

<b>NWS FORM E-5</b> (11-88) (PRES. by NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA)  <b>Tulsa, Oklahoma (TSA)</b>
	<b>MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS</b>	
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		REPORT FOR: MONTH                      YEAR <b>October</b> <b>2008</b>
		SIGNATURE <b>Steven F. Piltz</b> (Meteorologist-in-Charge)
		DATE <b>November 3, 2008</b>

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 No flood stages were reached in this HSA during the month above.**

October is climatologically the fourth wettest month for most the Tulsa HSA, except the Ozark region which stays a little drier than the rest of the HSA. Normal rainfall for October ranges from 2.9 inches in Pawnee County to 4.4 inches in Sequoyah County. 3.7 inches is normal across the Ozark region of northwest Arkansas. West central Arkansas averages just under 4 inches, while southeast Oklahoma averages slightly higher amounts of 4.5 inches.

The first round of rainfall this October affected much of the HSA as a low-level jet enhanced lift north of a warm front on October 3-4. Rainfall amounts were generally less than 0.5", though there were pockets of higher amounts where the storms were more convective. As a cold front move through the area on the 6<sup>th</sup>, showers and thunderstorms developed, bringing 0.75" to around 2" of rain to southeast OK and northwest AR. Generally less than 0.5" of rain fell across the remainder of eastern OK.

A weak cold front slowly moved through the region on the 14<sup>th</sup>-15<sup>th</sup>. Most of the precipitation associated with this front remained west of the HSA, with a gradient of rainfall from northwest to southeast across the area. Rainfall totals for the two days ranged from near 1.5" in the northwest portion of the HSA, to near 0.3" from Okema to Vinita, to around 0.10" or less else across far eastern OK and western AR.

A strong low pressure system and cold front moved across the Tulsa HSA on October 22, bringing widespread 0.25"-0.75" to the area. Training showers and thunderstorms along the cold front brought higher totals to the northern half of the area. The heaviest rainfall occurred along the Interstate 44 corridor from Tulsa to Miami, where around 1.5" to near 2.5" fell (see Figs. 1 and 2).

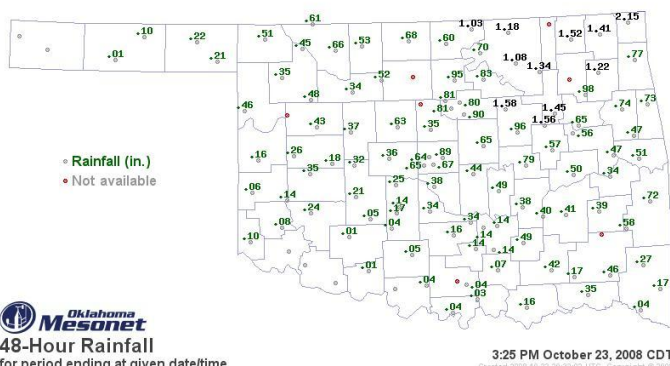


Fig. 1. Rainfall totals courtesy of the OCS.

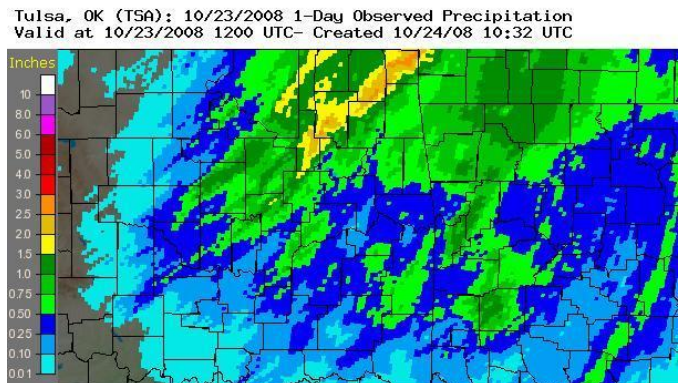


Fig. 2. Precipitation estimate courtesy of the ABRFC

A strong but compact upper low moved southeast out of Kansas on the morning of Oct 31<sup>st</sup> and sparked a line of showers and thunderstorms from McAlester, OK to the far northwest tip of Arkansas. As this line of storms moved east, generally around one tenth of an inch or less of rain fell. However, redevelopment and training of storms in far northwest Arkansas led to rainfall totals of 1 to 2 inches, in addition to penny and nickel sized hail.

Using the observed precipitation (Fig. 1a) and percent of normal (Fig. 1b) graphics from the ABRFC, one can see that the majority of the rainfall this month affected areas to the northwest and southeast of the HSA. Almost all of the HSA received below normal rainfall this month (Fig. 1b), with the area from Muskogee, OK to Hugo, OK receiving 25% or less of the monthly normal rainfall.

Tulsa, OK (TSA): October, 2008 Monthly Observed Precipitation  
Valid at 11/1/2008 1200 UTC- Created 11/1/08 22:44 UTC

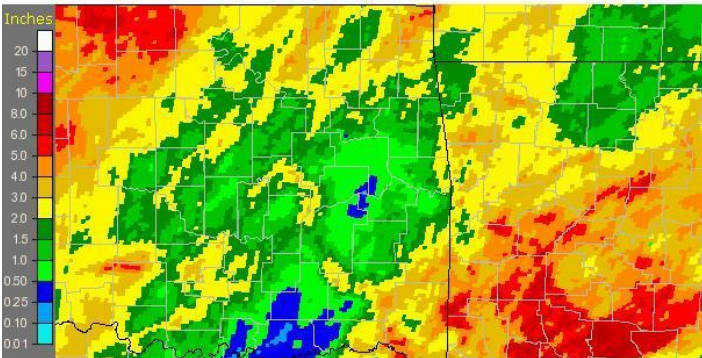
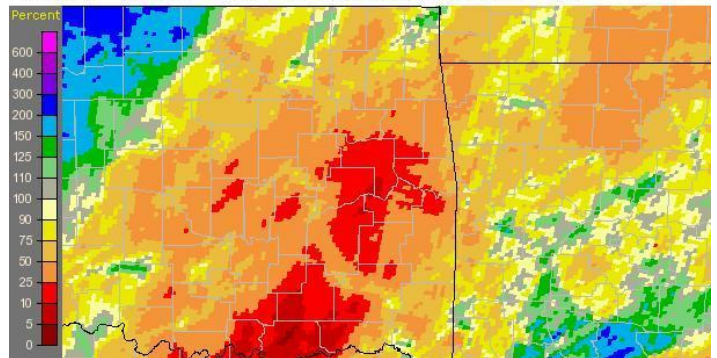


Fig. 1a. October 2008 Observed rainfall (ABRFC)

Tulsa, OK (TSA): October, 2008 Monthly Percent of Normal Precipitation  
Valid at 11/1/2008 1200 UTC- Created 11/1/08 22:48 UTC



b. October 2008 Percent of Normal rainfall (ABRFC)

October 2008 was one of the drier months of this year. The northeast OK climate division ranked as the 37<sup>th</sup> driest October since records began in 1921; the east central OK climate division ranked as 22<sup>nd</sup> driest; and the southeast OK climate division ranked as 35<sup>th</sup> driest. So far this autumn and water year (Sept 1-Oct 31), the northeast OK climate division was the 37<sup>th</sup> wettest since records began in 1921; the east central OK climate division was the 35<sup>th</sup> driest; and the southeast OK climate division ranked as the 40<sup>th</sup> wettest. Due to the drier October period, the northeast OK climate division slipped from the wettest to the 2<sup>nd</sup> wettest year-to-date (Jan 1-Oct 31) for the first time in 2008 (since records began in 1921). The east central OK climate division ranks as the 8<sup>th</sup> wettest year-to-date period, while the southeast OK climate division ranked as 12<sup>th</sup> wettest.

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

Bartlesville, OK (ASOS)	4.19	Miami, OK (mesonet)	4.11	Mountainburg, AR (mesonet)	3.99
Copan, OK (mesonet)	3.91	Fort Smith, AR (ASOS)	3.65	Odell, AR (coop)	3.47
Foraker, OK (mesonet)	3.29	Cloudy, OK (mesonet)	3.27	Fayetteville Exp. Stn., AR (coop)	3.19

At the end of October, all of the major reservoirs were around 100 percent of their conservation pools, except for Lake Eufaula, which was at 94% of its conservation pool.

The U.S. Drought Monitor (USDM) issued October 28, 2008 showed no drought in the HSA, though did indicate abnormally dry conditions in Okfuskee County as well as the far western portions of Creek, McIntosh, Cherokee, and Choctaw Counties. The Climate Prediction Center (CPC) outlook for November (issued Oct 31) indicates an equal chance for above, near, and below normal temperatures and precipitation. The CPC outlook for the Nov-Dec-Jan 3-month period (issued Oct 16) shows an enhanced chance for above normal temperatures area-wide and equal chances for above, near, and below normal precipitation.

Products issued:

- 0 River Flood Warnings
- 0 River Flood Statements
- 1 River Statements
- 0 Hydrologic Outlooks

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