causing a two-hour power outage in Altus, Coal Hill and Hartman. Several permanent structures sustained roof damage, and several outbuildings were destroyed. One barn was nearly destroyed.

Summary for October 16 1998:

Strong southerly winds brought a rapid return of warm air and moisture to northwest Arkansas during the day on October 16. This helped to destabilize the atmosphere, causing isolated severe thunderstorms to form that evening. The two significant storms of the evening included one that formed over Adair County Oklahoma and moved east into Benton County Arkansas, producing marginally severe winds. The other storm developed a bow echo radar signature and produced strong damaging winds as it moved across southern Franklin County.

OKLAHOMA, Eastern

Osage County									
Northwest Portion	02	0345CST 0545CST			0	0			Flash Flood

A road was closed by high water 3 miles west of Shidler. The NWS Cooperative Observer at Foraker measured 5.40 inches of rain in the 24 hours ending at 700 AM CDT.

McIntosh County									
7 W Checotah	02	2027CST			0	0			Hail (0.88)

Location: OK Hwy 150 and I-40

Summary of events for October 2 1998:

Early on the morning of the 2nd, a band of thunderstorms developed over central Oklahoma and moved as far as northwest Osage County before turning up stationary. Flash flooding commenced, and radar indicated 5 to 7 inches of rain over northwest Osage County.

By the evening of the 2nd, the northward movement of warm air at the surface and the approach of an upper level disturbance kicked off scattered thunderstorms. One thunderstorm became severe as it moved across northern McIntosh County, producing hail as large as nickels.

OKZ058									
		Ottawa							
	03	0900CST			0	0			Flood
	10	0500CST							

The Neosho River at Commerce rose above its flood stage of 15 feet and reached a flood crest of 21.8 feet at 11 AM CDT on October 7.

Osage County									
2 E Bowring	04	0640CST			0	0	0.10K		Thunderstorm Wind

Large tree limbs were blown down

Washington County									
Bartlesville Arprt	04	0704CST			0	0			Thunderstorm Wind (G60)

A gust to 67 mph was measured by the observer at the Bartlesville Airport (BVO) at 804 AM CDT. The winds were accompanied by half-inch diameter hail from 802 to 812 AM CDT.

Summary of events for the morning of October 4 1998:

A strong warm front in its developing stages lifting northward early on the morning of Sunday, October 4, and the initial approach of an upper level system kicked off a cluster of thunderstorms north of Tulsa. Two of these thunderstorms became severe, producing strong thunderstorm winds and hail that remained under the size of dimes. The cluster of thunderstorms moved north into Kansas by 900 AM CDT.



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OKLAHOMA, Eastern

Pawnee County

Pawnee	04	1838CST 1839CST	0.4	125	0	0	800K	Tornado (F1)
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A tornado briefly touched down in the southwest part of the city of Pawnee at 738 PM CDT near 6th Street and Ash. The tornado travelled northeast for 0.4 miles and had a width of 125 yards. Many trees were downed or snapped along the path with about fifty homes receiving minor roof, window, and porch damage. One mobile home was destroyed. Widespread wind damage also occurred in Pawnee due to strong winds in the vicinity of the tornado known as a "rear flank downdraft". The roof at the high school auditorium was blown off by the nearby winds. Damage from the tornado and the winds combined were nearly \$2 million. (The official damage estimate in this entry does not include damages caused by the nearby winds.)

Most of the tornado damage was F0. However, the tornado was rated F1 based on an estimate of the most intense winds reaching speeds near 85 mph. The tornado lifted before reaching US Hwy 64. However, an isolated home downstream of the tornado path and 2 miles from downtown Pawnee received F1 damage. The Pawnee mesonet site, located 3 miles ENE of Pawnee and 0.4 miles north of the house, measured wind gusts as high as 80 mph. (See the separate Thunderstorm Wind entry for more information on the mesonet observations.) The open prairie, the associated lack of tracers (wind-blown objects) near the mesonet site, and the isolated nature of the home make it impossible to determine if tornadic damage occurred at/near these locations. However, the tornado damage in Pawnee, the F1 damaged home, and the mesonet site are all aligned along the storm's motion.

Pawnee County

Pawnee	04	1839CST			0	0	1.1M	Thunderstorm Wind
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Strong winds (known as a rear flank downdraft) associated with a nearby F1 tornado blew the roof off of the high school auditorium, causing over \$1 million in damage to the high school. Debris was scattered throughout the high school campus. An adjacent metal-style bus garage was also damaged. Many trees and power lines were downed or snapped by the winds throughout Pawnee. Specifically, several big oak trees were blown down at the Pawnee Agency, including one blown onto the pre-school. Near the Pawnee Municipal Hospital, large trees along Boulder Street were blown down, one falling onto a mobile unit. Tree damage was also reported in the Lusk Addition. A trailer home just northwest of Pawnee was scattered about by the storm, and a nearby cattle trailer was overturned. Damage from the wind and the tornado combined are nearly \$2 million. For more information on the nearby tornado, see the separate preceding Tornado entry.

Pawnee County

3 ENE Pawnee	04	1840CST 1900CST			0	0		Thunderstorm Wind (G70)
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With the passage of a thunderstorm containing a possible tornado just 0.4 miles south, the Pawnee mesonet site measured wind gusts in excess of 50 kts (57 mph) for over 20 minutes. The clockwise veering of such strong winds on this time scale clearly shows the passage of a supercell thunderstorm (rotating thunderstorm). Specific reports follow:

- 740 PM CDT: 67 mph gust from the east
- 745 PM CDT: 79 mph gust from the south
- 750 PM CDT: 78 mph gust from the west
- 755 PM CDT: 60 mph gust from the northwest
- 800 PM CDT: 80 mph gust from the north

Pawnee County

Cleveland	04	1904CST			0	0		Thunderstorm Wind (G52)
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Osage County

Osage	04	1905CST			0	0		Hail (1.00)
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Osage County

Osage	04	1905CST			0	0		Thunderstorm Wind (G52)
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Pawnee County

Hallett	04	1939CST			0	0		Hail (1.75)
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Location: intersection of US Hwy 412 and OK Hwy 99

Pawnee County

Hallett	04	1939CST			0	0		Thunderstorm Wind (G52)
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Creek County

3 N Oilton	04	1940CST			0	0		Hail (1.75)
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Location: intersection of OK Hwy 99 and 51

Osage County

Hominy	04	1944CST			0	0		Thunderstorm Wind (G70)
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Winds of 60 to 80 mph reported in Hominy.



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OKLAHOMA, Eastern

Pawnee County 8 E Hallett	04	1946CST			0	0			Hail (1.75)
Osage County 6 E Osage	04	1947CST			0	0			Hail (1.75)
Osage County 1 SSW Barnsdall to 1 SSE Barnsdall	04	1956CST 1957CST	1	75	0	0	45K		Tornado (F0) An F0 tornado skipped across southern Osage County just south of Barnsdall. Four homes received minor damage. However, three barns were completely destroyed, two outbuildings were destroyed, and numerous trees had 12-inch tree limbs knocked out of them.
Osage County 5 NE Barnsdall	04	2010CST			0	2	50K		Thunderstorm Wind Two mobile homes were destroyed, and one home was damaged. Two people were injured in this incident. The location was 2 miles west of Ochelata just inside Osage County. The Washington County Emergency Management Director reported that the damage pattern was 300 to 400 yards in length.
Nowata County 3 S Nowata	04	2015CST			0	0	3K		Thunderstorm Wind A home sustained roof damage.
Nowata County Nowata	04	2015CST			0	0	1.5K		Thunderstorm Wind Several trees and a power line were blown down in Nowata.
Washington County Ochelata	04	2015CST			0	0	0.30K		Thunderstorm Wind Large tree limbs were blown down in Ochelata
Rogers County Oologah	04	2020CST			0	0	10K		Thunderstorm Wind An abandoned mobile home was flipped over. Note: The mobile home was not tied down.
Tulsa County 6 W Collinsville	04	2020CST			0	0			Thunderstorm Wind (G52) Location: Intersection of OK Hwy 20 and US Hwy 75.
Osage County 2 NW Osage	04	2023CST			0	0			Hail (1.00)
Pawnee County 7 ENE Terlton	04	2040CST			0	0			Thunderstorm Wind (G52) Location: in the community of Westport
Nowata County 2 NE Watova to 10 ESE Nowata	04	2105CST 2116CST	8	50	0	0	50K		Tornado (F0) An F0 tornado touched down just northeast of Watova around 1005 PM CDT, destroying a barn on Section Road 27. The tornado continued east, destroying the old one-room Terrell School Building near Section Roads 27 and 415. A mobile home at Section Roads 26 and 416 lost most of its roof. Portions of the roof were wrapped around trees over one hundred yards southeast of the home. From there, the tornado most likely crossed Lake Oologah and continued to an area 3 miles north of New Alluwe by 1015 PM CDT, where the tornado destroyed a shed, damaged a house, damaged a barn, and knocked down several trees. The tornado was actually seen by a trained spotter 3 miles north of New Alluwe.
Osage County 4 SE Pearsonia	04	2115CST			0	0			Thunderstorm Wind (G52)
Washington County 1 S Vera	04	2117CST			0	0			Funnel Cloud Spotters reported a funnel cloud. The parent storm later went on to produce an F0 tornado northwest of Collinsville.
Tulsa County 3 NW Collinsville	04	2119CST	0.5	50	0	0			Tornado (F0)



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OKLAHOMA, Eastern

The school in Nuyaka had some roof damage where the metal was torn off and twisted. Sheet metal from barns and sheds lay on the ground. A church had its steeple blown away. A trailer had sheet metal peeled up on it, and the barn that stood in front of it was demolished. The Nuyaka Store lost its sign to the wind.

Okmulgee County
2 E Nuyaka to
3 ENE Nuyaka

**04 2217CST
2218CST 1 100 0 0 5K Tornado (F1)**

A seasoned storm chaser on an aerial survey of the area reported a one-mile damage track through a forested area in the Okmulgee Wildlife Management Area just east of Nuyaka. The degree of tree damage suggested the tornado was F1 intensity. Damage in this unpopulated area consisted of numerous trees blown over.

Okmulgee County
Preston

04 2221CST 0 0 Hail (0.75)

Okmulgee County
Preston

04 2229CST 0 0 Hail (1.75)

Okmulgee County
Hector

04 2241CST 0 0 Hail (1.75)

Okmulgee County
Okmulgee

**04 2243CST
2247CST 0 0 600K Hail (2.25)**

Very large golfball to baseball-sized hail caused extensive damage throughout the city of Okmulgee. The combination of very large hail and strong thunderstorm winds knocked out numerous windows. Several hundred homes and business sustained roof damage. The Okmulgee Times daily newspaper quoted the police chief as saying that the hailstorm "knocked out about half the windows in town." Windows were knocked out of many cars in the Wal-Mart parking lot, and many city vehicles had their windows knocked out. Two buildings at OSU-Okmulgee were extensively damaged. Other buildings on the campus had broken windows, while the campus greenhouse was nearly destroyed by the large hail and wind.

The Okmulgee School District alone had about \$300,000 in damage. The middle school suffered extensive roof damage and damage to the floor. The Board building suffered extensive glass breakage and roof damage. Fifteen buses received damage, and the steel roof at Eastside was damaged. Westside and Banneker each sustained roof damage, and the high school had minor roof damage to its new building.

Craig County
White Oak

04 2245CST 0 0 0.50K Thunderstorm Wind

A roof was blown off of an outbuilding.

Okmulgee County
Okmulgee

04 2245CST 0 0 20K Thunderstorm Wind

Strong winds blew a power line onto a trash truck, trapping a city worker. The worker was not injured. When the strong winds were combined with baseball-sized hail, there was extensive damage throughout the city of Okmulgee. See the separate preceding Hail entry for more details.

Creek County
5 SW Depew

04 2310CST 0 0 Hail (0.88)

McIntosh County
8 NW Checotah

04 2310CST 0 0 0.50K Thunderstorm Wind

Several trees were blown across OK Hwy 72 on the Muskogee/McIntosh County line one mile south of Council Hill.

Muskogee County
1 S Council Hill

04 2310CST 0 0 0.50K Thunderstorm Wind

Several trees were blown across OK Hwy 72 on the Muskogee/McIntosh County line.

Tulsa County
3 E Bixby

04 2310CST 0 0 Hail (0.88)

Muskogee County
3 N Muskogee

04 2327CST 0 0 Funnel Cloud

Location: along US Hwy 69 at the Arkansas River

Wagoner County
3 S Tullahassee

04 2327CST 0 0 Funnel Cloud

Location: along US Hwy 69 at the Arkansas River



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OKLAHOMA, Eastern

Wagoner County
1 SE Tullahassee

04 2327CST 0.8 50 0 0 5K Tornado (F0)

The same parent thunderstorm that produced a 27-mile tornado track through Okfuskee and Okmulgee Counties produced another more short-lived tornado just southeast of Tullahassee. The tornado itself produced a swath of damage through a forested area and caused roof damage to one house. The parent thunderstorm also produced winds that knocked down trees in Tullahassee around 1230 AM CDT.

Wagoner County
Tullahassee

04 2330CST 0 0 0.80K Thunderstorm Wind

Trees were uprooted and a skylight was broken.

Muskogee County
1 NE Muskogee

04 2348CST 0 0 1K Thunderstorm Wind

Quite a few trees were blown down at OK Hwy 16 and US Hwy 62. There was apparently a 100-foot wide swath of damage. These winds were produced by the same thunderstorm that produced a tornado near Tullahassee.

Cherokee County
Hulbert

04 2350CST 0 0 0.50K Thunderstorm Wind

Several trees were blown down.

Okmulgee County
Morris

05 0000CST 0 0 Hail (0.88)

Okmulgee County
Morris

05 0000CST 0 0 Thunderstorm Wind (G52)

Cherokee County
10 N Tahlequah

05 0015CST 0 0 10K Thunderstorm Wind

A barn was blown away.

Creek County
Depew

05 0020CST 0 0 0.10K Thunderstorm Wind

Several large tree limbs were blown down.

Muskogee County
Haskell

05 0020CST 0 0 Hail (0.88)

Adair County
Christie

05 0030CST 0 0 0.10K Thunderstorm Wind (G52)

Large tree limbs were blown down.

Delaware County
Oaks

05 0030CST 0 0 4K Hail (1.00)

Quarter-sized hail caused damage to several cars in Oaks.

Ottawa County
Commerce

05 0030CST 0 0 0.10K Thunderstorm Wind

Several large tree limbs were blown onto a road.

Wagoner County
2 S Porter

05 0030CST 0 0 Hail (1.00)

Craig County
Welch

05 0045CST 0 0 0.10K Thunderstorm Wind

Large tree limbs were blown down.

Mayes County
Pryor

05 0055CST 0 0 40K Lightning

Lightning hit a bank building in Pryor, leaving a hole the size of a softball in it outside wall. The force of the lightning strike sent bricks flying, one of which sailed through the bank's sign. Most of the computer terminals at the bank were lost.



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OKLAHOMA, Eastern

invaded the area on the morning of October 4 and then collided with a cold front moving southward by evening. The threat from these storms ran the full range of possibilities from destructive tornadoes to damaging winds to very large hail up to the size of baseballs.

Numerous storms occurred on the evening of October 4, mainly north of Interstate 40. The two most significant storms both moved eastward out of central Oklahoma. One produced an F1 tornado that passed through Pawnee. The other produced a 27-mile track F2 tornado that started in Okfuskee County and ended in Okmulgee County. This second storm later went on to produce considerable hail and wind damage in the city of Okmulgee. Many other thunderstorms developed during the evening in central Oklahoma, fanned by upper level winds in excess of 100 knots. These storms moved into northeast Oklahoma, causing additional severe weather late in the evening that gradually spread eastward to the Arkansas state line. After midnight, the storms congealed and became a slow-moving line of thunderstorms that sat over nearly the same area of northeast Oklahoma through the overnight hours. The severe threat gradually diminished through the night, and flooding became the main problem. For more information on the flooding, see the separate event entry for the flooding.

By late on the afternoon of October 5, the slow-moving line had moved into southeast Oklahoma and flared up during the heat of the afternoon, causing a few additional severe weather reports in the form of strong winds.

Washington County

South Portion

04	2200CST								
05	1100CST				0	0			Flash Flood

Several creeks were over roads in and near Vera.

Osage County

East Portion

04	2300CST								
05	0500CST				0	0			Flash Flood

Quapaw Creek rose out of its banks west of Skiatook. Residents from nearby homes had to be evacuated. Water flooded a gravel road upstream of Hulah Lake. The north Webb City road that runs east-west was flooded. Schools in Avant were closed on October 5.

Pawnee County

East Portion

04	2300CST								
05	0500CST				0	0	38K		Flash Flood

A park entrance was flooded. Water covered other roads, especially between Pawnee and Skedee. Several creeks rose out of their banks. Several rural roads were under water and closed near Pawnee.

Creek County

Countywide

04	2330CST								
05	0530CST				0	0	120K		Flash Flood

Low-lying areas across Creek County were flooded. In Bristow, low spots on several streets were flooded.

In Sapulpa, between 15 and 18 homes, as well as a business, along Rock Creek were flooded, and residents of the area had to be evacuated. 161st West Avenue south of W. 81st was closed due to high water. Two teenage boys had to be rescued when their fishing boat capsized in the rain-swollen waters of the Polecat Creek 7 miles south of Sapulpa. A motorist had to be rescued when stranded by high water in the 800 block of West Teel. Firefighters rescued another 6 people trapped in the area of South Independence south of Taft. Several roads and bridges countywide were washed out.

Craig County

Countywide

05	0000CST								
	0600CST				0	0			Flash Flood

Numerous streets and county roads were closed in and near Vinita. A county road off of US Hwy 169 near Big Cabin was flooded.

Rogers County

Countywide

05	0000CST								
	0900CST				0	0	11K		Flash Flood

Near Tiawah, rescue crews removed several stranded motorists from their vehicles, including a woman and her two children whose van was swept away by swift running water around 9 AM CDT.

In Claremore, several residences near 7th and Muskogee Streets had to be evacuated. Several streets in the city of Claremore were closed by high water, including Lynn Riggs at JM Davis, Blue Starr, and Patti Page near the courthouse. Water flooded over US Hwy 169 between Oologah and Talala.

In Inola, flooding was apparent throughout the town as water overflowed the usual drainage system. Water was reported in at least one building. About twelve houses had water up to their doors, especially in the area of East Commercial near the railroad tracks and on West Commercial. Inola Creek, located one-half mile west of town, closed a roadway to traffic.

Near Oologah, water flowed over the bridge on E-W section line road 38 just east of US Hwy 169.

Tulsa County

(Tul)Tulsa Intl Arprt

05	0000CST								
	2359CST				0	0			Heavy Rain



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OKLAHOMA, Eastern

Rainfall for the calendar day of October 5 totaled 4.80 inches. This breaks the record as being the most rainfall on record at the Tulsa International Airport for October 5. The storm total for this rainfall event was 5.30 inches.

Wagoner County

Countywide

05	0000CST 0500CST				0	0	97K		Flash Flood
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OK Hwy 16 between Wagoner and Okay had to be closed because of high water. In the city of Wagoner, several houses and business were flooded. The old Verdigris River bridge south of Okay (no longer in use) had 70 feet of its remaining structure collapse into the river. Across southeastern Wagoner County, several of the county's wooden bridges sustained damage.

In Coweta, many residents had to be evacuated due to rising water. Several residents of Coweta had to be rescued after being stranded in either their homes or their vehicles.

Mayes County

Countywide

05	0100CST 0700CST				0	0	35K		Flash Flood
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Several county roads near Pryor were closed by flooding. Several cars were stranded in high water. Water blocked the entrance to a manufacturing plant, closing the plant for the day. A man driving a pickup truck was swept away by floodwaters and was finally rescued from a tree that he had climbed for safety. A school bus on its early morning run stalled in high water. Several businesses in Locust Grove had up to one foot of water in them. Schools in Locust Grove and Salina let out early for the day.

Nowata County

South Portion

05	0100CST				0	0	5K		Flash Flood
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A county road was washed out 2 miles northeast of New Alluwe.

Okmulgee County

Countywide

05	0100CST 1100CST				0	0	193K		Flash Flood
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In Morris, several streets were flooded. In Okmulgee, the railroad underpass near McDonald's on US Hwy 75 was closed. The only road in and out of the small community of Quail Creek was washed out, leaving residents of the community stranded. Schools in Beggs were closed.

Tulsa County

Countywide

05	0100CST 0700CST				0	0	30K		Flash Flood
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Serious flooding took place throughout Tulsa County.

In Jenks, several roads were closed due to street flooding. Jenks schools were closed for the day. Water entered three downtown businesses. There was damage to the carpet at the Jenks Public School Central Campus.

In Tulsa, many street intersections were flooded, including 31st and Yale, 96th and Sheridan, and 2 feet of water over the road at 28th and 129th East Avenue. There was major street flooding across the city of Tulsa. A person was trapped in a car by high water at 800 N. Lewis. The basement of the Southwestern Bell telephone building in downtown Tulsa took on water, causing the loss of phone service across much of Tulsa for several hours and temporarily disabling 911 emergency service. Cell phones, pagers, and 911 emergency services across much of eastern Oklahoma also experienced interrupted service due to the flooding at the Southwestern Bell building. The economic impact of the phone service interruption is not included in the dollar damage estimate.

In Broken Arrow, many city streets were flooded and impassable. One woman had to be rescued from her car on a bridge near 101st and Garnett when her car stalled in four feet of water. Two other women had to be rescued when they tried crossing a swollen creek on foot on 81st Street near the Oak Creek subdivision.

In Glenpool, several streets were closed by high water, including 121st at US Hwy 75, 131st at US Hwy 75, and Caspar from 146th to 148th Streets. A woman and her daughter had to be rescued when their car stalled in high water near 141st and Fern. Two cars stalled out at US Hwy 75 and 201st Street, where only the cars' roofs were visible. Several residents had to be evacuated, and two downtown businesses received flood damage.

Mcintosh County

Countywide

05	0200CST 1200CST				0	0	51K		Flash Flood
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Flooding reported at Fountainhead State Park. Infrastructure damage resulting from flash flooding countywide estimated at \$51,000.

Ottawa County

Countywide

05	0200CST 0800CST				0	0	30K		Flash Flood
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National Weather Service

Storm Data and Unusual Weather Phenomena



October 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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OKLAHOMA, Eastern

Le Flore County

Countywide

05	1300CST 2000CST				0	0	10K		Flash Flood
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Water covered the main road in Poteau, causing several cars to stall. There was major street flooding in Zafra. Water covered a road one mile west of Panama.

Pushmataha County

Countywide

05	1400CST 2000CST				0	0			Flash Flood
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Creeks overflowed low-water bridges in rural areas off of OK Hwy 144 west of Nashoba.

Summary of flooding events for October 4-5 1998:

What started out as Oklahoma's worst-ever October tornado outbreak turned into a widespread and serious flash flood event when a steady train of supercell thunderstorms moving across northeast Oklahoma on the evening of October 4 congealed into a slow-moving line of thunderstorms early on the morning of October 5. This line of thunderstorms remained nearly stationary roughly along I-44 through the overnight and pre-dawn hours of October 5, dumping widespread rainfall amounts of 5 to 7 inches along the I-44 corridor. Some of the heaviest rain fell in the Tulsa metro area. After sunrise, the line of thunderstorms started a slow southeastward drift, causing lesser but still heavy rain amounts of 3 to 5 inches across southeast and eastcentral Oklahoma. By the time the line of thunderstorms reached the southeast corner of Oklahoma on the evening of October 5, rainfall rates were not as intense. Thus, the only county in eastern Oklahoma not to see flash flooding was Choctaw County, where rainfall amounts were generally 2.5 inches or less.

Several mainstem rivers rose above flood stage from the heavy rains, including the Bird Creek at Sperry and Owasso, the Verdigris River at Lenapah, the Neosho River at Commerce and Quapaw, the Poteau River at Panama, the Deep Fork River at Beggs, the Black Bear Creek at Pawnee, and the Polecat Creek at Sapulpa and Jenks.

Some rainfall totals from October 4-5 include (in inches): Page_2SE...7.11, Skiatook_4NW...6.69, Jenks Riverside Airport (RVS)...6.45, Pryor_4N...6.21, Bristow_4SE...6.08, Welty_1SSE...6.00, Lyons_2N...5.93, NWS Tulsa (NE Tulsa)...5.88, Wynona_2S...5.59, Jay_4N...5.46, Tulsa International Airport (TUL)...5.30, Kansas_1ESE...5.25, Miami_2NE...5.17, Wilburton_9ENE...5.06, Tahlequah_2NNE...5.03, Centralia_7E (Vinita mesonet)...4.46, Clayton...4.04, Copan_2ENE...4.02, Webbers Falls...3.90, Talihina_4SE...3.68, McCurtain_1SE...3.60, Marble City_4N...3.33, Wister_3ENE...3.32, Checotah...3.13, Muskogee...2.97, and Okemah...2.79.

OKZ059

Pawnee

05	0300CST 2200CST				0	0			Flood
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The Black Bear Creek at Pawnee rose above its flood stage of 17 feet to reach a flood crest of 19.7 feet at 9 AM CDT on October 5.

OKZ064

Creek

05	0300CST				0	0			Flood
06	2300CST								

The Polecat Creek at Sapulpa rose above its flood stage of 21 feet and reached a flood crest of 26.8 feet at 9 AM CDT on October 5.

OKZ060

Tulsa

05	0300CST				0	0			Flood
06	2300CST								

The Polecat Creek at Jenks rose above its flood stage of 17 feet and reached a flood crest of 19.2 feet at 9 AM CDT on October 5.

OKZ058

Ottawa

05	0500CST				0	0			Flood
08	1200CST								

The Neosho River at Quapaw rose above its flood stage of 20 feet and reached a flood crest of 25.5 feet at 10 AM CDT on October 7.

OKZ060

Tulsa

05	0800CST				0	0			Flood
06	1500CST								

The Bird Creek at Owasso rose above its flood stage of 25 feet and reached a flood crest of 29.5 feet at 12 AM CDT on October 6.

OKZ060

Tulsa

05	0800CST				0	0			Flood
06	1000CST								

The Bird Creek at Sperry rose above its flood stage to reach a flood crest of 24.8 feet at 6 PM CDT on October 5.

OKZ066

Okmulgee

05	1300CST				0	0			Flood
12	2000CST								

The Deep Fork River at Beggs rose above its flood stage of 18 feet and reached a flood crest of 22.6 feet at 12 AM CDT on October 10.



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OKLAHOMA, Eastern

OKZ056	Nowata								
	05	2000CST			0	0			Flood
	07	0700CST							
	The Verdigris River at Lenapah rose above its flood stage of 30 feet and reached a flood crest of 32.7 feet at 5 PM CDT on October 6.								
OKZ076	Le Flore								
	06	1400CST			0	0			Flood
	07	2000CST							
	The Poteau River at Panama rose above its flood stage of 29 feet to reach a flood crest of 31.4 feet at 7 AM CDT on October 7.								
Adair County									
Stilwell	16	1920CST			0	0			Hail (0.75)
	Summary for October 16 1998:								
	A surge of moisture and warm air on the heels of strong southerly winds helped to destabilize the atmosphere enough on the evening of October 16 to produce a severe thunderstorm over Adair County. The main threat from this storm was marginally severe hail.								
Tulsa County									
(Tul)Tulsa Intl Arpt	17	0000CST			0	0			Heavy Rain
		2359CST							
	The daily rainfall of 1.32 inches breaks the record as being the most rainfall to occur at the Tulsa International Airport on this date.								
Osage County									
Hominy	17	1210CST			0	0			Thunderstorm Wind (G57)
Osage County									
7 NE Barnsdall	17	1215CST			0	0	0.10K		Thunderstorm Wind
	Large tree limbs were blown down at the Woolaroc Museum.								
Osage County									
4 E Hominy	17	1215CST			0	0	4K		Thunderstorm Wind
	A pump house was blown out of a pasture and onto OK Hwy 20.								
Washington County									
Copan	17	1305CST			0	0	0.10K		Thunderstorm Wind
	Large tree limbs were blown down in Copan.								
Osage County									
Wolco	17	1330CST			0	0			Thunderstorm Wind (G61)
Osage County									
1 NW Skiatook	17	1400CST			0	0			Funnel Cloud
Pawnee County									
Terlton	17	1400CST			0	0	0.10K		Thunderstorm Wind
	Large tree limbs were blown down in Terlton.								
Washington County									
Ochelata	17	1400CST			0	0			Thunderstorm Wind (G52)
Washington County									
1 E Ochelata	17	1400CST			0	0	10K		Thunderstorm Wind
	A barn was destroyed just east of Ochelata. Power poles were also snapped off.								
Washington County									
2 W Vera	17	1405CST			0	0	6K		Thunderstorm Wind
	Two cars were blown off of US Hwy 75.								
Washington County									
Ramona	17	1420CST			0	0	2K		Thunderstorm Wind
	The roof was blown off of a barn.								
Osage County									
Avant	17	1500CST			0	0	2K		Thunderstorm Wind



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OKLAHOMA, Eastern

Several power poles were blown down near Avant.

Summary of events for October 17 1998:

A cold front pushing across northeast Oklahoma and the tail end of an upper level disturbance moving across the northern plains on the afternoon of October 17 helped to kick off a few severe thunderstorms between Tulsa and the Kansas state line. Several rounds of thunderstorms moved across the affected area with one thunderstorm demonstrating strong rotation and containing a funnel cloud. Otherwise, the main threat from these storms was in the form of damaging winds and marginally severe hail.

OKZ058

Ottawa

18 0800CST

0

0

Flood

20 2100CST

The Neosho River at Commerce rose above its flood stage of 15 feet and reached a flood crest of 17.0 feet at 6 AM CDT on October 19.

OKZ060

Tulsa

28 0000CST

0

0

Excessive Heat

2359CST

The low temperature at the Tulsa International Airport on October 28 was 62 degrees Fahrenheit. This ties for being the warmest low temperature on record in Tulsa for this date.