

# **National Interagency Coordination Center**

## **Wildland Fire Summary and Statistics Annual Report 2013**





## Table of Contents

Identifier Legend	page.....2
Preface	page.....3
Annual Fire Summary	page.....4
Significant Fires	page.....11
Wildland Fires and Acres	page .....13
Prescribed Fire Projects and Acres	page.....23
Wildland Fire Use Fires and Acres	page.....27
National Preparedness Levels	page.....28
Type 1 and 2 Incident Management Teams	page.....30
Department of Defense	page.....36
Crews	page.....36
Engines	page.....39
Overhead	page.....42
Helicopters	page.....44
Fixed Wing Aircraft (and MAFFS)	page.....48
Equipment Services (Caterers and Showers)	page.....55
Radio and Weather Equipment	page.....57
Benchmarks (Records)	page.....59
Acronyms and Terminology	page.....60
Wildland Fires and Acres by State and Agency	page.....61

# 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** – USDA 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

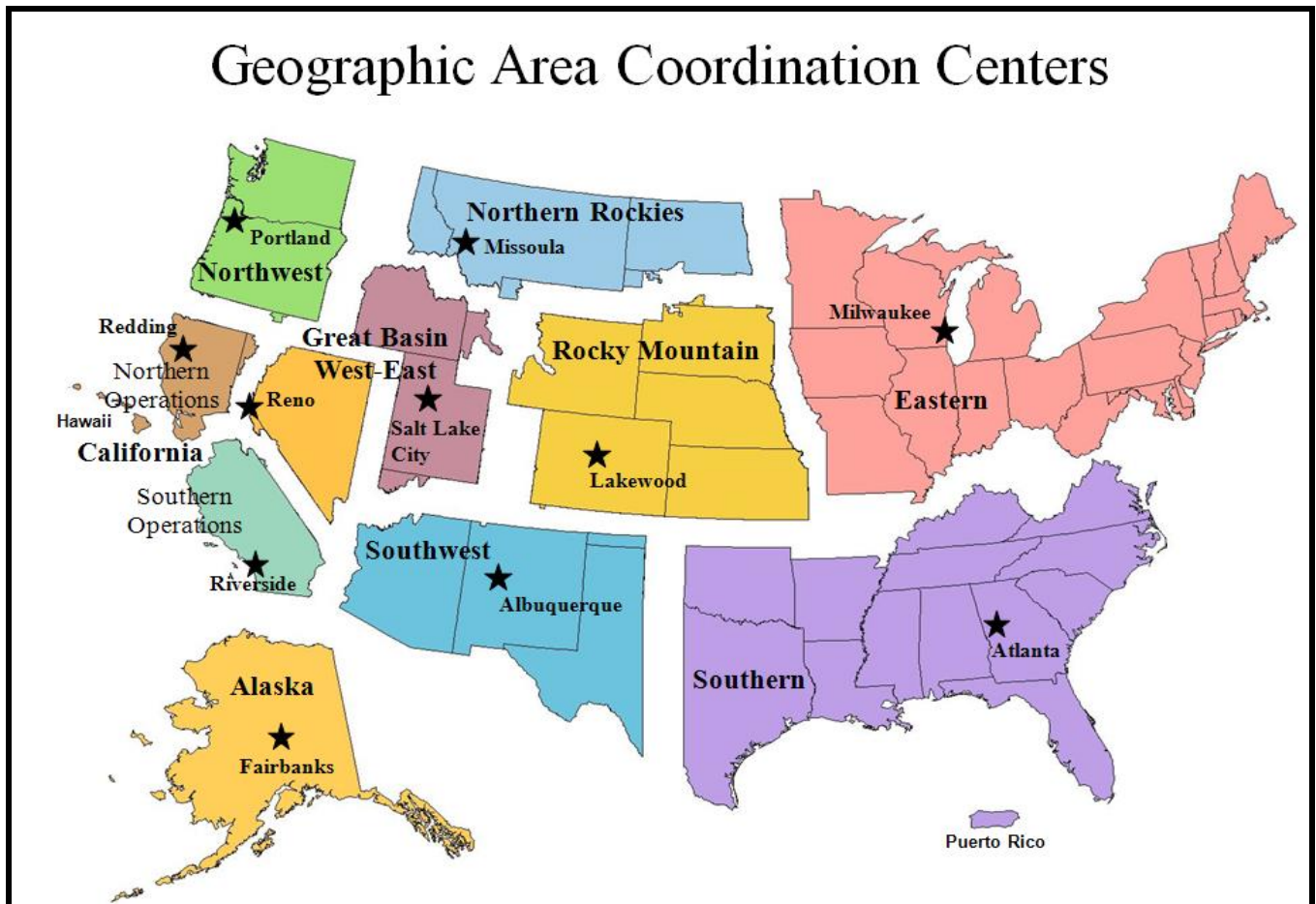
**NZ** – New Zealand

# Preface

Statistics used in this report were gathered from the interagency 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 interagency 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](http://www.nifc.gov/news/nicc.html)) under reference materials.



# National Interagency Coordination Center

## 2013 Fire Season Summary

### Winter (December 2012 – February 2013)

A neutral El Niña-Southern Oscillation (ENSO) pattern dominated the 2012-2013 the winter months of December through February. This three month period was colder than normal across most of the southwestern quarter of the nation while the rest of the U.S. was warmer than normal. Much above normal conditions occurred in parts of the Mississippi and Tennessee Valleys and along the Northeast Coast. While many states experienced above normal winters, only three states observed winters among their top ten warmest: Delaware, Vermont and Florida. Six states were colder than normal in the Southwest and only four states (Washington, Oregon, Idaho and Wyoming) were near normal. Alaska was slightly below normal for the same period.

Winter precipitation was generally below normal in the West and above normal in the East. The West Coast states and parts of the northern Rockies were mainly drier than normal with a few areas in Oregon, Montana and the Dakotas much below normal. While much of the central and eastern states observed wetter than normal conditions, most of the Gulf Coast and Mississippi regions received much above normal precipitation. Seven states experienced among their top ten wettest winters on record, including: Michigan, Louisiana, Alabama, Mississippi, Georgia, Wisconsin and Illinois. Drought conditions east of the Mississippi River were greatly reduced, leaving only patches of moderate to severe drought from the Carolinas to Florida. Most of the western two-thirds of the U.S. remained in moderate to severe drought with extreme to exceptional drought conditions over much of the Plains and parts of the interior West. Alaska was wetter than normal, while much of Hawaii started the winter very dry with virtually no precipitation during December. However, by February, rainfall quickly increased much above normal with Hilo observing over 13 inches above normal rainfall for the month.

Severe drought conditions across the Southern Plains led to diminished fine fuel loadings and severely limited the ability of the grass fuel types to carry fire. Conversely these drought conditions also set-up significantly drier than normal conditions in the heavier fuels across the Four Corners states. In the East, wetter than normal conditions led to moist fuel conditions that greatly limited the number and size of fires through the early portion of the 2013 season. This period also saw snowpack levels in the West move from near normal through the end of 2012 to below normal across most of the area west of the Continental Divide.

### Spring (March – May)

The El Niño-Southern Oscillation continued near neutral through the spring months (March-May) but other global circulations contributed to extremes in both temperature and precipitation across the United States. Several cold intrusions dropped into the central and southern states, bringing late season snows to the Plains and the Midwest. Meanwhile, dry and warm conditions continued in the West.

Temperatures were generally above normal for most of the West and parts of New England while the central and southeastern sections of the country were colder than normal. Two Western states observed spring seasons among their warmest; with California recording its seventh warmest and Arizona recording its twelfth warmest. At the other extreme, 14 states experienced springs among their ten coldest, including: Minnesota, North Dakota, South Carolina, Arkansas, Mississippi, Alabama, Georgia, Iowa, Missouri, Louisiana, North Carolina, Tennessee, South Dakota and Wisconsin. Alaska was colder than normal, recording its 18<sup>th</sup> coldest March-May period since 1918.

Frequent winter storms crossed the Northwest along the Canadian border before dropping south through the Midwest and Mississippi Valley, bringing wet spring conditions from much of the central part of the nation. Record precipitation fell in Iowa, producing the state's wettest March-May period in 119 years. Five other states recorded top ten wettest springs, including: Wisconsin, Illinois, North Dakota, Michigan and Minnesota. In the West, storms largely bypassed much of the region, leaving very dry conditions. New Mexico experienced its second driest spring, while California recorded its eighth driest. Alaska was wetter than normal. Hawaii experienced periods of above and below normal precipitation during the three-month period, but ultimately had enough precipitation to reduce drought conditions on most of the islands.

Snowpack conditions at the start of May painted a very stark picture for water supplies across the West. Much of the West had less than 50 percent of normal snowpack, except for the Cascades and the northern and central Rockies, which had normal to above normal snowpack. Large areas of the Southwest, the Great Basin, and most of the California had less than 25 percent of normal snowpack heading into the summer months. Arizona, eastern New Mexico, and much of Nevada were snow-free by May 1. Cold late spring conditions in Alaska slowed snow melt, keeping snow conditions well above normal for most of the state.

The spring of 2013 saw significantly drier fuel conditions develop in the heavier fuels of New Mexico, Arizona, Utah, Colorado and Southern California. This led to Energy Release Components (ERCs) reaching above the 90<sup>th</sup> percentile during this period across much of the Southwestern quarter of the U.S. During the spring, the fuels in the eastern U.S. remained moist and this continued to promote diminished fire activity. This period also saw exceptional dryness develop in the finer fuels of the southern and central Great Basin. This condition limited the ability of this environment to grow finer fuels, leading to a less dense and less continuous fuel pattern. Modeled dryness across these portions of the Great Basin would remain extreme for the remainder of fire season but the lack of fuel severely hampered the ability of the landscape to carry fire.

### **Summer (June – August)**

The summer (June-August) pattern over the United States was largely dominated by a ridge over much of the western U.S. and a trough anchored over the southeastern states. Temperatures were above normal over the West and below normal over most of the East. Persistent southerly flow ahead of the eastern trough brought warm conditions to New England. In all, 12 states ranked among their warmest summers in 119 years. Idaho had its warmest summer followed respectively by Utah, Oregon, Massachusetts, California, Nevada, Wyoming, New Mexico, Connecticut, Washington, Rhode Island and Delaware. Massachusetts experienced its warmest July on record, and Alaska recorded its second warmest summer on record.

The summer started very dry for much of the West but a very active monsoon quickly brought significant rains to the Southwest. Meanwhile, wet conditions remained firmly entrenched across the East. For the duration of the June-August period, only pockets of below normal rainfall occurred in parts of the central Rockies, the central Plains, the Midwest, and the central western Gulf states. Most of the remainder of the nation saw near normal to above normal precipitation. In the East, four states (New York, South Carolina, Georgia and Florida) experienced their wettest summer on record. Fifteen other eastern states and one western state recorded summer rainfall among their ten highest, including: Rhode Island, New Jersey, Kentucky, West Virginia, North Carolina, Maine, Virginia, Ohio, Delaware, Alabama, Vermont, Massachusetts, Connecticut, Tennessee, Arizona and New Hampshire. A few states set monthly records for precipitation. Utah recorded its driest June on record and Oregon its driest July. Conversely, New Jersey and Delaware had their wettest June on record while Florida experienced its wettest July in 119 years. Alaska's summer precipitation was near normal. Hawaii experienced periods of wet and dry conditions during the summer but overall experienced deficits which worsened drought conditions for much of the state.

Drought continued across much of the central and western U.S., increasing in areal coverage. However, the area affected by the worst drought conditions decreased significantly across the central and southern Plains and the southern Rockies. Rainfall from Tropical Storm Andrea in early June effectively mitigated all drought conditions along the East Coast, but hot and dry weather over the Midwest produced moderate to severe drought conditions across most of the Upper Midwest. Conditions also worsened over much of the northern Rockies, the Great Basin and California.

During the summer months fuels became extremely dry across the Northwestern quarter of the country including Northern California. In July fuel conditions across Southwestern Oregon and Northern California approached conditions historically reminiscent of the 2002 and 2008 fire seasons setting the stage for a significant fire outbreak resulting from a dry lightning storm on July 26. During early August fuel conditions moistened somewhat in these areas thanks to marine intrusions and higher humidity, greatly reducing ERC values. Also during this period significant dryness persisted across Alaska creating a much later than normal fire season. Fuels remained dry and supported large fire growth well into August. This is unusual for Alaska which normally sees its fire season slow considerably in July.

In August, dry air moving into interior portions of the west, including eastern Oregon, Washington, Idaho and western Montana amplified already dry fuel conditions and increased ERCs to above the 97<sup>th</sup> percentile. This condition set the stage for significant fires to occur throughout August in these areas. Many of the fires occurred in the northern fringes of the Great Basin where fine fuel growth was not limited as it was in the central and southern Great Basin. Extremely high ERC values continued across the central and southern Great Basin but these conditions would not produce many significant fires due to the limited fuel loading.

August also continued very dry fuel conditions across California, exceeding the 90<sup>th</sup> percentile by mid-month, and more significant fires began to develop. Fuels across California continued dry enough to support large fires through August and into the fall, but did not necessarily have the weather conditions to promote rapid fire growth as the mid-month ignitions saw.

## **Autumn (September – December)**

September ushered in a large pattern shift that brought a series of troughs to the western U.S. Persistent southerly flow across the West kept temperatures warm over the western two-thirds of the country while the eastern third experienced a return to normal temperatures. Several states across the northern Rockies to the Upper Midwest experienced much above normal temperatures, with seven states recording among their ten warmest Septembers, including: Wyoming, Colorado, South Dakota, North Dakota, Nebraska, Idaho and Montana.

Precipitation was largely influenced by a persistent southerly flow which brought deep moisture across the Southwest and the Rockies. During the second week of September, a slow-moving upper low drifted across the Rockies, bringing record breaking rainfall to the Front Range of the central and southern Rockies. Rainfall exceeding 10-15 inches fell over the region from southeastern Wyoming to southern New Mexico. Widespread flooding across the northern Colorado Front Range and along parts of the New Mexico Front Range caused extensive damage to the areas. Record rainfall also fell across the Northwest, especially along the Cascades. Most of the West had above normal precipitation, with three states (Colorado, Washington and Oregon) recording their wettest September. Eight other states in the West experienced among their ten wettest Septembers on record, including: New Mexico, Wyoming, Utah, Idaho, Nevada, Montana and North Dakota. In the East, conditions were normal to drier than normal from the Mississippi Valley to the Coast after a summer of wetter than normal conditions. Maryland and Delaware experienced near-record precipitation shortfall for the month. Interestingly, Maine was wetter than normal with its 11<sup>th</sup> wettest September on record.

A broad trough over the West Coast for most of October brought northerly flow across much of the West, keeping temperatures below normal. Temperatures were four to eight degrees below normal in parts of the northern Rockies, the Great Basin and Southwest. The East was generally warmer than normal with New England experiencing temperatures four to eight degrees above normal. The early fall pattern was largely dry for most of the country. An unusually strong winter storm early in the month brought heavy snow and rain to Wyoming and northern Plains, leaving that region with as much 800 percent of normal precipitation for October. Pockets of above normal precipitation stretched from the Rio Grande Valley of Texas to the Ohio Valley and parts of the mid-Atlantic region.

In early September fuels made a rapid transition to a much more moist state across the Northwestern quarter of the U.S. This led to greatly reduced significant fire potential and changed the focus of fire concern to southern and central California. Drier than usual conditions continued across southern and central California into October, but weather events necessary to create significant events were rare.

The normal transition of fire season back to the southern and eastern U.S. in the fall associated with leaf drop also did not occur as would be expected. Wetter than normal conditions continued and leaf drop occurred on top of wet ground, preventing a significant fall fire season from developing.

## **Hurricane and Other Non-Fire Incident Support**

The 2013 Atlantic Hurricane season was relatively quiet compared to last year. As of 25 October, there were only 12 named storms in the Atlantic basin. Two storms, Humberto



(September 8-19) and Ingrid (September 12-17), reached hurricane strength (both Category 1 on the Saffir-Simpson scale). Only one storm, Tropical Storm Andrea (June 5-7), made landfall in the U.S., while Tropical Storm Dorian (July 23 to August 3) briefly skirted the southeastern Florida coast. By the end of hurricane season no Type 1 or Type 2 incident management teams had been assigned to hurricane incidents.

A Type 1 Incident Management Team was assigned in September to the search and rescue of a missing firefighter on the Holiday incident in New Mexico. Two Type 2 Incident Management Teams were assigned to provide assistance to several Colorado counties following severe flooding in September.

## **National Fire Activity Synopsis**

The 2013 fire season was well below normal for number of reported wildfires (65 percent of the 10-year annual average). There were 47,579 wildfires reported nationally (compared to 67,774 wildfires reported in 2012). The number of acres burned in 2013 was 4,319,546, or 59 percent of the national 10-year average. Alaska Geographic Area led the nation with 1.3 million acres burned (74 percent of its 10-year average). Eastern Great Basin Geographic Area burned the most acres in the Lower 48 states at 767,954, or 87 percent of its 10-year average.

Based on an annual 10-year average, three Geographic Areas reported above average fire occurrences in 2013: Alaska, Northern California and Northwest. Three Geographic Areas experienced near normal fire occurrences: Eastern Great Basin, Northern Rockies and Southern California.

Southern California was the only Geographic Area experience above average acres burned (138 percent). All other Geographic Areas were below their annual average acres. Twenty fires exceeded 40,000 acres in 2013; thirty-one fewer than in 2012 (see Significant Fire Activity below for a list of those fires).

A total of 2,135 structures were destroyed by wildfires in 2013, including 1,093 residences, 945 outbuildings and 97 commercial structures. This is below the annual average of 1,394 residences, 1,233 outbuildings, but above the average of 50 commercial structures destroyed by wildfires (data from 1999 to present). California accounted for the highest number of structures lost in one state in 2013: 184 residences, 521 outbuildings and 10 commercial structures. Colorado was second with 520 residences, 29 outbuildings and 20 commercial structures.

Requests for firefighting resources placed to the National Interagency Coordination Center during the 2013 fire season were either close to average or below the 10-year average in most categories. Filled requests for crews, Type 1 and 2 helicopters, and heavy air tankers all exceeded their respective 10-year averages.

National Type 1 teams were mobilized 29 times (down from 53 in 2012), and spent 401 days on assignments (down from 701 days in 2012). This includes one search and rescue assignment. All 16 national teams had at least one assignment, and three had three assignments each. Type 2 Teams were mobilized 110 times (down from 158 in 2012), for a total of 1,247 days assigned to incidents (down from 1,591 days in 2012). (Figures include both national and state teams.) There were two Area Command team mobilizations in 2013.

National Incident Management Organizations (NIMO) mobilized 10 times in 2013 to both wildland fire and non-fire incidents.

## **Military and International Resource Mobilizations**

**Military:** On June 11, 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 12. All available MAFFS aircraft (from California, North Carolina, Wyoming and Colorado) were activated at various times during the fire season. The MAFFS were released on July 13, but reactivated on July 20. On September 7, the remaining two MAFFS were released and returned to their home stations. In 2013 MAFFS flew 576 wildland fire sorties across the western U.S. and dropped 1,387,881 gallons of retardant. This is down 346 sorties flown and 1,061,798 gallons dropped in 2012.

**International:** Through the National Interagency Coordination Center, Canada provided heavy air tankers and aerial supervision modules (“Bird Dogs”) from British Columbia, Alberta and Saskatchewan. The first aircraft arrived in the U.S. from Saskatchewan on July 3. Alberta provided two additional air tankers and two Bird Dogs in early August. British Columbia also provided two more air tankers and a Bird Dog later that month. By late August there were six Canadian air tankers and four Bird Dogs assigned in the U.S. These aircraft flew numerous missions in Idaho, Montana and several other western states. The last aircraft were released back to Canada September 3 due to reduced fire activity in this country.

Canada also provided 24 Smokejumpers from British Columbia to Missoula on August 24, and they were embedded at several jump bases in the U.S. The last Canadian Smokejumpers were released on September 8. Additionally, five 20-person crews and nine overhead were brought down from Ontario to the Northern Rockies on August 26. These crews were released on September 7.