National Interagency Coordination Center

Wildland Fire
Summary and Statistics
Annual Report
2014

National Interagency Coordination Center

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Cover photo: Boles fire, Weed California, September 15, 2014

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

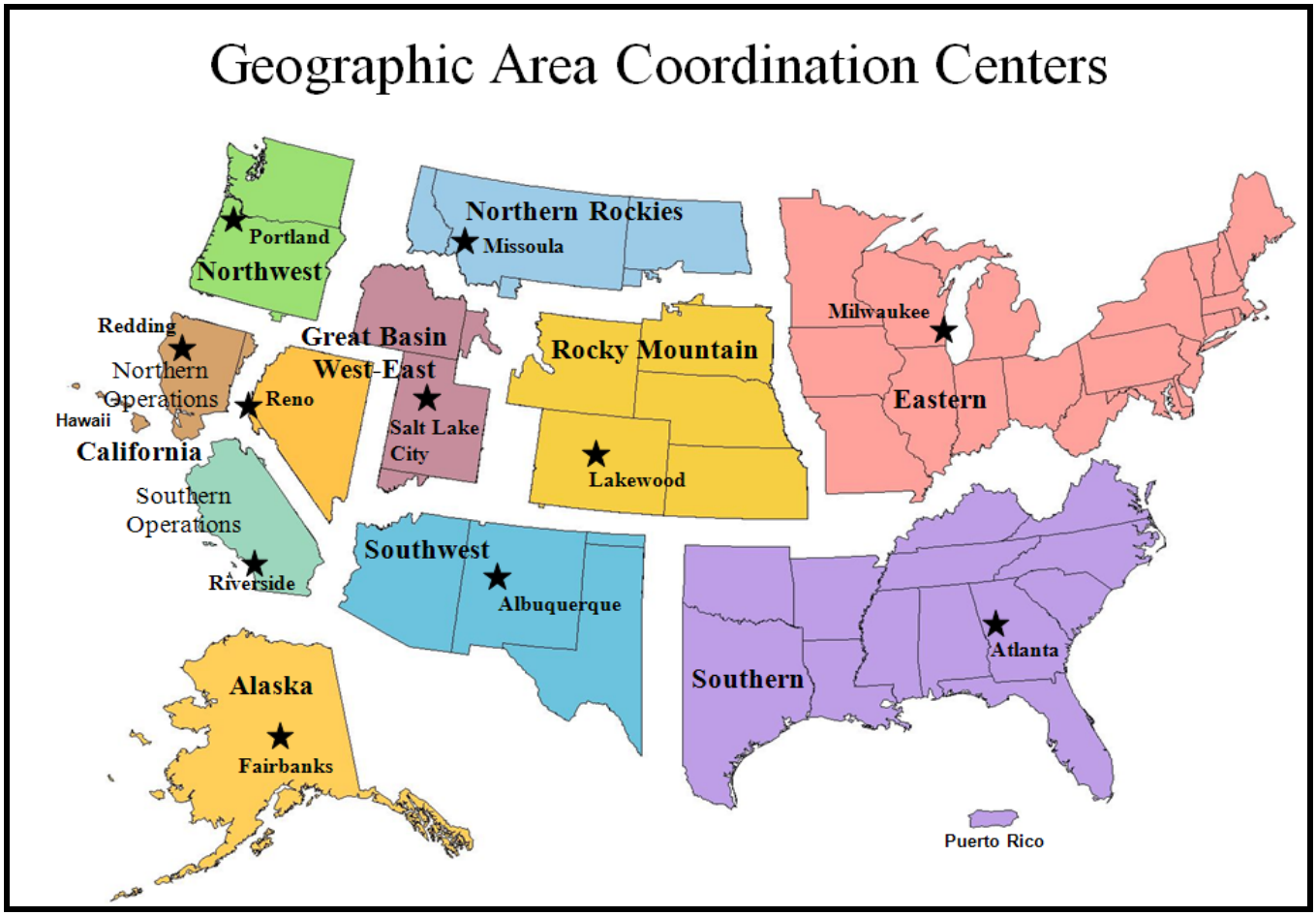
ST – State
ST/OT – State and Other combined
OT – Other
PRI – Private
CNTY – County
CN – Canada
AU – Australia
NZ – New Zealand

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 Area. 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) under reference materials.



National Interagency Coordination Center

2014 Fire Season Summary

Winter (December 2013 – February 2014)

A highly amplified weather pattern over North America brought several surges of Arctic air into the U.S. through the winter months, particularly for the eastern half of the country. Significant snow, cold temperatures, and ice storms were even noted through the deep South. Extremely cold conditions plagued the eastern half of the U.S. with temperatures 10 to 15 degrees below normal. Much of the western U.S. was up to 10 degrees above normal, including the Southwest and the Great Basin.

Precipitation totals for the season ended up considerably below normal west of the Continental Divide, especially in California, the southwest, and much of the Great Basin. In contrast, above normal precipitation was recorded along and east of the Rockies. The northern Plains and the upper Midwest also had a wet season from Montana to the Great Lakes.

Severe to exceptional drought conditions continued over the west from the western slope of the Rockies to the Pacific coast. Severe or worse conditions also continued from eastern New Mexico to the upper Mississippi region and through much of the southern plains. Drought conditions also remained in portions of Hawaii and Puerto Rico.

Drought and precipitation deficits across the western U.S. led to heavier and higher elevation fuels not receiving critical moisture during the winter months. These conditions also led to stressed vegetation which was more available to burn. As consequence of poor winter and spring precipitation across much of the west, fine fuels experienced a lighter and less continuous fuel loading. This was especially important in areas where grasses are the main carrier of fire, limiting the ability of fires to spread rapidly without the addition of windy conditions to produce significant fire growth.

East of the Rocky Mountains, grass crops were heavier from fall and winter precipitation. In the South and East, fuels remained moist; however, cold temperatures led to some frost kill which did elevate fire potential. Neither circumstance had enough ignitions to present a significant fire problem.

Spring (March – May)

Alaska and the southwest U.S. saw warm, dry, and windy conditions through the spring months. In contrast, the Pacific Northwest, the Gulf Coast, and the Rocky Mountains had unsettled conditions with a progressive pattern that delivered significant, late-winter precipitation. The northeast U.S. also saw frequent storms that brought river flooding to that region.

The northern U.S. and all areas east of the Rocky Mountains were cooler than normal for the period, with the Great Lakes and portions of New England 10 to 15 degrees below normal. Most of the West escaped the cold with temperatures generally near normal, but warmer than normal along the California Coast.

Severe to exceptional drought conditions continued over most of the west with the southwest quarter of the country recording the most extreme conditions. Severe or worse conditions also continued from the southern plains of New Mexico and West Texas eastward to the upper-Mississippi Valley. Little change came to Alaska, while portions of Hawaii and Puerto Rico remained abnormally dry.

In northern California, most dead fuels were very dry for the time of year, much more similar to early summer conditions. Green-up was fully underway across lower and mid elevations with some aspects already showing a bit of curing. Fuels reached critical dryness levels in the lower elevations by mid-May, expanding to all areas by mid-June. For southern California, vegetation showed significant green-up during the late winter and early spring period despite the dry conditions. Heavier fuels remain extremely dry, and there was an increased component of dead fuels in brush and shrubs.

Across the Southwest late summer and fall precipitation led to an increased fine fuel crop which became available to burn. At higher elevations heavier fuels remain extremely dry and exposed from limited snowpack over the winter. The Great Basin saw fuels quickly dry out with curing occurring from late May through June. Fine fuels were more prevalent than last year thanks to well-timed precipitation during the spring. Heavier fuels were very dry due to drought stress and lack of precipitation; however, there was enough precipitation through the first half of May to keep these fuels from becoming a significant concern. In the central Rockies higher elevation fuels were under snow cover early in the month of May with snow-pack surpluses across northern Wyoming and to a lesser extent in the Black Hills. Otherwise, lower elevation grasslands across the eastern plains continued transitioning from cured to green during May. Across the northern Rockies a moist spring mitigated much of the fire concern until July and August. Unusual dryness and low snowpack observed over much of Oregon and lower elevations in eastern Washington boosted the potential for fires resulting from exposed, dry fuels. Fuels rapidly became snow-free across the southern two-thirds of Alaska. The northern Interior and northwestern Alaska became snow-free during the second week of May. In the eastern U.S. below normal fuel moistures persisted through much of April over portions of the mid-Mississippi Valley, western Oklahoma, West Texas, and southern Florida. Fuel moistures across the rest of the eastern U.S. are near normal.

Summer (June – August)

Early summer was characterized by a series of unseasonably strong troughs in the Pacific Northwest, and frequent thunderstorms with severe weather dominating the eastern two-thirds of the country. The Southwest Monsoon abruptly began in early July with seasonably moist conditions at regular intervals. The moist flow around the high pressure ridge over the region also delivered two separate lightning events to the western U.S. in July, but both were accompanied by widespread precipitation. The first event, in the Northwest, ignited several large fires that were fanned by hot, dry and windy conditions for a few days before rain mitigated burning conditions. The second event unfolded in early August with scattered lightning that sparked fires across northern California and the Northwest. This same weather event brought heavy rainfall to the Front Range of the Rocky Mountains from Wyoming to New Mexico and into the southern Plains. A deep trough persisted over the eastern U.S. through mid-summer, and kept conditions cooler than normal with periodic rain.

Moist, southerly flow produced unseasonably wet conditions through the West in late summer. This was punctuated by a slow-moving trough of low pressure that moved through the Northwest

and northern Rockies with weather more characteristic of Autumn. Precipitation totals for late summer were over 400 percent of normal in parts of the northern Rockies and northern Great Basin. Much drier conditions prevailed for California's central valley where less than 25 percent of normal rainfall fell in August. East of the Rockies, precipitation was near normal. Summer temperatures were slightly above normal in the western U.S. and slightly below normal east of the Rockies.

Severe to exceptional drought continued across much of the West including California, southeast Oregon and western Nevada. The remainder of the western and southwest U.S. continued to see moderate to severe drought conditions, as did portions of the plains.

Fuel conditions across the country represented the dichotomy of the weather pattern of the past few months. In the western U.S. long term drought remained in place across most of the area west of the Rocky Mountains. In the east abundant precipitation fell and reduced fire potential to very minimal levels. Many of the significant fires occurred in the Pacific Northwest. Long term drought stressed some of the live fuels and provided a drier than usual condition in some of the heavier dead fuels. The fires that occurred were mainly in the finer fuels. It was expected that during August some of these fires will transition to heavier fuels. Fuels in the Northwest were also expected to be a concern well into September. In California long term drought remained in place and fuels were dry enough to support significant fires at any point. Ignition events were typically coupled with just enough moisture to temper fire activity until later in the season. Since fuel conditions remained critical and ignitions remained likely California continued to experience significant fires through the summer. In the remainder of the West, significant precipitation occurred throughout July. Fuels demonstrated that they are dry enough to support significant fires when hot and dry weather built in, but these fires tended to be short lived as regular surges of monsoonal moisture moderated fuel conditions. The East saw numerous extremely wet systems that kept fuels in a condition where significant fires were unlikely.

Autumn (September – December)

Record heat accompanied several offshore wind events in the Pacific Northwest and northern California in early-Autumn. By mid-September the pattern changed as remnant moisture from Pacific hurricanes streamed northward through the southwest U.S. and brought flooding rains to the Southwest and southern California. Widespread wetting rain resulted for most of the country as a longwave trough slowly tracked east.

Thereafter, a series of several Pacific storms brought additional rainfall and mountain snow to the Northwest, California and the northern Rockies. This trend continued over much of the West through mid-October, including drought-stricken southern California. East of the Continental Divide, a stream of tropical moisture teamed up with a cold trough of low pressure and delivered widespread precipitation and thunderstorms as well as heavy rain in the central and southern plains. Widespread hard freeze conditions were recorded through the eastern U.S. on Halloween.

Intense low pressure systems through mid-November produced significant precipitation in the Great Lakes region and the Intermountain West, including drought-stricken California. Heavy snowfall was recorded in New England and the Appalachian Mountains, with snow extending as far south as the Carolinas.

Another storm in early December brought over a foot of new snow to the northeast U.S., while another major storm brought several inches of rain and high-elevation snowfall to the West Coast during the same period. California received more precipitation in the first half of December than it measured over the previous three years combined. Significant precipitation also fell over much of the Northwest, the Great Basin and the Rockies.

Fall and early winter temperatures across the nation were generally above normal with the exception of record heat in southern California. Also, bitter cold November temperatures east of the Rockies were well below normal. Across the Western U.S., Rocky Mountains, and Atlantic regions 200 to 300 percent of normal precipitation was measured during the fall and winter. In contrast, severely-below normal precipitation was noted in the southern Rockies, lower Mississippi Valley, and Dakotas.

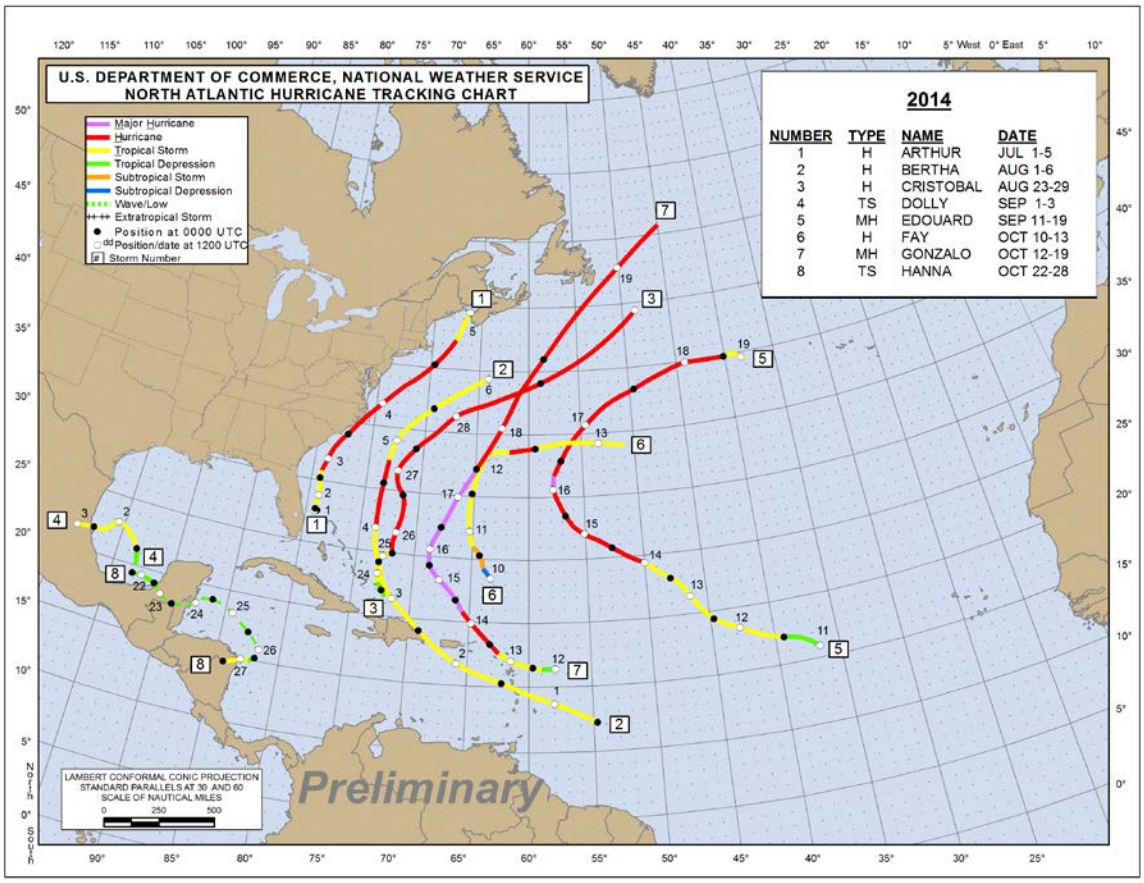
Despite the beneficial precipitation in the West, extreme to exceptional drought remained over California, western Nevada, and southern Oregon. Extreme to exceptional drought also remained over parts of western Oklahoma and northern Texas during the fall and early winter.

A significant precipitation event in late September mitigated much of the fuel concerns outside of central and southern California. Fuel conditions continued to ebb and flow across the Northwest, northern Rockies and northern portions of the Great Basin through the fall and occasionally were dry enough to support large fires. However, short days and cooler temperatures made these fires typically single burning period events. Much of the Rockies and the Southwest saw enough precipitation for fuels in these areas to be considerably wetter than normal. East of the Mississippi short term drying coupled with leaf drop never materialized enough to cause concerns for significant fires. The remainder of the western fire season continued to be confined to central and southern California. Long term drought continued to promote dry and drought stressed vegetation. As the potential for off-shore flow increased these conditions set the stage for significant fire activity that never really presented itself even though conditions were there to support significant fires.

Hurricane and Other Non-Fire Incident Support

The 2014 Atlantic Hurricane season was the least active in twenty years with only eight named storms in the Atlantic basin. No named storms made landfall on the continental United States. In the Eastern Pacific Tropical Storm Iselle made landfall on August 8 on the Big Island of Hawaii. By the end of hurricane season no Type 1 or Type 2 incident management teams had been assigned to hurricane incidents.

Two Type 2 Incident Management Teams were assigned to provide assistance to Snohomish county in Washington state to the Oso landslide.



National Fire Activity Synopsis

The 2014 fire season was below normal for number of reported wildfires (87 percent of the 10-year annual average). There were 63,612 wildfires reported nationally (compared to 47,579 wildfires reported in 2013). The number of acres burned in 2014 was 3,595,613 or 53 percent of the national 10-year average. Southern Area Geographic Area led the nation with 1.2 million acres burned (51 percent of its 10-year average).

Based on an annual 10-year average, only the Northwest Geographic Areas reported well above average fire occurrences in 2014 while Northern California and Northern Rockies Geographic Areas experienced near normal fire occurrences.

Northern California (152 percent) and Northwest (214 percent) were the only Geographic Areas to experience above average acres burned. All other Geographic Areas were below their annual average acres. Nine fires exceeded 40,000 acres in 2014; eleven fewer than in 2013. (see Significant Fire Activity below for a list of those fires).

A total of 1,953 structures were destroyed by wildfires in 2014, including 1,038 residences, 874 minor structures, 20 commercial structures and 14 mixed commercial/residential structures. This is below the annual average of 1,372 residences, 1,210 minor structures, and 49 commercial structures destroyed by wildfires (data from 1999 to present). California accounted for the highest number of structures lost in one state in 2014: 341 residences, 15 commercial structures, 335 minor structures, and three mixed commercial-residential structures. Washington was second with 342 residences one commercial structure and 175 minor structures.

Requests for firefighting resources placed to the National Interagency Coordination Center during the 2014 fire season were below the 10-year average in most categories. Filled requests for Type 2 helicopters and heavy air tankers exceeded their respective 10-year averages.

National Type 1 teams were mobilized 33 times (up from 29 in 2013), and spent 411 days on assignments (up from 401 days in 2013). All 16 national teams had at least one assignment, and two had four assignments each. Type 2 Teams were mobilized 98 times (down from 110 in 2013), for a total of 971 days assigned to incidents (down from 1,247 days in 2013). (Figures include both national and state teams.) There were no Area Command team mobilizations in 2014. National Incident Management Organizations (NIMO) mobilized 4 times in 2014 to both wildland fire and non-fire incidents.

Military and International Resource Mobilizations

Military: On July 20, Two MAFFS units were activated through a Request For Assistance (RFA) to the Department of Defense and MAFFS 1 and MAFFS 3 were positioned at Boise, Idaho to support fire suppression efforts in the western US. On August 17, MAFFS 3 experienced a hard landing at Hill AFB. While no injuries occurred, the damage ended the service of MAFFS 3 for 2014, but MAFFS1 stayed in service until August 24. MAFFS units provided retardant delivery to the Great Basin, Northwest and Northern Rocky Geographic Areas while employed from July 20 through August 24, delivering a total of 244,406 gallons while conducting 97 sorties. This is down from 2013 when 576 sorties were flown delivering 1,387,881 gallons of retardant.

International: Saskatchewan, Canada provided a Convair 580 heavy airtanker and a Turbo-Commander 690 Bird Dog to NIFC, through the NIFC-CIFFC Agreement, for fire suppression mission use beginning on July 21. The airtanker group was in place until July 30, when it returned to Canada following a recall from Saskatchewan due to increased fire activity there.

Significant Wildland Fires

Fires and Complexes Over 40,000 Acres in 2014

Name	GACC	State	Start Date	Contain or Last Report Date	Size (Acres)	Cause	Estimated Cost
Buzzard Complex	NW	OR	7/14	9/11	395,747	L	$11,062,411
Carlton Complex	NW	WA	7/14	8/28	256,108	L	$68,800,000
Funny River	AK	AK	5/19	8/14	195,858	H	$11,496,627
Happy Camp Complex	NO	CA	8/14	12/4	134,056	L	$88,214,725
King	NO	CA	9/13	10/9	97,717	H	$119,000,000
Skunk	SW	AZ	4/19	6/26	73,622	L	$1,800,000
Big Cougar	NR	ID	8/2	8/22	65,227	L	$4,500,000
July Complex	NO	CA	8/3	9/25	50,042	L	$50,295,981
Shaniko Butte	NW	OR	7/12	9/25	42,044	L	$5,200,000

L – Lightning H – Human U – Undetermined NR – Not Reported

Information in the above table was derived from ICS-209 reports submitted in the Fire and Aviation Management Web Applications system (FAMWEB). Information shown may not reflect final official figures.

Significant Fire Activity

There were 666 large or significant wildfires reported in 2014 (derived from ICS-209 reports submitted through FAMWEB). Significant wildfires represented about 1.1 percent of total wildfires reported nationally in 2014. The maps below depict the locations of these fires.