Executive Summary

The first week of July in western Canada was wet, then storms shifted north bringing Yukon plentiful rain, but pushed warm and dry air across western Canada and into Ontario and Quebec. Fire activity in Saskatchewan and Manitoba increased during this period but reduced activity in the Northwest Territories and Yukon. A mid-July upper-level ridge over central Canada flattened and broadened bringing light precipitation with some lightning in the western two-thirds of Canada, but plentiful rain fell in eastern regions. Fire activity continued increasing in the central and northern Prairies with the warm and dry conditions. High pressure dominated late July in western Canada with hot temperatures, which reached or exceeded 38°C (100°F) in some southern interior British Columbia locations. Fuels dried, but lightning was absent in this pattern, with a few new fires emerging. Occasional showers in Yukon, the Northwest Territories, and northern Saskatchewan and Manitoba continued to reduce fire activity in those regions.

During the last few days of July and the start of August, upper-level troughs crossing western Canada producing thunderstorms, with lightning contributing to large numbers of new fires in British Columbia and Alberta. Precipitation was more regular from the eastern Prairies through much of eastern Canada, but southern portions of the Atlantic Provinces and eastern Newfoundland remained dry.

Fire activity rapidly decreased across Alaska the second half of July, with the southern Great Basin, Colorado Rockies, and Southwest continuing to see a reduction in activity due to a robust North American Monsoon. However, fire activity gradually increased across California, the Northwest, northern Rockies, and northern Great Basin, while fire activity remained low in the Eastern Area, and moderate in the Southern Area. Most of the West, Plains, and Texas remain in drought, with areas of...
extreme to exceptional drought across portions of Texas and California. Drought was eliminated across Alaska, with drought increasing in southern New England and portions of the Lower Mississippi Valley.

Above normal significant fire potential is forecast across much of northern California and portions of southern California, the Northwest, northern Rockies, and northern High Plains through September. Southwest Idaho is forecast to have above normal potential in September as well. Above normal fire potential will continue across much of Texas and Oklahoma through October, spreading into portions of the western and Lower Mississippi Valley at times. Above normal potential is forecast to continue across the lee sides of the Hawaiian Islands through October.

Fire activity continues to decline across Mexico, with fire activity remaining across northern Baja California and in the states of Coahuila, Nuevo León, and Tamaulipas due to dry and hot conditions. National precipitation was below normal in May and July but was above normal in June. Overall, precipitation resulted in a reduction of drought across northwest and western Mexico, but precipitation deficits in northern Baja California, Coahuila, Nuevo León, and Tamaulipas have resulted in an increase of drought severity. As a result, above normal fire potential will continue across portions of northern Baja California and northeast Mexico, with hot and dry conditions forecast to continue, but normal fire potential is forecast for the rest of the country.

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

**El Niño-Southern Oscillation (ENSO):** La Niña conditions remain, with below average sea surface temperatures (SSTs) over much of the equatorial Pacific Ocean. SSTs warmed slightly this summer, but the Climate Prediction Center (CPC) is forecasting an 86% chance of a continuing La Niña into fall, dropping to 60% over the winter. This would be a rare “triple dip” La Niña.

**Drought:** While the overall drought map has not changed much since the end of June, abnormally dry conditions have shifted west in the Northwest Territories, with new abnormally dry areas in northern Alberta and British Columbia. A few abnormally dry patches have also formed in eastern Canada. Drought intensity lessened in southern Alberta and Saskatchewan, with less area in severe drought, and a tiny area of extreme drought in southern Alberta has been eradicated. Extreme southeastern Alberta and southwestern Saskatchewan still feature patches of severe drought southeast of Saskatoon, north of Swift Current, and in the Cypress Hills. An area of moderate drought surrounds this area, with some drought west of Lethbridge and south of Calgary in Alberta. Abnormally Dry conditions extend as far north as Prince Albert in Saskatchewan, east to Regina and west across the Rocky Mountains into the Columbia River Basin as well.

Drought continues across more than 70% of the West and much of the central and southern Plains, with extreme to exceptional drought continuing over portions of California, eastern Oregon, Nevada, and Utah as well as most of Texas, southern Oklahoma, and western Kansas. Drought rapidly expanded into the portions of the Lower Mississippi Valley in July due to very hot and dry conditions, with drought development occurring in southern New England as well. Drought also continues over portions of the Hawaiian Islands, Great Lakes, and Puerto Rico.

During the first half of July, above average rainfall was observed along the Mexican Pacific Coast, the Sierra Madre Occidental, and across southern Mexico. Below average rainfall occurred in the rest of the
country, with the greatest deficits observed in the Las Huastecas region. Observed rainfall was due to typical patterns of the rainy season, including the North American Monsoon, tropical waves, Hurricane Bonnie, and a tropical depression. The contribution of moisture from these phenomena helped reduce moderate and extreme drought in northwest Mexico and reduced the areas of abnormally dry conditions and moderate drought in the western Mexico. Precipitation deficits and warmer than normal conditions, mainly in the north-central and northeastern Mexico, caused an increase in areas of severe, extreme, and exceptional drought. In central Mexico, areas with moderate to severe drought also increased. As of July 15, the area with moderate to exceptional drought was almost 48% of Mexico, slightly higher than what was observed at the end of June.

**Fire Season Status:** Most areas of Canada have had active fire at some point so far in 2022, but it has not been as sustained as in the most active years. Widespread fire activity continued in the Northwest Territories and Yukon for the first half of July and increased through northern parts of the Prairie Provinces by mid-month. As the month progressed, increased rain reduced fire activity in the Northwest Territories, Yukon, and later, in Saskatchewan and Manitoba, although fire remained active in southeastern Yukon until late July. Also, during late July, lightning activity followed an extended period of hot and dry weather and started numerous fires in British Columbia and Alberta. The largest and most intense of these are continuing to burn in southern British Columbia.

A cluster of fires in Newfoundland started in late July and early August, with the eastern half of the island experiencing hot and dry weather. The active fires resulted in Newfoundland requesting resources through the Canadian Interagency Forest Fire Centre (CIFFC) for the first time in recorded history. A return to dry weather in the Northwest Territories resulted in increased activity on existing fires in early August.

As of August 9, Canada had recorded just under 3200 fires and about 1.15 million hectares burned. These numbers are below normal and represent about 68% and 52% of the 10-year averages for fires and hectares burned, respectively. So far, Alberta had reported the most fires with 736 and British Columbia second most with 565 fires, while the Northwest Territories had the most area burned at nearly 383,000 hectares.

Fire activity decreased rapidly across Alaska the second half of July into early August, with the geographic area preparedness level falling to one August 11. Fire activity decreased across the Southwest, southern Great Basin, and Colorado during July, but fire activity gradually increased across northern California, the northern Great Basin, Inland Northwest, and northern Rockies. Fire activity continued at low levels in the Eastern Areas and moderate levels in the Southern Area, primarily in Texas and Oklahoma. Year-to-date fire statistics through August 11 showed 40,936 fires burned a total of 2,386,479 hectares (5,897,114 acres). These totals are 113% and 143% of the 10-year average for fires and hectares burned, respectively.

So far this year, 6,526 forest fires have occurred in 32 states resulting in 647,405 hectares burned. Of this area, nearly 94% burned in grass and shrubs while just over 6% of the area burned was in timber. States with the greatest number of fires were Mexico, Jalisco, Mexico City, Michoacán, Chihuahua, Chiapas, Puebla, Durango, Veracruz, and Morelos, representing nearly 79% of the total fires. States with the largest area burned were Guerrero, Durango, Jalisco, Chihuahua, Chiapas, Oaxaca, Sonora, Nayarit, Tamaulipas, and Michoacán, representing almost 81% of the area burned. Of these fires, 1,021 or 16%, occurred in fire-sensitive ecosystems, with an area burned of 79,362 hectares, or 12% of the total acres burned.

**Canada Discussion**

**August/September/October:** Generally dry conditions since mid-July, a continued trend to above normal temperatures, and light rainfall are contributing to above normal potential in southern British Columbia and Alberta during August. Warm and dry conditions may also contribute to increased fire potential in southern parts of Saskatchewan through western Quebec outside the agricultural regions, although conditions will likely be less volatile than in southern Alberta and British Columbia.
In September, fire activity normally begins to dwindle, especially in northern regions as daylight hours shorten, longer and cooler nights help retain moisture, and thunderstorm activity begins to wane. The forecast follows this expected pattern, with normal fire potential forecast in northern regions. While coastal British Columbia may see rainfall increasing in September, above normal fire potential is still possible in southern British Columbia east of the Cascade and Coast Mountains, in the southern Prairie Provinces, and Ontario west of Lake Superior. Prairie agricultural regions likely would not see fire problems until late in the autumn if weather conditions remain dry.

The most recent climate model forecasts agree with warmer than normal temperatures across most of Canada during October, although a lesser chance is forecast in northwest Canada. Precipitation forecasts are much more varied. In October, dry regions may continue to experience fire, and the chance of grassland and agricultural land fires increases as fine fuels cure. Southern British Columbia and Alberta may continue to have fires, but near normal fire potential is forecast at this time for October.

**United States Discussion**

**August/September/October:** Climate outlooks indicate below normal precipitation is likely across much of the Plains into the Great Lakes and northeast US in August, with above normal precipitation in the southwest US, much of the Great Basin, and Colorado Rockies due to a robust North American Monsoon. Above normal temperatures are likely in August across most of the contiguous US except in the Greater Four Corners where below normal temperatures are forecast. For September into October, above normal temperatures are forecast for almost all the US including Alaska, with below normal precipitation for the central Great Basin, central Rockies, much of the Plains and into the western Great Lakes. Above normal precipitation is likely for the Atlantic Coast.

Above normal significant fire potential is forecast for much of Texas and Oklahoma through October, spreading into the western Mississippi Valley in August and October, and the Lower Mississippi Valley in September and October. Near normal potential is forecast for the southwest US, Great Basin, and central Rockies due to a robust North American Monsoon, but portions of the northern High Plains, including the Black Hills, are likely to have above normal potential through September.

Alaska has returned to normal fire potential in August, which will continue through October due to a lower sun angle and much shorter days. Much of the Sierra and Coast Ranges in California will have above normal significant potential in August, expanding into the Transverse and Peninsular Ranges of southern California in September. By October, potential will return to near normal for much of California except for the western slopes of the northern California Coast Range and northern Sierra, as well as portions of southern California, which will retain above normal potential for October.

Much of central and southern Oregon will have above normal potential through September, as well as portions of eastern Washington. Above normal fire potential is forecast for much of northern Idaho and western Montana August and September, expanding into southwest Idaho in September before returning to normal potential in October. Leeward sides of the Hawai’ian Islands will have above normal potential through October due to ongoing drought and periods of enhanced trade winds.

**Mexico Discussion**

**August/September/October:** Precipitation is forecast to be above normal in the states of Jalisco, Colima, Michoacán, Guerrero, Oaxaca, coastal Chiapas, southern Veracruz, Campeche, and Quintana Roo through October, with below normal precipitation forecast for Baja California, northwest Sonora, Chihuahua, eastern Durango, central and northern Zacatecas, Nuevo León, and northwest San Luis Potosí. The rest of the country is forecast to have near normal precipitation. Temperatures are forecast to be above normal across almost all of Mexico, except in Chiapas and Tabasco where it will be near normal.
Given the recent temperature, precipitation, and drought trends across the country, along with forecast temperature and precipitation, significant fire potential is forecast to be above normal through October across portions of northwest, northern and northeast Mexico, primarily across portions of northern Baja California, Coahuila, Nuevo León, Tamaulipas, and far northern Chihuahua. Near normal fire potential is forecast across the rest of Mexico.

**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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