# **National Wildland Significant Fire Potential Outlook**



National Interagency Fire Center Predictive Services

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#### Wildland Fire Outlook – August 2009 through November 2009

**During August, above normal significant fire potential is expected across portions of Alaska, Oregon, Washington, California, and Texas.** Below normal significant fire potential is expected across portions of the Great Basin, Rocky Mountain, Southern, Eastern, and Southwest Areas for August. For September through November, significant fire potential is forecast to increase or persist across parts of northern California, Texas, and the Appalachian Mountains. The primary factors influencing fire potential this outlook period are:

- Prolonged drought, hot and dry weather during July, and climate forecasts for a continuation of these factors in August point towards above normal significant fire potential for portions of the Northwest, California and Texas.
- Record dryness and near record heat in July has caused extensive fire activity in the Alaska interior. Fire potential is expected to remain above normal in August and diminish thereafter.
- Significant fire potential will likely increase in the Appalachians in October and November due to lingering drought during the leaf drop.



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**

July was much warmer than normal in the West and Southwest and generally cooler than normal elsewhere. The record breaking heat wave in the Northwest at the end of July produced an all-time record high of 103 in Seattle. July was drier than normal along the West Coast, south Texas and the Great Lakes region. Long term drought conditions are expected to persist or worsen over portions of California, Nevada, southern Texas and the northern portions of Washington and Montana.

In Alaska, July was very hot and dry over much of Interior Alaska. It was the second warmest July on record in Fairbanks and the driest July ever with only .06 inches of rain. The Panhandle was also quite dry with Sitka also reporting their driest July on record.



www.cdc.noaa.gov/Drought/images/prec4.gif



www.drought.unl.edu/dm/monitor.html

### Weather and Climate Outlooks

El Niño conditions have developed in the Pacific and are expected to strengthen into the fall. El Niño events usually have little impact on August weather patterns but should exert greater influence during the fall and winter. NOAA's Climate Prediction Center (CPC) outlooks shown below reflect these impacts, especially during the September through November period. The above normal rainfall in the Northwest in August is based mainly on a low pressure system moving into the area during the first week of the month.



**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

### Area Discussions

<u>Alaska:</u> Significant fire potential is projected to be above normal across much of central and eastern Alaska during the first half of August, then decreasing to normal by early September. There was a lack of precipitation across the Interior with very warm conditions during most of July. This is noteworthy since July typically has the highest average monthly precipitation in Interior Alaska. These conditions have caused significant drying of fuels and a corresponding increase in active fire behavior, which will continue through early August at least. Current forecasts indicate fairly warm temperatures and near normal precipitation during the first week of August. As the ridging aloft begins to retreat, a return to more normal conditions is expected.

**Southwest:** Below normal significant fire potential is expected across a small portion of northeast New Mexico during August. Elsewhere, normal significant fire potential is forecast through November. However, portions of western Arizona will likely see short periods of elevated significant fire potential during August when unseasonably hot and dry conditions persist between bursts of monsoon moisture. While several large fires are likely, widespread or prolonged large fire outbreaks are not expected.

**Northern Rockies:** Significant fire potential is expected to be normal through November. Fuel moisture levels during August will start off slightly more moist than normal. By mid-August warm, dry conditions are expected to rapidly dry out the finer fuels. Fine fuel loadings are above normal this year and could pose a concern after mid-August should conditions remain dry. With the existence of abnormally dry to moderate drought conditions in place and little relief expected, fire activity is expected to become more normal across the Northern Rockies by the middle of the month. Confidence is high that El Niño conditions will persist into the fall and will likely intensify. Historically, this generally leads to warmer and drier than normal conditions. Hence, there is some concern that the fire season could linger well into the fall, especially without a typical season-ending "August Singularity" event.

**Great Basin:** Significant fire potential is expected to be below normal across portions of central Nevada, northern Utah, central and eastern Idaho, and western Wyoming during August. Significant fire potential is expected to be normal across the Area during September through November. Initial attack fire activity was steady across southern and eastern Utah through July. This type of fire activity is expected to continue through August. Moisture moving into the Great Basin from the south could be somewhat limited through August, keeping fire behavior fairly active across much of Utah. In contrast, fire activity has been very limited this season across central and eastern Idaho, and western Wyoming, especially over the higher elevations. While grasses have cured across these areas, shrub type fuels remain relatively green. Significant fire activity is expected to be below normal for August across eastern Idaho and western Wyoming. In central and northeastern Nevada, a second grass crop emerged due to late season rains and these areas are only now starting to cure. These additional fuels will become available for combustion in mid to late August, however above normal fire activity is not expected. The influx of monsoon moisture into southern and southeastern Nevada has helped to abate fire activity there. However, western Nevada is quite dry and will likely become active during August.

**Northwest:** Significant fire potential is forecast to be above normal in August for western and northcentral Washington along with a portion of northwest Oregon. Significant fire potential will decrease in

these areas during September through November. Elsewhere, significant fire potential is expected to be normal. Weather across the majority of the Area was warmer and drier than usual in July. It was particularly dry over western Washington with some weather stations reporting less than a guarter inch of rain over the past 30 to 40 days. As a result dead fuel moistures have dropped to critical levels (see image). A fuels and fire behavior advisory was issued the last week of July alerting fire managers to the very dry of the Cascades in both Oregon and fuel conditions west Washington. Dry conditions also exist east of the Cascades in central Oregon and Washington, but northeast Oregon, northcentral and eastern Washington are not as dry. Climate forecasts suggest dry weather is likely to linger through autumn, however a decline in lightning activity along with cooler weather, stable atmospheric conditions, and shorter days will help lower large fire potential during September through November.

Observed 1000 HR Values - July 26th, 2009



<u>California:</u> Much of northern California, the central coast, and adjacent interior areas in southern California are expected to have above normal significant fire potential in August. Above normal significant fire potential will persist in the Bay, mid-coast and Sacramento Valley areas during

September through November but decrease across the northern and eastern sections of northern California and also along the central coastal area of southern California. Normal significant fire potential is expected elsewhere. July was warmer than normal (except for some coastal sections) and much drier than normal across the vast majority of California (see image). Redding saw at least 16 consecutive days at or above 100° F. Generally stable and dry conditions during July kept thunderstorm activity below average, except for some activity in the central and southern Sierras. Lightning activity also picked up significantly in the north half of California the last few days of the month. Fuels continue to be very dry across the state. Severe drought conditions exist across the majority of the State and drought conditions are expected to persist or worsen over the next several months. Climate forecast models suggest that August may start out with somewhat cooler than normal conditions across northern California with drier than normal conditions in the southern two-thirds of the state.



**<u>Rocky Mountain:</u>** During August, below normal significant fire potential is forecast for much of Colorado and Wyoming, especially in the higher elevation areas. Wet weather during July points towards continued below normal fire activity across much of Colorado and Wyoming, mainly above 8000 feet. In the lower elevation areas, more normal significant fire potential is anticipated, which can include some short duration large fire activity in grass or pinion-juniper fuel models.

**Eastern Area:** Below normal significant fire potential is forecast across the southern and eastern portions of the Area from southern Missouri extending northeastward into Maine during August. These areas had much above normal precipitation during the spring and the first half of summer. The remainder of the Eastern Area should experience normal fire potential through the remainder of the summer and fall months. Moderate to severe drought levels still exist across much of northern Wisconsin and portions of the Upper Peninsula of Michigan extending westward into parts of

Minnesota. However, fairly frequent precipitation events, below to near normal temperatures, and adequate humidity levels during July helped to curtail fire occurrence and large fire activity in these areas. Medium range forecasts indicate this pattern of fairly frequent precipitation and near to below normal temperatures will continue through the first part of August. However, any short term warm and dry periods will likely elevate fire potential across these areas due to prolonged long term drought leading into August.

**Southern Area:** Below normal significant fire potential is expected across a large portion of the Area from the southern tip of Florida north to Virginia and then west into eastern Oklahoma during August.

Above normal fire potential will persist in southern and portions of central Texas during the month. In September to November significant fire potential is forecast to increase to above normal across the Appalachian Mountains as leaf drop occurs. Elsewhere. significant fire potential will be normal. Fuels continue to stay critically dry in portions of southern Texas, but elsewhere in the state fuel moisture levels are above normal. Minimal significant fire activity is expected across the rest of the Area through August. Later In October, portions of the Appalachian Mountains are expected to transition to above normal significant fire potential as leaf drop occurs and the periodicity of rains are expected to diminish.



#### Historic and Predicted Wildland Fires and Acres Burned Data

Based on data reported in 2009, nationally there were 109% of the average numbers of fires burning approximately 99% of the average acres. Nationally, as of July 31, the 10 year average number of fires is 52,428 and the 10 year average acres burned is 3,898,761. The following table displays 10 year historical, current and predicted information pertaining to fire statistics.

JUL 31, 2009 Reported		Average reported	Projection for August	Average Reported	Historical Low	Year of	Historical High	Year of High
Fires	468	35	506	441	276	2006	642	2004
Acres	2,081,295	412,270	2,823,381	1,529,137	56,553	2008	6,143,152	2004
NORTHWEST								
Fires	1,542	1,264	2,553	2,992	2,313	2005	3,521	2004
Acres	12,853	264,965	317,563	451,610	92,353	1999	1,049,796	2002
NORTH OPS								
Fires	2,179	855	3,163	3,117	1,947	2005	3,826	2006
Acres	18,484	63,766	98,191	176,632	52,254	2005	816,847	2008
SOUTH OPS								
Fires	2,726	666	3,492	3,194	2,626	2006	3,930	2007
Acres	21,496	61,397	95,173	171,867	46,462	2003	365,985	2002
NORTHERN ROCKIES								
Fires	1,519	1,049	2,254	2,693	1,626	2005	3,656	2000
Acres	21,428	287,519	165,188	428,851	30,841	2004	1,168,698	2000
EAST BASIN								
Fires	854	790	1,486	2,061	1,183	2008	2,772	2001
Acres	19,817	295,029	196,834	684,116	80,302	2004	2,044,839	2007
WEST BASIN								
Fires	476	264	674	773	392	2008	981	2000
Acres	16,867	260,417	173,117	586,866	15,720	2003	1,462,053	1999
SOUTHWEST								
Fires	2,523	548	3,071	3,870	2,497	2008	5,319	2006
Acres	464,014	13,313	482,652	429,431	56,474	2001	955,339	2002
ROCKY MOUNTAIN								
Fires	1,359	641	1,872	2,402	1,693	2004	3,322	2006
Acres	73,743	66,403	113,585	189,709	41,564	2004	623,177	2002
EASTERN AREA								
Fires	12,530	1,123	13,878	11,027	8,400	2004	15,393	1999
Acres	112,204	6,099	118,303	107,397	51,589	2008	195,448	2007
SOUTHERN AREA								
Fires	30,937	2,357	32,822	29,570	11,988	2003	42,112	2006
Acres	1,020,445	81,536	1,085,674	939,546	228,755	2003	2,404,326	2006
NATIONALLY								
Fires	57,113	9,592	65,770	62,139	44,684	2003	80,744	2006
Acres	3,862,646	1,812,713	5,669,660	5,695,162	2,680,475	2003	7,924,449	2006

Prepared August 3, 2009 by the National Interagency Coordination Center Predictive Services Staff. The information above was obtained *primarily* from Incident Management Situation Reports from 1999-2009, however some inaccuracies and inconsistencies have been corrected. Therefore, the data may not reflect other historic records and should <u>not</u> be considered for official statistical purposes.

**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 though the NICC webpage at: http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm