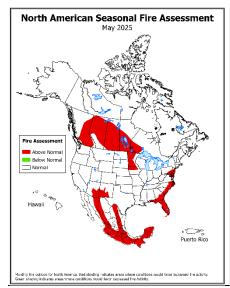
North American Seasonal Fire Assessment and Outlook

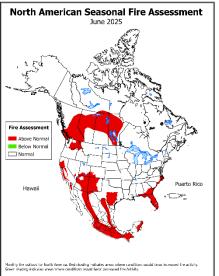
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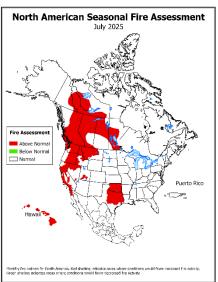
Outlook Period May 2025 through July 2025 Issued 14 May 2025

Executive Summary

The general weather pattern in western Canada during mid-April featured ridges moving in from the Pacific, which were then bumped off by strong troughs moving in from the northwest. This gave quite variable weather with a couple mild days followed by a couple cool days in the Prairies. Many days featured moderate wind speeds and low humidity levels. Precipitation (mainly snow) was more plentiful along the Rocky Mountains, with lesser amounts further east in thin bands from fast moving frontal systems. British Columbia was somewhat protected from the cool weather by the ridging.







Monthly fire outlook for North America for May 2025 (left), June 2025 (middle), and July 2025 (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*.

These troughs were then deflected northeast into the eastern part of Canada, giving mixed weather – warmer days in the far south and cooler in north with rain transitioning to snow farther north. Temperatures gradually emerged from a cold pattern and fluctuated around normal values but regular precipitation keeping snow melt rates low. The Atlantic region had slightly above normal temperatures during this period.

A strong but short-lived ridge moved through western Canada a few days into April. This gave record high temperatures to parts of western Canada. Numerous locations started fire weather calculations due to these warm temperatures.

Later in April, some regions began reaching 20 C or more, with some summer-like readings in southern Ontario. These warm events were quickly followed by a return to normal temperatures. Precipitation in the west remained light and scattered with a few weak thunderstorms every few days, and many days featured substantial winds. Precipitation was heavier and more regular in the east, especially in the south with thunderstorms rolling through a few times. Some of this rain will help to melt the snow cover.

Summer-like temperatures in western Canada in early May moved eastwards across the country, being replaced in the west with seasonal temperatures but still mainly dry and windy. Snow melt is progressing, but heavy snow depth remains in southeast Northwest Territories. However, the area around James Bay is losing snow cover faster than normal.

In the US, fire activity remained at low levels overall from April into early May, although activity has increased modestly in early May across portions of the Southwest, Northern Rockies, and Eastern Geographic Areas. April precipitation was above normal from eastern New Mexico and northern Texas into the Mid-Mississippi and Ohio Valleys. Well below normal precipitation was observed in South Texas and much of Florida, with below normal precipitation across much of the West April into early May. However, a round of heavy precipitation has occurred thus far in May across much of the Gulf and southeast Atlantic coasts. Drought improved for portions of the US, mainly portions of the central Plains and Midwest, while drought intensified in Florida and persisted in much of the southwestern US.

Climate Prediction Center and Predictive Services outlooks indicate that above normal temperatures and drier than normal conditions are likely to continue across the West into July, although a robust start to the North American Monsoon is expected in the Southwest. Warm and dry conditions are also likely in much of the Plains through the period, while above normal temperatures are likely for the East Coast and much of Alaska. Above normal significant fire potential is forecast from southeast Arizona and southwest New Mexico in May then across much of the southwestern US by June before returning to normal. Above normal potential is also forecast across portions of Texas in June, expanding to much of the southern Plains in July. Above normal potential forecast in much of the southeast Atlantic coast will become normal by July, while potential becomes above normal in much of California and the northwestern US by July.

During February, March, and April, national average precipitation was below normal across Mexico, while temperatures were above normal in most parts of the country. Precipitation from several weather systems contributed to a slight decrease in areas affected by drought in the Baja California Peninsula and central Coahuila. In contrast, a strong high pressure in the mid-levels of the atmosphere and low moisture content led to hot and dry conditions across much of the rest of the country, with drought expanding to almost 47% of Mexico.

The climate outlook for the May-July quarter forecasts warm and dry conditions overall across Mexico, but with a wetter and warmer than average forecast for June. Although La Niña has weakened to neutral ENSO conditions, the forecast predicts warm and dry weather conditions during May and July, but not for June, when warm and wet conditions are expected. Precipitation and temperature conditions associated with the neutral phase will remain within normal ranges, with extreme events, both dry and wet. Given current conditions, the country's drought pattern, and climatological forecast, wildfire activity is expected to remain above average in Mexico's mountainous and jungle regions during May and June.

Critical Factors

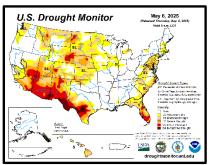
The critical factors influencing significant fire potential for this outlook period are global climate patterns related to sea surface temperatures, particularly in the Pacific Ocean, and large scale, longer-term soil moisture deficits:

El Niño-Southern Oscillation and Other Climatic Teleconnections:

La Niña has ended with El Niño-Southern Oscillation (ENSO) neutral conditions observed in the equatorial Pacific Ocean. The Climate Prediction Center is forecasting ENSO neutral conditions to continue through the summer, with a greater than 50% chance of neutral conditions continuing into early fall. However, significant uncertainty exists for the ENSO forecast for the fall due to the spring predictability barrier. The negative phase of the Pacific Decadal Oscillation (PDO) continues to weaken and is likely to be less of a factor for this outlook. The Madden-Julian Oscillation (MJO) was active over the winter but has weakened and is expected to remain weak for the next month. The ENSO neutral conditions will continue to be the main driver of this outlook, with limited effects from the PDO and MJO.

The onset of the North American Monsoon will also impact the latter half of the period across portions of Mexico and the southwestern US.







Left: Canadian Drought Monitor from Agriculture and Agri-Food Canada. Middle: United States Drought Monitor. Right: Mexican Drought Monitor from CONAGUA-Servicio Meteorológico Nacional.

Drought:

Severe drought conditions remain over southwest portions of the Northwest Territories extending into northeast British Columbia and into extreme northwest Alberta. Additionally, the far southwest of Alberta has a pocket of severe to extreme drought. Additionally, two significant pockets of moderate drought exist over western British Columbia and northern Vancouver Island as well as a significant portion of central Saskatchewan through northwest Ontario. Farther east, there are several small pockets of moderate drought, the largest of which sits over the Quebec/Labrador border.

Compared to last month, drought conditions generally improved by a small degree across Canada with central Alberta, southern British Columbia, and the southern Maritimes having the largest areal extent of improvement. However, drying occurred over northwest Alberta, northwest Ontario, and the southern half of Saskatchewan. An incoming weather system late in the week of May 12 should help to minimize these impacts over Saskatchewan and northwest Ontario.

April temperatures in the US were above normal across the southern Plains into the Southeast. However, temperatures elsewhere across the US were generally near normal, except for portions of the Northwest, northern California, and the Great Basin that were slightly above normal. However, record setting heat was observed May 9-11 from the northern Rockies to Upper Mississippi Valley. Temperatures were above normal for southeastern Alaska for April, but slightly below normal in western Alaska, with slightly above normal temperatures across Hawai'i.

Precipitation across the US in April was above normal from eastern New Mexico through central and north Texas into Oklahoma, the Mid-Mississippi, and Ohio Valleys. Smaller areas of above normal precipitation were noted in northern Arizona, the northern Plains, Southeast, Mid-Atlantic, and Maine. Well below normal precipitation was observed in South Texas and much of Florida, with below normal precipitation across most of the West and the Carolina coast, as well. The well above normal precipitation in the Ohio Valley was mainly due to a major rain event April 3-6, with up to a foot of rainfall from portions of eastern Arkansas into western Tennessee and Kentucky causing widespread flooding. In early May, very dry conditions have been observed across the northern half of the West to the Midwest, except for portions of Montana that were near to above normal. Snowpack across the western US has been melting faster than normal due to the drier and slightly warmer than normal conditions, with most basins reporting below normal snowpack for the end of April. The accelerated snowmelt continued through early May.

Overall drought decreased across the US since late March with just over 35% of the US in drought as of May 6, a decrease in area of over 3%. Drought expanded and intensified across the Southwest, southern Great Basin, and West Texas. However, drought improved from north Texas into eastern Kansas, as well as much of the Midwest, but persisted in the northern Plains. Drought also improved across portions of New England, the Mid-Atlantic, and southern Appalachians, but intensified across the Florida peninsula. Extreme drought expanded in the southwestern US and now covers portions of southeast California, southern Nevada, southern Arizona, southern New Mexico, and southwest Texas.

Smaller areas of extreme drought are noted in portions of Florida, Wyoming, the western South Dakota-Nebraska border, western Montana, and western North Dakota. Exceptional drought has expanded across portions of southern Arizona, southwest New Mexico, and southwest Texas.

During the second half of April, two cold fronts, the presence of low-pressure systems, and the transport of moisture from the Pacific Ocean and the Caribbean Sea, caused above-average precipitation in portions of the Baja California Peninsula and the northeast, center, and south of Mexico. This contributed to a slight decrease in the areas affected by drought in the Baja California Peninsula and the central region of Coahuila. In contrast, strong high-pressure in the mid-levels of the atmosphere and low water vapor content led to scarce rainfall and a hot environment across much of the rest of Mexico. Consequently, in northwestern Mexico, the areas with extreme to exceptional drought increased, with areas of moderate drought increasing in the center and south of the country. As of April 30, nearly 47% of Mexico is experiencing moderate to exceptional drought, a slight increase from mid-April.

Fire Season Status:

The weather pattern in Canada has created rapid fire growth in the early part of May. Some grass and forest fire events lead to evacuations in Alberta, Manitoba, Ontario, and Saskatchewan. A few homes and structures were destroyed in Alberta, Manitoba, Newfoundland, and Saskatchewan. There are currently several large fires, greater than 1,000 hectares, from western Ontario to northeast British Columbia. Notably, a fire near The Pas, Manitoba, is currently over 40,000 hectares.

In Newfoundland, just north of St. Johns, there was a brief wildfire that started and was aided by wind leading to evacuations and the loss of multiple homes. Since this event, the fire has been put under control. Recently, challenging conditions in southeast Manitoba extending to Kenora, Ontario, have led to rapid fire growth.

In the US, fire activity was at low levels into early May, with the National Preparedness Level decreasing to one (on a scale of 1-5) April 4. While fire activity was low overall, a brief spike in activity occurred in North Carolina and the Mid-Atlantic region near the end of April. Activity also began slowly increasing in portions of Washington, Montana, and Minnesota in early May, with Minnesota observing the most notable increase in activity. Record setting temperatures in the northern Plains and Minnesota May 10-12 with strong southerly winds and low relative humidity resulted in several large fires, especially in the Minnesota Arrowhead. Total acres burned through May 13 of this year is near the 10-year average at nearly 102% of normal, with 418,478 hectares (1,034,083 acres) burned. The total number of fires is above average through May 13 at 25,101, or 139% of normal.

So far this year, 3,720 wildfires have been recorded in 32 Mexican states, with a total of 312,352 hectares burned. Of this area, vegetation corresponding to grass and brush accounted for 95% of the total, while timber represented 5%. The states with the highest number of wildfires were Mexico City, Jalisco, Michoacán, Chihuahua, Durango, Puebla, Veracruz, Chiapas, and Oaxaca, representing 78% of the national total. The states with the largest burned area were Jalisco, Chihuahua, Baja California, Durango, Sinaloa, Oaxaca, Chiapas, Guerrero, Nayarit, and Michoacán, representing 71% of the national burned area. Of the national total number of forest fires, 753 (20%) occurred in fire-sensitive ecosystems, with a burned area of 67,652 hectares, representing 22% of the total.

Through May 1, the regions most affected by wildfires are the north, west, south, and east of Mexico. The states of Mexico, Jalisco, and Mexico City were the most affected, with 637, 586, and 404 fires, respectively. In terms of hectares burned, the Pacific states are the most affected. Jalisco, Chihuahua, and Baja California have burned more than 30,000 hectares, and Durango more than 20,000 hectares.

Canada Discussion

May/June/July: In the short term, a relatively broad upper-level ridge will slowly make its way over the middle of Canada extending into mid-May. This enhanced warmth and drying will coincide with a more significant fire hazard for the first three weeks of the month over the eastern prairies and western

Ontario. A low-pressure system recently moved over central Alberta and has begun giving significant reprieve to the currently dry conditions. Another system should bring moisture to the eastern prairies late in the week of May 12.

Above normal activity is occurring over a broad area extending from western Ontario to the eastern half of British Columbia. Fires continue to burn over Saskatchewan and Manitoba, while central Alberta has had some reprieve from recent precipitation. Warm and dry conditions over the northwestern prairies for the rest of the month will continue the high fire risk in this region. Farther east, steady moisture has limited most fire activity.

Above normal fire activity is anticipated for central Canada in June. While adequate precipitation is expected for May, there will still be an overall drying trend which will enhance fire activity. Additionally, warmer than average temperatures will enhance fire potential. South British Columbia is anticipated to have the greatest risk for fire activity, while the rest of the prairie provinces are also predicted to have higher than normal fire weather conditions. There is a slight chance for above normal fire activity over northern Ontario, though confidence remains low.

July will maintain a similar trend from June. Continued drying and above normal temperatures will maintain a well above average fire risk for southern British Columbia extending into southwest Alberta and generate conditions conducive to significant fire. The remainder of the western prairies will maintain an above average fire risk. It is likely that above average precipitation will occur in the Hudson Bay region which will help to lower the fire risk in northeast Manitoba. However, drying is expected to extend into the Northwest Territories and enhance fire risk across most of the region south of the treeline.

United States Discussion

May/June/July: ENSO neutral conditions are occurring in the equatorial Pacific Ocean and are expected to continue through the summer. Model, Climate Prediction Center, and Predictive Services forecasts for the next three months indicate above normal temperatures are likely across much of the US, especially in the western US. Below normal precipitation is expected across much of the northern half of the West and the Plains. Dry conditions will continue across the southwestern US into June, but the North American Monsoon is expected to be robust for Arizona and New Mexico by July. In the eastern US, above normal precipitation is likely for the Appalachians to the East Coast, which is expected to be weighted to the latter half of the period. The warmer and drier than normal conditions in the West thus far have resulted in a faster than normal melt this spring, and with those conditions expected to continue, many locations are likely to be snow-free two to three weeks earlier than normal.

Above normal significant fire potential is forecast across southeast Arizona, southwest New Mexico, western Minnesota, the Mid-Atlantic, Florida, and the southeast Atlantic coast in May. Normal potential is forecast elsewhere across the US in May. In June, potential will return to normal in the Mid-Atlantic and Minnesota, while above normal potential will continue along the immediate southeast Atlantic coast and Florida. Above normal potential will expand across much of the Southwest into portions of southern Nevada, southern Utah, and southwest Colorado. Above normal potential is also expected across portions of central and southern California in June, as well as eastern Washington into the Idaho panhandle and portions of central Texas. In July, above normal potential will expand across much of central and east Texas into Oklahoma, while potential returns to normal in the Southwest. Above normal potential will continue in portions of southern Nevada and Utah in July, but expand across more of California, as well as much of the Northwest, northern Great Basin, the Idaho panhandle, and western Montana. Alaska will have normal potential through the period while above normal potential is forecast for the lee sides of Hawai'i in July.

Mexico Discussion

May/June/July: For May, above average precipitation is forecast for the Mexican states of Campeche, Chiapas, Quintana Roo, Tabasco, Veracruz, and Yucatán, while below average rainfall is expected in the other states. Above average maximum temperatures are forecast for most of the country, except for some areas of Baja California Peninsula, Sonora, Chihuahua, Coahuila, Nuevo León, Tamaulipas, Sinaloa, Durango, Nayarit, Jalisco, Colima, Veracruz, Morelos, Mexico City, Yucatán, Quintana Roo, Oaxaca, and Chiapas.

In June, above average precipitation is expected in most states. However, for Aguascalientes, Baja California, Baja California Sur, Campeche, Coahuila, San Luis Potosí, and Yucatán, precipitation is likely to be below average. Above average maximum temperatures are expected in most of the country, except in some areas of Baja California Peninsula, Sonora, Chihuahua, Tamaulipas, Sinaloa, Nayarit, Jalisco, Colima, Veracruz, Yucatán, Quintana Roo, Chiapas, and Oaxaca, where maximum temperatures will be below average.

For July, below average precipitation is expected across most of the country, except for some regions in the states of Sinaloa and Sonora, where above average precipitation is forecast. Above average maximum temperatures are forecast across most of the country, except for some areas of Baja California Peninsula, Sonora, Sinaloa, Nayarit, Jalisco, Colima, Veracruz, Tamaulipas, Chiapas, Yucatán, and Quintana Roo, where below average temperatures are forecast.

Given recent temperatures and precipitation, the country's drought pattern, and climatological forecast wildfire activity is expected to remain above average in May and June in Mexico's mountainous and jungle regions, including the Sierra Madre Occidental and Sierra Madre Oriental, the neovolcanic axis, the Sierra Madre del Sur, the Chiapas Highlands, and the jungle areas of Mexico. For July, most of Mexico will have normal wildfire activity, which is very low, except for northern Baja California, where above normal activity is forecast.

Additional Information

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

United States:

National Significant Wildland Fire Potential Outlook

https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

Canada:

Canadian Wildland Fire Information System

http://cwfis.cfs.nrcan.gc.ca/home

Mexico:

Servicio Meteorológico Nacional

https://smn.conaqua.gob.mx/es/observando-el-tiempo/monitoreo-atmosferico-ambiental

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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