

National Interagency Coordination Center

Wildland Fire Summary and Statistics Annual Report 2012





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Identifier Legend

Interagency Coordination Centers

NICC – National Interagency Coordination Center
AK - Alaska
EA - Eastern Area
EB - Eastern Great Basin
NO - Northern California
NR - Northern Rockies
NW - Northwest
RM - Rocky Mountain
SA - Southern Area
SO - Southern California
SW - Southwest
WB - Western Great Basin
CIFFC - Canadian Interagency Forest Fire Centre
NIK - National Interagency Radio Support Cache

Government Agencies

Department of the Interior:
BIA - Bureau of Indian Affairs
BLM - Bureau of Land Management
FWS - Fish & Wildlife Service
NPS - National Park Service
AMD - Aviation Management Directorate

Department of Agriculture:
FS - Forest Service

Department of Defense: DOD or DDQ

Department of Homeland Security:
FEMA - Federal Emergency Management Agency
ESF #4 – Emergency Support Function 4, Firefighting

Department of Commerce:
WXW - National Weather Service

Department of Energy: DOE

ST – State
ST/OT – State and Other combined
OT – Other
Other – **PRI** – Private
 CNTY – County
CN – Canada
AU – Australia
NZ – New Zealand

Preface

Statistics used in this report were gathered from the Fire and Aviation Management Web Applications (FAMWEB) system, which includes the Situation Report and Incident Status Summary (ICS-209) programs. Previous National Interagency Coordination Center (NICC) annual reports and other sources were also used in this document. The statistics presented here are intended to provide a national perspective of annual fire activity, but may not reflect official figures for a specific agency. The statistics are delineated by agency and Geographic Areas. Pie chart figures are rounded to the nearest whole percentage point. This document is available electronically at the National Interagency Coordination Center web page: <http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm>.

For agency-specific details or official data contact the individual agency.

Resource mobilization statistics used in this report were gathered from the Resource Ordering and Status System (ROSS), which tracks tactical, logistical, service and support resources mobilized by the national incident dispatch coordination system. Statistics presented in this report are the resources requested by one of the eleven Geographic Area Coordination Centers and processed through NICC. Requests by FEMA are placed to NICC through Emergency Support Function (ESF) #4 (Firefighting). The resource ordering process and procedures may be found in chapter 20 of the National Mobilization Guide. The National Mobilization Guide can be found on the NICC web site (www.nifc.gov/news/nicc.html) under reference materials.



National Interagency Coordination Center

2012 Fire Season Summary

Winter (December 2011 – February 2012)

A moderate La Niña remained in place during the winter months of 2011-2012 (December through February). The winter was warmer than normal across most of the eastern half and northern third of the nation, contributing to the fourth warmest winter on record over the contiguous United States. Many states experienced winters that were among their top ten warmest on record. Only five states all had normal winter temperatures: Washington, Oregon, Nevada, Arizona and New Mexico. Alaska was slightly below normal during this period.

Despite the La Niña, typical precipitation patterns usually associated with La Niña episodes did not materialize. Most of the western U.S. ended drier than normal as did the eastern seaboard, while the south-central states were much wetter than normal for the period. The Northwest, which is typically wet during La Niña episodes, was dry. In total, 25 states received below normal precipitation, three of which fell among the top ten driest in 117 years of records, including: California (third driest); South Carolina (sixth driest); and North Carolina (ninth driest). This was especially critical in the West where a large proportion of annual precipitation falls as snow in the winter. At the other extreme, eight states (New Mexico, Texas, Louisiana, Oklahoma, Kansas, Iowa, Indiana, and Ohio) had above normal precipitation. Texas recorded its tenth wettest winter on record. This was especially significant as it marked the end of a 20 month drought that contributed to a devastating wildfire season during the 2011 summer. Alaska recorded its twelfth wettest winter.

January and February brought a transition to much of the U.S. The southern tier continued to see drier than normal fuel conditions, except in some portions of Texas. Across much of the West, fine fuels remained heavy and continuous and were largely dry. Significant fires occurred with the combination of ignitions and windy conditions. The northwestern quarter of the country saw significant moistening and snowpack accumulations increased. The Northeast saw near normal seasonal fuel conditions, with some dryness lingering across the Great Lakes states. The Southeast continued to experience drier than normal fuel conditions to the south and east of the Tennessee Valley.

The initial seasonal outlook reports for the Southern, Eastern, and Southwest Geographic Areas called for above normal fire potential across the East and Gulf Coast states from North Carolina to Louisiana, as well as across deep southern Texas, and over much of western and central Minnesota and northwestern Iowa. Below normal fire potential was expected over much of the mid and upper Mississippi and Ohio valleys and across the Appalachians.

Spring (March – May)

As La Niña began to weaken and equatorial Pacific conditions began leaning toward neutral, a persistent trough pattern set up along the West Coast, bringing several wet storms to the Northwest and northern Rockies. Consequently, a broad ridge remained in place over the eastern two-thirds of the U.S., bringing very warm conditions to much of the nation.

Temperatures were above normal for all but the West Coast states and much above normal for much of the eastern half of the country. In the contiguous 48 states, only six states (Washington, Oregon, Idaho, California, Nevada and New Mexico) did not have spring temperatures among their top ten warmest and two of those (Washington and Oregon) were near normal for the three month period. Of the 42 states with spring warmth in the top ten, 31 recorded their warmest spring in 118 years of records. Nationally, spring 2012 was the warmest on record, surpassing the previous warmest spring (in 1910) by a full 2.0 degrees Fahrenheit. Alaska recorded below normal spring temperatures.

Precipitation was well above normal over much of the Northwest corner of the nation, across the upper Midwest and in scattered parts of the mid-Atlantic and south central regions. Oregon had its wettest spring on record while Washington and Minnesota recorded their third wettest springs on record. At the other extreme, the central Rockies experienced very dry conditions as did parts of the Ohio and Mississippi Valleys. Colorado and Wyoming recorded their fourth driest springs and Utah and Delaware recorded their fifth driest springs. Alaska precipitation was slightly above normal. Drought conditions improved in the Southeast, aided largely by rain from Tropical Storm Beryl and marking only the third on record that tropical storms had formed in the North Atlantic basin before the official start of hurricane season. Drought conditions improved across Texas, but worsened and spread in the West.

Snowpack conditions by the beginning of May across the West indicated dire conditions heading into the summer months. With the exception of parts of the Northwest and northern Rockies, most of the Rocky Mountain states would enter the summer season with less than 50 percent of normal snowpack. Vast sections of the Southwest and the Great Basin were already snow-free by the start of May. In the Northwest, snowpack exceeded 150 percent of normal in parts of Oregon, Washington, northern Idaho and northwest Montana. In Alaska, snowpack was above normal, except on the North Slope.

The southern U.S. continued to see drier than normal conditions. Across much of the West fine fuels remained heavy and continuous. Pre-green up conditions caused control problems and led to some increased fire behavior when coupled with wind events. Across the northern tier near normal seasonal fuel conditions existed with some dryness lingering across the Great Lakes states early in the spring. In the southwestern quarter of the country a combination of prevalent fine fuels and drier than normal conditions began to develop, setting the stage for significant fires as the season progressed. Lack of significant snowfall at lower elevations in these areas left an abundance of standing grasses, making them available for this fire season. In the southeast drought continued to create abnormally normal low fuel moisture.

By the end of May, fire season 2012 could be described as below normal nationally for both fires and acres burned. Nationally, 22,292 fires had been reported, burning 710,661 acres. This represents just 74 percent of fires, and 57 percent of acres burned compared to the 10-year national average. However, the Northwest, Northern and Southern California, Northern Rockies, Eastern Great Basin, Western Great Basin and Rocky Mountain Geographic Areas did experience above average fire activity by the end of May. Additionally, the Northwest, Northern Rockies, Eastern Great Basin, Western Great Basin, Southwest and Rocky Mountain Geographic Areas all had above average acres burned. Western Great Basin burned 722% of its 10-year average acres, the Northwest 600 percent, and Eastern Great Basin 465 percent of their average acres as of May 31. Alaska, Northern California, Southern California, Eastern and Southern Geographic Areas all experienced well below average acres burned.

By May 31, only the Bureau of Land Management and Bureau of Indian Affairs had experienced higher than their 10-year average number of fires (147 and 129 percent respectively). Both agencies also experienced above their 10-year average for acres burned (217 and 164 percent respectively). The U.S. Forest Service experienced a near average number of fires (96 percent), but 231 percent of its 10-year average for acres burned.

Summer (June – August)

The summer weather pattern over the United States was largely dominated by a ridge over much of the western and central states, and a weak trough that lingered over the southeastern states. This led to a much warmer than normal summer for most of the country with the Southeast falling below normal. The summer heat wave placed 23 states in their top ten warmest summers on record, including seven New England states. Colorado and Wyoming recorded their warmest summer on record. Alaska experienced near normal temperatures for the summer. Nationally, the summer was the third warmest on record and included the warmest July on record in the United States.

Precipitation deficits continued across the interior of the nation, while the corners of the country experienced above normal precipitation during the summer months. Record to near record dryness affected most of the central U.S. where eight states recorded summers among their top ten driest including: Wyoming and Nebraska (driest); Iowa (second); Missouri (third); South Dakota (fourth); Illinois (sixth); Kansas (seventh); and New Mexico (eighth). At the other extreme, the Northwest, Southwest, Southeast and Northeast all had above normal precipitation. Florida recorded its wettest summer ever with the help of Tropical Storm Debby in June and Hurricane Isaac in August. Two other southern states recorded summers among their top ten wettest – Mississippi (fourth wettest) and Louisiana (seventh wettest). Even Maine had a very wet summer, recording its eleventh wettest on record. Alaska recorded above normal precipitation.

The dry conditions in the interior of the contiguous U.S. intensified and spread. By the end of August, severe to exceptional drought had spread to over 40 percent of the nation, with the worst conditions centered on the Plains and the mid- and upper Mississippi Valley. In the West, drought expanded rapidly to encompass most of the region, except the far Northwest. Meanwhile, improvement occurred along the Gulf States where rain from two tropical systems largely eliminated drought conditions from the upper Texas coast to the Carolinas with only central Georgia and eastern Alabama still in extreme to exceptional drought.

The National Seasonal Significant Wildland Fire Potential Outlook issued for June through August called for above-normal significant fire potential through much of Arizona, western New Mexico, western Colorado, south central Wyoming, the mountains of central Utah, southwestern Idaho, southeastern Oregon, western and northern Nevada, and the southern mountains of California. Above normal potential continued on the western side of Hawaii.

Worsening drought conditions in the West led to below normal live and dead fuel moisture and above normal Energy Release Component indices extending from New Mexico west through California and north to southern Oregon, Idaho and Wyoming. Additionally, many of these areas saw increased fine fuel loading from lingering dead, standing fuels and below normal snowpack. In the northwestern quarter of the U.S., mild and moist conditions through the spring kept fuels somewhat moist, except the fine fuel areas. Greater than normal fire behavior

and rates of spread were experienced in areas where fine fuels were dominant across the West, leading to fire burning a large number of acres relative to the number of fires that occurred. Some drought remained across the Great Lakes region. Periodic precipitation events continued across the Southeast.

Autumn (September – December)

September began with a ridge of high pressure over the West and a trough over the East. This kept the heat in place over much of the western half of the nation, while the eastern half remained relatively cool. Temperatures in the West ranged from two to six degrees above normal from California to the northern Rockies and into the northern Plains. Several regions, particularly the mountain states, recorded temperatures six to eight degrees above normal. Four states in the West experienced September heat among their top ten warmest: Nevada (third); California (sixth); Utah (ninth); and Wyoming (tenth). In the East, temperatures were below normal over most of the Mississippi and Ohio Valleys and the upper Midwest. Temperatures were two to four degrees below normal over most of the region. While no monthly records were threatened, seven states did have a cooler than normal month.

The strong ridge in the West not only sent temperatures soaring, it suppressed rainfall over most of the region. The West Coast, the northern Great Basin, the northern Rockies and the northern Plains all had less than a quarter of normal precipitation for September. Montana, North Dakota, South Dakota and Minnesota recorded their driest September in 118 years. Five other states ranked among their ten driest: Washington (second); Oregon and Nebraska (third); Idaho (sixth); and Wyoming (eight). But in the Southwest an active monsoon brought rainfall up to four times normal to portions of southern Arizona, much of southern and eastern Nevada, and western Utah. East of the Rockies, several cold fronts focused thunderstorm activity from Texas to New England, bringing rainfall of 200 to 400 percent of normal for much of the eastern U.S. Even the remnants of Hurricane Isaac contributed to heavy rains over the Ohio Valley early in the month. Four states recorded among their wettest September: Ohio (fourth); Kentucky (seventh); West Virginia (eleventh); and Tennessee (twelfth). Several strong Pacific storms slammed into Alaska, giving the state its fifth wettest September in 95 years of records.

A deep Canadian trough dropped into the central U.S. in early October, bringing very cold air to much of the central section of the country that remained in place for most of the month. Temperatures were two to four degrees below normal from the northern Rockies to the Great Lakes and southward to the Gulf Coast. The Southeast and most of the East Coast states escaped the cold air and saw monthly temperatures two to four degrees above normal. Across New England, some areas had readings up to six degrees above normal for the month. Precipitation in October favored the region along the Canadian border from Washington to northern Minnesota, where rain and heavy snow produced 200 to 400 percent of normal precipitation for the month. A strong storm crossed the Southwest at mid-month, bringing heavy snow and rain to the southern Sierras and southern Nevada, also producing up to 400 percent of normal precipitation for that region. In the East, areas around the Great Lakes to the mid-Atlantic coast and New England received above normal precipitation, over 400 percent of normal along the coast from Virginia to New Jersey. Much of the coastal precipitation came from Hurricane Sandy, which struck near New Jersey at the end of the month, triggering heavy rains and severe coastal flooding from the North Carolina coast to New York. The storm also produced heavy snow in the central Appalachians, especially over West Virginia. Dry

conditions covered most of the South and the Plains states with less than 25 percent of normal precipitation from South Dakota to Texas, across the Southwest, the central Rockies, the Great Basin, and most of California. The Southeast continued to suffer precipitation deficits as well, especially across Georgia and South Carolina.

Hurricane Support

The 2012 Atlantic hurricane season experienced above-normal tropical activity for the summer; reaching 19 named storms in the North Atlantic basin by the end of October. Ten storms became hurricanes and one became a major storm, category 3 or greater. The season began unusually early with two names storms forming before the official start of the Atlantic hurricane season on June 1. Four storms hit the mainland U.S. Tropical Storm Beryl made landfall near Jacksonville Beach, FL, on May 28. Tropical Storm Debby made landfall near Steinhatchee, FL, on June 26. Hurricane Isaac made landfall near New Orleans, LA, on August 28. Finally, Hurricane Sandy made landfall near Atlantic City, NJ, on October 29. This hurricane season tied with four other years (1887, 1995, 2010 and 2011) as the third most active Atlantic season on record. The only hurricane that saw a significant wildland fire resource commitment was Sandy. There were a total of four National Incident Management Organization, two Type 1 Team, and nine Type 2 Team assignments to Hurricane Sandy recovery.

National Fire Activity Synopsis

The 2012 fire season was slightly below normal for number of reported wildfires (90 percent of the 10-year average). There were 67,774 wildfires reported nationally (compared to 74,126 wildfires reported in 2011). The number of acres burned in 2012 was 9,326,238, or 128 percent of the national 10-year average. Eastern Great Basin Geographic Area led the nation with nearly 1.9 million acres burned. The Northern Rockies, Northwest and Rocky Mountain Geographic Areas also burned more than one million acres each in 2012.

Based on a 10-year average, four Geographic Areas reported above average fire occurrences in 2012: Eastern Great Basin, Northern Rockies, Rocky Mountain and Western Great Basin Geographic Areas. Eastern Great Basin, Northern California, Northern Rockies, Northwest, Rocky Mountain and Western Great Basin Geographic Areas all experienced above average acres burned. Fifty-one fires exceeded 40,000 acres in 2012, ten more than in 2011 (see Significant Fire Activity below for a list of those fires).

A total of 4,244 structures were destroyed by wildfires in 2012, including 2,216 residences, 1,961 outbuildings and 67 commercial structures. This is well above the annual average of 1,416 residences, 1,253 outbuildings and 46 commercial structures destroyed by wildfires (data from 1999 to present). Colorado accounted for the most number of structures lost in 2012: 656 residences and 162 outbuildings (no commercial structures were reported lost).

Requests for firefighting resources placed to the National interagency Coordination Center during the 2012 fire season was above the 10-year average in most categories. Filled requests for Type 1 teams, overhead, engines, crews and heavy air tankers all exceeded their respective 10-year averages. In fact, heavy air tanker mobilizations (including MAFFS and

Canadian air tankers) set a new record. Filled requests for Type 2 teams, Type 1 helicopters were near average, and requests for Type 2 helicopters were below average.

National Type 1 teams were mobilized 53 times (up from 37 in 2011), and spent 701 days on assignments (up from 520 days in 2011). This includes two Hurricane Sandy assignments. All 16 teams had at least one assignment. Type 2 Teams were mobilized 158 times (up from 114 in 2011), for a total of 1,591 days assigned, up from 1,245 days in 2011 (figures include both national and regional teams). There were three Area Command team mobilizations in 2012. The four National Incident Management Organizations (NIMO) were mobilized 13 times in 2012, including four Hurricane Sandy assignments.

Military and International Resource Mobilizations

Military: On June 23, a Request for Assistance for four military C-130 MAFFS aircraft was approved, and the first MAFFS began flying fire missions in Colorado on June 25. All available MAFFS aircraft (from California, North Carolina, Wyoming and Colorado) were activated at various times during the fire season. By September 13, MAFFS had flown 922 sorties across the western U.S., dropping 2,449,679 gallons of retardant. This is the highest number of gallons dropped by MAFFS since 1994. The last two MAFFS aircraft were released September 14 from Sacramento, CA.

International: Through the National Interagency Coordination Center, Canada provided five air tankers and three aerial supervision modules (“Bird Dogs”) from British Columbia, Alberta and Saskatchewan, as well as two liaison officers. The first aircraft were mobilized between June 6 and June 12 from British Columbia and Saskatchewan. Another air tanker and Bird Dog were arrived July 9 from Alberta. These aircraft flew missions in many western states. The last aircraft were released back to Canada on July 12 due to increasing fire activity in that country.