

# National Wildland Significant Fire Potential Outlook

## National Interagency Fire Center Predictive Services



Issued: September, 2007

## Wildland Fire Outlook – September through December 2007

Significant fire potential in September is expected to be higher than normal in California, Idaho, Montana, the northern Great Lakes and much of the Southeast. Below normal fire potential is forecast for portions of Texas, the Pacific Northwest coast and southern Nevada. The main factors influencing fire potential this outlook period are:

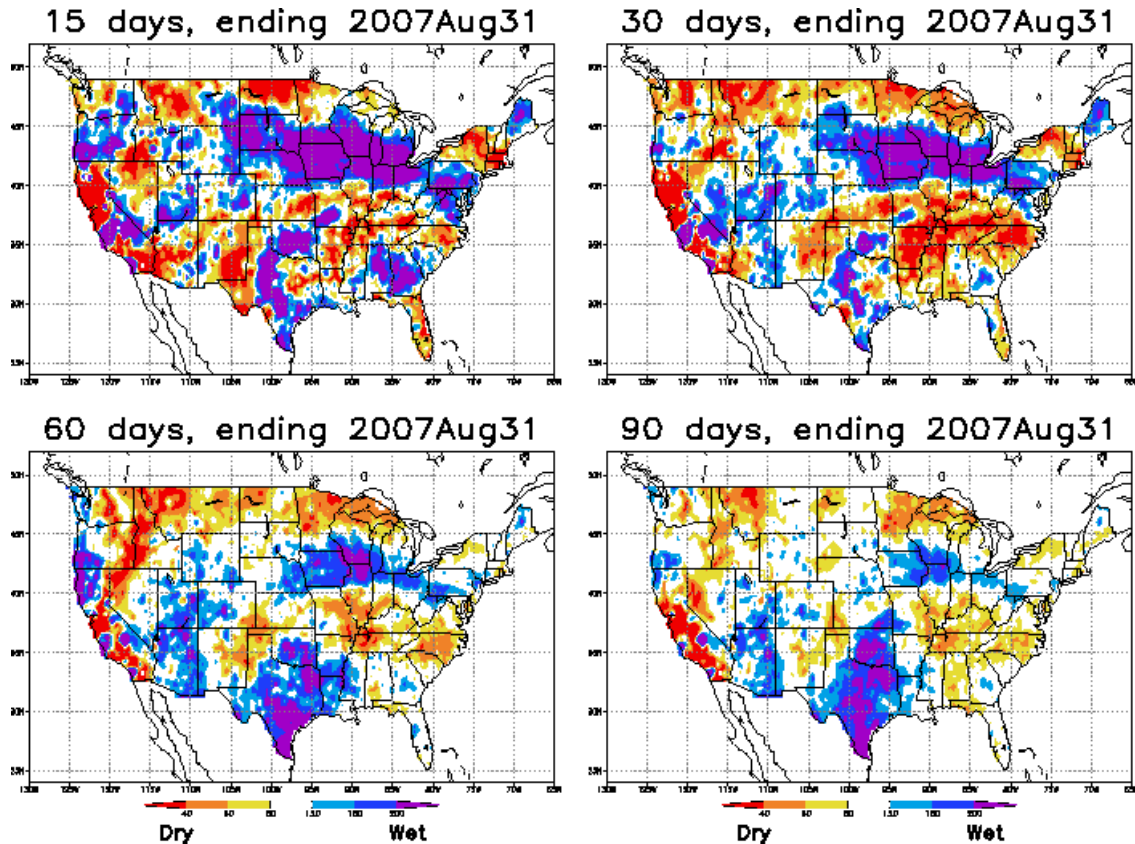
- Warmer and drier than normal weather should persist in the West with fire potential remaining higher than average in California, Idaho and Montana. Fire potential will decrease as usual in the fall, but is expected to remain high in southern California.
- A wet summer has resulted in an abundant growth of fine fuels in portions of the Great Plains. This area will see above normal fire potential in the fall.
- Continued lack of precipitation and persisting drought will cause fire potential to be elevated in the northern Great Lakes during September, even though thunderstorms produced heavy rains just to the south.
- An ongoing drought and a very hot, dry summer have left portions of the Southeast primed for an active fall fire season. Fire season normally begins in late October, but is expected to begin earlier than normal this year.



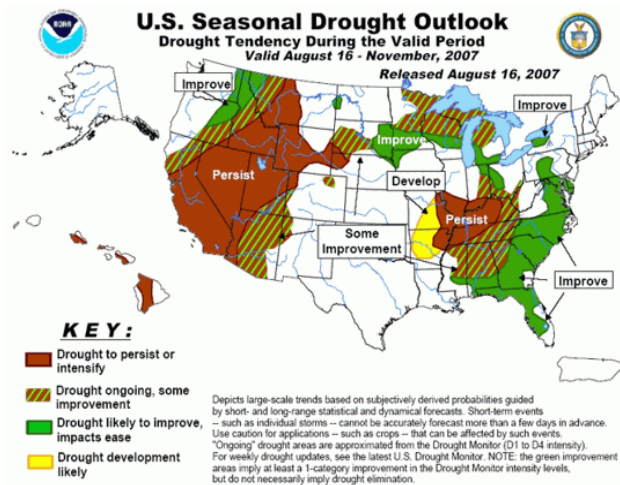
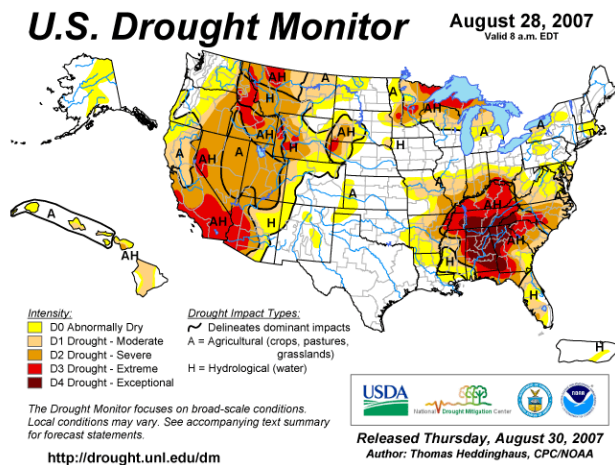
Note: Significant fire potential is defined as the likelihood that a wildland fire event will require mobilization of additional resources from outside the area in which the fire situation originates.

# Past Weather and Drought

August rainfall in the West was quite variable. This summer has been generally hotter and drier than normal from east of the Cascades through the northern Great Lakes area and also over the Southeast states. At the other extreme, both Texas and Oklahoma have been very wet and cooler than normal. With drought conditions worsening in the Southeast, this area is poised for a potentially active fall fire season barring a land-falling hurricane.



[www.cdc.noaa.gov/Drought/images/prec4.gif](http://www.cdc.noaa.gov/Drought/images/prec4.gif)



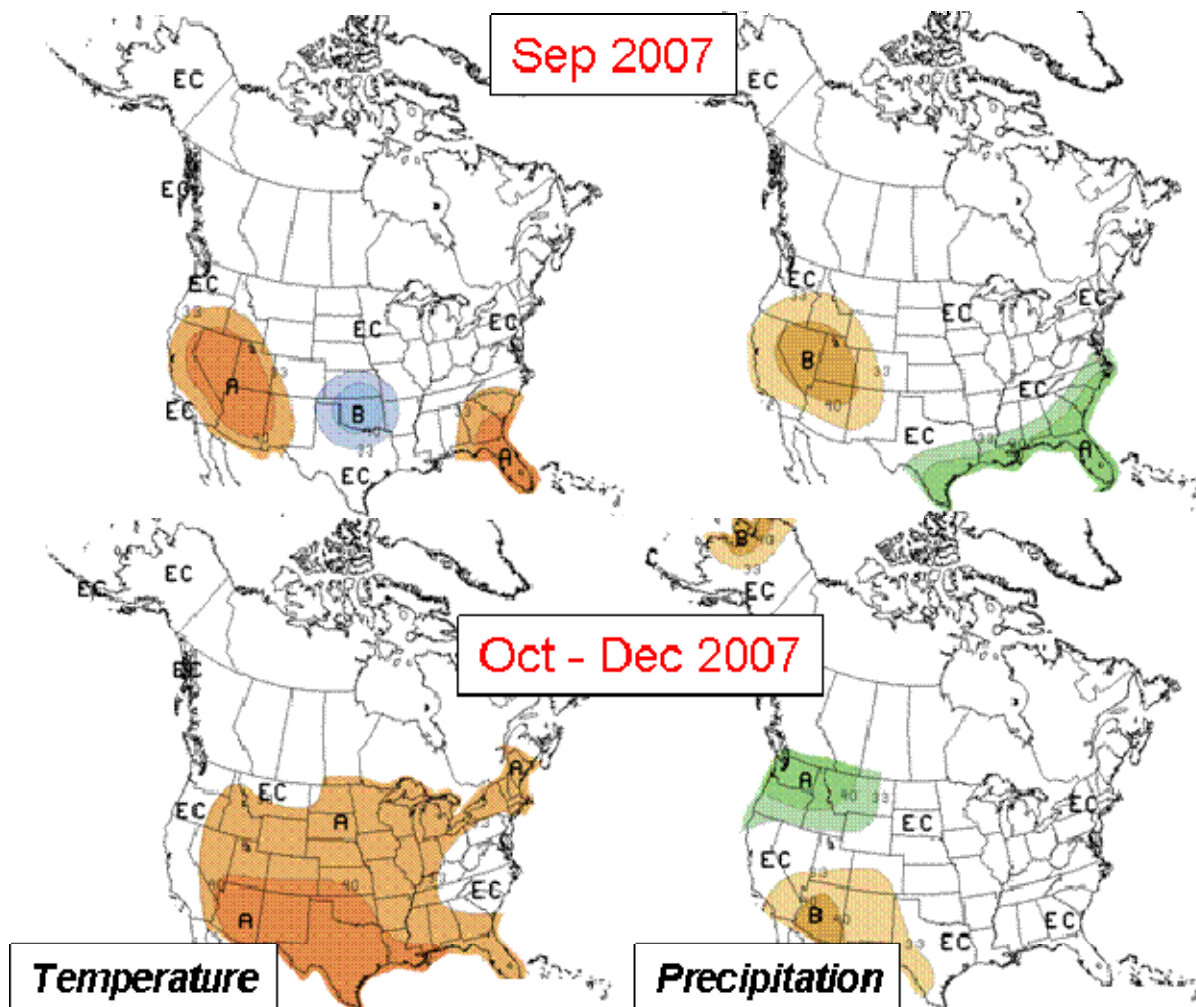
[www.drought.unl.edu/dm/monitor.html](http://www.drought.unl.edu/dm/monitor.html)

## Weather and Climate Outlooks

According to the National Weather Service (NWS) Climate Prediction Center, the El Niño Southern Oscillation (ENSO) remains neutral, but may be trending toward a weak La Niña event. Tropical sea surface temperatures are becoming cooler in the eastern Pacific and remain slightly warmer than normal in the western Pacific. Even if a weak La Niña develops, its impact would not be felt until the winter months.

The NWS outlooks for September calls for continued warm, dry weather in the West with wet weather along the coast from Texas to the Carolinas. This wetness is due in part to the potential of an above normal hurricane season.

October through December is expected to be warmer than normal across most of the country. With the lack of any strong climate signals, the Southeast will have equal chances of above, below and normal weather.



A = Above normal, B = Below normal, N = Normal, EC = Equal Chances of Above/Below/Normal.  
[www.cpc.ncep.noaa.gov/products/predictions/multi\\_season/13\\_seasonal\\_outlooks/color/page2.gif](http://www.cpc.ncep.noaa.gov/products/predictions/multi_season/13_seasonal_outlooks/color/page2.gif)

## Area Discussions

**Alaska:** Fire season has wound down through most of the state with August rains and cooler temperatures. The exception is in the central and eastern interior where widespread soaking rains have been absent. The last two weeks of August have brought warm and dry weather and re-emergence of some fires that had previously been declared out. Fire activity on these older fires has been minimal. Outlooks for early September indicate warmer than normal temperatures and little chance of widespread precipitation in the central and eastern interior. This will allow ongoing fires to continue burning through mid month. Little to no resource demands are anticipated as most fires are in limited suppression management areas.

**Southwest:** Western and northern Arizona will likely see warm and dry conditions during September. However, significant fire concerns are not anticipated during the first half of the month as monsoonal moisture is expected to continue, especially across the eastern portion of the Geographic Area. Increasing fire potential is expected in portions of the eastern half of the Area during the extended outlook period, primarily due to abundant grass fuel loadings that developed over the past 6 months as an outcome of a very wet spring and early summer. These abundant fuels, combined with dry and breezy conditions this fall are expected to result in above average significant fire potential this fall.

**Northern Rockies:** Much of the Area continues to experience near record fuel dryness and is expected to have above normal significant fire potential for September. Scattered rain from thunderstorms has provided local, short-term relief, but evidence of a broad scale season ending event early in September is lacking. Above normal temperatures and below normal precipitation is forecast for the first half of September, especially across the western sections of the Area. Fuels should continue to slowly moisten with shorter days and cooler nighttime temperatures providing moderate humidity recovery. Climatologically, lightning and new fire occurrence significantly decreases by early September. The risk of large fire growth will remain high since many fires are not contained and wind events are more common in September. During the extended outlook period, fire potential will decrease across the Area, especially west of the Divide. However, abundant fine fuels in eastern Montana may continue to present problems in October during dry wind events.

**Great Basin:** Significant fire potential will range from above normal in the Idaho mountains to below normal in southeastern Nevada during September. Fire danger indices remain at near record levels going into September in the west-central Idaho Mountains and existing fires there will continue to exhibit periodic extreme fire behavior during the first half of September. Resource demand to manage these fires is expected remain high through mid September. Southeastern Nevada has received abundant monsoon moisture which has increased minimum daily RH and lowered fire potential there to below normal. Elsewhere in the Geographic Area, fire potential is expected to be normal.

**Northwest:** Normal fire potential is projected for the Area during September and the extended outlook period. Relatively widespread precipitation, with highly variable amounts, occurred the last few days of August and helped moisten fuels and lower fire danger indices. Another system is expected to cross the Area the first week of September and bring cooler temperatures and additional moisture. Longer range forecast models suggest conditions will warm up and dry out again later in September, but this is not unusual. Given the current and forecasted conditions, the Area is expected to see near average fire activity during the remainder of the year.

**California:** Much of California will see above normal fire potential during September. Fuels remain abnormally dry in many areas, more typical of late fall conditions, with Energy Release Component values exceeding the 90<sup>th</sup> percentile in many cases. Climate outlooks call for above normal temperatures and below normal precipitation across the majority of the Area from September through November, especially in the eastern and southern portions of the state. Thus, conditions for extreme fire behavior will continue through September and into October. During September, north wind events

will become more likely over the northern portion of the state and Southern California could begin to experience some offshore winds by the end of the month. Fire potential will be the greatest across the mountains and interior valleys where heavy fuels are more continuous. During the extended outlook period, conditions will improve across northern California and the central part of the state as temperatures continue to cool and the likelihood of precipitation increases. However, above normal significant fire potential is expected to persist in the southwestern portion of the state where fall offshore wind events are common. Statewide fuels and fire behavior advisories remain valid for September.

**Rocky Mountain:** Normal fire potential is forecast for the entire area during September. However, portions of Nebraska, Kansas, and eastern Colorado are expected to see above normal significant fire potential during the fall months due to abundant fine fuels. Above normal temperatures are forecast for much of the area during the extended outlook period. While the Area has experienced an average number of fire starts this season so far, fewer than 50% of 10-year average acres have burned. This is due primarily to a sufficient number of wetting rain events that have prevented fuels from drying to critical levels for an extended period of time. This pattern is expected to continue during September.

**Eastern Area:** The northern tier of the Great Lakes remains in severe to extreme drought despite some precipitation relief in late August. Record high fire danger indices and low thousand hour fuel moistures were found across much of eastern Minnesota, northern Wisconsin and northern Michigan at the end of August. These conditions combined with dry and windy weather conditions during September will lead to elevated significant fire potential until more frequent, widespread precipitation events occur over the northern Great Lakes later this fall. Dry, short-term drought conditions in southern Illinois, Indiana, Ohio, and West Virginia will also lead to above normal significant fire potential in September.

**Southern Area:** In spite of the ongoing rain activity in some of the driest areas of the Central South, drought conditions remain extreme. Significant fire potential is expected for much of Kentucky, Tennessee, North and South Carolina, and portions of adjacent states with fire risks and initial attack activity waxing and waning throughout September. Many NFDRS indices continue to trend above the 97<sup>th</sup> percentile or historical levels. Conditions are primed for an early fall fire season and large fire occurrence with dry heavy fuel moistures and fine fuel moistures that will respond quickly to several rain-free days with low relative humidity. For the extended outlook, colder and drier than average conditions along with critical conditions resulting from cold frontal passages are expected to heighten fire risks in the Central South during the fall fire season which typically begins late October and could extend into November. In addition, portions of Texas and Oklahoma are expected to see an emergence of above normal significant fire potential due to warm, dry conditions with abundant fine fuel loadings.

**Note:** This national outlook and some geographic area assessments are currently available at the NICC and GACC websites. The GACC websites can also be accessed through the NICC webpage at: <http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm>

## Historic and Predicted Wildland Fires and Acres Burned Data

Based on reported data so far this year, nationally there were 110% of the average numbers of fires, burning approximately 140% of the average acres. The following table displays historical, current and predicted information pertaining to fire statistics.

	<b>AUG 31, 2007 Reported Year-To-Date</b>	<b>Average reported for SEP</b>	<b>Projection for September YTD+Forecast</b>	<b>Average Reported YTD SEP 30</b>	<b>Historical Low YTD SEP 30</b>	<b>Year of Low</b>	<b>Historical High YTD SEP 30</b>	<b>Year of High</b>
<b>ALASKA</b>								
<b>Fires</b>	434	18	449	498	308	2006	712	1997
<b>Acres</b>	262,596	79,229	318,056	1,787,918	121,950	1998	6,298,136	2004
<b>NORTHWEST</b>								
<b>Fires</b>	2,977	571	3,605	3,545	2,623	2005	4,239	2001
<b>Acres</b>	618,390	39,953	674,324	426,566	39,650	1997	1,061,373	2002
<b>NORTH OPS</b>								
<b>Fires</b>	2,632	644	3,405	3,603	2,627	2005	4,390	2001
<b>Acres</b>	91,737	41,980	150,509	130,910	12,994	1997	346,604	1999
<b>SOUTH OPS</b>								
<b>Fires</b>	3,930	625	4,679	3,711	3,046	2006	4,239	1999
<b>Acres</b>	324,763	45,981	384,538	164,295	48,263	2003	425,005	1999
<b>NORTHERN ROCKIES</b>								
<b>Fires</b>	2,808	387	3,233	2,927	1,531	1997	4,244	2000
<b>Acres</b>	964,595	83,444	1,064,727	399,417	14,635	1997	1,348,156	2000
<b>EAST BASIN</b>								
<b>Fires</b>	1,987	297	2,313	2,286	1,360	1997	3,009	2001
<b>Acres</b>	2,044,839	59,553	2,152,035	545,594	57,843	1997	1,508,049	2000
<b>WEST BASIN</b>								
<b>Fires</b>	746	99	865	892	649	1997	1,192	2006
<b>Acres</b>	867,512	36,293	921,952	541,225	16,531	2003	1,602,162	1999
<b>SOUTHWEST</b>								
<b>Fires</b>	2,931	194	3,164	4,234	3,260	1999	5,594	2000
<b>Acres</b>	117,554	4,256	120,036	403,779	59,390	2001	973,624	2002
<b>ROCKY MOUNTAIN</b>								
<b>Fires</b>	2,427	344	2,736	2,685	1,806	2004	3,984	2006
<b>Acres</b>	72,398	35,150	100,518	201,701	20,811	1998	650,971	2002
<b>EASTERN AREA</b>								
<b>Fires</b>	10,164	939	11,103	12,322	10,877	2000	16,194	1999
<b>Acres</b>	195,448	4,699	206,725	102,149	55,764	1997	175,723	2003
<b>SOUTHERN AREA</b>								
<b>Fires</b>	34,930	2,325	37,952	29,479	12,350	2003	43,014	2000
<b>Acres</b>	1,411,761	40,805	1,505,613	777,560	230,523	2003	2,433,532	2006
<b>NATIONALLY</b>								
<b>Fires</b>	65,966	6,441	73,505	66,183	49,295	2003	86,035	2006
<b>Acres</b>	6,971,593	471,342	7,599,033	5,481,113	2,171,825	1998	9,189,781	2006

The information above was obtained *primarily* from the Incident Management Situation Report from 1998-2007, however, some inaccuracies and inconsistencies have been corrected. Therefore, the data may not reflect other historic records and should not be considered for official statistical purposes.

Prepared September 1, 2007 by the National Interagency Coordination Center – Predictive Services Staff