Oklahoma Drought Update
Oklahoma Climatological Survey
Climate Information Group
May 26th, 2006

This document is provided to update Oklahoma's citizens and decision-makers with weather and climate information related to the state's ongoing drought and drought-related wildfires. The data summarized here are updated daily at the Oklahoma Climatological Survey Drought Update: http://climate.ocs.ou.edu/drought.

Summary

Data from the Oklahoma Mesonet and the Oklahoma Climatological Survey archives indicate that the state is undergoing drought on multiple timescales. The drought has now taken on two faces: a short-term event (scale of months) that is worst in the northern half of the state, and a historically-severe long-term drought (seasons to years) in the east. Northeast Oklahoma is at the intersection of both timescales. The southeast has experienced drought or near-drought conditions since 2002, with a distinct intensification in spring 2005. Summer and fall 2005 brought a northward expansion to fill the state's eastern third. Severe drought impacts then advanced westward during the subsequent winter. Precipitation in April eased immediate problems, but a warm, dry May has exacerbated long-term drought conditions in much of Oklahoma.

Historical Rank of the Current Drought

These historically rank the current rainfall statistics on seven different timescales. Each is compared to a history made up of the equivalent time periods since 1921. For example: a rank of "8th" for north-central Oklahoma's 180-day rainfall indicates that the 180-day total (Nov 28th, 2005 through May 26th, 2006) is the 8th-driest such period of the 85 on record.

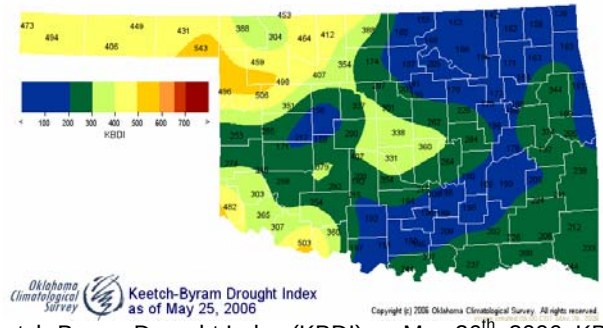
	Rank by Time Scale: For Periods Ending May 26th						
OK Region	**30-Day**	**60-Day**	**90-Day**	**120-Day**	**180-Day**	**365-Day**	**Two-Year**
1-Panhandle	27th	7th	10th	5th	4th	17th	43rd
2-N. Central	39th	19th	24th	16th	8th	28th	33rd
3-Northeast	63rd	50th	47th	35th	13th	8th	18th
4-W. Central	44th	13th	17th	9th	7th	32nd	59th
5-Central	42nd	17th	18th	16th	6th	20th	26th
6-E. Central	59th	37th	34th	29th	8th	1st	16th
7-Southwest	41st	21st	21st	17th	9th	16th	33rd
8-S. Central	61st	34th	44th	36th	17th	25th	36th
9-Southeast	48th	19th	42nd	38th	14th	1st	1st
OK-Statewide	45th	20th	23rd	16th	7th	11th	23rd

Historical Rank: Among five driest.
Historical Rank: 6th through 10th driest.
Historical Rank: Among driest quarter.

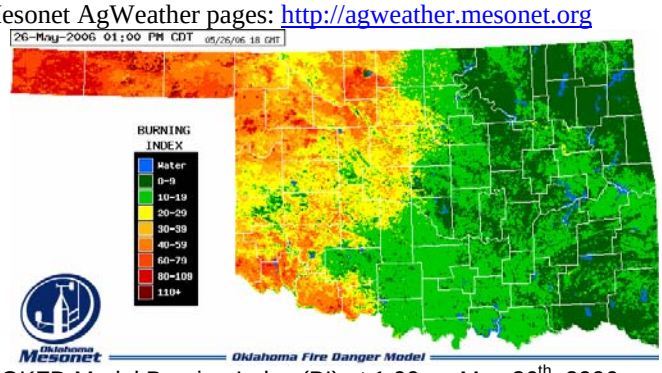
Description: Cells show the historical rank of recent precipitation on seven time scales. Values are compared to analogous periods ending May 26th. There are 86 such periods in the modern climate history (since 1921).

Information from the Oklahoma Fire Danger Model (OKFD Model)

The OKFD Model's full output suite is updated hourly at the Mesonet AgWeather pages: http://agweather.mesonet.org



Keetch-Byram Drought Index (KBDI) on May 26th, 2006. KBDI is an indicator of drought's impact on wildfire danger. As values increase, more subsurface organic matter is available as fuel for wildfire, and fires are more energetic and difficult to extinguish. For comparison, average May KBDI ranges from about 50 in southeast Oklahoma to 200 in the panhandle.



OKFD Model Burning Index (BI) at 1:00pm May 26th, 2006. The BI yields expected flame height in tenths of feet. For example, values of 110+ in the western panhandle suggest potential flame lengths exceeding 11 feet. BI values are very dependent on hour-to-hour weather changes. BI exceeded 100 across much of Oklahoma during several May afternoons.

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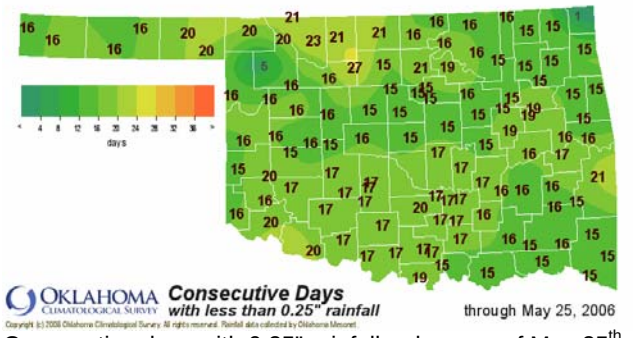
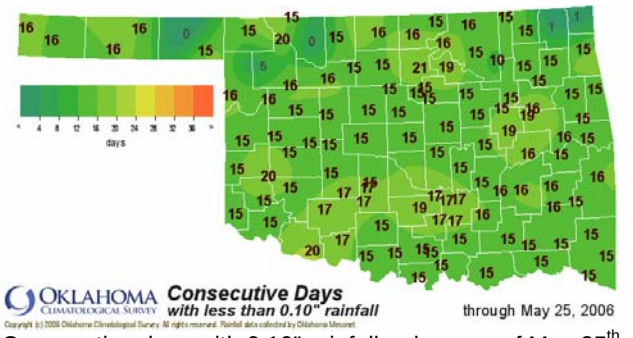
Days since Significant Rainfall

The following maps show the consecutive days with less than one-quarter or one-tenth inch of rain at each of the 116 Oklahoma Mesonet stations. Historically, values approaching 15 are quite rare during the month of May.



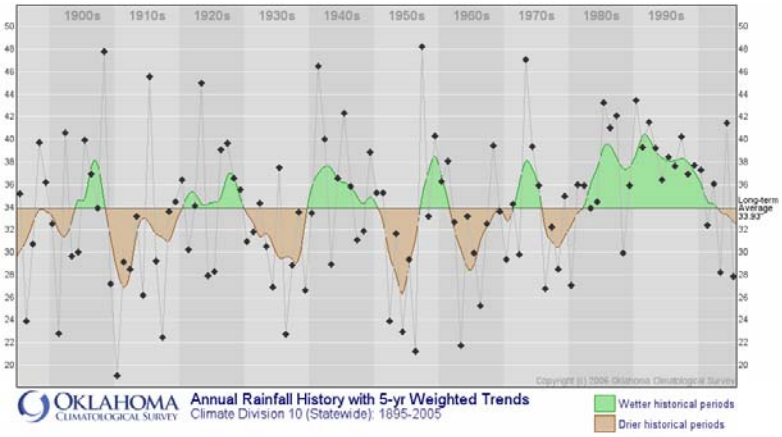
Consecutive days with 0.25" rainfall or less, as of May 25th.



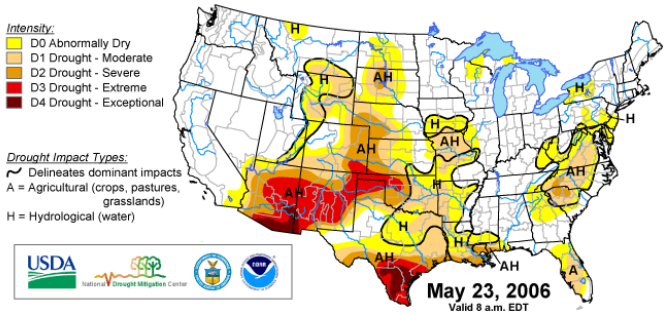
Consecutive days with 0.10" rainfall or less, as of May 25th.

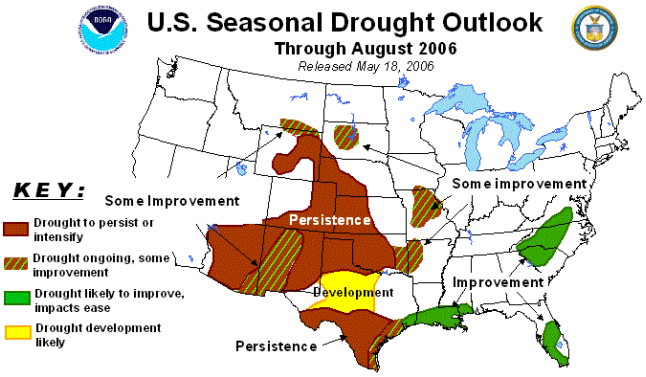
Historical Rainfall Variability

An examination of Oklahoma's rainfall history suggests a prevailing wet-dry cycle of about 5-10 years. This graphic displays statewide annual rainfall since 1895. Droughts of the 1910s, 1930s and 1950s emerge as brown lobes. Until recently, the state enjoyed a sustained period of relatively wet conditions dating to the 1980s. This period of prolonged wetness – to which many Oklahomans grew accustomed – is unmatched in the state's recorded rainfall history. Similar graphics are available by season and by month, for precipitation and temperature at http://climate.ocs.ou.edu.



Assessment and Forecast from a National Perspective





The US Drought Monitor (http://drought.unl.edu) is a weekly multi-agency assessment of the nation's broad-scale drought conditions. Categories symbolize various levels of "unusualness". Severity is based on climate observations and impact assessments from local, state and regional experts. OCS serves as Oklahoma's primary voice to Drought Monitor authors.

The Drought Outlook is published monthly by NOAA's Climate Prediction Center (http://www.cpc.noaa.gov). It offers the forecaster's "best estimate" outlook for development and improvement of drought, based on various climate models and long-range techniques. The skill of long-term forecasts (beyond a week) is much, much less than 5-day, or even 7-day forecasts.

For more information …

Please contact the OCS Climate Information Group for more information about these and other products.

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