Executive Summary

A brief lull in the Pacific moisture stream allowed typical summer conditions in western Canada between late July and early August. High pressure has focused more on central and eastern regions of the country, although parts of the Atlantic coast have received more moisture than inland regions. Northern parts of most provinces, and Yukon and the Northwest Territories, have remained moist enough that fire has been minimal.

In the United States, a significant increase of fire activity was observed in July as fuels continued to dry across much of the West and lightning spread farther north and west into the Great Basin, northern California, Pacific Northwest, and northern Rockies. While the Rocky Mountain Area, Southwest, and southern Great Basin saw an increase in fire activity into mid-July. However, greater coverage and consistency of thunderstorms producing wetting rain saw an overall decrease in fire activity in New Mexico, Arizona, Colorado, and portions of Utah and Wyoming. Alaska, Eastern Area, and Southern Area all experienced downward trends in fire activity as well.

The delayed onset of the North American Monsoon resulted in and eastward shift of the moisture across the Southwest, Four Corners, Colorado Rockies, and the Plains resulted drier than normal conditions in the southeast California and much of the Great Basin and Arizona. With a suppressed upper-high and consistent upper-level trough passages across the northern CONUS, temperatures were near normal across the West with below normal temperatures and above normal precipitation across much of the northern Rockies and northern Plains.

August represents the peak of fire season for the West and above normal significant fire potential is expected across much of the Great Basin, northern California, Pacific Northwest, and northern Rockies. The North American Monsoon is forecast to remain intermittent, which will provide chances of lightning without moisture surges extending into portions of the Great Basin, California, Pacific Northwest, and northern Rockies. Given the dry fuels, any lightning will likely result in increased fire activity and above normal significant large fire potential into September.

The decrease in wildfire activity continues throughout Mexico due to the rainy season. Some parts of northwestern Mexico may experience brief periods of higher than normal fire risk, as the North American Monsoon was delayed and intermittent, which may continue through August. Wildfire activity remains below average for the year.

Given the current conditions including the areas of drought and forecast climate, above normal significant fire potential is expected in northern Baja California for October. For the rest of Mexico, the significant fire potential will remain normal with minimal significant fire activity across the rest of Mexico in August, September, and October due to the North American Monsoon.
Critical Factors The critical factors influencing significant fire potential for this outlook period are:

**El Niño-Southern Oscillation:** ENSO-neutral conditions continued in July with near-to-below average sea surface temperatures (SSTs) in the equatorial east-central and eastern Pacific Ocean. The Climate Predictor Center (CPC) forecasts ENSO-neutral conditions continuing through the summer, and a 50-55% chance of La Niña conditions developing during the fall and continuing through the winter. The North American Monsoon is forecast to go through typical breaks and bursts through August, which may lead to precipitation deficits across portions of Arizona, southeast California, and southern Great Basin given the delayed onset and eastern shift of the monsoon thus far.

**Drought:** The North American Monsoon onset was delayed across the Southwest and more focused on eastern Arizona and much of New Mexico. However, the North American Monsoon was relatively weak with minimal northward intrusions into the western United States while drought continued and intensified in many areas across the western United States. While multiple lightning events occurred across the Great Basin, northern California, and portions of the Pacific Northwest, storms were relatively dry and scattered in coverage leading to mostly below average precipitation.

Moisture from the North American Monsoon and typical moisture return over the Plains from the Gulf of Mexico resulted in generally above average precipitation across the Plains. However, portions of central, west, and southwest Texas missed many of these convective systems and rainfall associated with remnants from Hurricane Hanna exacerbating and spreading drought conditions in these areas. Tropical Storm Isaias helped alleviate drought conditions in portions of the Mid-Atlantic and Northeast.

Patchy abnormally dry conditions are present in southern parts of provinces west of Ontario. A few tiny areas of moderate drought are found on east-central Vancouver
Island, southern British Columbia near Osoyoos, east of Regina, Saskatchewan, and near Winnipeg, Manitoba. Abnormally dry conditions are continuous from southern Ontario to western Newfoundland, with areas of moderate to severe drought within this band. The most intense drought area lies through Gaspésie and New Brunswick. A few patches of abnormally dry conditions persist in the Northwest Territories between Great Slave Lake and Inuvik.

During the second half of July, above average precipitation was observed in the northeast and center-north of the country due to Hurricane Hanna. In Sonora, Chihuahua, Guerrero, Oaxaca, Chiapas, Campeche, Yucatan, and Quintana Roo states, above-average rainfall was associated with the North American Monsoon, presence of multiple tropical waves, and increased instability. The greatest reduction of drought was in the northeast, north-central, western, and central portions of Mexico. Drought continues in portions of the eastern slopes and adjacent coastal plains of the central and southern Sierra Madre Oriental, the south Pacific coast and adjacent areas, and in northwest Mexico. As of July 31, the moderate to extreme drought coverage (D1-D3) was 15.09%, which was a decrease from mid-July.

**Fire Season Status:** The number of fires and area burned continues well below normal, with fire starts at about 60% and area burned only about 9% of the 10-year averages. Fire activity has increased in western Ontario in early August, which may increase these percentages slightly. At this stage of the year, and with variable weather conditions expected over the next few weeks, these numbers will have a high chance of staying well below normal for the year.

Fire activity increased across the western US. in July as multiple lightning events ignited large fires in several western states. Year-to-date fire statistics show that through August 13, 35,121 fires burned 947,443 hectares (2,341,183 acres) across the US. Both the year-to-date number of fires and acres burned are below the 10-year average with acres burned approximately half of the 10-year average.

Fire activity in Mexico remains below normal. Year-to-date fire statistics through July for the country show 5,523 fires across 32 states that burned a total of 308,560 hectares (762,690 acres) which is well below the 10-year mean.

**Canada Discussion**

**August/September/October:** Above average fire risk is predicted from eastern Manitoba through a tiny portion of western Quebec. Except for areas along the Manitoba/Ontario border, the northern part of Ontario north of a line midway between the Great Lakes and Hudson Bay is outside this region and severity is forecast to be normal. A region of below normal severity extends westward from the Lake Athabasca/Great Slave Lake area, expanding to include the region between British Columbia and central Yukon.

For September, above average fire risk is forecast in southwestern British Columbia, including southern Vancouver Island, plus an area between southern Manitoba and western Ontario. The latter region is similar to that expected in August, although with a greater focus in southern Manitoba and without the eastward extension into western Quebec.

Natural Resources Canada ends its seasonal fire severity predictions in September each year. Areas that often feature October fire activity include southern British Columbia and the southern Prairies Provinces. The North American Multi-Model ensemble suggests warm temperatures, but normal to slightly above normal precipitation for these areas. The required very dry conditions necessary to sustain fire at this time of year may not be present.

**United States Discussion**

**August/September/October:** August represents the peak of fire season for the western United States and above normal significant fire potential is expected across much of the Great Basin, northern California, Pacific Northwest, and northern Rockies. The North American Monsoon is forecast to remain
intermittent, which will provide chances of lightning without moisture surges extending into portions of the Great Basin, California, Pacific Northwest, and northern Rockies. Given the dry fuels, any lightning will likely result in increased fire activity and above normal significant large fire potential into September.

As precipitation and cooler temperatures arrive in fall, areas of concern will shift southward to portions of California as offshore wind events become more likely. Without a robust monsoon and potentially delayed fall precipitation, fuels will remain very dry across much of California. With ENSO-neutral to potentially La Niña conditions, an increase of frequency of offshore wind events are possible. Additionally, drier than normal conditions are likely across much of the Southern Area given current long-term weather and climatological trends. However, an active hurricane season is a source of uncertainty.

Mexico Discussion

**August/September/October:** For August through October, accumulated rainfall is expected to be above average for the country with the wettest anomaly likely in October. Above normal maximum temperatures are forecast in northern Mexico from August to October with below normal temperatures in central and southern Mexico in August and October.

Normal fire activity with minimal significant fires are expected across much of the country through October due to the North American Monsoon and tropical convection. However, above normal significant fire potential is forecast in northern Baja California during October.

**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.

**Acknowledgements**
Contributions to this document were made by:

**Canada:** Richard Carr, Natural Resources Canada
Ginny Marshall, Natural Resources Canada

**United States:** Bryan Henry, Predictive Services, U. S. Forest Service
Nick Nauslar, Predictive Services, Bureau of Land Management
Dianna Sampson, GIS, Bureau of Land Management

Mexico: Martin Ibarra, Servicio Meteorológico Nacional
Dario Rodríguez, Servicio Meteorológico Nacional
Octavio Arturo Farias Nuñez, Servicio