

# National Interagency Coordination Center

2001 Statistics and

Summary



#### NATIONAL INTERAGENCY COORDINATION CENTER

### 2001



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### Identifier Legend

Coordination Centers		Agencies/ Other	
AK=	Alaska	BIA=	Bureau of Indian Affairs
EA=	Eastern Area	BLM=	Bureau of Land Management
EB=	Eastern Great Basin	BRL=	Bureau of Reclamation
NO=	Northern California	CN=	Canada
NR=	Northern Rockies	DDQ=	Department of Defense
NW=	Northwest	FEMA=	Federal Emergency Management Agency
RM=	Rocky Mountains	FC=	National Interagency Fire Center
SA=	Southern Area	FWS=	U.S. Fish & Wildlife Service
SO= SW=	Southern California Southwest	NIK=	National Interagency Radio Support Cache
WB=	Western Great Basin	NPS=	National Park Service
CIFC=	C= Canadian Interagency Forest Fire Center	OAS=	Office of Air Services
		OFDA=	Office of Foreign Disaster Assistance
		PRI=	Private
		ST=	State
		USFS=	U.S. Forest Service
		WO=	Washington Office, USFS
		WXW=	National Weather Service

### **GEOGRAPHIC AREA COORDINATION CENTERS**



### Preface

This report is based upon information received from the Geographic Area Coordination Centers as well as National Interagency Coordination Center databases. It provides a national perspective of the mobilization of resources across geographic area borders and fire and acreage information reported. For specific information on resource mobilization within the Geographic Areas, requests can be made from the specific Geographic Area Coordination Center. Contact specific agencies for official statistics on fires and acreage burned during the 2001 fire season.

#### 2001

#### NATIONAL INTERAGENCY COORDINATION CENTER



## Intelligence/ Predictive Services

The mission of the Intelligence/Predictive Services Section of the National Interagency Coordination Center (NICC) is to collect, analyze and disseminate fire and other natural disaster information as well as assess and project weather, fuels, and fire danger for strategic fire management and resource utilization at the national level. This information is especially critical during Preparedness Levels 3 through 5 when resource availability is limited.

Federal and state fire and disaster data is gathered at the local level and is fed upward to the eleven Geographic Area Coordination Centers (GACCs) who then analyze, consolidate and disseminate this information to the NICC. Intelligence officers, fire weather meteorologists and wildland fire analysts at the GACCs and the NICC use a variety of computer programs, national databases, and other sources to gather and analyze this information to generate intelligence and predictive products.

In 2001, additional focus was given to predictive services at the NICC and the Geographic Area Coordination Centers. A National Fire Weather Program Manager, Assistant National Fire Weather Program Manager, and a Wildland Fire Analyst were hired at the NICC. Nearly all of the twenty agency meteorologists, hired as part of the intelligence/predictive service staff, are now employed at the various Geographic Area Coordination Centers across the country. These meteorologists will support fire weather and predictive service functions. We expect predictive products and skills to evolve, resulting in increased support for proactive resource allocation decisions, which will have a substantial and positive impact on effectiveness and efficiency over time. They will also address competing demands from existing and anticipated suppression, fire use and prescribed fire operations. The NICC Intelligence/Predictive Services Section will support their GACC counterparts to facilitate a smooth transition and ability to provide predictive service products.

### Intelligence/Predictive Services Products and Analysis

Below is an example of products available through the Geographic Area Coordination Centers.

The Moose Incident was one of the largest fires of the 2001 season. This lightning caused fire occurred August 16th on the Flathead National Forest. The Moose fire ultimately burned approximately 71,000 acres before it was controlled. Several drought indicators, such as the U.S. Drought Monitor and the Standard Precipitation Index (SPI), accurately identified this area of Montana as experiencing a moderate to severe drought prior to the incident. The 12-month SPI is most closely related with the Palmer Index, and the two indices should reflect similar conditions.



Below are Energy Release Component and 1000 Hour Fuel Moisture graphs using data from the Polebridge RAWS located close to the Moose Incident. Both of these fire danger indices show the area was experiencing near record setting conditions just prior to the event. Note the dramatic, rapid increase in ERC starting in the beginning of August, which corresponds well with the large (>100 acre) fire occurrence on the Flathead National Forest for 2001.



Using a variety of analytical tools, the Intelligence/Predictive Services Sections at the GACCs and the NICC will assimilate and provide accurate information on resources, fire weather, and fire danger to aid strategic fire management and resource allocation decisions at the national level.

### Wildland Fire Season and Incident Overview

2001 brought the United States a season with great potential for widespread, significant problem wildland fires. Drought conditions persisted in many areas. Record high temperatures and extended periods without wetting rains were common. However, problems were only manifested in three areas, the Northwest, the Northern Rockies and in the late Fall, the South. Timely breaks in the development of critical weather patterns helped other areas experience an average or slightly below average fire season. The season also saw the tragic deaths of 16 firefighters in suppression related activities. Also of note, was the extended period of support by incident management teams to the World Trade Center and Pentagon attacks.

### January - April

During the January through April time period, dry conditions were noted across the eastern third of the United States, southern California, Pacific Northwest, and upper peninsula of Michigan. Starting in October 2000, a very dry period was experienced in southern California. However, over the January 10-12 time frame, rains came to southern California and provided over three inches of precipitation to the Los Angeles Basin. Florida remained quite dry, with Tampa only receiving 0.10 inches of rain from January 1 through the middle of February. Winter snows did not accumulate to normal levels in the west, providing less snow melt during the early spring. Interestingly however, blizzard warnings were posted in Hawaii on February 11 for the Mauna Kea and Mauna Loa volcanoes. Also, parts of Seattle received five inches of snow on February 15 and 16.

January fire activity was highlighted by the wind driven Viejas fire on the Cleveland NF. This fire started on January 3 and burned 10,353 acres. February saw a sharp increase in the number of fires in Florida although most burned only 2-3 operation periods. March and April sustained the activity in Florida and other southern states along with large fires occurring in Missouri. In late April, escaped fires occurred in New Mexico, New Jersey and Minnesota as well.

### May - August

The weather during this time frame was hot and very dry in most of the west, along with dry conditions across the Great Lakes states. Drought conditions were also experienced in New England. In Sacramento, California, 66 consecutive days of no rain was briefly interrupted on June 26 by a storm which brought 0.15 inches of rain. Reno, Nevada experienced its driest water year on record, with only 1.97 inches of rain from October 30, 2000 through June 30, 2001. This was only 30% of normal. In August, a round of widespread dry lighting helped spark the Pacific Northwest fires. Dry conditions persisted after this round of lightning until a storm late in the month brought moderate rains and quieted the activity.

Seasonal fire activity in early May was common with large fires occurring in Minnesota, Kentucky, Florida, Tennessee and northeastern states. Dry conditions in western states were common and fire activity was higher than normal in California and Montana. By the middle of the month, Florida was very active due to persistent dry conditions. June began with scattered activity across the west and continued problems in Florida. By the middle of the month, California was quite busy with fires in the north and south and Alaska and New Mexico experienced moderate activity. Critical conditions in Florida subsided with seasonal rains. July saw an average number of initial attack fires in Nevada, Utah, Wyoming and Colorado. In mid July, fires became more difficult to contain particularly in Washington and Oregon as exemplified by the Libby South and 30 Mile fires. Wyoming and Idaho experienced increased numbers of large fires with the

Green Knoll fire near Jackson, Wyoming drawing significant attention. So far, extended drying periods had been mitigated by weather changes that allowed some moisture recovery in the fuels. This pattern did not continue in August, and problem fires occurred in many areas. Notable fires in early August were the Arthur in Yellowstone NP, the Elk Mountain Complex in the Black Hills NF, the Trough on the Mendocino NF, the Blue Complex on the Modoc NF, and the Quartz on Oregon Department of Forestry. By mid August, Nevada, Washington, Oregon and Montana experienced many large fires and the national Preparedness Level elevated from 3 to 5. During this period, Modular Airborne Firefighting Systems (MAFFS) were engaged from the Air National Guard and Air Force Reserve, a battalion of firefighters from Ft. Lewis, Washington and Canadian firefighters and aviation specialists were also ordered to supplement agency forces. Area Command teams were assigned in Washington and Montana. The southern Sierra Nevada Mountains in California also experienced a number of large fires. The month ended with a decrease in initial attack activity but significant commitment of resources to on going large fires.

#### September - October

September started with the arrival of the remnants of hurricane Flossie in southern California and the southwest. Flossie even provided flash flooding to parts of southern California. Weather conditions improved greatly in the Great Lakes as fronts brought much needed rain to the upper peninsula of Michigan. Dry conditions continued to be noted through early October in the Pacific Northwest and eastward into Montana. However, a surge of much cooler air and moisture moved over the region in mid October, modifying the burning conditions greatly.

September saw on going maintenance and support of existing fires with containment being reached after extended periods on many of the incidents. The initial attack load continued to be light. Following the attacks of September 11, support to FEMA began with personnel, materials, supplies and communications equipment flowing to Washington, DC and New York (further detail on 9/11 support can be found in the "The NICC Support of FEMA for 9/11" in the appendices). A short outbreak of lightning the third week of September caused activity in northern California, Oregon, Washington and Montana. In October, large fires in Montana, northern California and Colorado were noted. By mid month, most fires had been contained and favorable weather patterns established to help bring and end to fire season in the Northwest and Northern Rockies.

In late October and early November, the Eastern and Southern areas began the Fall fire season. This developed into a significant period of activity particularly in Kentucky and Tennessee. More than 100 fire crews were mobilized to these fires from the west. More than 146,000 acres were burned in Kentucky this year alone.

The conditions which influenced fire suppression activities, also had impacts on the prescribed fire program. Untenable risk associated with the drought conditions, reduced the number of acres treated particularly in the Southeastern states. In the Northwest, spring conditions were not conducive to consistent prescribed burning and the fall season was limited to sporadic applications due to essential resource's on going commitment to fire suppression assignments and FEMA support. The program did have some major accomplishments however with over 500,000 acres of prescribed fire and mechanical treatments to reduce fire hazard in urban interface areas. All federal agencies combined to treat nearly two million acres this past year.

#### October - December

October saw the mobilization of overhead as a result of Homeland Security measures while overhead support to FEMA continued through early November.

Dry weather in the Southeastern United States, which started in late September, persisted through late November. The axis of driest conditions ran from southwest Georgia northeast through the Shenandoah Valley. Precipitation departures from normal for October ranged from one inch below normal in southwest Georgia, to over three inches below in North Carolina and Virginia. The driest areas were along the North Carolina Appalachians, Blue Ridge Parkway and southern Virginia piedmont. Only central and southern Florida received above average rains. Early to mid October's initial attack activity was described as light nationwide with large fires disbursed throughout the Southeastern, Eastern, Northern Rockies, Rocky Mountain, Eastern Great Basin, Southern and Northern California areas. In late October into November the initial attack activity in the Eastern and Southeastern areas increased dramatically due to human-caused fires.

Through the end of November, moderate to severe drought indices were still being noted in the Shenandoah Valley south to the Georgia coast. However, increased rains in southwest Virginia and North Carolina alleviated the drought situation somewhat in those areas. In December, dry conditions and warmer than normal temperatures persisted once again in the Southeast, returning much of the area to moderate and severe drought conditions.

In the west, cooler conditions and mountain snows set in shortly after Thanksgiving. By the end of December, snow pack water content values in the Northwest were between 110 and 175% of normal. However, mountainous locations east of Idaho and Utah did not see the Thanksgiving snows. Through the end of December, there was a noticeable below normal swath of mountain snow water content from the northern Rockies of Montana southward through Colorado and New Mexico.

The Southern Area experienced one-quarter of their annual number of fires and acres within the 30-day time frame of October 28—November 30 while the Eastern Area suppressed 65% of their total number of fires for 23% of their total acreage during the same time frame.



# <section-header>2001 NATIONAL INTERAGENCY COORDINATION CENTER **Wildfire and Prescribed Fires**

This report is based upon information received from the Geographic Area Coordination Centers. Contact the agency for official statistics on fires and acreage burned during the 2001 fire season.

### Fires and Acres Reported to NICC

The total fires and acres for 2001 were 84,079 and 3,570,911 respectively. Comparing this to the sliding five-year average for number of fires and acres, 2001 was slightly below average in both number of fires and in acres burned.



### **Average Fires**

Dates	5 Yr	6 Yr
1996-2000	83,947	XXXX
1997-2001	81,491	83,969

### **Average Acres**

Dates	5 Yr	6 Yr
1996-2000	4,787,069	XXXX
1997-2001	4,288,051	4,584,376



### Overall Fire Load by Geographic Area

7%

EΒ

12%

WB

7%

SW

4%

RM

5%

The overall fire occurrence data for the 2001 fire season shows that the Southern and Eastern Areas had the highest number of fires with 36,822 and 18,902 respectively. Although these areas clearly had the most fire ignitions, the number of large fire incidents were more widely distributed. The Southern Area, Eastern Great Basin, and the Northwest had 35, 12, and 10 percent of all large fires respectively. Large fires are defined as an event that exceeds 100 acres in timber fuel types or 300 acres in grass fuels types. Further detail on fires and acres can be found in the "Total Fires and Acres by GACC and Agency" in the appendices.













#### 12

EA

9%

### Cause of Ignition by Geographic Area

There are two major categories we use to describe how a fire is started: lightning and human-caused. Lightning can be either dry or wet; while human interaction can be trespass, abandoned campfires, mechanical, trash burning, arson, etc. The 2001 fire season data shows that the source of ignition for the majority of fires nationwide was human-caused. The Southern and Eastern Areas bore the brunt of that activity with the total number of human-caused fires of 34,605 and 18,743 respectively.





### Acres Burned by Geographic Area

The acreage burned was also significant with the loss of 761,605 acres in the Southern Area, 206,844 in Alaska and 196,226 in the Eastern Area. Research is beginning to address this significant source of ignition and to try to determine patterns of behavior in order to prepare for such fires. Further detail on human-caused fires and acres can be found in the "Total Fires and Acres by Ignition Sources and Geographic Area" and "Total Fires and Acres by Ignition Source and Agency" in the appendices.





### Wildfire Occurrence and Acres by Agency

Fires and acres are reported to the National Coordination Center by the local units through the Geographical Area Coordination Centers via an internet based program. This is not the final fire and acreage totals that are entered into the fire statistic databases for each agency. For the official totals, please contact the agency directly. Further detail on fires and acres can be found in the "Total Fires and Acres by GACC and Agency" in the appendices.





### Prescribed Fire Projects by Agency

Prescribed fire is a tool utilized by the government agencies to accomplish resource management objectives such as reducing fuel loading on the ground to reduce fire hazard and potential for catastrophic fire events. Prescribed fire also improves forest health by releasing nutrients into the soil. A total of 5,917 prescribed fire projects and 1,649,262 treated acres were accomplished in the year 2001. Further detail on fires and acres can be found in the "Total RX Projects and Acres by GACC and Agency" in the appendices.





### Days at National Preparedness Level 4/5

The nation operated at Planning Level 1 and 2 for most of the season in 2001, but once activity increased, it rapidly moved from Planning Level 3 to 5 within a week. Planning Level 3 was declared August 10th, Planning Level 4 August 13th, and Planning Level 5 August 16th. A comparison over the last 11 years is illustrated below. For specific Planning Level criteria see the National Interagency Mobilization Guide, Chapter 26.





### Planning Level 4 and 5 Fire Activity

A map of one of the large fire days during Fire Season 2001. Below is a chart of new fires as they occurred during Preparedness Levels 4 and 5. The highest number of new fires reported to the National Coordination Center nationwide during Planning Level 4 or 5 was 326, which occurred on August 13, 2001. Further detail on fires and acres during this time can be found in the "New Fires Reported During National Planning Level 4 and 5" in the appendices.





New fires reported during days in National Planning Level 4 and 5.

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# Incident Support

The principle mission of the National Interagency Coordination Center (NICC) is the cost effective and timely coordination of land management agency response to support wildland fires and other natural disasters. The year 2001 challenged the NICC to provide the same service for emergency operations involving urban search and rescue support as well as homeland security efforts. Following the attacks of September 11, support to FEMA began with personnel, materials, supplies and communications equipment flowing to Washington, DC and New York. This is accomplished through planning, situation monitoring and expediting resource orders between federal agencies and other cooperating agencies.

The following pages illustrate the specific level of coordination that the NICC was involved with. This information is not all inclusive as it tracks only the resource requests that have been routed through the NICC. Contact the Geographic Area Coordination Center for specific geographic area information.

It is also important to note that information regarding cancellation of resource requests or requests that the NICC was unable to fill are not mutually exclusive. There is no method of tracking why requests were cancelled. Requests can be cancelled for a number of reasons: unavailability of requested types of resources, filling of requests due to internal fills, or the resource requested is no longer needed.