



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 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

#### Sebastian County

Ft Smith	09	1839CST			0	0			Hail (0.75)
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#### Sebastian County

Ft Smith	09	1840CST			0	0			Hail (1.00)
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#### Sebastian County

Ft Smith	09	1841CST			0	0			Hail (1.75)
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Location: Fort Smith Police Department

Summary of events for July 9 1998:

An isolated, stationary severe thunderstorm developed over the city of Fort Smith around 730 PM CDT on July 9. This storm produced hail as large as golfballs before weakening below severe limits by 800 PM CDT.

#### Washington County

(Fyv)Fayetteville Ar	12	0116CST			0	0			Tstm Wind/Hail
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The ASOS at Drake Field in Fayetteville measured a wind gust of 52 mph at 216 AM CDT with a passing thunderstorm. This was one in a series of thunderstorms that moved across the area during the early morning hours along a nearly stationary line. Rainfall at Drake Field totalled 2.26 inches from this event. (No hail was reported with this storm.)

#### ARZ001>002-010>011-019>020-029

#### Benton - Carroll - Washington - Madison - Crawford - Franklin - Sebastian

20	0000CST				2	0			Excessive Heat
31	2359CST								

A blistering heat wave struck the south-central part of the nation in July 1998, including much of western and northwestern Arkansas. The second half of the month also saw little, if any, rainfall in northwest Arkansas. This was all brought about by a persistent upper level ridge of high pressure over the south-central and southwestern parts of the nation.

In the Arkansas River valley at Fort Smith, the temperature rose to at least 100 degrees Fahrenheit on 12 of the last 14 days of the month and reached as high as 107 on the 30th. Further north at Fayetteville, the temperature rose to at least 95 degrees on 12 of the last 14 days of the month and reached as high as 101 on the 30th. 100+ degree temperatures are certainly unusual in the higher elevations of northwest Arkansas. Neither Fort Smith nor Fayetteville saw measurable rainfall from the 13th through the end of the month.

Two deaths in northwest Arkansas are blamed on the heat. According to the Arkansas Department of Health's Center for Health Statistics, two Benton County infants died from the heat. Newspaper articles did not list the gender of the victims, nor did they list the date or location of their deaths. ?OOT, ?OOT

### OKLAHOMA, Eastern

#### Creek County

3 NW Bristow	02	0230CST			0	0	10K		Hail (2.75)
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Baseball-sized hail damaged several cars and a house near Bristow.

#### Tulsa County

Broken Arrow	02	0715CST			0	0			Hail (0.75)
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#### Latimer County

Wilburton	02	1530CST			0	0			Hail (0.88)
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Summary of events for July 2 1998:

Leftover outflow boundaries from non-severe thunderstorms on July 1 combined with an upper level trough caused isolated severe thunderstorms to develop early on the morning of July 2. The main threat with these isolated storms was hail as large as baseballs near Bristow. Another isolated severe thunderstorm developed during the afternoon along another old leftover boundary.

#### OKZ049-053-065>066-071-073>076

#### Pushmataha - Choctaw - Okfuskee - Okmulgee - McIntosh - Pittsburg - Haskell - Latimer - Le Flore

06	0000CST				0	0	500M		Drought
31	2359CST								

A devastating drought and heat wave affected southeastern Oklahoma farmers during the month of July. At McAlester, the only rainfall during July was 0.19" on the first two days of the month. The southeast Oklahoma climate division (which includes Choctaw, Pushmataha, Latimer and Le Flore Counties) received 50 percent of normal rainfall from May 1 through July 31. By the end of July, southeast Oklahoma was classified by the Palmer Index as being in the midst of a "severe drought", while east central Oklahoma was experiencing "moderate drought". From a historical perspective, the period from June 1-July 31 was the third driest on record in southeast Oklahoma, while the period from April 1-July 31 was the fourth driest on record in east central Oklahoma.



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### OKLAHOMA, Eastern

<b>OKZ049-053-060-064&gt;068-070&gt;076</b>	<b>Pushmataha - Choctaw - Tulsa - Creek - Okfuskee - Okmulgee - Wagoner - Cherokee - Muskogee - McIntosh - Sequoyah - Pittsburg - Haskell - Latimer - Le Flore</b>								
	<b>06</b>	<b>0000CST</b>			<b>5</b>	<b>0</b>			<b>Excessive Heat</b>
	<b>31</b>	<b>2359CST</b>							

A blistering heat wave struck the south-central part of the nation during July 1998, including much of eastern Oklahoma. A drought also accompanied the heat wave in southeast Oklahoma, combining with the heat wave to cause devastating crop damage. (For specific information on the drought aspect and crop damage, see the Drought entry in eastern Oklahoma's July Storm Data.) This was all brought about by a persistent upper level ridge of high pressure over the south-central and southwestern parts of the nation.

Temperatures in some portion of southeast Oklahoma rose above 100 degrees on all but two days of the month, particularly further south in Choctaw and Pushmataha Counties. At the McAlester ASOS, 100+ degree temperatures were recorded on 24 out of 31 days during July. In fact, there were 15 consecutive days above the century mark from the 17th through the 31st, and the mercury soared to at least 105 degrees every day from the 23rd through the 31st, rising as high as 107 on three days. The average high temperature for the entire month of July in McAlester was 102.0 degrees. The average monthly temperature was 89.3 degrees, or 7.4 degrees above normal. The temperature failed to fall below 80 degrees on eight days of the month.

Further north at the Muskogee ASOS, conditions were similar as temperatures reached at least 100 degrees on all but one day from the 18th through the 31st. The temperature rose as high as 107 on the 26th.

In Tulsa, weak cold fronts put a damper on the extreme heat for two to four days at a time, but temperatures reached at least 100 degrees eight times in July. The temperature rose as high as 106 on the 30th.

Five deaths in eastern Oklahoma during July are blamed on the heat, not including a 40-year old man who suffered a heat stroke in June and died on July 13. The first was a 40-year old Tulsa man who suffered a heat stroke near 800 S. Boulder Avenue in downtown Tulsa on July 10. The high temperature that day in Tulsa reached 99 degrees after a morning low of 80 with afternoon heat indices near 110 degrees. An 86-year old Hugo man died on July 15 after suffering from dehydration and heat. Another 40-year old Tulsa man and a 63-year old Broken Arrow man had also died of heat stroke through July 20, but the exact day of these two deaths was not included in newspaper articles and is unknown. On the 30th, a 39-year old Henryetta woman died of hyperthermia. The temperature at Tulsa rose that day to 106, and McAlester rose to 105.

The State Health Department reported that Emergency Medical Services throughout Oklahoma had responded to 452 heat-related injuries during the period June 1 to July 31, but it is unknown when and how many of those took place in the eastern portion of Oklahoma.

M40OU, M40OT, M62OT, M86PH, F39OT

#### **Pawnee County** 3 ENE Pawnee

<b>08</b>	<b>0140CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G75)</b>	
Summary for July 8 1998:									

A weakening area of showers and thunderstorms moved southeast out of Kansas during the early morning of July 8. Most all of these thunderstorms remained below severe limits. However, the Pawnee mesonet site measured a gust to 86 mph in what could have been a small-scale wet microburst. To demonstrate the small scale of this event, the Pawnee Police Department logged 40 mph winds in town, and there was no damage reported with this event, despite the severity of the winds at the mesonet site.

#### **Le Flore County** 2 W Summerfield

<b>11</b>	<b>1944CST</b>			<b>0</b>	<b>0</b>			<b>Hail (1.00)</b>
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#### **Rogers County**

**Inola**

<b>12</b>	<b>0110CST</b>			<b>0</b>	<b>0</b>			<b>Hail (0.75)</b>
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#### **Rogers County**

**Inola**

<b>12</b>	<b>0110CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
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Summary of events for July 11-12 1998:

An isolated severe thunderstorm developed on the evening of July 11 over central Le Flore County near a weak surface boundary with the approach of a weak upper level disturbance. This storm produced hail as large as quarters.

Later after midnight, the weak upper level disturbance in northwest flow aloft kicked off more thunderstorms from near Ponca City to just north of Tulsa to near Fayetteville. One of these thunderstorms became severe over southern Rogers County between 145 and 215 AM CDT as it moved to the southeast, producing marginally severe wind and hail near Inola.

#### **Pittsburg County** Mc Alester

<b>24</b>	<b>1845CST</b>			<b>0</b>	<b>0</b>	<b>1.5K</b>		<b>Thunderstorm Wind</b>
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July 1998

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

### OKLAHOMA, Eastern

An isolated thunderstorm produced an apparent downburst wind on the north side of McAlester, blowing down several trees and privacy fences.