North American Seasonal Fire Assessment and Outlook

National Interagency Fire Center ● Natural Resources Canada ● Servicio Meteorológico Nacional
United States **Canada** **Mexico**

Outlook Period March, April and May 2016
Issued on 10 March 2016

Executive Summary

NOTE: *Starting in March 2016, the North American Seasonal Fire Assessment and Outlook will cover a three-month period.*

Despite a series of troughs that moved through North America, February was generally warmer-than-normal for most of the continent. The greatest temperature anomalies occurred across the Prairie Provinces of Canada and the Northern Plains of the U.S. where temperatures were as much as 15°F (8°C) above normal. A deep trough formed over the central and eastern continent at mid-month, bringing a prolonged period of precipitation to the eastern U.S. and Canada. Precipitation was above normal over the eastern third of the continent while the rest of the U.S., Canada, and northern and eastern Mexico continued to see deficits.

Fire activity typically begins to increase through the U.S. and Canada in boreal spring. Dry weather and pre-green up fuel conditions across the southern Plains to the Great Lakes region are expected to support an increase in fire activity in March with an expansion of conditions into the Upper Midwest, the Canadian Great Lakes region and the central Prairie Provinces through May. Parts of south central Alaska will also see an increase in fire activity in April and May where snow pack has been much below normal. The southern states of Mexico will continue to experience an increase in fire activity through the period with conditions spreading northward to the southwestern U.S. by May. Precipitation deficits in Hawaii will continue to support increased fire activity. A continuing wet pattern for the southeastern U.S. will suppress wildfire activity through March with a gradual trend toward normal in April and May.

Monthly fire outlook for North America for March (left), April (middle) and May (right). Red shading indicates areas where conditions would favor increased fire activity. Green shading indicates areas where conditions would favor decreased fire activity. *Click on each image to see larger versions.*

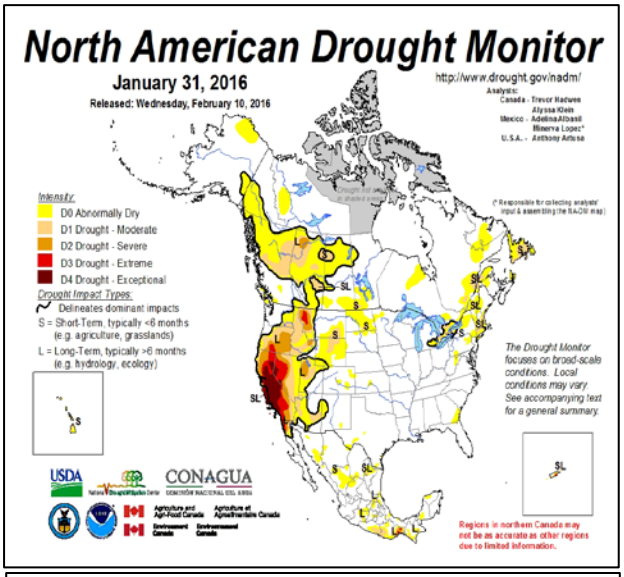
Critical Factors

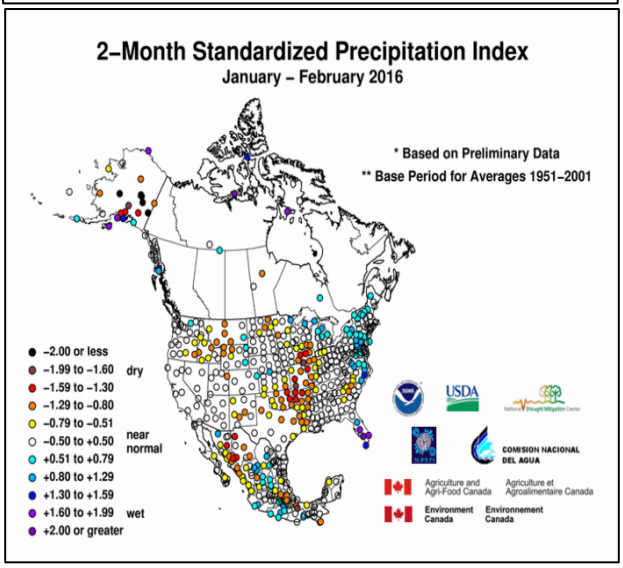
The critical factors influencing significant fire potential for this outlook period are:

El Niño-Southern Oscillation: El Niño conditions (warming of the equatorial Pacific Ocean) continue weakening at a rapid pace and this trend is expected to persist through summer. Warm conditions are expected to remain in place across most of Canada and the northern U.S. while wet patterns persist in the southern U.S. and northern Mexico. Latest trends suggest dry conditions will remain in western and southern Mexico.

Drought: The North American Drought Monitor from 31 January 2016 (top right) showed severe to exceptional drought over the far western U.S. with the worst conditions in California, Oregon, Nevada, western Montana, and northwestern Utah. Drought conditions were increasing over central and northern British Columbia and northern Alberta. Small pockets of severe or worse drought were scattered across southern Mexico with the worst conditions in northern Baja California, Guerrero, Oaxaca, and Chiapas.

Fire Season Status: As weather conditions warm across North America, fire increases northward through the U.S. and Canada through the spring. Lack of snow cover in southern parts of western Canada and the Plains of the U.S. will contribute to spring grass fires. Continued cold frontal passages into Mexico kept cold and wet conditions across northern Mexico, reducing fire potential. Fires did increase in central and southern states.





Top: North American Drought Monitor from 31 January 2016. **Bottom:** 2-month Standardized Precipitation Index for January-February 2016. (Both *from U.S National Centers for Environmental Information, NCEI/NOAA)*

Canada Discussion

March 2016: Most of Canada is experiencing early spring warmth associated with the El Niño conditions that persisted over the winter months. A recent series of snow events in Ontario and Quebec supplemented the snow pack in the East, delaying drying of fuels and the onset of fire activity. However, in the West, snow has disappeared through much of southern British Columbia and Alberta which will likely lead to early grass fires.

April 2016: Western Canada is expected to see an early start to fire activity in the boreal forests. Over-winter snow pack was well-below average (60 to 85 percent) in most of the forests in Alberta, Saskatchewan and Manitoba. Warm temperatures are expected to melt this snow pack rapidly this spring and allowing fuels to dry earlier than normal.

May 2016: Abnormally dry and warm weather is expected to drive above-average fire weather conditions in western and northern Ontario. Above-average conditions are expected to persist along the southern edge of the boreal forests from Alberta through Manitoba.

United States Discussion

March 2016: Western snow pack is generally near normal to above normal and should keep fire activity at bay for the month. Some grass fire activity is expected in the High Plains east of the Rockies but this is typical in early spring. Dry conditions from central Texas to the Great Lakes pose a greater risk of increased fire activity, especially as March storms often bring windy conditions across the central U.S. that can rapidly spread fires. A continuing wet pattern over the Gulf and Atlantic states as well as Puerto Rico should continue to suppress wildfire activity for the month. Ongoing drought in Hawaii will keep the risk of fire elevated.

April 2016: Continuing dry conditions across the Upper Midwest, the Great Lakes region and the mid-Mississippi Valley will expand the risk of wildfire activity for April. The Southeast will gradually return to normal fire conditions after a very wet winter and early spring. Only the coastal plain from Mississippi to New Jersey will continue to see reduced fire activity. Poor snow pack and early drying in south central Alaska around Anchorage and continuing drought in Hawaii will keep those areas at an elevated risk.

May 2016: Conditions in Upper Midwest and the Mississippi Valley will gradually return to normal with only a small area around the Tennessee and Ohio Valleys remaining dry enough to see elevated fire activity heading into the late spring. Seasonal drying in the Southwest will cure abundant grasses from the wet winter and early spring, increasing fire activity in southern Arizona and New Mexico. South central Alaska and Hawaii remain at an elevated risk. The Southeast continues to edge toward normal conditions but potential spring rains in the western Gulf could reduce fire activity along the Texas and Louisiana coasts.

Mexico Discussion

March 2016: Precipitation trends for March suggest above normal precipitation for central and northern Mexico, and parts of the southern Gulf and Pacific coasts. The rest of the country will see near normal precipitation. However, it is likely that fire potential will increase with favorable fuel availability entering the dry season. The elevated fire potential will continue in the southern states of Guerrero, Oaxaca, Chiapas, Quintana Roo, Campheche, and Yucatan. It will also be elevated in the central states of Jalisco, Michoacán, Mexico, Queretaro, Guanajuato, San Luis Potosi, the Federal District, Morelos, Hidalgo, Tlaxcala, Puebla, and along the Veracruz sierra.

April 2016: Precipitation is expected to return to normal for most of the country with below normal conditions in the Yucatan and parts of south central Mexico. Elevated fire activity will continue across most of the southern and central states through April.

May 2016: The peak of the climatological dry season arrives in May and greater precipitation deficits can be expected for the Yucatan and southern states. Increasingly dry conditions will likely spread northward into the northwestern and eastern corners of the country. This will expand the elevated fire potential farther north into the northwestern states of Sonora, Sinaloa, Durango and far northern Baja, and the eastern states of Coahuila, Nuevo Leon, Tamaulipas, and parts of Chihuahua.

Additional Information

Additional and supplemental information for this outlook can be obtained at:

United States:
National Significant Wildland Fire Potential Outlook
http://www.predictiveservices.nifc.gov/outlooks/monthly_seasonal_outlook.pdf

Canada:
Canadian Wildland Fire Information System
http://cwfis.cfs.nrcan.gc.ca/home

Mexico:
Servicio Meteorológico Nacional
http://smn.cna.gob.mx/index.php?option=com_content&view=article&id=156&Itemid=113

Outlook Objective

The North American Seasonal Fire Assessment and Outlook is a general discussion of conditions that will affect the occurrence of wildland fires across Canada, the United States, and Mexico. Wildland fire is a natural part of many ecosystems across North America. This document provides a broad assessment of those factors that will contribute to an increase or decrease of seasonal fire activity. The objective is to assist wildland fire managers prepare for the potential variations in a typical fire season. It is not intended as a prediction of where and when wildland fires will occur nor is it intended to suggest any area is safe from the hazards of wildfire.

Acknowledgements

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Richard Carr, Natural Resources Canada

United States: Ed Delgado, Predictive Services, Bureau of Land Management
Jeremy Sullens, Predictive Services, USDA Forest Service
Coleen Haskell, Predictive Services, USDA Forest Service

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