Executive Summary

An active weather pattern continued across a majority of the North American continent in March as cold, moist systems continued to move across southern Canada and the coterminous United States. Arctic air maintained a grip on most of Canada in early March; an abrupt climb in temperatures and rapidly melting snow followed in British Columbia, Alberta, and parts of Yukon and Northwest Territories. These regions experienced record high temperatures for several days, with values typical of late spring. A moderate to deep snow pack existing in other regions will likely take two weeks or more to disappear. Dry conditions in much of the nation have led to increased areas of drought, or drought intensity increasing in some regions.

Mountain snowpack levels across most of the western states of the United States was well above average for the snow year. Temperatures were generally 3 to 10 degrees below average south of the Canadian border and across Alaska. Areas of concern began to emerge across Alaska. A series of very warm and dry high pressure ridge events accelerated the melting of an already below average snowpack across the state’s interior. A dry signal also began to emerge along the Canadian border with the states of Washington, Idaho, and Montana. To the south, across Mexico, the moderate to severe drought conditions across both the northeastern and southeastern portions of the country intensified and expanded as drier than average conditions continued. The mountains across western portions of the country remained drier than average as well. Fire potential remained elevated across several portions of the country.
April is a transition month across the continent. Fire activity across northern Mexico, the southwestern United States, and the Alaskan Interior typically begins to increase mid-month. The dry conditions across northern Mexico and the Alaskan Interior are of concern and suggest that wildfire potential in these areas will be elevated during at least the first half of the outlook period. Sporadic activity along the Rocky Mountain Front of Canada and the United States is possible through the month until greenup firmly takes hold. Expect for fire activity to increase across portions of northern and eastern Mexico, the southwestern states of the United States, and Alaska through May as the fire season makes its normal progression. The Canadian west should begin to enter fire season by June as fuels further dry and cure.

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

El Niño-Southern Oscillation: Latest Sea Surface Temperature Anomalies across the equatorial Pacific Ocean indicate that the weak El Niño continues and has reached nearly a steady state. Latest model forecasts show almost no change from the previous month’s forecast. The event should persist through the summer months and perhaps intensify slightly during the late spring. Neutral conditions are not expected at least until the middle to late fall.

Drought: Drought trends are beginning to emerge in the data as spring begins. Some development and expansion is occurring across the southern half of the Yukon Territory, the southeastern portion of the Northwest Territories and southern British Columbia and southern Alberta. Drought intensification is occurring across the northwestern portions of both British Columbia and Alberta, and the southernmost portions of Saskatchewan and Manitoba. In the United States, drought conditions continue to diminish as most of the nation is absent of drought. Alaska’s southeastern panhandle continues to experience moderate to severe drought conditions. Some development is occurring across northern portions of the Pacific Northwest and across southern Georgia and Alabama. In Mexico, nearly the entire gulf coastline remains under varying states of an intensifying drought. Chiapas is experiencing Extreme drought conditions. Mountains along the western coast continue to experience abnormally dry conditions as well.

Fire Season Status: While fire data from the first three months of 2019 is not available, activity noted thus far in 2019 is minimal due to the persistent cold and snowy winter. In 2018, Canada reported over 7200 fires burning approximately 2,200,000 hectares (5,436,310 acres). This represents an increase of about 16% more fires than the 10-year average and a 19% decrease in area burned than the 10-year
average. British Columbia burned about 1,360,000 hectares (3,360,628 acres), the highest on record for the province.

While the number of wildfires occurring doubled in March in the U.S., fire activity remained well below average for the first three months of the year as the nation remained largely out of fire season. Year to date, 5,017 wildfires have burned 46,980 hectares (116,091 acres). This is well below the 10-year average of 11,736 wildfires that burn 206,175 hectares (509,469 acres).

Fire activity in Mexico remained low, but significant increases were observed. Year-to-date fire statistics for the country show 1,757 fires that burned a total of 30,258 hectares (74,769 acres).

Canada Discussion

April/May/June: In April, the current weather pattern will likely hold fire activity to normal levels in most regions (meaning no activity in much of Canada). The only area indicated to have above normal potential is the valley region near Kamloops, British Columbia, which had meagre winter snow cover and warm temperatures since mid-March.

For May, recent climate model runs suggest widespread warmth begins in Canada, with close to normal precipitation levels. Dryness may persist along the Pacific Coast and around the Great Lakes. Regions that lost snow cover in March appear most prone to increased fire levels in May: southern British Columbia, western Alberta, Northwest Territories to Great Slave Lake, and the Interlake region in Manitoba. A small area in Yukon may also have early fire activity.

In June, above-normal temperatures may persist, with the greatest anomalies suggested to be in northern parts of the provinces and across the Territories. Precipitation levels are uncertain, with a range of solutions from different climate models. Given the difficulties in predicting precipitation levels in general, we will let temperature drive the June forecast. This appears to result in elevated potential for fire in southern British Columbia and a large band from central Yukon southeast through the northern and eastern Prairies and encompassing the Great Lakes.

United States Discussion

April/May/June: As the spring greenup begins to take hold across the West in April, mountain snowpack will begin to melt. Snowpack melting rates are a more important factor than snowpack levels in assessing potential fire season activity ahead. An average or slower than average melting rate can allow for a late entry of the timbered elevations into the fire season, whereas a faster melting rate will allow high elevation fuels to become receptive to fire sooner. In 2019, an average to cooler than average spring is expected, so melting rates should be near average which could result in a delayed fire season entry in areas that have abundant snowpack. An early entry is possible along the Canadian border in areas that have a below average snowpack. In the middle and lower elevations, abundant winter and spring moisture should translate to a heavy crop of fine fuels that will become increasingly receptive to fire activity across the West from south to north in May, June, and July.

In Alaska, warmer than average temperatures should lead to an early snowpack loss and early entry into the fire season. A possibility exists that precipitation could become above average from June onward. This could lessen some of the state's peak season fire potential during the second half of the season. After an active early start to the season, fire activity across the state should trend toward average conditions. Hawaii and Puerto Rico will continue to see slightly elevated potential early in the outlook period until the impacts of tropical weather conditions begin to be felt. The Southwestern fire season should begin to end in early July as a below average and perhaps late monsoon arrives.

Mexico Discussion

April/May/June: Precipitation amounts are expected to be above normal in Nuevo León, Tamaulipas, in most of Chihuahua, isolated areas of Sonora, northern Sinaloa, central and northern San Luis Potosí and central Veracruz; probabilities during the outlook period. Below normal precipitation is expected
across Baja California Sur, Nayarit, Mexico, south of Sinaloa, southwest of Zacatecas, northeast of Michoacán, north of Jalisco, center and south of Baja California. Other states can expect normal precipitation amounts during the outlook period.

Temperature probabilities are predicted to be above normal in Campeche, Guanajuato, southern Chihuahua, northern Durango, northeast Jalisco, northern Michoacán, eastern and northeast Chiapas, and central and southern Quintana Roo. Below normal temperatures are expected across Tamaulipas and the other remaining states.

The sum of the climatic factors of temperature and precipitation, together with the analysis of the drought monitor in the country, present forest fire risk conditions Above Normal in the months of March and April in the central and western states including: Mexico City, Mexico, Morelos, Puebla, Tlaxcala, Queretaro, Nayarit, Colima, Jalisco, Michoacán and Guanajuato. April and May represent the peak of the fire season in the northern and eastern states of Chihuahua, Durango, Zacatecas, Coahuila, Aguascalientes, Tamaulipas, Nuevo León, San Luis Potosí, Guerrero, Veracruz, Tabasco, Oaxaca, Chiapas, Campeche, Quintana Roo and Yucatán. In May, in the central and western states of the country, the risk decreases and in June, activity decreases in the states of the north, northeast and southeast of the country. Due to the precipitation climatology in June, there is a potential fire risk in the northern highlands of Chihuahua and Sonora and in Baja California, we are approaching the maximum peaks of forest fires, which begin in July.

**Additional Information**

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

**United States:**
National Significant Wildland Fire Potential Outlook

**Canada:**
Canadian Wildland Fire Information System
[http://cwfis.cfs.nrcan.gc.ca/home](http://cwfis.cfs.nrcan.gc.ca/home)

**Mexico:**
Servicio Meteorológico Nacional

**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.

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