# National Park Service Department of the Interior





# Wildland Fire Report Fiscal Year 2000

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#### **National Park Service Regions**



The map pictured above depicts the National Park Service regions. The following list identifies the corresponding park clusters serviced by Support Offices (SOs). Not all SOs are staffed with fire management personnel. Support Office fire management staff may support parks from other clusters.

#### Alaska Region (AKR)

Alaska Support Office (AKSO)

#### **Intermountain Region (IMR)**

Intermountain Support Office - Denver (IMSO-DE)

Intermountain Support Office - Santa Fe (IMSO-SF)

#### **Midwest Region (MWR)**

Midwest Support Office (MWSO)

#### **National Capital Region (NCR)**

National Capital Support Office (NCSO)

#### **Northeast Region (NER)**

Allegheny Support Office (ALSO)

Chesapeake Support Office (CHSO)

Boston Support Office (NESO)

#### **Pacific West Region (PWR)**

Columbia Cascades Support Office (CCSO)

Pacific Great Basin Support Office (PGSO)

Pacific Islands Support Office (PISO)

#### **Southeast Region (SER)**

Appalachian Support Office (APSO)

Atlantic Coast Support Office (ATSO)

Gulf Coast Support Office (GCSO)

#### **Program Accomplishments**

#### **Alaska Region**

Wildland fire activity in Alaska predominately occurred in Denali. Area FMO, Jan Passek, FIREPRO crew leader John Cataldo and crewmember Larry Weedle, Eastern Area Fire Management Officer Marsha Henderson, FIREPRO crew leader Janet Hobby and crewmember Derek Ellis, successfully managed over 43,000 acres of wildland fire. This effort also including protection of several cultural resources and subsistence structures. Both FIREPRO funded helicopters were also assigned to the Denali fires.

A total of ten fires burned occurred within NPS Alaska units, including a late season fire in Katmai. The following is a breakdown of fire occurrence:

	<b>Number of Fires</b>	<b>Acres Burned</b>
Denali	4	43,578
Yukon-Charley	3	437
Noatak	1	680
Lake Clark	1	2
Katmai	1	5

Overall Alaska did very well responding to the call for fire personnel for the 2000 season especially considering the relatively small number of personnel that had current wildland fire qualifications. Forty-two NPS Alaska employees filled a total of 55 assignments. Thirty individuals were dispatched on one fire assignment, ten individuals were dispatched for two assignments or original assignments lasting over 30 days, and Connie Dworak was dispatched four times with a NPS payment team. Firefighters from the parks enabled the formation of two, Type II interagency crews with USDA Forest Service and the U.S. Fish & Wildlife Service.

The Alaska Interagency Wildland Fire Management Plan identifies fire management options which can be selected by land manager/owner(s) and provides guidance to suppression organizations for all Alaska NPS units. Marsha Henderson and Chuck Sheaffer completed the Fire Management Plan and Environmental Assessment for Yukon – Charley Rivers National Preserve. This was the first park specific plan and environmental assessment completed in Alaska. The plan is precedence setting because it established linkage between the statewide interagency plan and wildland fire use in NPS units. Superintendent Dave Mills signed and approved the fire management plan and Regional Director Bob Barbee approved and signed the Finding of No Significant Impact. The draft fire management plan for Wrangell-St. Elias National Park and Preserve was also completed. These plans will serve as templates for the remaining Alaska NPS units.

#### **Intermountain Region**

The 2000 fire season began in late April at Great Sand Dunes National Monument and continued until the end of October at Glacier National Park. The fire staff participated in a fire season that marched north from Texas to Montana. There were many challenges during the FY – highlighted by the Cerro Grande fire at Bandelier National Monument. Lessons were learned not only in the Intermountain Region but also in the National Park Service.

The unfortunate escapes of the Cerro Grande and Outlet prescribed fires in May signaled the onslaught of a fire season that refused to end until well into the fall. Regional employees participated in intensive reviews of these fires and the use of prescribed fires. Mesa Verde National Park was challenged by two significant fire events. National fire management resources were stretched thin and innovative appropriate management responses were successfully applied at Glacier, Yellowstone, and Grand Teton National Parks. Regional employees participated on Type I and II incident management teams, represented the NPS on the Southwest, Rocky Mountain, Northern Rockies and Great Basin Multi-Agency Coordination Groups and were assigned to Fire and Aviation Safety Teams in Colorado, Arizona, New Mexico, and Montana.



The variety of aviation issues addressed this year was modest due to the concentration on fire activity. The region increased aviation safety awareness by providing training in three Basic Aviation Safety and four Aviation Safety for Supervisors (M-3) sessions. NPS instructors were utilized in the M-3 courses for the first time. The use of NPS employees as airspace coordinators was initiated during the fire season and five ranger/pilots from two regions were trained.

The region was unsuccessful in resolving differences with the Office of Aircraft Services (OAS) over services rendered and subsequent costs of services charged to parks in the region. Development of a regional aviation policy was initiated to provide interim guidelines pending release of DO-60.

There were six new BAER programs resulting from the 2000 fire season. Large-scale programs requiring oversight from the Fire Management Program Center included the Bircher and Pony fires at Mesa Verde National Park and the Cerro Grande fire at Bandelier National Monument. Smaller programs at Pecos National Monument (Monument Fire), Grand Canyon National Park (Outlet Fire), Great Sand Dunes National Monument (Sand

Fire) and Dinosaur National Monument (Buster Basin Fire) were managed at the regional level. Two previous projects, at Lake Meredith and Golden Spike were completed this year.

The region's fire use modules began the field season in March and stretched to mid-November, assisting fire managers in the NPS and USDA Forest Service. Due to the suspension of prescribed burning in May, module members were made available for suppression assignments. The modules, with assistance from several parks, were assembled into Type II suppression crews that allowed employees to enhance their skills. A major issue that continues to plague each module is the difficulty in recruiting, hiring, and retaining crewmembers. Saguaro NP's module never obtained minimum staffing, Yellowstone and Bandelier never achieved full staffing levels, and Zion was unable to fill the detailer position. The modules were able to complete 65% of the mechanical manipulation and hazard fuel reduction projects.

The Regional Branch of Fire and Aviation welcomed Doug Stephen in the newly established GIS/Fire Planner position. Doug assisted numerous parks by preparing them to use FARSITE fire spread modeling, a direct support to fire planning and coordination of data layers between agencies and park GIS offices. Contracts were initiated with private sector companies to complete fire management plans at Bent's Old Fort National Historic Site, Florissant Fossil Beds National Monument and El Malpais National Monument. The plan at El Malpais will address the full range of fire management opportunities and constraints on NPS lands, as well as, across the shared boundary with Albuquerque District, BLM.

#### **Midwest Region**

The year 2000 was the most severe fire season in over 50 years for the Midwest Region. More than 74,000 fires burned on federal and state land, impacting more than 7.3 million acres. A total of 29,000 firefighters were employed on the fire lines. A total of 119 suppression actions occurred in several parks within the region, including Buffalo, Wind Cave, Theodore Roosevelt, Saint Croix, Indiana Dunes (42) and Jewel Cave (90% of which was burned in the Jasper Fire).

The MW Region sent out firefighters, support, and AD hires from 36 parks on 534 assignments. Not only did the region receive a large turnout from the six FIREPRO parks, but also from parks without Fire Management Offices. There was a very strong showing from Saint Croix, Badlands, and Sleeping Bear Dunes. Equally impressive was the turnout by small parks. Firefighters were sent out from Lincoln Boyhood, Tallgrass Prairie, Hopewell Culture, Grand Portage, Perry's Victory, Agate Fossil Beds, Pipestone, and Homestead. The parks should be congratulated for doing such a good job of sending firefighters out.

Despite the post-Cerro Grande restrictions placed on the prescribed fire program, the region managed to treat 17,070 acres of land with 54 prescribed fires. The greatest success story for prescribed fire was Jewel Cave. In August over 90% of the park was burned over by the Jasper Wildfire. When the running crown fire hit the area treated with prescribed fire during 1994 and 1999, the fire came out of the crowns and the area burned very lightly. The prescribed burns were greatly responsible for saving the visitor center and other buildings in the park.

The fire season will be remembered by the Cerro Grande fire, a prescribed fire that escaped in Bandelier National Monument, and proceeded to burn through the town of Los Alamos, causing millions of dollars of damage. Media attention seemed to focus on NPS policy and planning, as opposed to the accumulation of fuels resulting from the years of fire suppression. However, when wildfires began consuming the Rocky Mountains in July and August, the fuels issue became harder to ignore. As a result of this severe fire season, a number of changes are taking place that will impact NPS fire management.

- 1) Dispatch Centers: The fire season prompted a major reorganization of the dispatch centers. The Eastern Area Coordination Center is undergoing a major change with zone dispatch centers being set up in Wisconsin, Indiana, Illinois and Michigan. Noel Poe helped represent NPS in the effort to reorganize. Doug Alexander assisted with the relocation of the Black Hills Dispatch Office. This reorganization will allow more firefighters to get out to fires in a more efficient manner. It will also help resources reach wildfires in parks in a more timely manner.
- 2) **Prescribed Fire Planning:** In the aftermath of Cerro Grande, it is clear that there needs to be changes in the way in which prescribed fires are conducted. A task group met to develop changes in the prescribed burn plans. These changes are expected to become policy by March 2001.

The year 2000 was a productive one for Fire Effects in the Midwest Region. There were four fire effects crews in the field collecting data, each stationed at the following locations: Indiana Dunes, Ozarks, Voyageurs (Boundary Waters Complex) and Wind Cave (Northern Great Plains). While there is potential for each of these programs to collect fire effects data from more than one park, to date, the Northern Great Plains group is the only one servicing multiple parks. These include Agate Fossil Beds, Badlands, Devils Tower, Fort Union, Jewel Cave, Knife River, Mount Rushmore, Scotts Bluff, Theodore Roosevelt and Wind Cave.

The table below summarizes the overall accomplishments of the region for 2000. The numbers of plot visits (installations, rereads, postburn rereads) and total site visits for 2000 are tabulated by monitoring group. Also included are the total numbers of plots installed to date, and the number of monitoring types.

<b>Monitoring Group</b>	Monitoring Types	Installs	Rereads	S Postburn Rereads	Site Visits	Total Installs	
Boundary Waters	4	5	8	1	14	59	_
Complex							
Northern Great Plains	33	15	45	10	70	108	
Indiana Dunes	3	3	17	5	25	48	
Ozarks	3	12	9	9	30	21	
Total	43	35	79	25	139	236	

There have been a number of challenges facing the fire effects programs in the region. Two of the programs (Indiana Dunes and Northern Great Plains) experienced turnovers in lead monitors. The Northern Great Plains group also was understaffed. Ozarks labored to develop and implement alternative protocols for sampling understory vegetation. The FMH software is a source of continual complaints for everyone conducting data analysis. The majority of the parks have vague resource management and fire management objectives that are in need of refinement.

With fire effects monitoring being relatively new to this region, there is large potential for growth and expansion. A number of parks in the region continue to conduct prescribed fires without any fire effects monitoring, particularly in the Tallgrass Prairie region. These include Homestead, Effigy Mounds, Tallgrass Prairie, Wilson's Creek and Pipestone. There are also a large number of parks that are in the process of establishing prescribed fire programs. These include, but are not limited to, Apostle Islands, Pictured Rocks, Saint Croix, Sleeping Bear Dunes, Hot Springs, Arkansas Post, Lincoln Boyhood, and Hopewell Culture.

In an effort to establish fire effects monitoring in the parks of the Tallgrass Prairie region, the regional fire ecologist has been working with the Long Term Ecological Monitoring (LTEM) program to coordinate monitoring efforts. The most feasible arrangement proposed to date is to use the data collected by LTEM for examining fire effects. If progress continues, the Midwest Region expects to request FIREPRO funding in FY2002 for personnel to assist LTEM with data collection, management and analysis.

The anticipated addition of eco-regional ecologists in the region will greatly enhance their capacity to meet the challenges of planning, data analysis, and program growth throughout the region.

In conclusion, the fire program is experiencing rapid change and growth as a result of the past fire season. With careful planning and coordination with resource management and other divisions, the Midwest Region will reduce the risk of wildfires and come closer to achieving resource management goals in their parks.

#### **National Capital Region**

During the 2000 fire season over 115 National Capital Region personnel accepted one or more assignments during the fire season. The region saw active participation from over 90% of their qualified personnel. Many more worked to support the mobilization effort. National Capital began working with a second Americorps\*NCCC campus. Between the Washington DC and Perry Point MD campuses, over 60 corps members worked as wildland firefighters on NCR and Interagency crews in 2000.

#### **Northeast Region**

The 2000 fire season in the Northeast Region was marked by a return to normal-year precipitation levels throughout the Northeast and Mid-Atlantic States. With a somewhat wetter summer, the drought levels attained in the spring returned to normal and the fall fire season was not effected by drought. The region did experience the second largest single wildfire on record with the 25,000 acres Shenandoah Complex that began in late October and continued into the third week in November. This incident occurred during normal fall burning conditions, but was affected by several major wind events during the initial stages of suppression.

The Northeast Region prepared for the 2000 fire season by completing over twenty-four firefighter refresher courses, several introductory fire training classes, and a Northeast Region/National Capital Region Crew Boss Academy at the National Conservation Training Center. Also conducted was a "Point Fire Investigation & Safety Briefing" presented to NPS and partner agencies by the Delaware Water Gap FMO. During this training period, planning was completed on several prescribed fires within the region and over 150 piles of mechanically removed fuels were burned.

As has been the case in the past few years, the southern half of the region experienced more fire activity than the north. The states of Virginia and West Virginia had very active fire seasons in both the spring and the fall. During the fall, Shenandoah National Park had the Shenandoah Complex, consisting of the Pinnacles, Old Rag, Rapidan Road and Nother 1 Fires. The Pinnacles and Old Rag Fires burned together, creating the largest wildfire in the park's history.

Another highlight of the year was the support to western fires provided by the Northeast Region. The region provided over 500 firefighters during the largest mobilization of resources the region has ever participated in. The region sent 10 Type II hand crews and 237

single resources during what will be remembered as one of the longest fire seasons on record. Engines from Acadia National Park, Cape Cod Seashore, and New River Gorge were mobilized out of the region to assist on wildland fires.

During the fall, parks within the region continued hazard fuel reduction planning and implementation both within and along their borders. These projects will continue with the supplemental funding provided in the FY2000 budget. Prevention and education remains a viable tool in reducing the chance of unwanted fire within parks of the Northeast Region. During the FY2000 fire season, a number of public presentations were made by park staff on the use of fire as a management tool and on the need to prevent human caused starts by park visitors.

#### **Pacific West Region**

The second largest fire in the history of Death Valley National Park occurred from July 22<sup>nd</sup> through August 5<sup>th</sup>, 2000. The Happy Fire burned 5,870 acres of parkland and nine acres of Bureau of Land Management (BLM) land. A large portion of the fire was on land acquired from BLM during the 1994 Desert Protection Act boundary changes. The fire started in the lower watershed of Happy Canyon and burned in Pinyon Juniper fuels from 5,000 – 8,000 feet in elevation. Most of the acres were consumed in the first four hours. A Type II Incident Management Team managed the fire. At the height of the suppression operation, there were 231 personnel, two engines, ten handcrews, five helicopters, two air tankers and 75 overhead assigned. Suppression costs were \$600,000.00. There were no major injuries and low resource damage. One small cabin and several outbuildings were destroyed. The cause of the fire is still under investigation. This was one of three major fires burning in Southern California at the same time, all of which competed for the same resources.

Hawaii established a Big Island Wildfire Coordinating Group, which grew out of a Fuels and Fire Workshop held in June. The Group is composed of county, state, and federal fire agencies, and civil defense and military organizations. Jack Minassian was elected Chair for the group.



On June 30, the Broomsedge Fire burned 1,008 acres in and near Hawaii Volcanoes. Based on information from research burns conducted over the last several years, the staff is able to revegetate the burned area with native seed to prevent invasion by non-native grasses. Other research on Pili grass restoration with prescribed fire is ongoing at Pu'ukohola Heiau National Historical Site.

For the first time, a handcrew was sent from American Samoa to the mainland on a fire assignment. The crew was trained and supervised by Hawaii Volcano's fire staff. A second crew was also available if needed. Media interest in the crew was high. Evaluations of the crew were very positive and the crews will be made available in the future.

Lava Beds continued the Junior Lookout Program, which is aimed toward children. The program allows them to explore the use of maps and the fire finder to understand the role of lookouts in fire detection and suppression. Children receive honorary Junior Fire Lookout badges following their involvement in the program. Some adults expressed a desire to be Junior Lookouts as well.

Due to the Cerro Grande Fire, a temporary moratorium was imposed on prescribed fires. The first exemptions to the moratorium were granted to Lake Mead, Whiskeytown, Yosemite, Sequoia /Kings Canyon, and Redwoods.

Olympic National Park fire season began with the yearly coordination and instruction in various training courses. The park hosted the Western Washington S217 Helicopter Crewmember training, instructing a total of 38 new trainee helicopter crewmembers, from four national parks, two national forests, Washington State Department of Natural Resources, US Geologic Survey and the Natural Resource Conservation Service. The park also hosted the Peninsula Basic Firefighter training, instructing students in S130, S190 and I200. A total of 56 personnel were trained, from a total of 10 federal, state and county agencies located on the Peninsula. In addition, the fire office provided training in Basic Helicopter Safety to a total of 89 students, from the park and adjoining agencies. Another 12 park employees were instructed in S212 chainsaw use.

Two new type six engines were received by the park in FY2000, replacing engines that were nearly 20 years old. The overall fire year began with the dispatching of the two new type 6 engines to New Mexico for a total of 18 days each, to assist on the fire situation in the Southwest. This continued the theme of supporting other agencies with personnel, as the park's fire season did not materialize. The park did not have any lightning activity all summer and only seven human-caused fires, due to an early fire ban that was put into place over the entire state of Washington. No prescribed burning was conducted at Olympic or San Juan Island, due to the burn moratorium.

Additional Olympic resources that were dispatched included three helicopter modules, seven individual helicopter crewmembers, two additional type 6 engine dispatches, a strike team leader crew, Security Manager, three SEC2's, a 14-person crew, and a 21-person crew. Almost all assignments lasted for a full 14 days. In addition, the park FMO responded to five fires with a Type II team as air attack.

When not on fires, the park fire crew continued their work on the hazard fuels reduction project on San Juan Island. Nearly 20 acres were thinned, brushed and piled during the summer, even though the crew or portions of the crew were gone for extended times assisting on wildfires. In addition, nearly 15 acres of dense fuels were cleared from around structures at Lake Crescent, Heart O' the Hills and Elwha ranger stations and campgrounds at Olympic.

On August 3, Lake Mead firefighter Phil Conner was killed when a Bell 206 Jet Ranger crashed. More than 550 family, friends, and co-workers attended funeral services in Henderson, Nevada. Pip was remembered for his "can do" attitude and love of flying and fighting fires. The funeral motorcade consisted of local, state, and federal fire and emergency service agencies, and extended nearly two miles.

#### **Southeast Region**

Big Cypress accomplished 29,805 acres of treatment in 20 prescribed burns. They burned seven units as part of Dr. Jim Snyder's (US Geologic Survey, Biological Resource Division) long-term fire ecology study in the Preserve. They had 68 wildland fire starts, including 52 fires (149 acres) where management action was taken, and 16 natural outs (23.9 acres).

In addition the park responded to a number of mutual assistance fires with the Florida Division of Forestry, Fakahatchee Strand State Preserve and with the Florida Panther National Wildlife Refuge (including a 15,000 acre, week-long fire near Naples). All of the fire staff participated in western fire assignments (Montana, Idaho, Texas, California, Oklahoma, and Kentucky). They also participated in Off Road Vehicle (ORV) planning and initial implementation. Planning implementation will have a major effect on the way they conduct fire operations.

The Great Smokey Mountains experienced a third consecutive year with below normal rainfall and the local fire business reflected that trend. The relatively normal amount of ignitions within the park itself belies the seriousness of the situation that existed, however. Many more days than normal of emergency preparedness staffing occurred. During the fall season, the park's cooperating agency's workload far surpassed their capabilities. Great Smokey Mountains, other firefighters, and incident management teams from as far away as Alaska were deployed on the boundary, as well as other areas. Due to the hundreds of

ignitions in the wildland urban interface in the counties surrounding the park, only the absence of strong winds kept catastrophic fire from occurring.

The impacts of the Cerro Grande Fire and the national fire emergency in the west had significant negative effects on the park's prescribed fire accomplishments. Park fire personnel set aside local goals to mobilize resources and take western fire assignments. Over the course of the year, there were 104 interagency assignments to at least 13 different states.

Given the atypically dry conditions, the wildland fire occurrence was surprising low. Concerning suppression actions, Tennessee had six fires for a total of 1.3 acres and North Carolina had three fires for a total of 1 acre. Two wildland fires, totaling less than an acre in Tennessee were managed for resource benefits. One was in a remote area, the other within one-tenth of a mile of Cades Cove, an area of very high visitation.

Grasslands totaling 664 acres were burned in Cades Cove. Another burn plan was implemented on Ski Mountain resulting in approximately four acres of hazard fuels being treated. Although prescription conditions existed, large summertime burns in forested areas were missed due to the western fire events mentioned above.

The Knoxville Tanker Base operations reflected the dry conditions. In addition to the normal spring season when approximately 35 loads were dispatched, the Base was reopened on an emergency basis for the fall season. During the extreme fire danger of the fall, 40 additional loads were dispatched to the State of Tennessee, Shenandoah, Big South Fork, and several national forests. Because of the wildland urban interface nature of many of these fires.



tankers were credited with saving many structures. A total of 186,000 gallons was delivered to fires during the year. Base personnel also assisted cooperators by helping manage bases in Florida, Texas, and Utah.

In calendar year 2000, Everglades National Park had 45 fires totaling about 11,000 acres within the park or in the immediate mutual aid threat zone.

The greatest acreage in Everglades was in fire use where there were nine prescribed burns totaling about 5,500 acres and eight natural fires managed as Wildland Fire Use for Resource Benefits (WFURB) totaling 1,130 acres. In addition, there were 19 suppression fires totaling about 4,400 acres and nine natural outs for about 14 acres.

The largest suppression fire totally on park owned land was the Tower Fire in late May which totaled 1,200 acres. This was an arson ignition fire. The largest prescribed burn was the Block BCF prescribed burn in July which totaled 1,900 acres. The largest single WFURB was the A Bay Fire in July that totaled 930 acres.

This was the second year in a row for high fire potential in Everglades, with extended periods of drought conditions and consequent stepped up preparedness levels. Considerable rainfall in the fall of 1999 put a great deal of water in the Everglades system that carried into the early winter. Rainfall was scarce locally during the winter of 2000 and by March staffing levels were continually in the very high range. A pre-suppression account was activated in early March, which permitted increased staffing and an OAS Aircraft Rental Agreement type 3 helicopter to be staged for fire suppression. Dry conditions persisted into April, but a 5" rain event in mid-April tapered the "statistic" fire danger. In reality, although the measured indices were suppressed, a real fire threat persisted, as most water was quickly absorbed by the Everglades bedrock or evaporated. By mid-May, without rainfall, fire indices again climbed to very high and extreme levels and a second pre-suppression account was activated. By late May, without rainfall and with solar energy approaching peak of the season, live fuel moistures suddenly dropped and conditions were extreme. A severity account was requested and obtained, but severity was curtailed after only a week when the summer rains came.

The park was an active participant in the statewide fire readiness mobilization of the 2000 fire season. Fire Management Officer Panko was designated as the NPS Liaison to the statewide interagency unified command team. Unified ICs for this team were from the national forests in Florida and Florida Division of Forestry headquarters, both located in Tallahassee. The Governor declared a state of emergency due to fire danger statewide, which was quickly followed, as in previous years, by the Federal Emergency Management Agency (FEMA) declarations issued for many counties of the state. Various Type I and II aviation resources were staged throughout the state, several within mission distance of the park.

Park prescribed burning focuses on conducting the majority of burning during the natural summer fire season. As a result of Cerro Grande, all previously approved or otherwise completed burn plans required revision (Regional Direction). Everglades was also in its second year of transitioning to "landscape" burn plans that incorporated numerous burn units into a single burn plan. The park worked closely with national and regional NPS staff to rewrite burn plans, and by early July re-commenced burning.

The Fire Effects Monitoring program continued throughout the year and the crew established numerous plots in the park. The Fire Effects crew also traveled to Gulf Islands National Seashore to monitor plots post burn that had been established last year and to install additional plots.

Natchez Trace Parkway experienced 37 wildfires during 2000 with a total acreage of 110.1 acres burned in the park and an additional 369.3 acres burned within the protection zone. The number of wildfires decreased 24.5% but acreage increased 435%. Drought conditions during the fall-winter-spring fire season were extreme.

The 110.1 acres burned within the Park and its protection zone during the year is summarized below.

#### **Park Wildland Fires:**

Size Class:	Acreage:	Number of Fires in 2000:
Class A:	0 - 1/4 acre	8
Class B:	1/4 - 9 acres	21
Class C:	10 - 99 acres	6
Class D:	99 – 299 acres	2
Total		37

#### **Fire Management Program Center**

Accomplishments for the Fire Management Program Center (FMPC) in the year 2000 were dominated by the occurrence of significant unplanned events but also included recurrent work activities and accomplishments.

#### Cerro Grande Fire Summary Highlights:

The Cerro Grande Fire at Bandelier National Monument began as a prescribed fire on May 4, 2000 and was declared a wildland fire on May 5, at 1 p.m. On June 7 the fire was declared 100% contained. Total acreage noted for the fire was 47,650 with 235 structures lost. As of June 23, 2000, the suppression costs were 32.5 million. At the height of the firefighting effort 1,289 personnel were assigned. Fire personnel continued to manage the fire, perform mop up and patrol until the control date of July 20. The fire was declared out on September 22, 2000.

Concurrent with the firefighting efforts, an interagency Burned Area Emergency Rehabilitation (BAER) team arrived in Los Alamos the week of May15, 2000. Burned area emergency rehabilitation involves defining specific actions or treatments that are required after the fire to prevent loss of life, and/or property and to reduce the potentially negative impacts to critical resources which may result from fire or fire suppression efforts. In anticipation of the annual summer monsoon season, the rehabilitation work was completed by July1, 2002.

On May 12, Secretaries of the Interior and Agriculture announce a 30-day suspension of federal prescribed fires west of the 100<sup>th</sup> meridian and require increased level of approvals for prescribed fires managed by Federal land management agencies.

A letter from the Secretary of the Interior to the NPS indicated that the moratorium on prescribed burning west of the 100th meridian would be lifted June 12th except for the NPS. (Note: there are numerous NPS units east of the 100<sup>th</sup> meridian where the

standard NPS process for prescribed fire approval and implementation remained in effect.)

A memorandum dated August 4, 2000, "Strategic Path for the National Park Service prescribed Fire Program," addressed the three phased reinstatement of the NPS Prescribed fire program. Information from this memo was provided to field units of the NPS September 28, 2000 and outlined the process through which the NPS could begin a phased reinstatement of the prescribed fire program.

Unplanned work activities included support to the Cerro Grande Fire in Bandelier and subsequent reviews and investigations. Staff members participated on the Cerro Grande Board of Inquiry.

Recurrent activities included participation by FMPC staff as a member of numerous committees, work groups, and task groups, including the following:

Program Center staff participated on the Joint Fire Sciences Program Governing Board and assisted with the management of this program, the distribution and allocation of an \$8,000,000 research budget. FMPC staff also managed individual park research support through the FIREPRO budget.

Program Center staff represented NPS at numerous NPS meetings, interagency conferences and professional meetings including:

Discovery 2000, National Park Service, St. Louis. MO First Annual Climate Workshop, University of Arizona, Tucson, AZ

Staff members served on NPS boards, committees, and work groups, including:

Fire Monitoring Steering Committee Fire Technology Transfer Committee Fire Management Leadership Board

Staff members served as NPS representatives on the following training steering committees:

S-520, Advanced Incident Management

S-580, Advanced Fire Use Application

S-590, Advanced Fire Behavior Interpretation

S-620, Area Command

Fire Behavior Advisory Committee

Significant support was provided to national and regional training in the form of course coordinators, lead instructors, or unit instructors for the following courses:

RX-340, Introduction to Fire Effects

S-300, Incident Commander

Fire Ecology and Ecosystem Management

Fire Management Leadership for Local Line Officers

S-520, Advanced Incident Management (simulation development)

S-620, Area Command

S-580, Advanced Fire Use Application (two courses)

S-590, Advanced Fire Behavior Interpretation

National Fire Danger Rating System

Regional Wilderness Stewardship Conferences - USFS (two conferences)

Fire Management Leadership

Site visits were conducted to Saguaro, Grand Canyon, and Great Sand Dunes National Parks, and Bandelier National Monument.

Program Center staff participated as team members on Interagency Fire Use Management Teams. FMPC staff members completed Fire Use Management Team assignments in Grand Teton National Park and the Bridger-Teton and Targhee National Forests. FMPC staff members also participated as team members on National Area Command Teams and completed assignments on the Kaibab and Coconino National Forests.

Program Center staff provided review of manuscripts, served as Associate Editor for the International Journal of Wilderness, and manuscript reviewer for the Fire Conference 2000. Publications and reports produced by FMPC staff members wholly or in part during 2000 or previous years but that have been published in 2000 or sent to the printers include:

- Zimmerman, G.T. 2000. Appropriate Management Responses to Wildland Fire:
  Options and Costs Pages 255-267. In: Gonzalez-Caban, A, P.N. Omi (Tech. Coords.) Proceedings, Symposium on Fire Economics, Planning, and Policy, Bottom Lines, USDA Forest Service General technical Report PSW-GTR-173. Pacific Southwest Experiment Station, USDA Forest Service, Riverside, CA. 332 p.
- Zimmerman, G.T. 2000. The Federal Wildland Fire Policy: Opportunities for Wilderness Fire Management. Pages 288-297. In: Cole, David N.; McCool, Stephen F., Borrie, W.T., and Jennifer O'Laughlin (compilers). Wilderness Science in a Time of Change. 1999 Missoula, MT. Proceedings RMRS-P-15-VOL-5. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 381 p.
- Zimmerman, G.T. and D.L. Bunnell. 2000. Wildland fire management for the 21<sup>st</sup> century: evolving applications and capabilities. Pages 316-323. In: Proceedings: 1999 Society of American Foresters National Convention, Faces of Fire in the Pacific Northwest. September. Portland, OR. Society of American Foresters, Washington, D.C. 577 p.

- Zimmerman, G.T., M. Hilbruner, P. Werth, T. Sexton, and R. Bartlette. 2000. Longrange fire assessments: procedures, products, and applications. In: Proceedings: Third Symposium of Fire and Forest Meteorology, 80<sup>th</sup> American Meteorological Society Meeting. American Meteorological Society, Boston, MA.
- Conard, S.G., T. Hartzell, M. Hilbruner, and T. Zimmerman. In press. Changing fuel management strategies-the challenge of meeting new information and analysis needs. Proceedings: Joint Fire Science Program Remote Sensing Conference. Boise, Idaho 1999.

Program Center staff was also responsible for the preparation and distribution of CD-Roms containing documented information for wildland fires and wildland fire policy implementation. These CDs include:

- Mt. Emma Wildland Fire. 1999. Electronic documentation of management of Mt. Emma Wildland Fire, Grand Canyon National Park, Lake Mead National Recreation Area, and Arizona Strip BLM Field Area.
- Yosemite Complex. 1999. Electronic documentation of management of Yosemite Wildland Fire Complex. Yosemite National Park and Stanislaus National Forest.
- KACO Area Command. 2000. Electronic documentation management of large wildland fire situation. Coconino and Kaibab National Forests.
- Boulder Enos Wildland Fires. 2000. Electronic documentation of management of Boulder and Enos Wildland Fires. Bridger-Teton National Forest.
- Teton Complex. 2000. Electronic documentation of long-term risk assessment for Hechtman, Wilcox, and Moran Wildland Fires. Grand Teton National Park and Targhee National Forest.

The technical and business review of ROSS and the contract deliverables was conducted in October 2000. Nationwide training for Phase 2 is estimated to begin in the fall of 2001.

A Fire Management Workforce Development Committee was established under the authority of the Deputy Chief Ranger for Fire, Aviation, and Emergency Response Management as a result of a recommendation from the Fire Management Leadership Board. The committee is committed to provide guidance and recommendations to develop a professional, dynamic, and diverse workforce for the NPS Fire Management Program. The committee met once during FY2000. The first meeting was to identify action items, tasks, responsible parties, resources and target dates for each element.

The Fire Management Mentoring Program has fifteen mentors and mentees, representing all NPS divisions and a wide range of job series and pay scales, were selected for the second

session of training to occur the week of September 18<sup>th</sup> in Reno. Because of the fire season, the training was cancelled and rescheduled for March of 2001. The BLM, USFS, EPA, and FWS have adopted portions of course materials.

Fire Use Module Detailer Program: The program continued in 2000 and was administered by the regions. The program is open to candidates having interests in prescribed or wildland fire use.

Hot Shot Detailer Program: The program is currently being reviewed and was not implemented in FY00.

The Intern Program is currently being reviewed and was not implemented in FY00. Beth Roosevelt Card, intern from the 1997 session, was placed as the Fire Management Officer in Theodore National Park. The NPS proposed the establishment of a DOI Fire Management Intern Program. Work on this proposal is on-going.

Two Fire Management positions were identified in the National Park Service Intake Trainee Program. The program enables the Service to systematically meet future skill needs, provide a greater opportunity for career development, enhance the professionalization of employees, and improve the Service's workforce diversity.

A draft agreement between the Department of Labor, Bureau of Apprenticeship and Training and the National Park Service has been drafted to establish a cooperative training program. The Wildland Firefighter Apprenticeship Academy will establish joint standards for the program with sister bureaus within the Interior and with the U.S. Department of Agriculture, Forest Service. The Agreement will be signed in early 2001.

Bill Adams of the FMPC represented the NPS on the Technical Fire Management (TFM) steering committee. One issue that was discussed was the curriculum. Recruitment and selection was made for three new students to attend this academic program. Support continued for the 1998 (one) and 1999 three students.

The All-Risk Incident Management Program Steering Committee was established and chartered by the Associate Director for Park Operations and Education through the Deputy Chief Ranger for Fire, Aviation and Emergency Response Management. This "umbrella" steering group is to provide leadership, support and strategic direction for the development and implementation of the incident management program for all-risk, within the National Park Service. The initial meeting resulted in mission and vision statements being developed and a strategic five-year action plan.

Action items completed were the development of ICS Program Qualification System Guide and Task Books for Type III positions. A funding request for base support for Incident Management Teams for FY2002 was developed and submitted.

An Interagency Agreement between the NPS (developed by Great Smokey Mountains, Mammoth Cave, National Capital Regional Office, Southeast Regional Office, FIRE) and

Job Corps was developed and submitted to the NPS Youth Programs for review and comment August 1999. Additional program support is pending via agreement approval.

The FMPC, in cooperation with the Peruvian National Trust Fund of Parks and Protected Areas (PROFONANPE), provided two instructors, Walter Herzog (LAVA) and John Zubia (BIBE), to support fire training and program evaluation of the Machu Picchu Historical Sanctuary.

The FMPC is currently working with representatives from the Tasmanian Government to develop a four-month training detail for furloughed employees.

The three-year development project, "Interagency Fire Program Management Qualifications Standards and Guide" was completed, approved by the Federal Fire and Aviation Leadership Council (FFALC), and submitted to the Departments of Agriculture and Interior for approval. This document includes competency descriptors, program management complexity descriptors, and qualifications standards for 14 key fire program management positions which directly impact firefighter safety and efficiencies, such as Fire Program Managers (Fire Management Officers), Prescribed Fire and Operations Specialists, Helicopter Managers, Hotshot Superintendents, Senior Firefighters, and Dispatchers and Center Managers. It also includes GS-401 Supplemental Standards for wildland fire management.

A final draft of the "Interagency Fire Medical Standards" was completed and approved by the FFALC. Field-testing prior to implementation will occur in 2001. Ranger J. T. Townsend, Midwest Regional Office, is detailed to take the lead for the NPS on this interagency project.

The "Human Factors on the Fireline" course was completed, certified and put into the Publications Management System. This course is targeted at entry-level firefighters and for annual refresher training.

The "Fireline Leadership and Decision Making" course was developed by a private contractor (Mission-Centered Solutions), tested, and finalized through presentation to 19 Interagency Hotshot Crews, including both NPS crews. It was jointly by funded the NPS, the Forest Service, and Bureau of Land Management. Targeted at first time crew supervisors, it will be evaluated by the NWCG's Training Working Team for inclusion into the NWCG curriculum.

The "SAFENET" electronic and hardcopy reporting system was developed and implemented for the very active 2000 fire season. More work remains to be done in developing final management parameters and determining ultimate uses by the Federal Fire & Aviation Safety Team (FFAST).

The NPS agreed to take the lead on developing a new interagency "Chief Investigator" training course, following the lead of the BLM's "Investigation Team Leader" course. Pat Buccello, Acadia National Park, was detailed to lead development. Limited progress was made in 2000.

Significant effort went into working with the Incident Operations Standards Working Team in developing new crew typing standards, length of assignment standards, and incident management team configurations. Review of the Fireline Handbook was initiated. Proposals for new crew typing and length of assignment standards will be presented to NWCG at the January, 2001 meeting.

The FMPC staff worked with an NPS task group to improve deficiencies in RM-57 medical standards program.

May 31, 2000 marked the dedication of the Wildland Firefighter's Monument at the National Interagency Fire Center in Boise. The monument honors thousands of firefighters and support personnel - past, present, and future. The centerpiece of the one-acre monument area is a grouping of three bronze statues by sculptor Larry J. Nowlan of Philadelphia. The monument was conceived, developed, and paid for primarily by private wildland firefighter donations. Sue Vap, Director of NPS Fire, represented the National Park Service at the ceremonies.

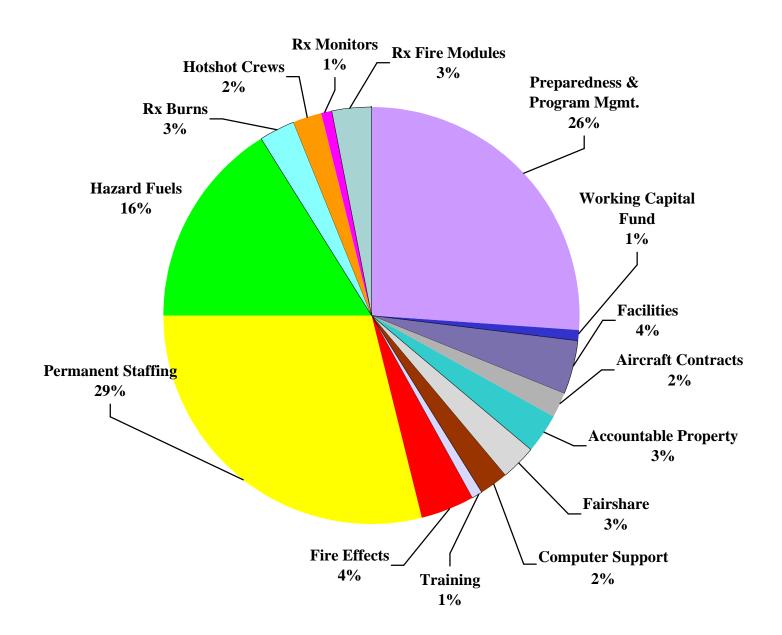
Discovery 2000, the National Park Service's General Conference, held in St. Louis, Missouri, the week of September 11, 2000, provided an excellent opportunity to discuss the NPS Fire Management Program. Attendance estimates for the conference hovered around 1,600.

Expo 2000, a trade show collection of 76 exhibit booths representing NPS programs, non-profit organizations, and vendors, was open to participants on Monday, Tuesday, and Wednesday. Fire Management had a double-sized booth, which was staffed continually, to provide Fire Management program information. The booth was featured on the front page of the Conference's daily newspaper.

America's Treasures-Fire Management in the 21<sup>st</sup> Century" was one of the dialogue sessions presented during the National Resource Management track. Sue Vap, National FMO, facilitated the panel of three NPS Managers (Connie Rudd, Chas Cartwright, and J.T. Reynolds) who addressed wildland fire from their perspectives within their units. The group attending expressed their comments in regards to the NPS program. This session was covered in Wednesday's Conference newspaper.

Overall, there was a lot of interest in the Fire Management Program, and the staff presence was critical to communications.

# FY2000 Fire Management Authorizations

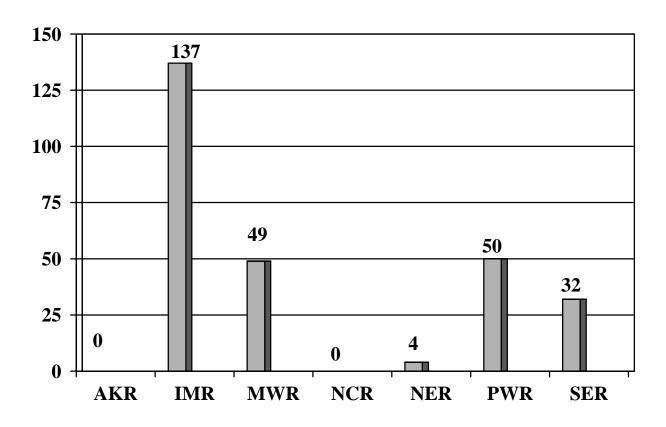


# 2000 Fire Statistics Servicewide



# 2000 Mutual Aid Responses By Region

# **Number of Responses**



#### KEY:

AKR = Alaska Region IMR = Intermountain Region MWR = Midwest Region

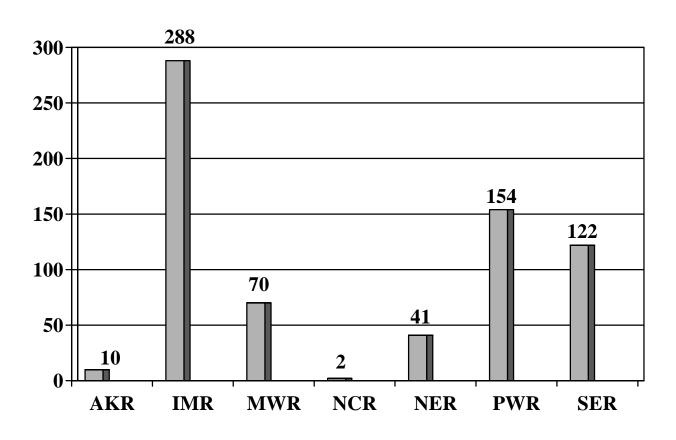
NCR = National Capital Region

NER = Northeast Region PWR = Pacific West Region

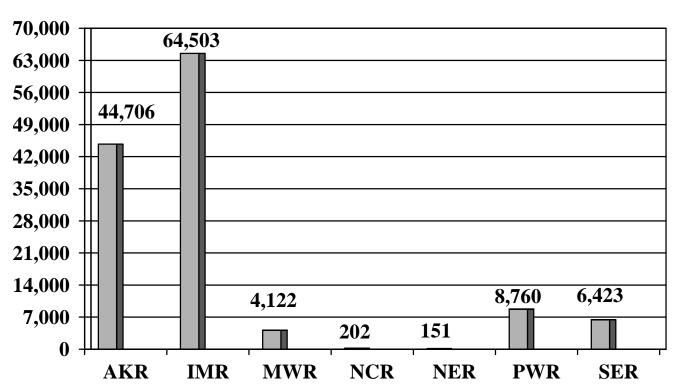
SER = Southeast Region

# 2000 Wildfires By Region

## **Number of Fires**

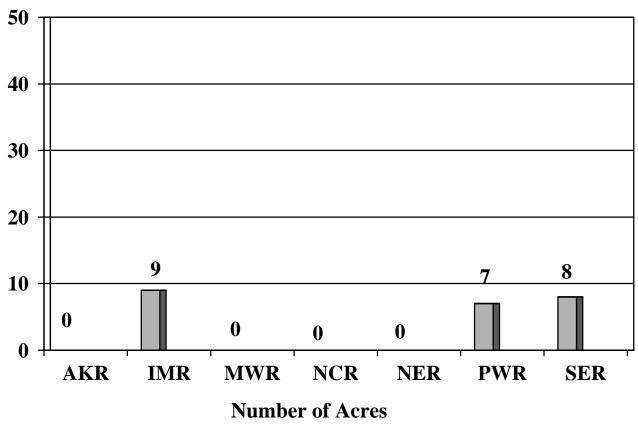


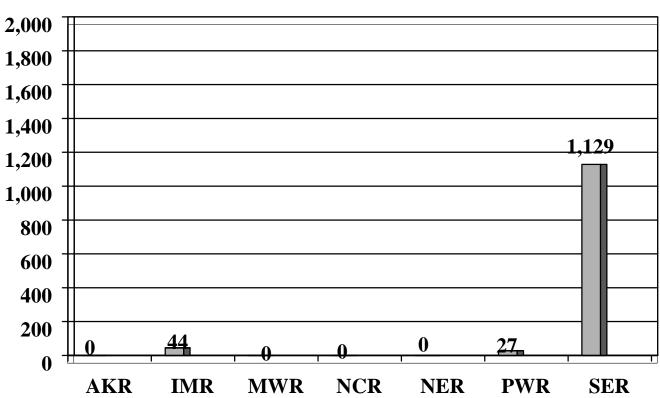
## **Number of Acres**



# 2000 Wildland Fire Use By Region

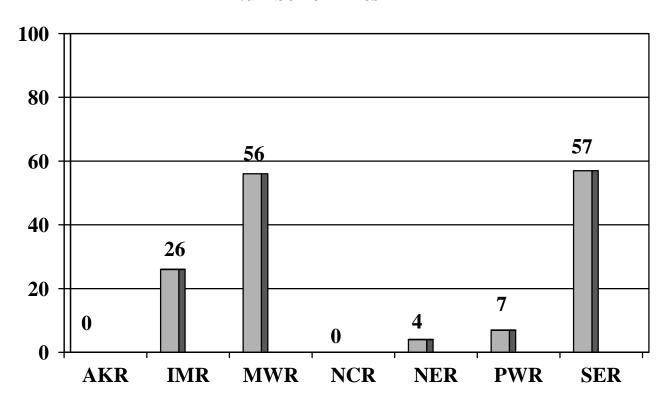
# **Number of Fires**



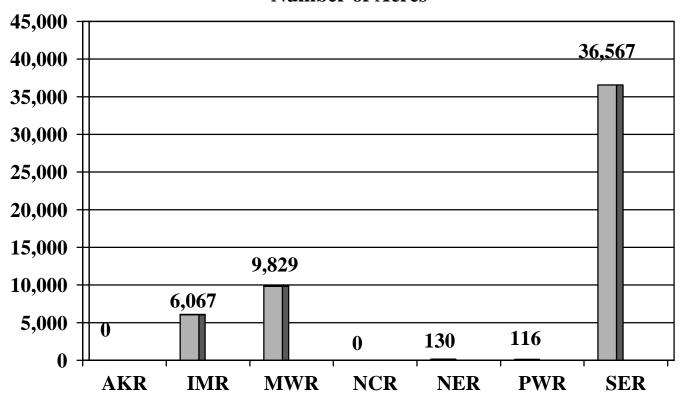


# 2000 Prescribed Fires By Region

# **Number of Fires**

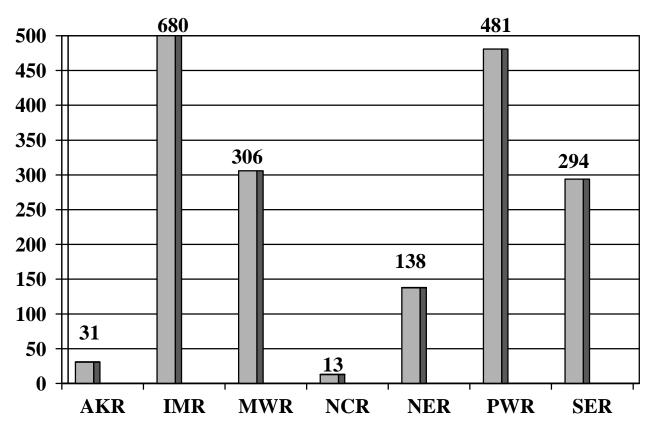


# **Number of Acres**



# **2000 Support Actions By Regions**

# **Number of Support Actions**



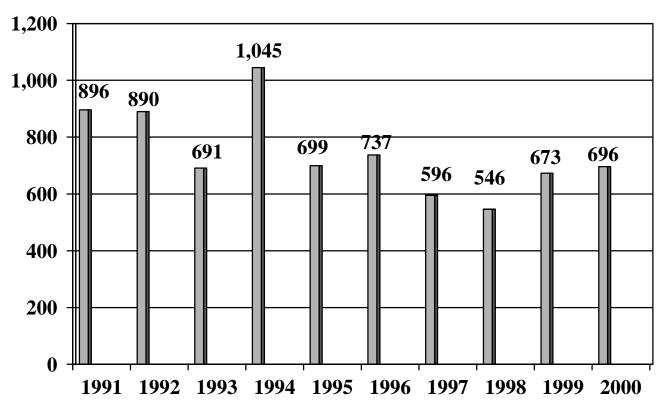


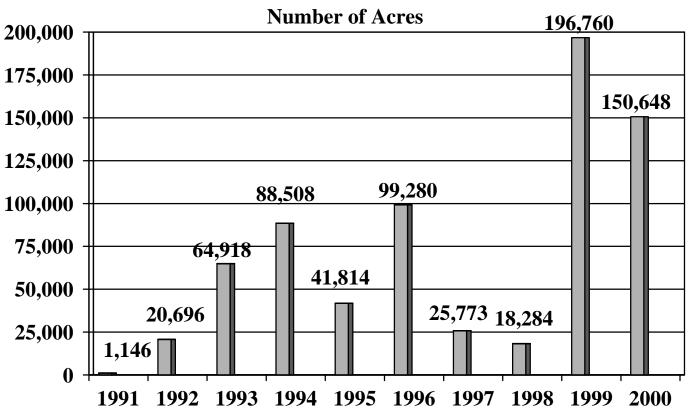
# 1991-2000 Fire Statistics Servicewide



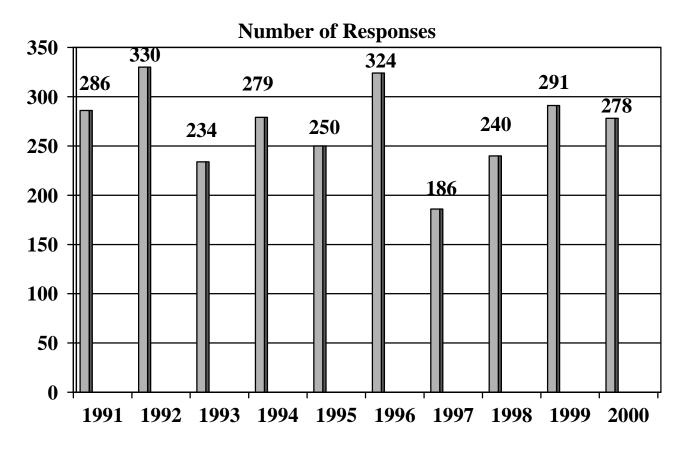
# **NPS Wildfires, 1991-2000**

#### **Number of Wildfires**

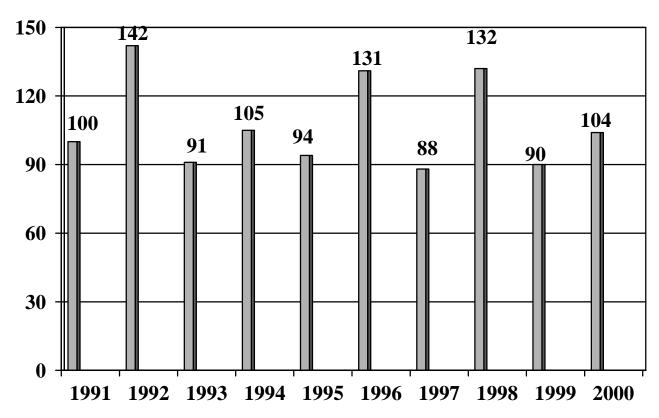




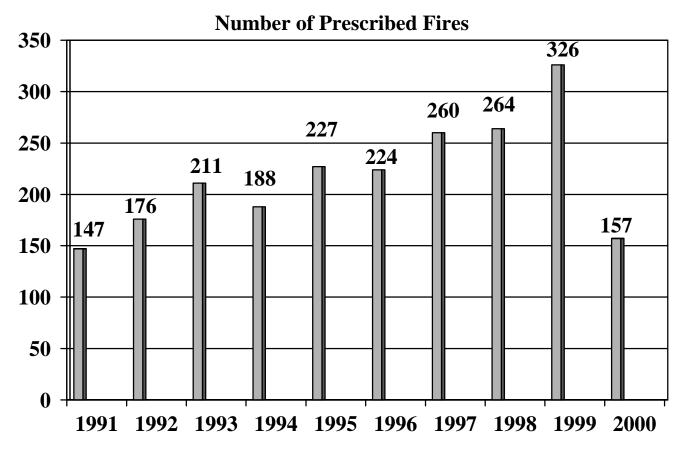
# NPS Mutual Aid Responses, 1991-2000

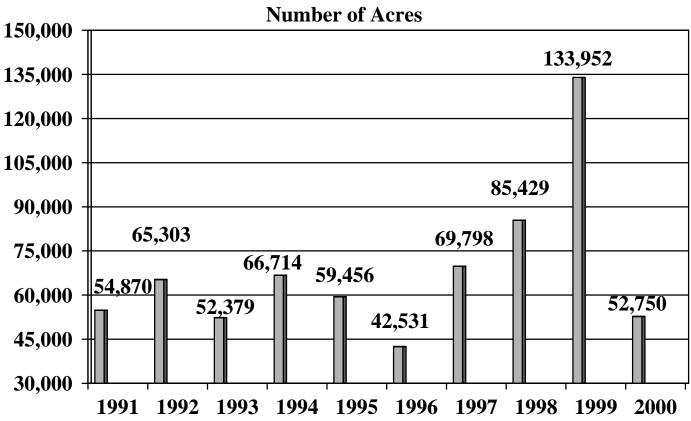


NPS False Alarms, 1991-2000



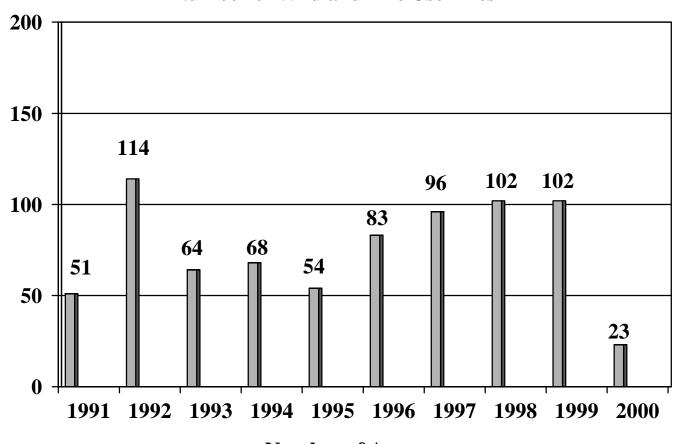
# NPS Prescribed Fires, 1991-2000

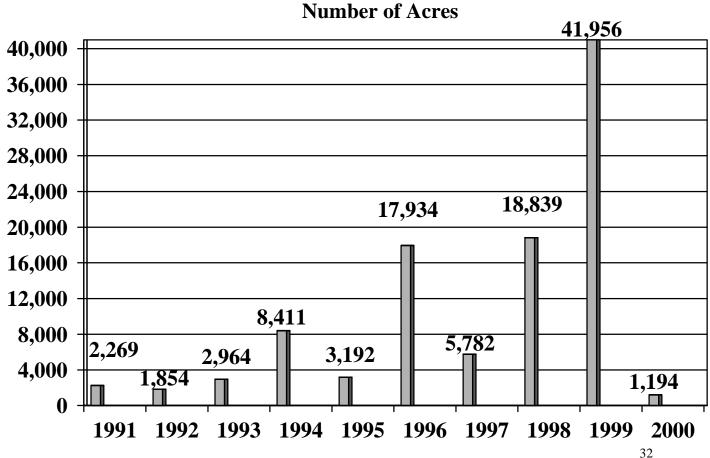




# NPS Wildland Fire Use, 1991-2000

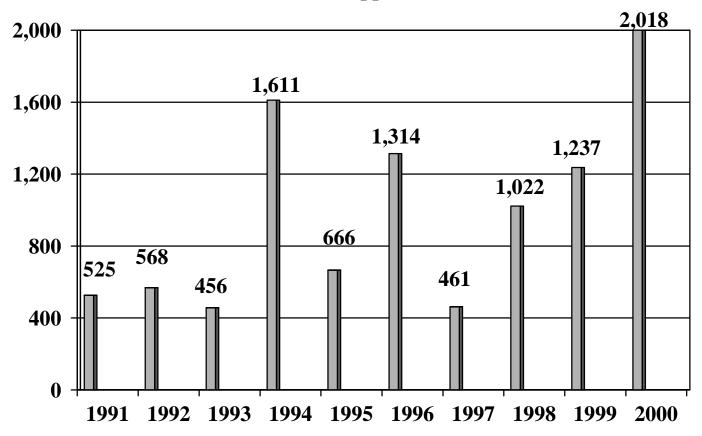
#### **Number of Wildland Fire Use Fires**





# NPS Support Actions, 1991-2000

## **Number of Support Actions**



#### **Number of Support Actions**

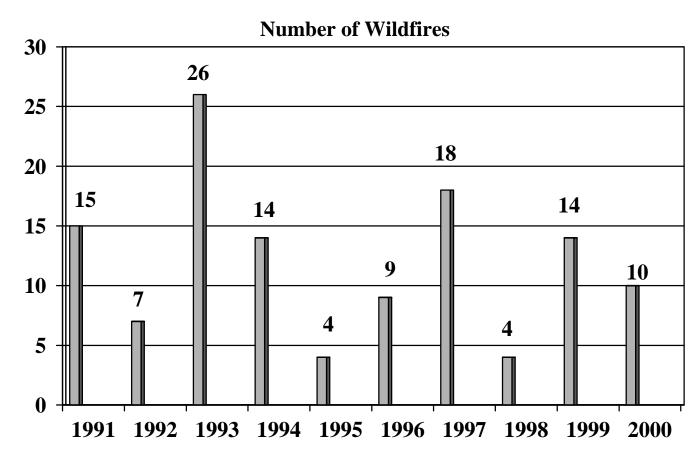
Support actions are primarily wildfire suppression assists to non-local areas. They do not include local mutual aid responses. Many agency personnel, including those whose regular job assignments are not fire-related, have been trained and dispatched to fire assignments.

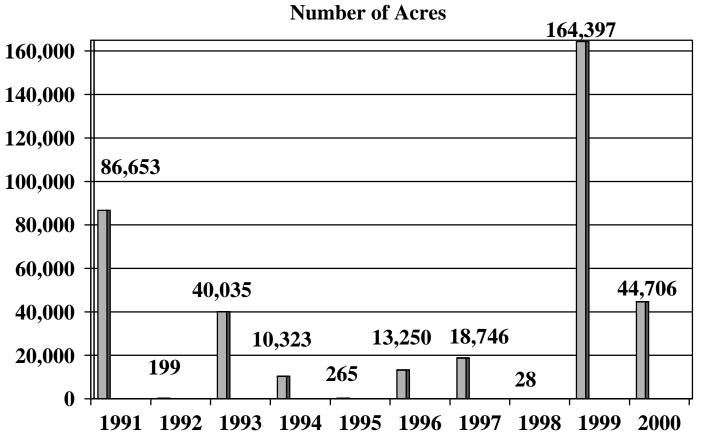
the above graph displays the number of support action dispatches, consequently the actual number of individuals dispatched is substantially greater. These figures do not include people who were involved in mutual aid or local suppression activities, or the people involved in fire related support positions at their home units. In addition to personnel, NPS helicopters, engines, and other equipment are commonly used during mobilizations.

# 1991-2000 Fire Statistics By Regions



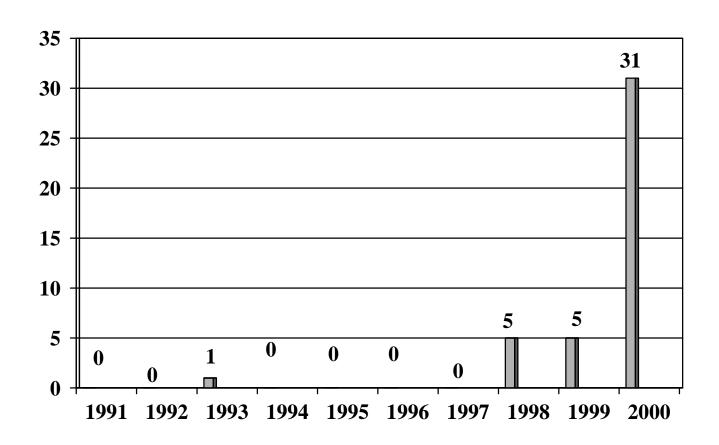
# Alaska Region Wildfires, 1991-2000





# **Alaska Region Support Actions**

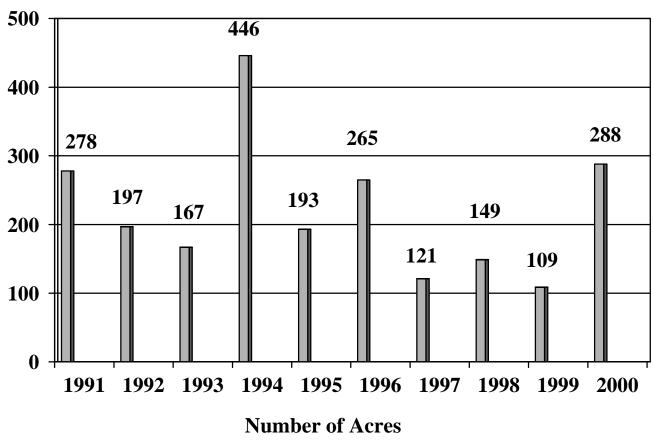
# **Number of Support Actions**

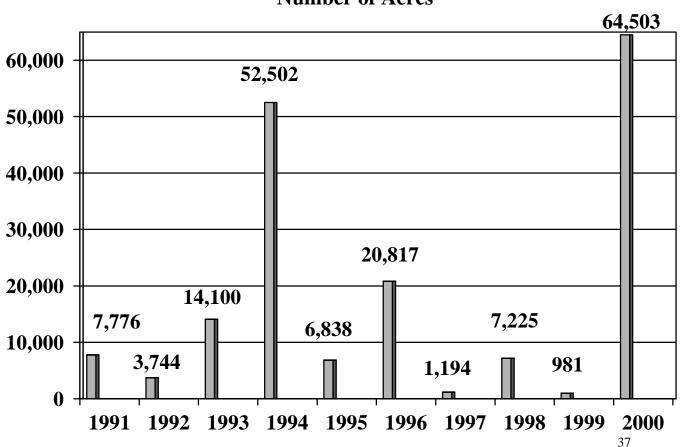




# **Intermountain Region Wildfires 1991-2000**

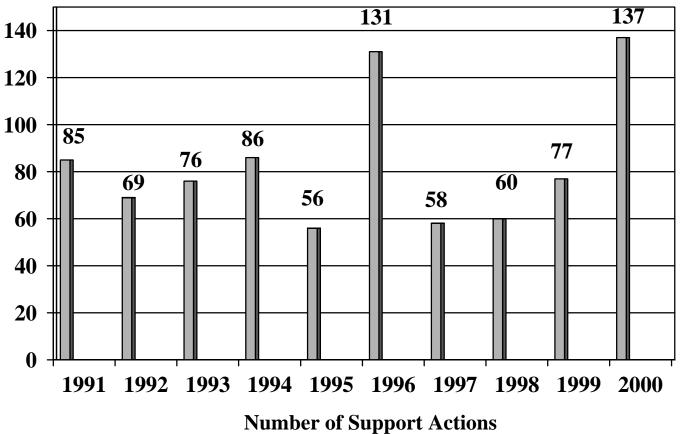
## **Number of Wildfires**

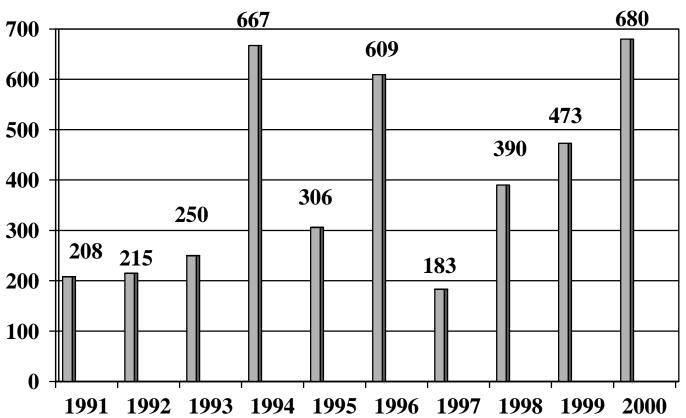




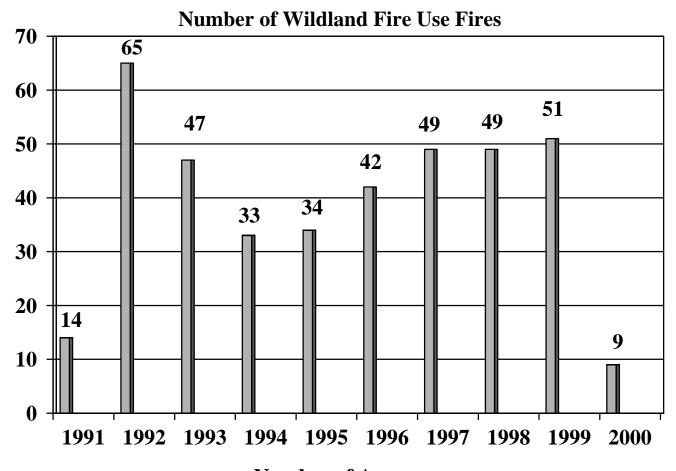
# Intermountain Region Mutual Aid Responses, 1991-2000

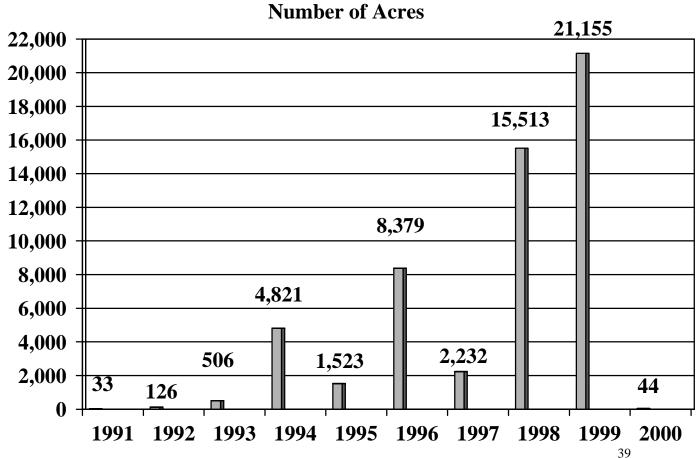
## **Number of Responses**



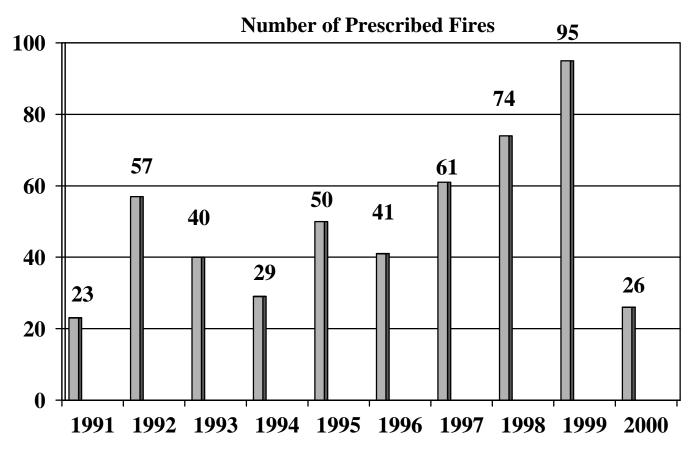


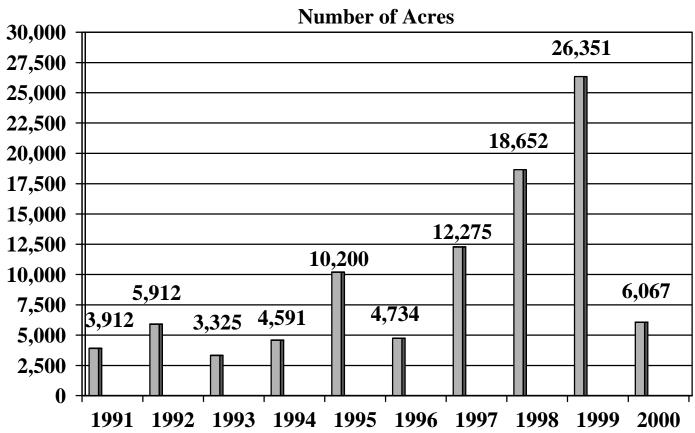
## Intermountain Region Wildland Fire Use, 1991-2000



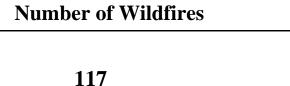


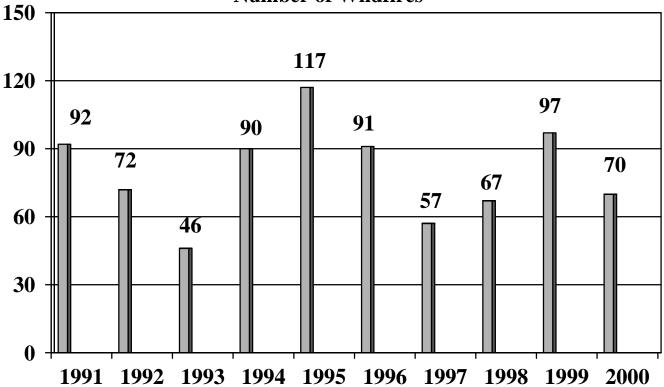
## **Intermountain Region Prescribed Fires, 1991-2000**



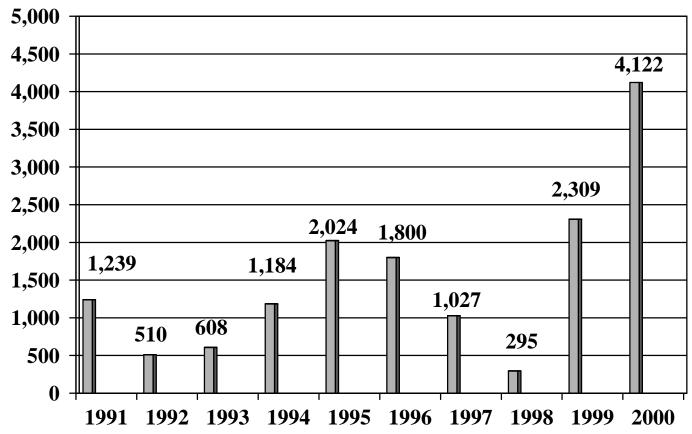


# Midwest Region Wildfires, 1991-2000

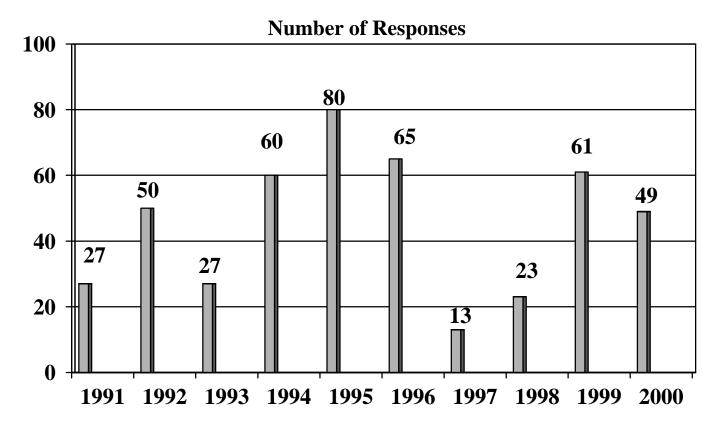


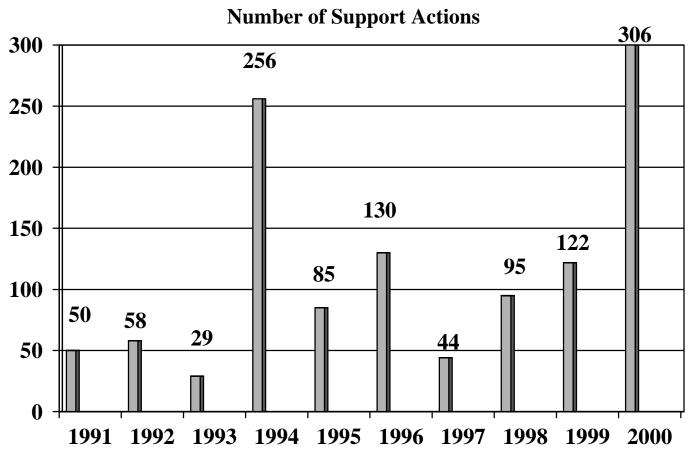


## **Number of Acres**



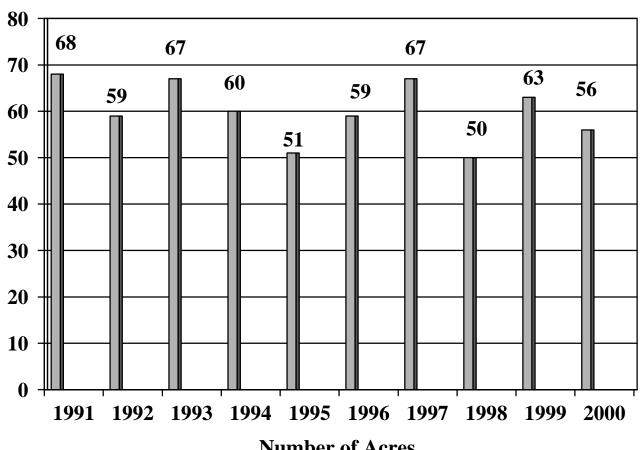
# Midwest Region Mutual Aid Responses, 1991-2000

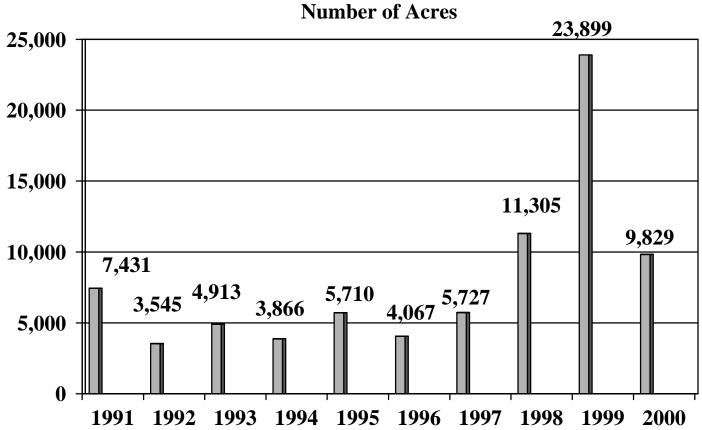




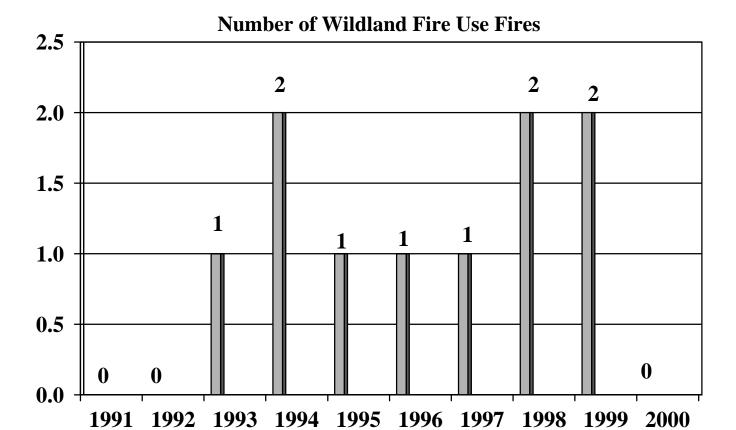
# Midwest Region Prescribed Fires, 1991-2000

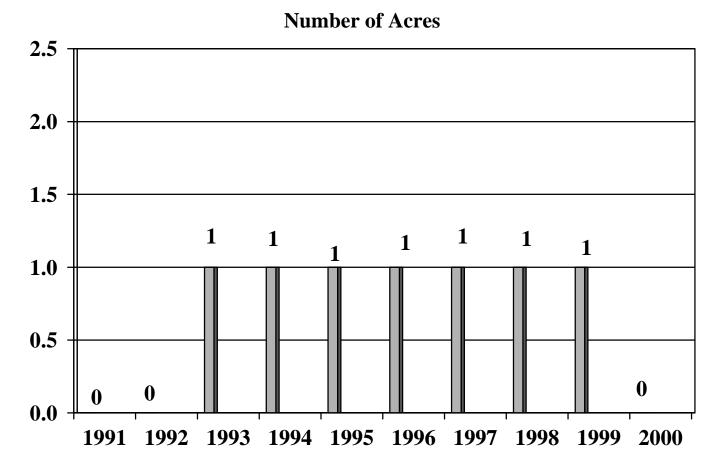
## **Number of Prescribed Fires**





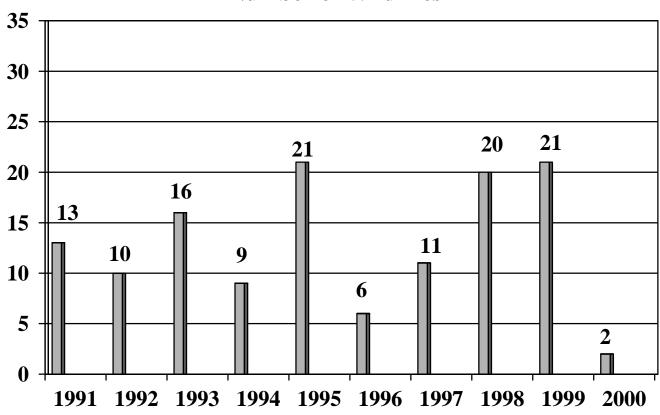
# Midwest Region Wildland Fire Use, 1991-2000

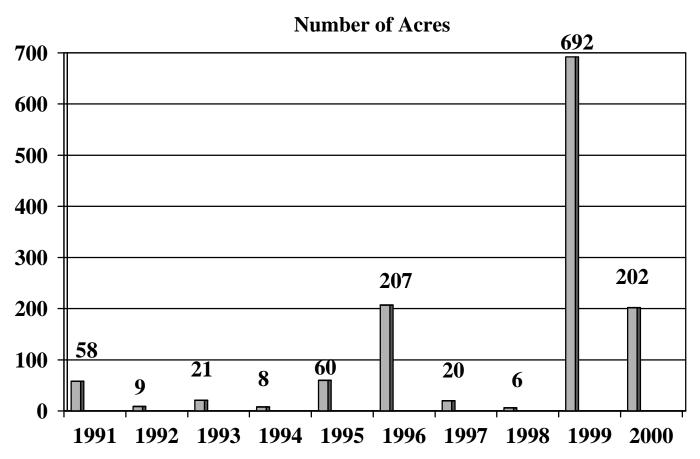




# National Capital Region Wildfires, 1991-2000

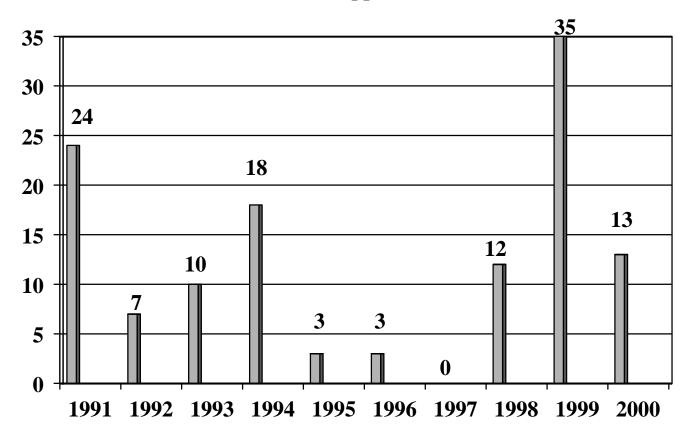






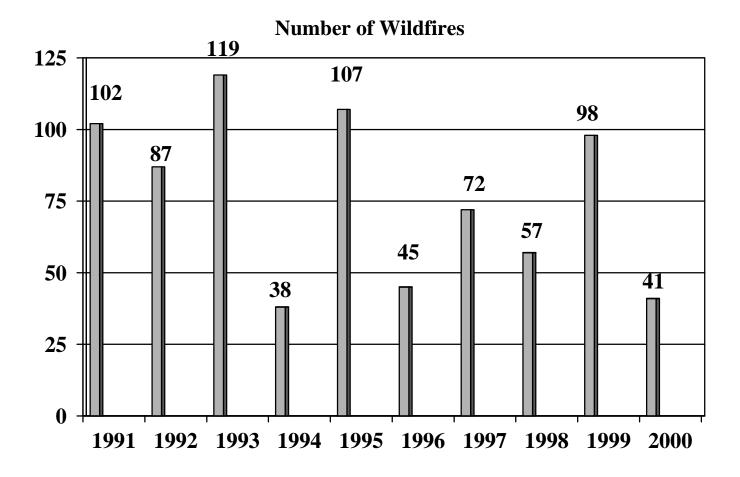
# **National Capital Region Support Actions**

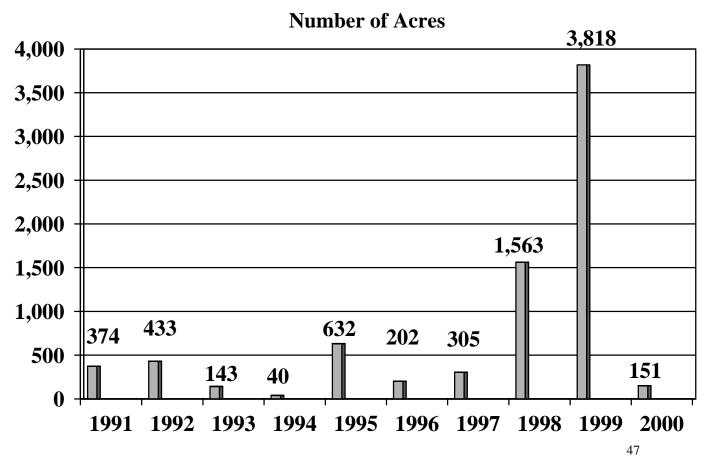
# **Number of Support Actions**



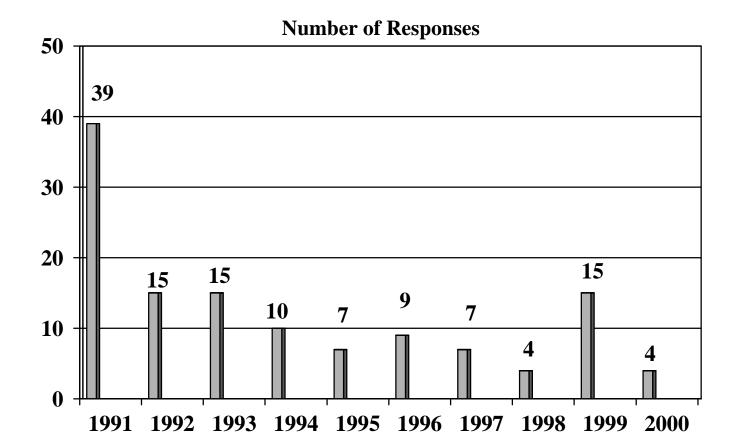


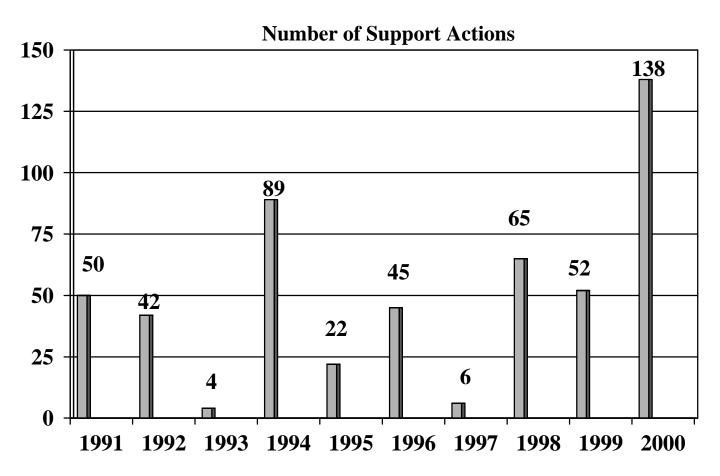
# Northeast Region Wildfires, 1991-2000



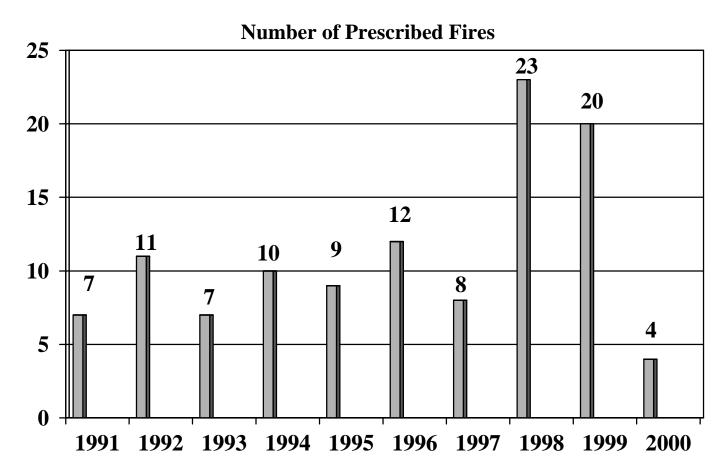


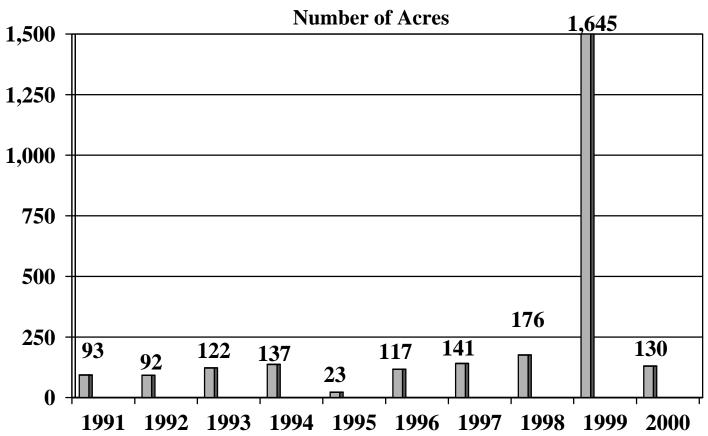
# Northeast Region Mutual Aid Responses, 1991-2000



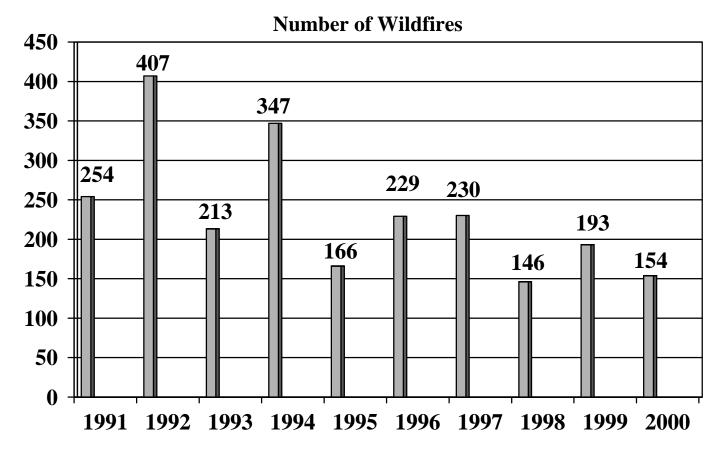


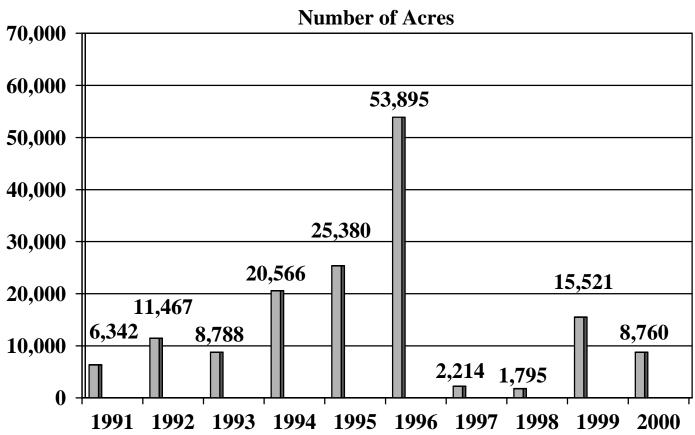
# Northeast Region Prescribed Fires, 1991-2000



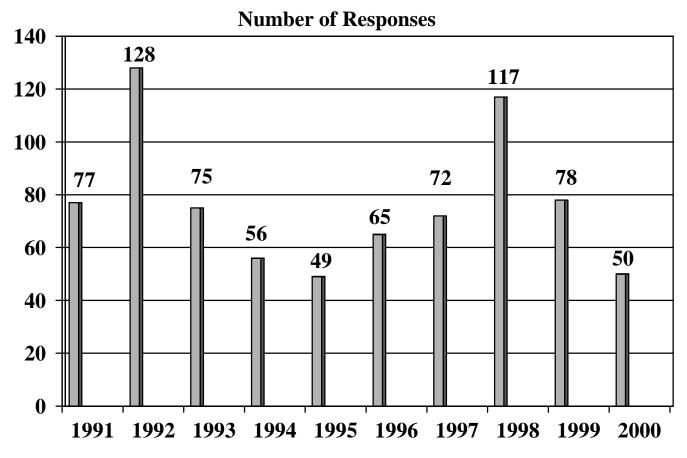


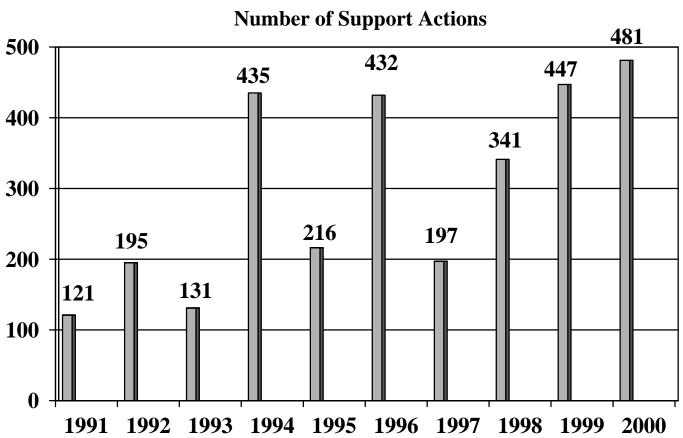
## Pacific West Region Wildfires, 1991-2000





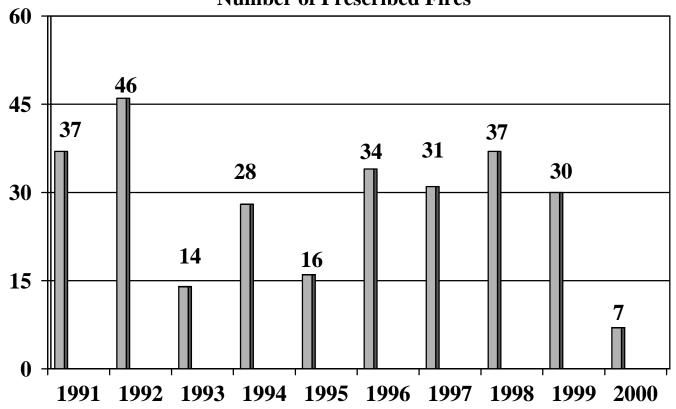
# **Pacific West Region Mutual Aid Responses**

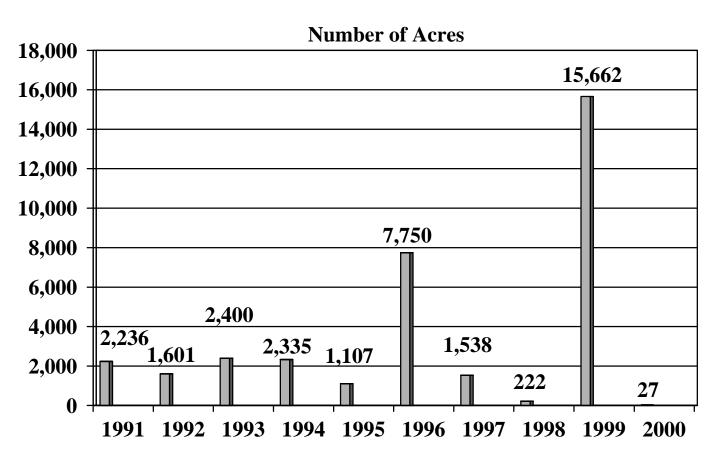




## Pacific West Region Prescribed Fires, 1991-2000

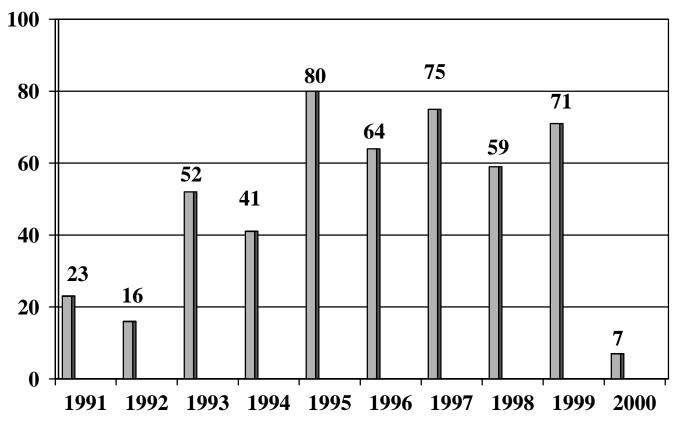


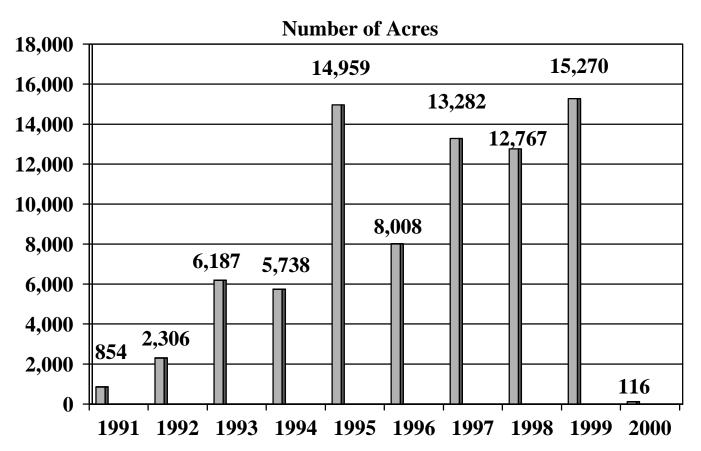




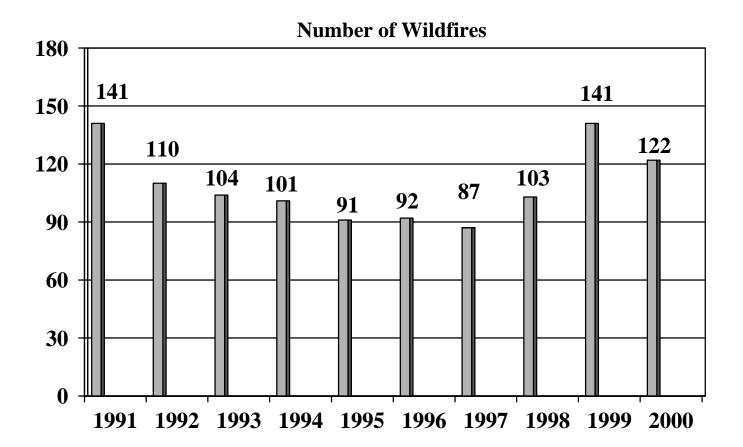
## Pacific West Region Wildland Fire Use, 1991-2000

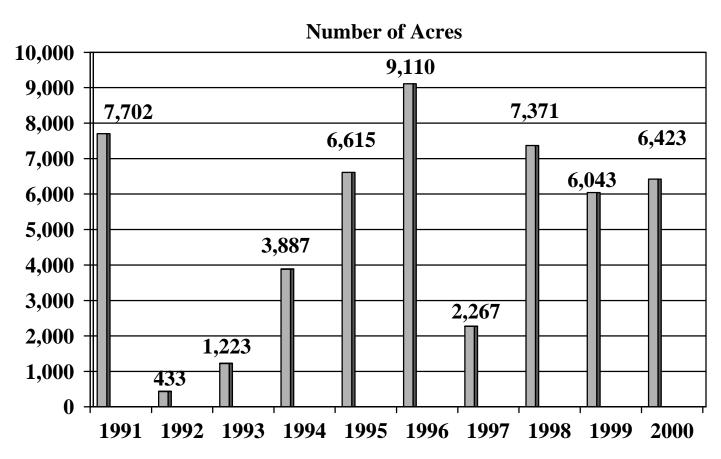
#### **Number of Wildland Fire Use Fires**



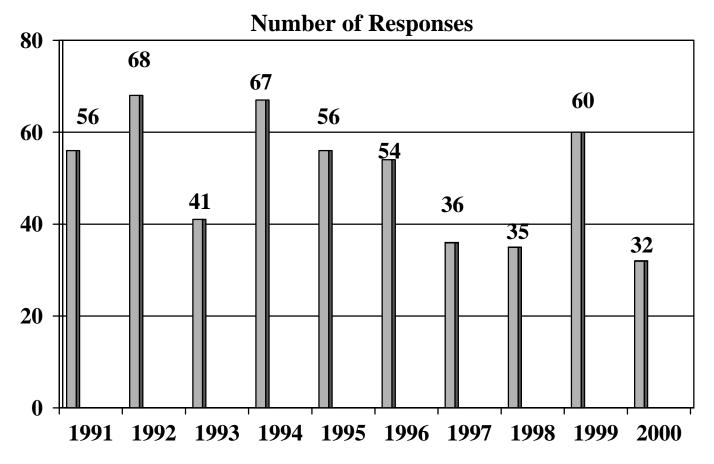


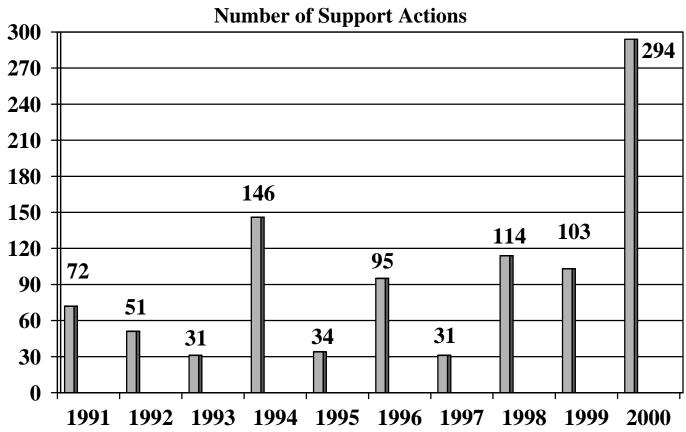
## Southeast Region Wildfires, 1991-2000



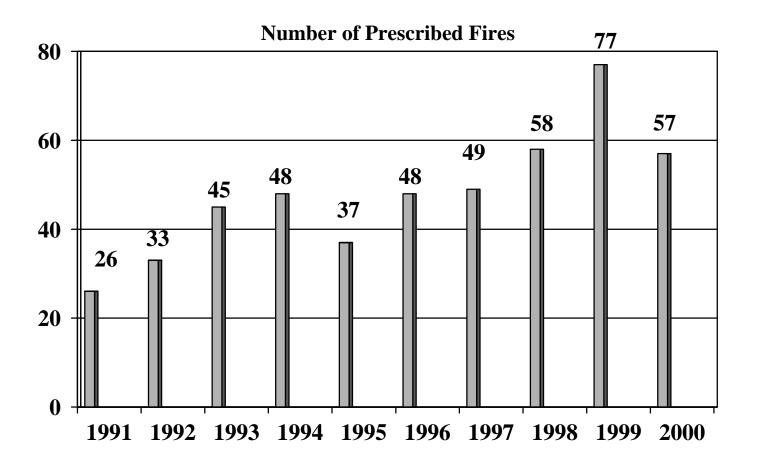


# Southeast Region Mutual Aid Responses, 1991-2000

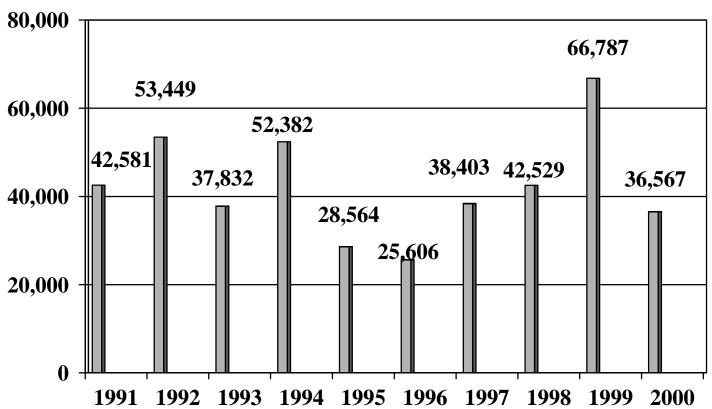




# Southeast Region Prescribed Fires, 1991, 2000







## Southeast Region Wildland Fire Use, 1991-2000

