

National Interagency Coordination Center

Wildland Fire Summary and Statistics Annual Report 2017



Sucker Creek Fire, Montana



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Identifier Legend

Interagency Coordination Centers

NICC – National Interagency Coordination Center
AK - Alaska
EA - Eastern Area
GB - Great Basin
NO - Northern California
NR - Northern Rockies
NW - Northwest
RM - Rocky Mountain
SA - Southern Area
SO - Southern California
SW - Southwest
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

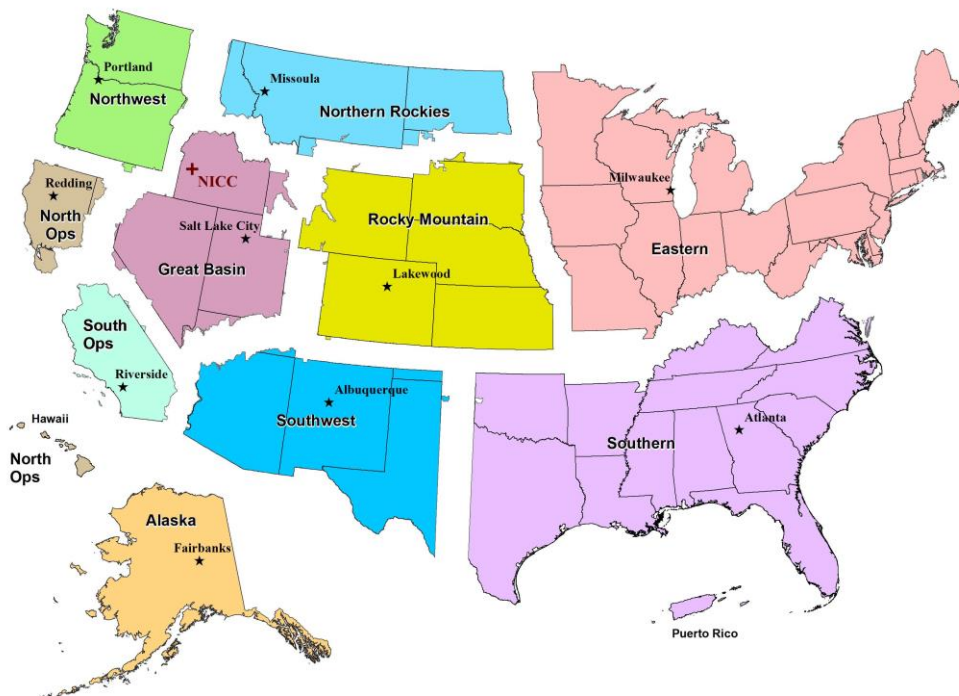
Preface

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 ten 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 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.

Geographic Area Coordination Centers



National Interagency Coordination Center

2017 Fire Season Summary

Winter (December 2016 – February 2017)

The winter months were generally warmer-than-normal across the U.S. except for normal to slightly below normal conditions in the Pacific Northwest, northern Great Basin, and the Northern Rockies where multiple winter weather systems brought cooler conditions in addition to substantial precipitation. The southern half of the country experienced temperatures that were as much as eight to ten degrees above normal. The northern Plains to New England featured temperatures that were near to slightly below normal during the early portion of the period followed by a trend toward warmer-than-normal temperatures.

Precipitation was above normal in most areas west of the Rockies. The abundant moisture produced high soil moisture levels that would later promote significant growth in the fine fuels. Precipitation amounts of 200 percent of normal and higher produced a mountain snowpack that was well above average. The precipitation amounts received in the western mountains produced a near-catastrophic dam failure at the Oroville dam in California in early February. Elsewhere, drier-than-normal conditions continued across much of the southeast and southern Plains. By early February, running totals were nearly 50 percent below average. The northeastern states also observed mounting precipitation deficits as drought conditions expanded northward along the East Coast. A shift in the weather pattern occurred in late February. This allowed several large-scale precipitation systems to move across the southern tier of the country and across the eastern states. This provided both regions with much needed relief.

Spring (March – May)

March featured overall weather patterns that promoted above average temperatures across the Great Plains and the West and below average temperatures across the Mid-Atlantic States and New England. A shift in the weather pattern occurred in April and May that led to overall normal to below normal temperatures across the Great Plains and most of the West and above normal temperatures across the East. An exception to this was California where temperatures remained slightly above normal throughout the period. Alaska continued a trend of alternating warmer and colder-than-normal temperatures but saw a transition to an overall colder-than-normal pattern by late spring. This slowed the melting of the snowpack across the state.

Precipitation trends varied regionally. An increasingly wet pattern developed across Northern California, the Great Basin, the Pacific Northwest, and the Northern Rockies. By mid-spring, several locations in the Sierras were reporting monthly precipitation totals that were greater than 400% of normal. Reservoirs that had been depleted from the recent multi-year drought were filled. Mountain snowpack levels finished the season with amounts that were greater than 200% of normal in most basins. The spring melt off in April and May began at a slow pace. Soil moisture levels were at near-record to record levels. Drier-than-normal conditions were observed across the southern half of California and the Southwest as a whole. The northern Great Plains, Georgia, and Florida also experienced drier-than-normal conditions. Drought

monitoring products showed an expansion and intensification of drought in these areas throughout the period.

Summer (June – August)

The summer of 2017 was historically unique. In the West an abrupt shift in the weather pattern occurred in early July that altered the course of the fire season. Conditions observed in June generally were not reflective of what was to come except for the continued high soil moisture levels that would promote record growth of grasses across the fine fuel areas of the West. In the East, overall quiet conditions through early August transitioned to a catastrophic scenario by late month as the first of several hurricanes made landfall.

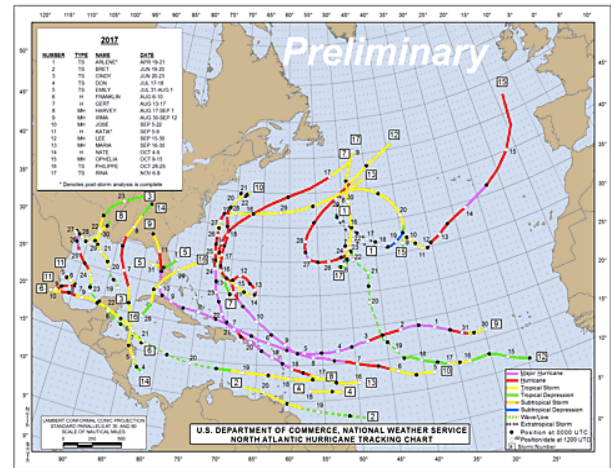
Temperatures across the nation were near normal except across the southwestern states and the southern half of California where they were approximately four degrees above normal in June. Pockets of below normal temperatures were observed across the southeastern states. A rapid and repeated intensification of the ridge of high pressure over the West in July led to several prolonged heat events that accelerated the drying and curing of the fuels at all elevations. Effects of the intense heat episodes were felt in the mountains as lingering snowpack was quickly lost by mid-month. For many locations, it was the second warmest July on record finishing just behind 2007. Above normal temperatures were observed in Alaska as well as the high pressure ridge extended northward past the Arctic Circle. However, timely and periodic precipitation events minimized the impacts of the heat there. August featured another shift in the weather pattern. Cooler-than-normal conditions developed and persisted from the Continental Divide east to the coast while the warmer-than-normal conditions persisted west of the Divide.

As June progressed, a subtle trend toward less-than-average precipitation received was developing across the West and the Great Plains. However, the trend was not yet significant enough to lead to drought development or intensification except across the northern Great Plains where a transition to Exceptional Drought was underway in Montana and North Dakota. Dry conditions across the Southwest and Southern California continued until the Southwest Monsoon arrived in early July bringing higher humidities and wetting rainfall. July and August featured very dry conditions elsewhere across the West. Several locations including Seattle, Washington, and Missoula, Montana, set records for the longest periods without measurable precipitation. During this period fuels dried rapidly across nearly all vegetation types, contributing to an increase in both fire starts and fire growth.

In the East, precipitation was generally within 25 percent of normal for the summer months. One exception was along the Gulf Coast of Texas and Louisiana in late August where Hurricane Harvey, a rapidly intensifying Category 4 hurricane, made landfall near Rockport, Texas, on August 25. The storm was among the wettest ever. An area of 3,643 square miles between the Louisiana state line with Texas and Houston recorded at least 40 inches of rain between August 23 and August 30. The highest storm total precipitation received from the storm totals was 60.58 inches of rainfall.

Autumn (September – December)

A very active western fire season was exacerbated by Hurricane Harvey response. Conditions worsened further as Category 5 hurricanes Irma and Maria destroyed the infrastructure of the U. S. Virgin Islands and Puerto Rico. Hurricane Irma later made landfall in Florida on September 10 as a Category 4 storm and produced significant damage to the Florida Keys and the southern portion of the state. The impact to Puerto Rico from Irma was significant but paled in comparison to the impacts brought by then Category 4 Hurricane Maria on September 20.



The typical seasonal shift of the western fire season began the second week of September as several wet systems moved across the northwestern states and northern California. The development and continuance of the wet pattern also produced cooler-than-average conditions as far south as the southern Great Basin that persisted through October. Early mountain snowpack accrual was observed in the Cascade and Northern Rocky Mountain chains.

However, the cooler temperatures also set the stage for an exceptional fall fire season in California that would begin in early November and continue into December. Precipitation fell across the western states but did not extend into central and southern portions of California. Fuels returned to a critically dry state rapidly and significant North Wind events across northern and central California produced several large fires in early November. A month later, strong Santa Ana winds led to the development of multiple large fires in central and southern California. Beneficial precipitation and higher humidity did not come to the region until mid to late December. A multi-day heavy rain event in early January 2018 would interact with the burn areas to create deadly debris flows.

Elsewhere, very dry conditions continued through the end of the calendar year across the Southwest and the Great Plains. The Pacific Northwest also observed a transition toward drier-than-average conditions as a strong high pressure ridge developed over the West. Only the Northern Rockies in Montana, Wyoming, and northern Idaho continued to accrue mountain snowpack at normal rates. In the East, conditions were generally drier-than-normal except for October where generally wetter conditions prevailed. However, a substantial shift in temperatures from near normal to well below normal occurred in November and persisted through December as several strong Arctic Cold fronts moved southeast into the nation from northern Canada. In Alaska, temperatures were 10 to 20 degrees above normal through December as a strong southerly flow developed and as the development of Arctic sea ice was greatly delayed until late December.

National Fire Activity Synopsis

The 2017 fire season was near normal for number of reported wildfires (102 percent of the 10-year annual average). There were 71,499 wildfires reported nationally (compared to 67,743 wildfires reported in 2016). The number of acres burned was well above normal in 2017 (153 percent of the 10-year average). Wildfires consumed 10,026,086 acres reported nationally (compared to 5,509,995 acres reported in 2016). The Great Basin Area led the nation with over 2.1 million acres burned (207 percent of its 10-year average).

Based on an annual 10-year average, Northern Rockies (141%), Great Basin (122%) and Southern California (121%) reported above average fire occurrences in 2017. Northern California (104%), Northwest (103%), Southwest (103%), Rocky Mountain (101%) and Southern Area (99%) experienced near average fire occurrence. Eastern Area (87%) and Alaska (69%) experienced below average fire occurrences.

Northern Rockies (351%), Rocky Mountain (210%), Great Basin (207%), Northern California (197%), Southern California (183%) and Southern Area (144%) all experienced above average acres burned within their respective Geographic Areas. The Southwest (97%) was the only Geographic Areas that experienced near annual average acres burned while Alaska (53%) and Eastern Area (33%) saw below average acres burned. Forty-four fires and complexes exceeded 40,000 acres in 2017; twenty-five more than in 2016 (see Significant Fire Activity below for a list of those fires).

A total of 12,306 structures were destroyed by wildfires in 2017, including 8,065 residences, 4,002 minor structures, 229 commercial structures and 10 mixed commercial/residential structures. This is well above the annual average of 1,545 residences, 1,236 minor structures, and 55 commercial structures destroyed by wildfire with this year ranking 1st in total structures lost (data from 1999 to present). California accounted for the highest number of structures lost in one state in 2017: 7,778 residences, 178 commercial structures and 3,056 minor structures. Florida was second with 44 residences, 1 mixed commercial and residential and 282 minor structures.

Requests for firefighting resources placed to the National Interagency Coordination Center during the 2017 fire season were higher than the 10-year average in most categories. Filled requests for crews, engines, overhead, helicopters and heavy air tankers exceeded their respective 10-year averages.

National Type 1 teams were mobilized 55 times (up from 31 in 2016), and spent 829 days on assignments (up from 392 days in 2016). All 16 national teams had between one and six assignments each. Type 2 Teams were mobilized 137 times (up from 192 in 2016), for a total of 1,873 days assigned to incidents (up from 1,046 days in 2016). (Figures include both national and state teams.) Area Command teams were mobilized four times (up from zero assignments in 2016). National Incident Management Organizations (NIMO) mobilized 8 times in 2017 to both wildland fire and non-fire incidents (up from 7 times in 2016).

Military and International Resource Mobilizations

Military: On July 22nd, one MAFFS unit was activated through a Request for Assistance (RFA) to the Department of Defense. This request was filled with one MAFFS from the 152nd Airlift Wing and was positioned at Fresno, CA in support wildland fire operations. On July 30th one MAFFS from the 153rd Airlift Wing and one MAFFS from the 302nd Airlift Wing was positioned at Fresno, CA. On September 8th one additional MAFFS from the 202nd Airlift wing was positioned at Fresno, CA. On September 16th all MAFFS were released back to the DOD.

MAFFS units primarily provided retardant delivery to the Northern and Southern California Geographic Areas while employed from July 22 through September 16. These units delivered a total of 820,115 gallons of retardant while conducting 293 sorties. This is up from 2016 when 165 sorties were flown delivering 395,632 gallons of retardant.

On August 14th one RC-26 aircraft and support personnel from the 141st Aerial Refueling Wing (Washington Air National Guard) was deployed to Fairchild AFB (Spokane, WA) in support of wildland fire operations. A second RC-26 aircraft and support personnel from the 162nd Fighter Wing (Arizona Air National Guard) was deployed to Mahlon Sweet Field (Eugene, OR) in support of wildland fire operations. Both aircraft provided incident awareness and assessment through infrared sensing capability to wildland fire incident management personnel until released on September 15th.

On September 11th two hundred and forty-five soldiers from the 23rd Brigade Engineer Battalion and 1-23 Infantry Battalion out of Fort Lewis, Washington were deployed in support of the Umpqua North Complex. They were released back to Fort Lewis on September 26th.

International: On September 7th through the NIFC-CIFFC Agreement Canada provided one CL-415 scooper group from Ontario to the U.S. On September 11th Ontario provided one additional CL-415 scooper group. Both scooper groups were assigned to the Northern Rockies Geographic Area. On September 16th both CL-415 scooper groups were released back to Ontario.

Significant Wildland Fires

Fires and Complexes Over 40,000 Acres in 2017

NAME	GACC	State	Start Date	Contain or Last report date	Size (Acres)	Cause	Estimated Cost
NW Oklahoma Complex	SA	OK	3/7	3/24	779,292	U	3,200,000
Perryton	SA	TX	3/6	3/13	318,156	H	NR
Thomas	SO	CA	12/4	Active into 2018	270,000	U	123,836,000
Lodgepole Complex	NR	MT	7/20	8/11	270,000	U	9,800,000
Roosters Comb	GB	NV	7/9	7/24	218,380	U	4,000,000
Chetco Bar	NW	OR	7/12	10/26	191,125	L	72,000,000
Rice Ridge	NR	MT	7/24	10/17	160,187	L	49,251,000
Four Seasons Complex	GB	NV	7/16	7/25	159,986	U	4,573,000
West Mims	SA	GA	4/6	6/29	152,515	L	45,500,000
Lefors East	SA	TX	3/7	3/10	135,000	H	NR
Diamond Creek	NW	WA	7/23	10/5	128,272	U	14,760,000
Central LNU Complex	NO	CA	10/9	10/10	110,720	U	102,000,000
Sartin Draw	NR	MT	8/30	9/4	99,735	L	1,500,000
Truckee	GB	NV	7/3	7/11	98,960	U	2,120,260
Tohakum 2	GB	NV	8/29	7/11	94,221	L	3,456,000
Campbell River	AK	AK	6/26	10/12	93,520	L	1,056,688
Oak	NO	CA	8/12	9/23	86,830	L	NR
Highline	GB	ID	7/28	9/21	84,619	L	2,167,864
Long Valley	GB	CA	7/11	7/21	83,733	U	11,953,000
Modoc July Complex	NO	CA	7/24	8/13	83,120	U	35,200,000
Detwiler	SO	CA	7/16	8/7	81,826	U	90,000,000
White Mountain Creek	AK	AK	7/3	10/5	78,857	L	96,310
Eclipse Complex	NO	CA	8/15	10/8	78,698	U	46,006,691
Brush Flat	NR	MT	8/31	9/4	73,797	L	400,000
Brianhead	GB	UT	6/17	7/24	71,673	H	3,660,000
Nena Springs	NW	OR	8/8	8/29	68,007	H	8,900,000
Salmon August Complex	NO	CA	8/13	10/4	65,889	U	39,805,700
Dry Gulch	GB	NV	7/4	7/11	64,000	U	2,700,000
Meyers	NR	MT	7/14	10/13	62,034	L	32,800,000
Snowstorm	GB	NV	7/14	7/15	60,000	U	482,448
Rankin Ranch Rd.	SA	TX	3/23	3/25	60,000	H	NR

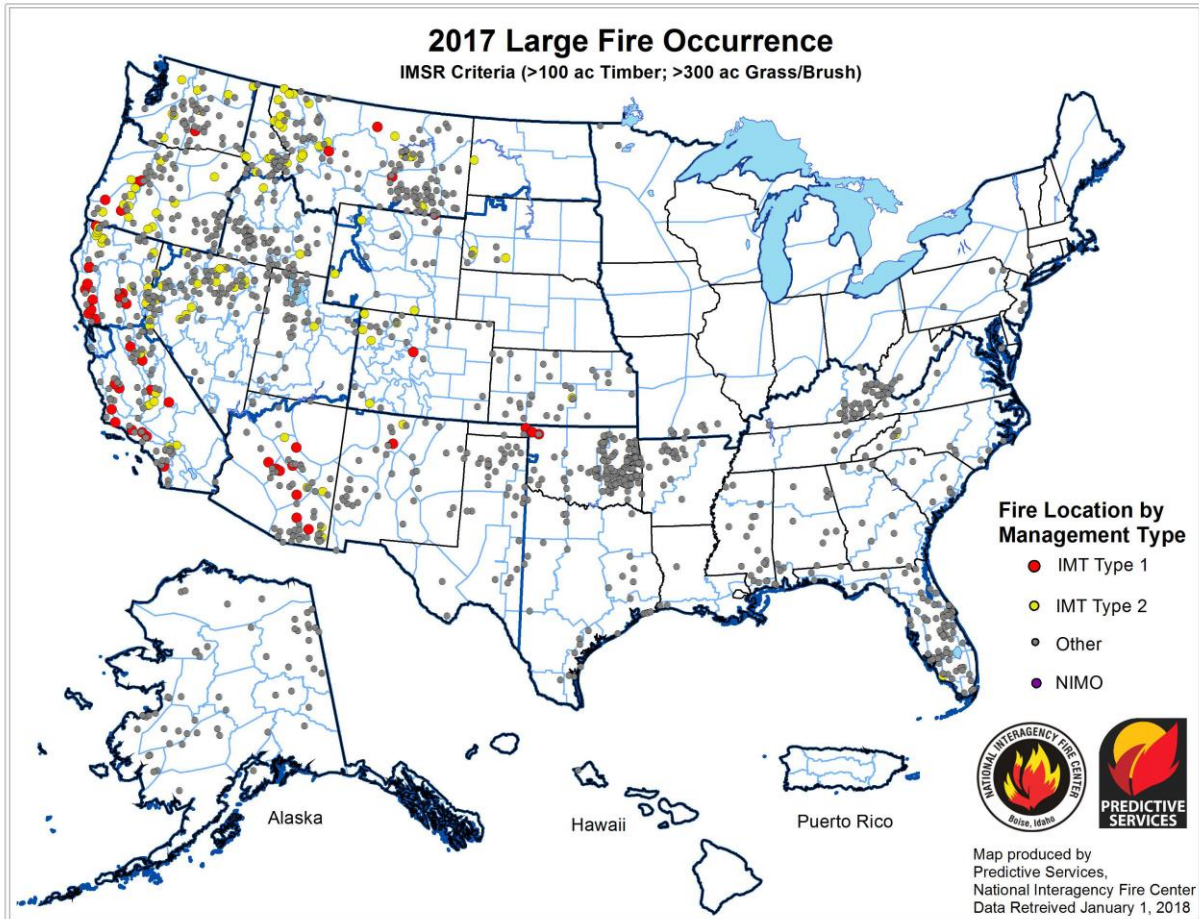
NAME	GACC	State	Start Date	Contain or Last report date	Size (Acres)	Cause	Estimated Cost
Powerline	GB	ID	8/4	8/13	55,529	U	4,512,207
Nowitna	AK	AK	7/14	8/31	55,254	L	307,802
Legion Lake	RM	SD	12/11	12/19	54,023	H	2,200,000
Lolo Peak	NR	MT	7/15	10/6	53,902	L	48,500,000
Cinder Butte	NW	OR	8/2	8/16	52,531	H	4,400,000
Norse Peak	NW	WA	8/11	10/5	52,056	U	19,760,000
Southern LNU Complex	NO	CA	10/9	10/27	51,624	U	48,509,895
Mammoth Cave	GB	ID	8/4	8/8	49,912	H	560,000
Garza	SO	CA	7/9	7/10	48,889	U	15,453,433
Eagle Creek	NW	OR	9/2	10/27	48,831	H	20,251,700
Frye	SW	AZ	6/7	8/31	48,443	L	20,000,000
Sawmill	SW	AZ	4/23	5/3	46,991	H	8,200,000
Bear Mountain	AK	AK	7/9	11/16	46,715	L	NR
Sapphire Complex	NR	MT	7/24	10/4	43,733	U	35,406,736
Umpqua North Complex	NW	AK	8/11	10/12	43,158	U	42,890,561
Powerline	NR	ID	7/15	7/29	42,558	L	2,958,255
Highway 200 Complex	NR	MT	9/1	10/6	42,442	L	12,500,000
Earthstone	GB	NV	7/3	7/11	41,545	U	3,194,000
Boulder Creek	AK	AK	7/2	10/12	40,906	L	917,520
Helmet	AK	AK	7/6	8/24	40,202	L	26,978

L – Lightning H – Human U – Unknown/Under Investigation OT - Other 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 1,409 large or significant wildfires and complexes reported in 2017 (derived from ICS-209 reports submitted through FAMWEB). Significant wildfires represented about 2 percent of total wildfires reported nationally in 2017. The maps below depict the locations of these fires.



Significant Fire Activity

Significant fires are defined in the National Mobilization Guide as fires that are a minimum of 100 acres in timber fuel types, 300 acres in grass and brush fuel types, or are managed by a Type 1 or 2 Incident Management Team, WFMT or NIMO.

Percent of Reported Significant Fires by Geographic Area

AK	NW	NO	SO	NR	GB	SW	RM	EA	SA
4%	9%	4%	5%	13%	15%	7%	6%	2%	34%

