

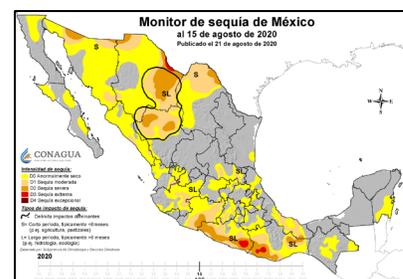
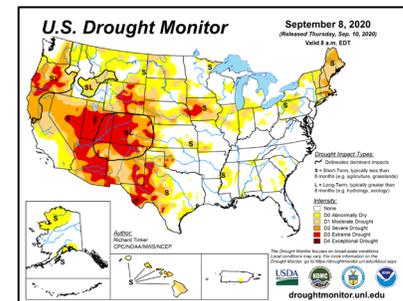
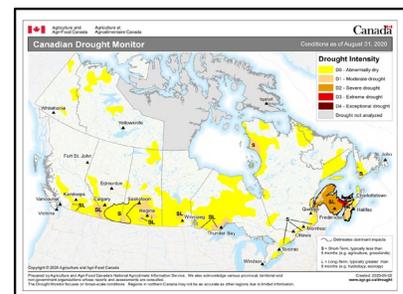
Monthly fire outlook for North America for September 2020 (left), October 2020 (middle), and November 2020 (right). Red shading indicates areas where conditions would favor increased fire activity. Green shading indicates areas where conditions would favor decreased fire activity. *Click on each image to see larger versions.*

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

El Niño-Southern Oscillation: ENSO-neutral conditions continued in August with near-to-below average sea surface temperatures (SSTs) in the equatorial east-central and eastern Pacific Ocean. The Climate Prediction Center (CPC) forecasts ENSO-neutral conditions continuing through the summer, and a 50-55% chance of La Niña conditions developing in late September and October, continuing through the winter. Impacts of the developing weak event may have a significant impact on the fall fire season in California by producing a continuance of drier than average conditions along with a possible higher frequency of wind events. Drier than average conditions may also develop across the southeast US.

Drought: Prolonged periods of upper-level ridging and moist low-pressure troughs in the eastern US were coupled with tropical activity. In western areas, the long-duration ridge events promoted overall warmer and much drier than average during the peak month of the western fire season. As a result, fuels became critically dry and receptive to fire activity. The ridge also suppressed monsoonal activity across the southwest US, which allowed for the region to experience a much longer than average season, especially across Arizona. The overall cooler and wetter than average conditions reported across the East were strengthened by Hurricane Laura, which made landfall the night of August 26 as a category four storm along the southern coast of Louisiana.

Precipitation amounts west of the Continental Divide were generally less than 25% of average with some locations across California, the Pacific Northwest, West Texas, and the Great Basin reporting less than 5% of average precipitation for the month. In the eastern US, rainfall amounts were generally slightly above average except across the Upper Midwest, Great Lakes region, and New England where amounts received were less than 75% of average. Areas that received less than average precipitation



Top: Canadian Drought Monitor for 31 July 2020 (from *Agriculture and Agri-Food Canada*). **Middle:** United States Drought Monitor for 4 August 2020 (from *U.S. National Center for Environmental Information*). **Bottom:** Mexican Drought Monitor for 31 July 2020 (from *CONAGUA-Servicio Meteorológico Nacional*).

amounts received were less than average precipitation

were generally 2-4°F above average while the areas that were below average were generally 3-6°F below average

Large portions of the West experienced drought during August. Areas with the most intense drought in the Four Corner states, West Texas, Nevada, northern California, and the Oregon where pockets of extreme drought were observed at month's end. The most rapid increases in and expansion of drought was across Arizona, West Texas, southern Nevada, and northern Colorado where two to three drought classes were crossed. Drought improvement was observed across portions of the central Great Plains, the East, and along the northern Gulf Coast.

The preliminary August 31 Canadian drought assessment shows patchy abnormally dry areas north of about 53° latitude; below that, an abnormally dry area is continuous from southern British Columbia eastward to the Ontario/Quebec border. Within this band, a few areas of moderate drought have appeared, with the eastern end at Lake Superior, and an isolated area of moderate drought has developed on the east side of Hudson Bay near Inukjuak. Another band of dry conditions exists from the eastern Great Lakes to western Newfoundland, with the epicenter over New Brunswick and Prince Edward Island, where a patch of extreme drought exists. Around this, severe drought extends mainly west over Gaspésie, and moderate drought southwest into the New England states.

In the first half of August, precipitation was above average in eastern Mexico and in portions of northeast, central, and southeast Mexico and along the Pacific coast. This precipitation was the result of trough passages, five tropical waves, and moisture from the Caribbean Sea, Gulf of Mexico and Pacific Ocean. Drought recovery was observed in the north of Veracruz and the coast of Jalisco and Nayarit. Below-average rainfall covered much of the country with the most significant deficits located in the Baja California Peninsula, northwest and northern Mexico, and in areas of Zacatecas, Aguascalientes, Guanajuato, Michoacán, Guerrero and Oaxaca. Due to these conditions, there was an expansion of drought in northwest and northern Mexico, while the drought in the Mexican Pacific region from Michoacán to Oaxaca remained with minimal changes. As of August 15, the moderate to extreme drought coverage (D1-D3) at the national level was 19.68%, 4.59% lower than what was observed on July 31.

Fire Season Status: The 2020 Canadian fire season was the quietest in several decades, with over 3,550 fires and 230,300 hectares burned representing only 64% and 8% of the 10-year averages. Some fires in remote regions may not be included in these figures. Still, some regions experienced above normal activity. Quebec had over 670 fires, about 50% above the 10-year average, although the area burned was only about 30% of normal. New Brunswick had over 390 fires and 1,260 hectares burned, about 180% and 470% of the 10-year averages. While Nova Scotia's number of fires is about 15% less than the 10-year average, over 710 hectares burned, which is about 150% of average. Saskatchewan and Manitoba had fires of over 25,000 hectares in early spring, and Quebec had one fire over 65,000 hectares in July. A few active fires from July or August starts continue to burn in southern British Columbia.

Fire activity markedly increased across the western US in August as lightning events ignited large fires in several western states, especially in California. Year-to-date fire statistics show that through September 14, 42,109 fires burned 2,455,782 hectares (6,068,370 acres) across the US. This is an increase of 1.5 million hectares (250%+ increase) from this time last month. The year-to-date acres burned is above the 10-year average with the number of fires slightly below the 10-year average.

Year-to-date data shows 5,560 forest fires have occurred in 32 states, affecting an area of 323,642 hectares. Of the total fires, 93% corresponded to herbaceous and shrub vegetation and 7% in timber. The states with the highest number of fires were: Mexico, Michoacán, Jalisco, Mexico City, Chihuahua, Chiapas, Puebla, Durango, Guerrero and Tlaxcala, which represent 80% of the national total. The states with the largest area affected were: Guerrero, Baja California, Quintana Roo, Jalisco, Michoacán, Oaxaca, Chiapas, Durango, Nayarit and Campeche, which represent 75% of the national total. Of the total forest fires, 678 (12%) corresponded to fire-sensitive ecosystems, affecting an area of 62,190 ha (19%) of the national total.

Canada Discussion

September/October/November: In September, significant fire potential lessens in northern regions, but continues through southern parts of provinces west of Lake Superior. The figure in this report encloses the area where the August seasonal forecast plus current drought indicates fire may be possible. East of the Rocky Mountains, this translates mainly to grass or brush fire potential.

In October, the fire season normally ends in northern Canada as rain begins turning to snow. Rainfall along the Pacific coast begins its autumn/winter increase. Forests in much of the rest of the country retain moisture, although deep-burning fires may still smolder in dry sites. If dry areas linger dry in southern British Columbia and Alberta, some fires could occur, and existing fires may continue burning.

November normally brings the first continuous winter snow cover in much of Canada, except for coastal regions, southwestern Alberta, and southern Ontario and Quebec. If the warm water anomaly in the North Pacific continues, it may help maintain warmth in western Canada; however, at this time, significant fire activity for November is not expected.

United States Discussion

September/October/November: A continuation of peak season activity through September is expected across much of the western US as drought conditions continue to take hold. Much of the West Coast has ongoing, active large fires, and it will take a major pattern shift and transition to cool, moist conditions to significantly reduce activity. By late September, however, the seasonal transition to fall will likely begin. Cold fronts bringing winds but also precipitation could begin to provide relief to the critically dry fuels across most of the western US. Fire activity is likely to diminish as fuel moistures begin to recover and as the days get shorter, overnight humidity recoveries will become greater. This will add further relief to fuels, especially the finer fuels.

Above normal large fire potential is expected to continue in October and November in wind prone areas across California while decreasing and returning to normal across the rest of the western US. The expectation of drier than average conditions and a higher probability of more frequent Foehn Wind events suggests that significant large fire potential will be elevated until winter arrives during December. The fall fire season across the eastern US is expected to be near average but above average across much of the Southern Area due to drier than average conditions associated with a developing La Niña.

Mexico Discussion

September/October/November: Wildfire activity will remain low across much of Mexico as the rainy season continues in September and October. While precipitation will begin to decrease in November, only parts of northwest Mexico will experience periods of higher than normal fire risk during the outlook period. The North American Monsoon has been intermittent, and the synoptic climatology maintains long periods of high-pressure systems over northwest Mexico, which will favor high temperatures and a dry and windy environment.

Temperature, precipitation, and drought conditions across Mexico, together with the climatological analysis maintain risk conditions above normal in northern Baja California in September-November. For the rest of Mexico, wildfire risk will remain low because of the rainy season, although sporadic increases in significant fire potential due to anthropogenic activity cannot be ruled out.

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.

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