



**National Park Service  
Department of the Interior**

# ***1999 Wildland Fire Report***

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### ***1999 Servicewide Fire Statistics***

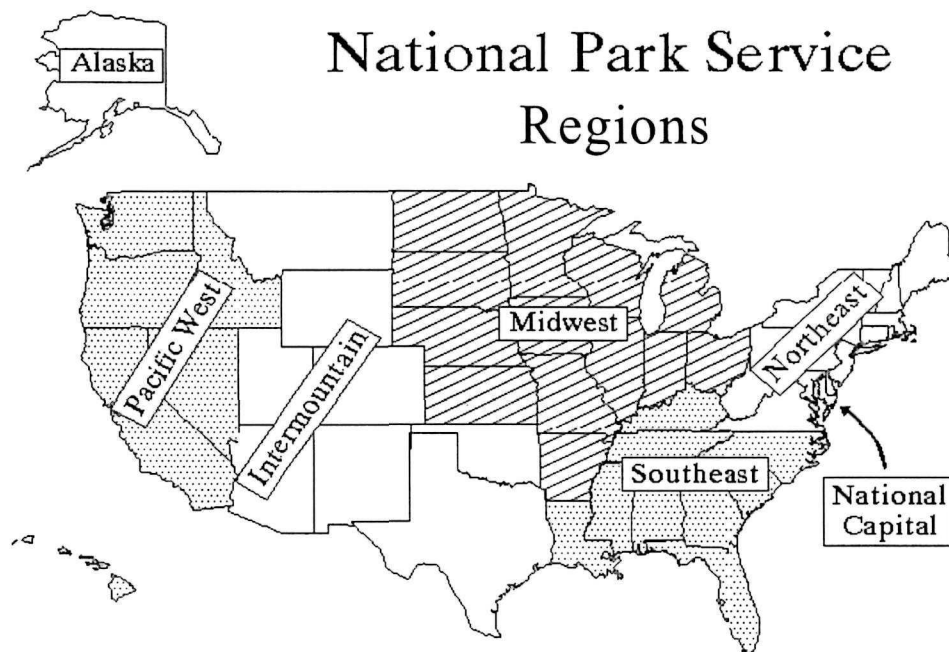
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The map pictured above depicts the National Park Service Regions. The following list identifies the corresponding park clusters serviced by Support Offices (SOs). Not all SOs are staffed with fire management personnel. Support Office fire management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

**Alaska Region (AKR)**

Alaska Support Office (AKSO)

**Intermountain Region (IMR)**

Colorado Plateau Support Office (CPSO)

Rocky Mountain Support Office (RMSO)

Southwest Support Office (SWSO)

**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***

In 1999, more acres were burned in the Alaska National Park Service units than at any time since the passage of the Alaska National Interest Lands Conservation Act, December 1980. Sixteen wildland fires burned over 205,470 acres within NPS units. Non-NPS lands within NPS unit boundaries accounted for 40,715 acres. The following is a breakdown by park:

Park	No. of Wildland Fires	Total Acres Burned	Non-NPS Acres Burned
Yukon-Charley Rivers Preserve	7	117,390	40,715
Noatak National Preserve	2	86,420	0
Gates of the Arctic NP/P	4	1,020	0
Denali National Park & Preserve	2	590	0
Kobuk Valley National Park	1	50	0

The Area Fire Management Officer (AFMO) concept worked well during this busy fire season. Marsha Lutz, AFMO for WRST, was dedicated to managing the wildland fires in YUCH with BLM, Alaska Fire Service (AFS) and Jan Passek, AFMO Denali provided coverage at GAAR and managed the other wildland fires under her responsibilities. These wildland fires were managed with no injuries to anyone associated with wildland fire management activities. During the wildland fire season, four individuals were dispatched to wildland fires in Alaska and three individuals were dispatched to wildland fires in the contiguous United States.

### ***Intermountain Region***

The region continues to aggressively step-up to the challenges of the Federal Wildland Fire Policy. In wildland fire use as well as prescribed fire, parks have developed strong programs and are positioning themselves for the future. During 1999 the region increased its prescribed fire accomplishments six fold over the ten-year average.

The Anaconda fire at Glacier, Box Canyon fire at Saguaro, Mount Emma at Grand Canyon, Alder fire at Grand Teton, and Stinker fire at Zion were significant fire use projects. Parks gained additional experience in developing Wildland Fire Implementation Plans and implementing fire use strategies.

We are very proud of the parks (Lake Meredith, Guadalupe Mountains, and Saguaro) that continue to develop their prescribed fire programs as well as parks with well-established programs (Big Thicket, Grand Canyon, Zion, and Grand Teton). This year Big Bend and



Lake Meredith have aligned their respective programs to be major prescribed fire practitioners in future years.

One of the major challenges of the future will be the planning and implementation of prescribed landscape fires, in concert with resource management, that are ecologically appropriate as well as socially acceptable.

Regional and national staff assisted Colorado National Monument and Black Canyon of the Gunnison National Monument and Curecanti National Recreational Area with initiating and completing Fire Management Plans. Additional fire management planning efforts are moving forward.

An Integrated Fire Planning Workshop for Fire and Resource Management and a workshop for the Technical Transfer of Weather Data Analyses were initiated, organized and conducted by the regional staff with assistance from the national staff. The regional staff assisted the Pacific West fire management staff with a Cultural/Fire Management Workshop.

The Intermountain Region Fire Effects Program has 11 field crews installing and re-reading fire effects plots in 27 parks. The crews met their installation and re-read goals, and responded to additional requests for assistance from parks starting to use prescribed fire. All of the programs are generating high-quality data that is being used to provide good adaptive feedback information. The challenges facing the program in 2000 are how to use the analyzed data to refine desired conditions, how to make the data available to the greatest number of resource and fire managers, and how to better integrate the fire effects program into resource management planning.

The staffing structure of the Intermountain Region Fire Effects and Fire Ecology Program has changed to respond to the needs of fire and resource managers. The Regional Fire Monitoring Program Specialist position has been reclassified as a Fire Ecologist. This will allow the Denver Support Office to respond to park-level fire ecology and planning issues in a timely manner. This position will continue to oversee the fire effects program. In the field, five of the Lead Fire Effects Monitor positions have been converted to full-time Fire Effects Specialists. This change will assist these personnel in assisting the fire and resource management staff in the development of desired conditions, and provide higher quality data for the adaptive feedback process of the prescribed fire program.

### **Midwest Region**

In 1999, the Midwest Region had a very busy Wildland fire season in many parks, as a result of record drought conditions with very low fuel moisture. We had 91 within-park Wildland Fire Suppression incidents that burned 2,305 acres, 60 wildland fires just outside parks, 4 natural outs, 105 Support Actions, and 9 False Alarms. Indiana Dunes National Lakeshore responded to 104 wildland fires on or adjacent to national lakeshore property. That's roughly double the number of fires handled in a typical year and just three short of

the record high of 107 fires in 1995. Buffalo National River had a major suppression effort and called in an interagency Type II overhead team in October to respond to numerous arson fires. Theodore Roosevelt National Park initial attack crew was credited with saving several ranch houses and outbuildings during a wildfire that burned several hundred thousand acres in a 24-hour period.

We have three primary members on National Incident Management Type I and Type II teams.

We began construction on a fire cache in Buffalo National River. To date the foundation has been poured and framing has commenced. Completion is slated for spring 2000.

In 1999, the Midwest Region made a significant transition from a wildfire suppression program to a Wildland Fire Use Program. We conducted 56 Prescribed Fires that treated 24,782 acres and managed two Wildland Fire Use for Resource Benefits for an additional 0.2 acres. The number of Management Ignited Prescribed Fire (MIPF) acres showed a 120% increase from 1998.

The National Park Service's Midwest Region has four fire effects crews. During the 1999 field season there were 12 fire effects monitors. The crews installed a total of 44 plots, reread 69 plots, and performed 63 immediate post-burn rereads.

The Great Northern Plains Area Fire Effects Program is the most established crew and has been extremely productive. They oversee fire effects monitoring in 10 parks: Agate Fossil Beds, Badlands, Devil's Tower, Fort Union, Jewel Cave, Knife River, Mount Rushmore, Scott's Bluff, Theodore Roosevelt and Wind Cave. Indiana Dunes is demonstrating moderate productivity. The two remaining programs are in a growth phase. The Voyagers crew has installed plots in Isle Royale in addition to its home park. The Ozarks crew had their first field season this fiscal year.

There are a number of parks in the tallgrass prairie region that are not FMO supported and have no monitoring programs in place. These parks include Pipestone, Herbert Hoover, Homestead, Wilson's Creek, and Effigy Mounds. The regional fire ecologist is currently working on coordinating with the Inventory and Monitoring Program of NPS to determine if we could coordinate our efforts, as they have been establishing vegetation monitoring plots throughout these parks.

The greatest challenges facing the region with regards to fire effects monitoring is to increase the productivity of the Ozarks and Voyageurs crews, and to reach a resolution on a cooperative effort with the I&M program with regards to monitoring the tallgrass prairie parks. In addition we expect to see prescribed fire introduced into a number of parks within the region, including Sleeping Bear Dunes, Apostle Islands, St Croix and Hot Springs, which will require the expansion of the current monitoring programs.

In addition to assisting the fire effects program through formal and informal program reviews, the fire ecologist has been providing support for the parks in the region. This

has included writing, and assisting with the writing of fire management plans, ecological assessments and monitoring plans, particularly for the parks without FMOs. He has also provided advice to park fire and resource management regarding fire research and monitoring types, in addition to reviewing fire management plans.

Jim DeCoster was hired as the Regional Fire Ecologist during 1999.

### **National Capital Region**

1999 was another unusual fire year for the National Capital Region (NCR). The Virginia Interagency Incident Management Team was activated for one of the largest wildland fires on record in NCR. The 700-acre NCO fire in Prince William Forest Park began on parklands used by Quantico Marine Base under an agreement and burned on both park and Marine Corps Land. Significant control problems were experienced on the NCO and other fires in NCR due to near record drought conditions throughout the area.

NCR mobilized an unusually high number of resources in 1999. 457 personnel were mobilized through the NCR Communication Center to 31 wildland and prescribed fires.

National Capital Region continued to focus on training and interagency cooperation. For a third year, NCR trained and mobilized Americorps students with NCR Crews. With Americorps assistance, NCR was capable of mobilizing three crews at one time to multiple fires on NPS, USDA-Forest Service and State lands in Virginia, while maintaining two squads on standby for initial attack. Five former Americorps students from the DC campus have moved on to seasonal positions in wildland fire in the NPS and other agencies.

Fire effects and ecology for the eastern regions were accomplished under a unified program. Please see the Southeast region narrative.

### **Northeast Region**

For the second consecutive fire season, the word upon the lips of fire management officials in the Northeast was "drought." After a winter with minimal snow-pack and a spring that saw most of the rain fail to penetrate the still-frozen soil, we witnessed a dry summer from Virginia to Maine, with the Delaware Water Gap region feeling the drought the longest.

As a result of the drought, many parks within the Northeast Region experienced above normal fire occurrence and acreage burned. Lightning ignited fires during the summer months were reported in the Shenandoah National Park for the first time in a number of years and many fires that would burn two burning periods in the past, took extended efforts to suppress. The Region had a total of 109 Wildland Fires that burned 3,812 acres of National Park Service land and a total of 6,881 acres. Despite the drought conditions

within the Northeast Region, a total of 20 Prescribed Fires burned a total of 1,645 acres. The largest single suppression action in the Region was the Shop Run Fire at Shenandoah National Park, which utilized a Type I Incident Management Team.

Mobilization within the Northeast continues to be managed out of the Eastern Interagency Coordination Center at Shenandoah National Park. During the 1999 fire season, a total of 1,530 personnel were mobilized both locally and nationally to respond to resource requests. For the first season in a number of years, the Dulles Module was not mobilized to support western fires. Fire crews from the parks within New England states responded to wildland fires at both Delaware Water Gap and Shenandoah National Park, allowing for rapid response and utilizing National Park Service resources to the fullest.

Standardized fire refresher training was utilized to ensure standards were met for all firefighting resources within the Region. The "Case Studies in Wildland Fire Fighters Fatalities" served as a base for all refreshers taught within the Region. Numerous fire training sessions were conducted at parks throughout the Region, many of the park fire staff assisted in interagency training, including, the New York Wildland Fire Academy, joint training with National Capital Region and numerous state and federal partners.

Prevention continues to be an effective tool in managing wildland fire in the Northeast Region. Increased patrols during high-fire danger periods accounted for reduction in human-caused fires and heightened the awareness of fire danger to the public. National Park Service employees made fire prevention contacts at numerous events throughout the Region, these activities stress the need to prevent unwanted ignitions, yet inform the public on the benefits of correctly applied fire to the landscape.

The Northeast Region would like to thank Fire Program Assistant, Pat Boucher for her work in transitioning the Mid-Atlantic Region and the North-Atlantic Region into the Northeast Region. We wish her good luck in her new position as US Fish and Wildlife, Assistant Area Coordinator at the Southern Area Coordination Center.

Fire effects and ecology for the eastern regions were accomplished under a unified program. Please see the Southeast region narrative.

### **Pacific West Region**

Both California and Nevada in general had very active fire seasons, due in part to the influence of La Nina. The fine fuels in the southern California desert areas and Nevada Great Basin had been extensive in 1998 due to heavy rains, and were available to support large fires in 1999, especially as a result of intense lightning activity.

Of greatest importance was the entrapment of six members of the GNP #3 crew on the Sadler fire on August 9. Three firefighters were hospitalized for smoke inhalation and two of these were treated for first and second degree burns on face and neck. The incident

resulted in the suspension from further assignments of the IMT, as well as an OSHA citation for the BLM.

Several lightning-caused wildland fires burned nearly 14,000 acres of wilderness in Joshua Tree National Park in the Juniper Complex between May 28 to June 6. All fires were contained within the park without any significant injuries to personnel or property damage. Burned Area Emergency Rehabilitation Funds totaling \$72,411 were allocated to these wildfires.

Yosemite National Park managed eight wildland fires for resource benefits, totaling approximately 15,000 acres, throughout much of the summer and fall, with the assistance of Tom Zimmerman's Interagency Fire Use Management Team. Although these fires occurred at the height of the visitor season, no significant air quality issues emerged. The fires were also successfully managed in spite of the California Preparedness Plan level twice going to Level 5.

In general, all parks responded exceptionally well to the wildfire emergencies in California and Nevada; the PWR managed over 170 wildland fires, totaling over 15,000 acres, in 1999. Whiskeytown NRA, for example, sent 41 of its 80 employees to fire assignments. The Hawaiian parks provided crews for the mainland fires, and NPS fire personnel from the Intermountain Region also provided important assistance. The prescribed fire program was affected because of dry conditions, poor air quality, and the unavailability of contingency personnel and equipment, especially in Northern California.

The 1999 fire season challenged the fire managers and staff to balance interagency wildland fire suppression commitments with the implementation of their prescribed fire and wildland fires used for resource benefit programs. The influence of wildland fires in Northern California in particular, along with dry conditions and much smoke, precluded many prescribed fire projects in that part of the Region.

However, all parks were very cooperative in sending fire personnel to other parks which were in prescription. The Whiskeytown Module, as with other modules, provided important support at critical periods during the fire season. This became especially important when Preparedness Plan levels rose, and operations and contingency resources became scarce for NPS prescribed fire projects.

The Region is also continuing with its efforts to broaden the opportunity for parks to use fire to accomplish resource management objectives. John Day Fossil Beds executed a 2,108 acre prescribed fire, with the support of Crater Lake NP, the Yosemite NP module, BLM and Forest Service personnel. This was the largest project in the park's history. Great Basin National Park managed a 15 acre wildland fire for resource benefits, the largest fire to occur since 1962. Pinnacles National Monument is conducting prescribed fires through the use of a Prescribed Fire Specialist created with a combination of ONPS funds and FIREPRO project funds.

Many parks continue to develop and execute a resource-based prescribed fire program. This requires, and has resulted in, increased communication between fire managers and natural and cultural resource managers. The next generation of Fire Management Plans is expected to have more extensive scoping and generally follow a more thorough NEPA process than did the last generation of plans.

The continuing escalation of wildland fire activity each year has also produced some stresses. The entrapment of a NPS handcrew, GNP #3, on the Sadler Fire in Nevada illuminated some weaknesses in the methods which have been traditionally used by the PWR to mobilize Type II handcrews derived from many different parks. In response, increased levels of training for the management and supervision of these crews will begin in the Spring of 2000.

The GNP #3 incident may have a relationship to an issue raised by Olympic NP. Of 105 Olympic personnel qualified in 1999 as firefighter or higher, 80 are either first year firefighters or have less than five wildfire assignments. Of the remaining 25, many of these individuals are limited in assignments because of workload, family, or other personal issues. This leaves 10 individuals who have good experience, are able to take fire assignments, and provide leadership on these assignments.

The growth of the NPS fire program has resulted in both an increased activity of prescribed fire projects and a larger role as an interagency cooperator. A critical part of this growth will be to balance this increasingly complex program with the experience levels of its staff and the size of the FIREPRO budget. The situation in Olympic is not a unique one in either the NPS or its cooperators. Employee training and development must be a primary component of the NPS fire management program.

The Pacific West Region is in the process of hiring three more park or multi-park fire ecologists. Duty stations will be at Redwoods, Point Reyes, and Yosemite. The Point Reyes position has recently been filled by Peggy Herzog. These additional ecologists will be instrumental in interpretation of fire effects monitoring information and advice for adaptive management of the wildland fire use program in the Pacific West Region.

### **Southeast Region**

With the La Nina year the Southeast saw an active wildland fire year with numerous suppression fires and requests from our cooperators for assistance. The La Nina winter in south Florida led to severe fire conditions in the late winter and early spring. Florida first began experiencing extreme fire danger in the first week of March. Throughout March, Everglades National Park and Big Cypress provided considerable mutual aid assistance to the Florida Division of Forestry. They began daily staffing with additional initial attack resources in early March using red-carded staff from Everglades National Park and Biscayne National Parks under a pre-suppression account. By the first of April, with daily fire danger in the extreme level and no respite in sight, Everglades National Park and Big Cypress requested and received severity accounts. The majority of the



areas in the region were impacted by either wildland fire activity on their unit or the need to support their cooperators and other agencies.

The Knoxville Tanker Base, managed by Great Smoky Mountains NP, operated twice as long as the normal contract period; the extended time was worked in late summer and fall with the Base not shutting down until Dec. 10<sup>th</sup>. Fifteen separate tankers flew 74 missions, dropping 204,050 gallons of retardant. Interagency planning moved forward to upgrade the Base with a new office and warehouse to manage the next generation of tankers.

Despite the continued drought in the region we were able to go forward with the prescribed fire programs in a number of areas. Everglades National Park, Big Cypress, Natchez Trace, Great Smoky Mountains, and Congaree Swamp all had significant prescribed fire activity. Great Smoky Mountains had two Wildland Fire for Resource Benefit fires for over 600 acres.

Big Cypress' fire intake trainee, Beth Card, completed her training program. She is now qualified as a Burn Boss 2, IC type 4 and as Single Resource Boss. She will be departing Big Cypress in January or February for her new duty station at Channel Islands.

Numerous training sessions were conducted by the field areas including:  
S130/S190-Firefighter/Introduction to Fire Behavior (Park staff & IA Cooperators)  
S212- 2 courses  
Premo Mark 3  
S217-Interagency Helicopter Training Guide (Park staff & IA Cooperators)  
Annual Fire Refresher 3 sessions (Park staff & IA Cooperators)  
B3 Aviation Safety Training- 4 sessions (Park staff & IA Cooperators)  
I300 Gulf Islands NS - Jan (GUIS Staff)  
Florida Division of Forestry Annual Fire Engine Academy (Park staff & IA Cooperators)  
I200 Cape Hatteras NS – Nov (CAHA Staff & IA cooperators)  
S492 taught in Washington State

The Southeast Region, the National Capital Region, and the Northeast Region run a combined Fire Effects Monitoring program.

Everglades National Park is the home base of the Atlantic and Gulf Coasts Fire Effects Monitoring Team. In addition to managing Fire Effects work within the Everglades, the team also handles monitoring at Gulf Islands National Seashore and Cape Canaveral National Seashore.

1999 marked the beginning of the Fire Effects Monitoring Program at Everglades National Park. This first year was devoted to getting the program online. Delays in hiring the lead technician skewed the season substantially.

The Fire Effects Monitoring program at Everglades National Park consists of six monitoring types. Gulf Islands National Seashore contains at least two monitoring types.

Cape Canaveral National Seashore still has management decisions to finalize, prior to the initiation of any fire effects monitoring work.

The five-year burn plan is still in production at all parks for this team. Everglades National Park plans on burning all monitoring type acreage within the pinelands, marl prairie, and sawgrass marsh by 2002. The coastal prairie type and the exotic types (Casuarina and Melaleuca) should be burned in entirety by 2005. Further coordination must be developed with the Exotic Plant Specialist.

The Florida District of Gulf Islands National Seashore has a three-year burn plan in which all sand pine and sandhill longleaf pine monitoring type acreage will be burned by 2002. The Mississippi District is currently producing their plan.

Cape Canaveral National Seashore's five-year plan is currently being written.

The Appalachian/Southeast Region Fire Effects Monitoring Team is based in Great Smoky Mountains National Park (GRSM). Within GRSM, the program focuses primarily on perpetuating or restoring natural community types. Fire management objectives include decreasing pole and shrub densities, maintaining dominant canopy species, increasing native grass and forb species and reducing fuel loads. As the team responsible for the Appalachian and southeastern parks, we currently have plots installed in Congaree Swamp National Monument (COSW), Little River National Preserve (LRI) and Kings Mountain National Battlefield (KIMO). Burn units in these parks, as in GRSM, have been set up to perpetuate communities, improve habitat and preserve historical scenes.





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

1999 brought numerous changes to the Fire Management Program Center. The year started with the January arrival of the new Interagency SAFE Manager, Steve Holder from Zion National Park. The new National FMO, Sue Vap joined us in February, leaving her post at the Wenatchee National Forest. In April, Gary Johnson, who came from the BLM, NIFC, joined the staff as the national aviation safety manager.

A significant accomplishment in 1999 was the addition of two staff positions to formally create the FMPC Fire Science and Ecology Work Group. This staff now consists of the Fire Science and Ecology Program Leader, a Fire Ecologist and a Fuels Management/Fire Use Specialist. Fire Ecologist, Tim Sexton came in April from the Intermountain Regional Office and in July, Dick Bahr joined the staff in the fuels management position, vacating his position at the Midwest Regional Office.

Roberta D'Amico from Everglades National Park arrived in September to fill the new Information/Education Specialist position. Rich Wands came to the NPS in October from the USDA-Forest Service, to serve as our representative at the National Advanced Resource Technology Center (NARTC). Rich represents NPS's contribution to the Lessons Learned interagency wildland fire training effort.

Bill Oswald, Fire Chief at the Presidio of San Francisco was selected and came on board during the last quarter of the year, as the structural fire program lead for the FMPC. Working in cooperation with GAO in response to an audit of the structural program within the Service, was one of his first primary assignments. This audit is ongoing.

Sheila Williams, Administrative Assistant moved into the newly developed position of Program Coordinator and Carolyn Rogers was hired to fill the role of Administrative Assistant. Carolyn arrived in November from the Fish & Wildlife Service, Midway Island.

The FMPC staff continued to be assisted by two student programs. The Student Career Experience Program (SCEP) staff member, Mina Ramos and the Student Temporary Employment Program (STEP) staff member, Sergio Soto. These personnel were responsible for getting many of the daily projects accomplished.

The Fire Management Leadership Board (FMLB) was created in 1999. This board, consisting of the Regional Fire Management Officers and the program leaders from the FMPC, was created to solicit overall input on fire management policy and budget questions. The board meets three times a year.

One of the fathers of the modern NPS fire program, Scott Erickson, passed away in May while serving as Assistant Superintendent at Santa Monica Mountains NRA.

## **Joint Fire Planning**

The National Park Service and the USDA Forest Service jointly funded Fire Planner, Sarah Robertson, played an active role in facilitating interagency collaborative fire planning efforts. Specifically, Glacier NP and Flathead NF launched a joint fire management planning effort. The fire management plan is to be completed in FY00. The Pacific NW also began a fire planning effort that will focus on several joint fire management plans between parks and forests beginning with North Cascades NP and Wenatchee NF.

To better facilitate park service *and* interagency fire planning, a new edited version of RM-18 Chapter Four, "Fire Management Plans" was developed. The new version is a more streamlined planning process and reinforces the development of fire management goals and measurable objectives that tier from General and Resource Management Plans.

## **Interagency Standardization**

A great deal of time was spent throughout the year, developing, reviewing and finalizing the "Interagency Fire Program Management Qualifications Standards and Guide." Draft program complexity descriptors were tested, both internally and interagency, and finalized. Agency review comments were incorporated into all documents (including competencies and qualifications for 14 different key program positions, and program complexity descriptors) and the final consolidated "Standards and Guide" was sent to Federal Fire and Aviation Leadership Council (FFALC) members mid-December, for review and approval in early January, 2000.

The final version of the GS-401 "Fire Management Specialist" was completed in early December and submitted by the chair of the FFALC to the Departments of Agriculture and Interior for approval, and subsequent review and approval by the Office of Personnel Management.

## **Safety and Health**

Work continued with the NPS Office of Personnel and Ranger Activities Division in WASO regarding DO/RM-57 "Health and Physical Fitness", and addressed sensitive age limitation issues, as well as medical standards for wildland firefighters. A decision regarding the interagency fire medical standards is pending from FFALC in Jan., 2000. The "Fire Fatalities Case Study" course was put into the Publications Management System early in 1999. Work continued on the draft "Human Factors on the Fireline" course, with completion expected in early 2000.

As a part of the SAFE initiative a test SAFECOM or safety communications program, was finalized and will be distributed early 2000, with Internet capabilities established.

## **Preparedness**

To assist regions in developing fire preparedness review teams, two additional workshops were sponsored with the training contracted through The Firehouse, Clovis, California. One was held at Lake Mead and the other at Yosemite, hosting over 25 participants in total. This was the second year of a two year program, intended to develop field proficiency in conducting fire readiness reviews, utilizing draft Interagency Readiness Review Standards.

## **Qualification and Training**

The draft NWCG 310-1 "Incident Management Qualifications Guide" was finalized by the end of the year, and will be available in the PMS by early 2000.

Current Department of the Interior (DOI) Incident Qualifications and Certification System – The existing system was fully supported by the FMPC staff, including instructing two training sessions. NPS provided leadership for the on-going maintenance of the system, which encompasses working with contract programmers on modifications to programs and maintenance of the user data in the system. Assistance was also provided by park staff (Crater Lake NP) working on detail to the Center.

Incident Qualifications and Certification System Information Study – The Study initiated in 1998 by the Department of the Interior fire agencies expanded to include the USDA-Forest Service in 1999. It was sanctioned by the National Wildfire Coordinating Group. NPS provided leadership to this study group through the Project Manager (WASO), the FMPC program lead, and park level expertise (Big Thicket). The study included identifying business requirements of the qualification (training, experience, etc.) and certification requirements and the information needed to support the business. The fire management community will conduct a critical review of the study findings and recommendations in the spring of 2000.

Program Center staff were involved in the continuing consolidation of RX-590 and Fire Behavior Analyst, S-590 into a single course, S-590, Advanced Fire Behavior Interpretation. The new S-590 course was offered at NARTC for the first time in 1999. High field demand for fire behavior application courses was cause for additional offerings of long range fire behavior assessment (S-492) and large fire growth simulation (S-493). Program Center staff carried a significant role in the development of a new fire use training course, Advanced Fire Use Applications (S-580). This course will replace the National Park and Wilderness Fire Management training course previously offered at the national level. The new S-580 course will be the single source of training for planning and implementing wildland fire use activities and will be required training for the Fire Use Manager position as recommended by the FUWT.

Training - National Park Service students participated in local, geographic area, and national training events of approximately 3,000 students for a total of approximately 9,320 training units (number of students multiplied by number of training days). The

Northeast and National training was supported by the FMPC through participation on the Training Working Team and the National Park Service Training Community as training manager for aviation, fire and incident management training. FMPC staff instructed and supported numerous training sessions throughout the year in the development and course testing processes.

Video Development - Filming in the field for the Minimum Impact Suppression Tactics video project was completed, and the film is currently being edited for release in 2000.

A video "The Missing Fires" was developed and produced by a Utah State University graduate student through coordination, direction and funding of FMPC. Distribution of this video will be Service-wide, as well as interagency, early in 2000.

Initial Incident Response Pocket Guide – The final draft of this interagency Guide was completed and published April 30, 1999. FMPC staff were major contributors to this effort.

Multi-Agency Training Schedule (MATS) – The web version of MATS was updated and tested to enable users to select training information using a map and pointing and clicking on specific regions or states in addition to the selection options of specific course information.

Subject Matter Experts - During the 1999 development year, 15 experts from within NPS assisted in the development of/or rewrite of courses. Also 30 experts conducted field reviews of new courses, providing comment back to the development group at NIFC.

Human Factors - In January 1999, a follow-up to the 1995 Human Factors Conference was hosted by the FMPC in Reno, Nevada. This coordination/information sharing session has assisted in the development of training materials and safety-related efforts pertaining to the human aspects of fire fighting.

Business Practices Reengineering - The FMPC participated in a six-month review and reengineering of the way that business is conducted at NARTC. Some of the implementation strategies will be used in other areas of the wildland fire community, particularly in the training arena.

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

- National Park and Wilderness Fire Management
- Fire Ecology and Ecosystem Management
- Fire Management Leadership for Local Line Officers
- Fire Weather Technology Workshop - IMRO/MWRO
- S-520/620, Advanced Incident Management
- Interagency Fire Behavior Workshop
- S-590, Advanced Fire Behavior Interpretation

Fire and Resource Management Workshop - IMRO  
Fire Management Leadership

The fire effects monitoring software and two training sessions (Rx-80 and Rx-92) are being re-written and should be available for distribution by spring.

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

National Park and Wilderness Training Course Cadre  
S520/620  
S-590  
Fire Behavior Advisory Committee

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

Fire Monitoring Steering Committee  
Fire Technology Transfer Committee

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

Fire Behavior Workshop. March 1999. Phoenix, Arizona.

Symposium on Fire Economics, Planning, and Policy, Bottom Lines, April 1999, San Diego, California.

Wilderness Fire Symposium, Wilderness Science in a Time of Change. May 1999, Missoula, Montana.

Society of American Foresters 1999 Annual Meeting and Conference. Fire Working Group Session, Faces of Fire in the Pacific Northwest. September 1999. Portland, Oregon.

Society of Ecological Restoration. September 1999. San Francisco, California.

Fire Management: Emerging Policies and New Paradigms. California Association for Fire Ecology (CAFÉ) 1999 Symposium. November 1999. San Diego, California.

## **Workforce Development**

Fire Management Workforce Development Committee – This committee was established and chartered by the Fire Management Leadership Board. The initial meeting resulted in mission and vision statements being developed, strategic goals and the associated tasks to accomplish the goals being formulated and implementation designed. This “umbrella”

steering group will be overseeing and providing guidance for workforce development within NPS fire management. Specific aspects of this program include:

Fire Management Mentoring Program – Twenty-one (21) mentors and 15 mentees, representing all NPS divisions and a wide range of pay series and scales, completed the pilot training the week of September 20, 1999, in Boise, ID. The partnerships are on going for the next year. The structure, training, and evaluation for this program was developed, implemented, and coordinated by FMPC staff.

Fire Use Module Detailer Program - The program continued in 1999 and was open to candidates having interests in prescribed or wildland fire use. During 1999 there were 6 formal detailers and 46 informal details.

Hot Shot Detailer Program – The program is currently being reviewed and was not implemented in FY99.

Fire Management Intern Program – The program is currently being reviewed. No new Interns were selected during FY99. Two Interns from the 1997 session were placed in park units. Kristy MacMillan to FMO, Mojave Nat Preserve; Beth Card to RX Fire Specialist, Channel Islands. STAR awards were made to three of mentor FMOs involved (Larry Belles, Big Cypress Nat. Preserve; Len Dems, Grand Teton; Bill Kaage, Sequoia and Kings Canyon NPs).

Technical Fire Management curriculum – NPS was represented on the TFM steering group by a member of FMPC. Recruitment and selection was made for three new students to attend this academic program. Support continued for the three 1998 students (one transferred to the Forest Service).

### **Interagency Participation**

FMPC staff also supported other agencies in reviews, initiatives, and projects including:

U.S.D.A. Forest Service. Review – Intermountain Fire Sciences Laboratory Five Year Project Statements. Missoula, Montana.

Bureau of Land Management. June 1999. Sagebrush Symposium. Boise, ID.

Bureau of Land Management. June 1999. Snake River Birds of Prey Fire Rehabilitation Review. Boise, ID.

Bureau of Land Management. August 1999. Great Basin Fire Restoration Initiative. Preparation of “Out of Ashes” Report. Boise, ID.

Bureau of Land Management. November 1999. Great Basin Fire Restoration Program. Preparation of “The Great Basin, Healing the Land” Report. Boise, ID.

A Program Center employee participated as a member of the Fire Use Working Team (FUWT) and the Fire Danger Rating Working Team (FDRWT). During the year, the FUWT continued to support course development and maintenance for the prescribed fire curriculum.

FMPC staff served on the USDA-FS GAO Audit response team during the fall of 1999. This task force prepared a strategic plan in response to direction from Congress to develop a "cohesive strategy to reduce catastrophic wildfire risk in the western United States."

The staff is also working on several conferences and workshops associated with fire ecology.

National Staff are serving on the NWCG Fire Danger Rating Team that has recently been upgraded from an advisory group to a "working team."

FMPC staff is serving as the USDI representative for the Western Region Air Partnership. They are members of the Fire Emissions Joint Forum. These groups are seeking cooperative solutions to air quality issues in the western United States. Staff meets regularly with smoke management program leads of the four other wildland fire agencies (BM, BIA, FWS, and USDA-FS).

### **FIREPRO Budget**

The FIREPRO Working Capital Fund (WCF) Program purchased new equipment to replace three engines, a water tender and a Prescribed Fire Support Module crew carrier. A total of \$640,306 was expended on FY 99 WCF procurement. In the four years of its existence the WCF has purchased a total of 48 engines and seven water tenders, in addition to crew carriers for the Alpine and Arrowhead hotshot crews and the seven Prescribed Fire Support Modules.

The Department of the Interior continued the Fire Facilities Construction initiative for the FY 2001 – 2005 budget years. A additional call went out to the parks, which resulted in their input of proposals into a request program developed in the Internet. These proposals were reviewed and ranked at the regional level. An interagency group composed of members of the Bureau of Land Management, Fish and Wildlife Service, Bureau of Indian Affairs and the National Park Service then reviewed the projects. This group ranked all the projects and prepared a unified submission to the Department for inclusion in the Departmental budget for FY 2001. Some of the Architectural and Engineering (A&E) work originally Planned for FY99 was delayed due to the overall Servicewide housing moratorium. A&E was finalized for new caches at Buffalo River and Redwood, and wildland fire facilities at Saguaro. Construction contracts were let for the Buffalo River Cache and construction of the new cache at Lassen was finalized.



## **Program and Policy**

Program Center staff prepared Reference Manual – 18, Wildland Fire Management, and reviewed Reference Manual – 77, Natural Resources.

Program Center staff continued to serve in support of work groups that addressed action plan items identified in the Implementation Action Plan for the Federal Wildland Fire Management Policy and Program Review, chartered by the Secretaries of the Interior and Agriculture. Staff participated on interagency task groups responsible for developing presentations/lessons describing implementation of the new policy. Staff members prepared and published a cd-rom containing the interagency guide to policy implementation, Wildland and Prescribed Fire Management Policy, Implementation Procedures Reference Guide and slide shows for presentation of the policy implementation. Staff members completed 10 individual presentations detailing policy implementation.

FMPC staff assisted several parks with fire management planning efforts and has completed a template fire management plan, which will be posted on the NPS Fire web site shortly. This plan is an example of a moderate-sized park unit fire management plan. A template environmental assessment will be completed soon and be posted at the same web site.

Site visits were conducted to Saguaro, Rocky Mountain, Grand Canyon, and Zion National Parks. FIREPRO financial audits were conducted at Golden Gate NRA/Point Reyes NS, and New River Gorge National River.

Program Center staff participated on the Joint Fire Sciences Program Governing Board and assisted with the startup 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.

Fire Ecology, Smoke Management, Fire Management Planning, and Fire Effects Monitoring Programs are being carried out in all Regions with leadership from the FMPC.

## **ROSS**

NPS is funding one FTE to participate in the development of an interagency computer software program, the Resource Ordering and Status System (ROSS). This program will automate the resource ordering, status, and reporting process currently in use by the dispatch community. The ROSS application will operate within the multi-tiered dispatch organization and in an expanded dispatch environment. It will encompass all business functions related to the resource ordering and status process and provide the capability to status and track all tactical, logistical, service, and support resources mobilized by the wildland fire dispatch community. The first phase of the project was to develop an



interagency electronic dispatch messaging system. This system has been implemented and more dispatch offices are coming on line daily.

### **Incident Support**

Program Center staff participated as team members on Interagency Incident Management Teams. The FMPC staff responded to the full spectrum of wildland fire incidents, both as assigned members of teams and as individual resources.

FPMC staff participating in the National Fire Use Management Team program aided in the management and support of Mount Emma (Grand Canyon NP), Yosemite Complex (Yosemite NP), and the Hirem (Stanislaus NF) wildland fires managed for resource benefit.

The NPS Administrative Payment Teams (APTs) – The APTs transitioned to an automated payment system which was developed and supported by the BLM, Alaska Fire Service. This was precipitated by the Department of Interior determination that income taxes were to be deducted from emergency worker (AD) payments. The system was successfully implemented within the NPS and was deemed to be very labor/time saving, as well as improving accuracy. All five teams were activated during FY99. Payments were made for the State of Texas (through the Forest Service) and for the BLM in Nevada. Payments totaled over \$68.6 million. Due to problems with the USDA- Forest Service's payment process at their National Finance Center the majority of this, \$61.2 million, was for California fires at the end of the year. Start-up and continual computer support was provided to the teams by the Administrative staff at FMPC. In addition, incident business management issues were resolved/supported for the APTs and parks on a continuing basis by FMPC staff.

### **International Presentations**

Program Center staff were invited by three international organizations to present formal presentations, which included:

Fire Behavior Training in the United States. March 1999. National Fire Training Center, Hinton, Alberta, Canada (requested by Canadian Forest Fire Research Station, Edmonton, Alberta).

Fire Management in the National Park Service of the United States, Fire Suppression Planning and Operations in the United States, Wildland Fire Use for Beneficial Purposes, The Natural Role of Fire and Fire Ecology. October 1999. Southwestern Forestry University, Kunming, People's Republic of China (requested by Southwestern Forestry University).

Forest and wildland fire – current and projected situations – Bai Snow Mountain Natural Preserve, Yunnan Province. October 1999. The Nature Conservancy,

Kunming, People's Republic of China (presented at the request of Southwestern Forestry University and The Nature Conservancy).

Park and Wildland Fire - review of current operations- Australia and New Zealand as a part of an international effort with the USDA-Forest Service, Bureau of Land Management and Parks Canada.

## **Publications**

Program Center staff provided review of manuscripts and served as Associate Editor for the International Journal of Wilderness. Publications and reports produced by FMPC staff members wholly or in part include:

Fire Behavior Advisory Committee. 1999. Fire behavior issue paper. Prepared for NWCG. On file at National Interagency Fire Center, Boise, ID.

National Park Service. 1999. LD Falls Fire Review, Dinosaur National Monument. On file at National Interagency Fire Center, Boise, ID.

Zimmerman, G.T., and D.L. Bunnell 1999. Report: Meeting Organizational Needs Associated With Managing Wildland Fires to Accomplish Resource Benefits. NPS/USFS. Boise, ID. 18 pages.

Zimmerman, G.T. In press. Appropriate Management Responses to Wildland Fire: Options and Costs. Proceedings, Symposium on Fire Economics, Planning, and Policy, Bottom Lines, April 5-9, 1999, San Diego, California. Pacific Southwest Experiment Station, USDA Forest Service, Riverside, CA.

Zimmerman, G.T. In press. The Federal Wildland Fire Policy: Opportunities for Wilderness Fire Management. In: Cole, David N.; McCool, Stephen F. 2000. Proceedings: Wilderness Science in a Time of Change, Proc. RMRS-P-000. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Zimmerman, G.T. and D.L. Bunnell. In press. Wildland fire management for the 21<sup>st</sup> century: evolving applications and capabilities. 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.

Zimmerman, G.T., M. Hilbruner, P. Werth, T. Sexton, and R. Bartlette. In Press. Long-range fire assessments: procedures, products, and applications. Proceedings: Third Symposium of Fire and Forest Meteorology, 80<sup>th</sup> American Meteorological Society Meeting. American Meteorological Society, Boston, MA.

Zimmerman, G.T. In press. Wildland fire management: Policy perspective.  
Proceedings: Fire Management: Emerging Policies and New Paradigms.  
California Association for Fire Ecology (CAFÉ) 1999 Symposium.  
University of California, Davis, CA.

### **Electronic Information**

Program Center staff also were responsible for the preparation and distribution of cd-roms containing documented information for wildland fires and wildland fire policy implementation. These cd-roms include:

Main Salmon Complex. Fire Use Management Team Documentation.  
January 1999.

Wildland and Prescribed Fire Management Policy. Slide show and  
implementation reference guide master disc. March 1999.

Wildland Fire Management Data and Analysis Software.

Program Center staff coordinated the inclusion of the Wildland and Prescribed Fire Management Policy, Implementation Procedures Reference Guide with the NPS Fire Management Home Page for electronic access.

## ***INTERAGENCY HOTSHOT CREWS***

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The National Park Service presently furnishes two interagency hotshot crews as a part of its contribution to national interagency fire suppression resources. The crews' primary function is hot-line wildfire suppression. When not needed for suppression activities, the crews are able to make significant contributions on interagency prescribed fire operations and other natural resource projects.

The *Arrowhead* crew is permanently based at Sequoia and Kings Canyon National Parks, and the *Alpine* crew is permanently based at Rocky Mountain National Park.

In 1999 the Alpine Hotshots successfully completed fire assignments in New Mexico, Arizona, Colorado, Montana, Wyoming, Idaho and California. The crew was also involved in several resources management and prescribed fire projects for their home unit, Rocky Mountain National Park. Projects included debris pile burning; prescribed fire unit preparation and burn execution; hazard tree removal; and restoration/rehabilitation work at the old Hidden Valley ski area in Rocky Mountain NP.

The Arrowhead Hotshot Crew worked 18 Suppression, 1 Fire Use, and 2 Prescribed fire assignments in 1999 for a total of 27,880 work hours. The following agencies were supported by the crew on these assignments: NPS-Intermountain Region, BLM-Alaska, Arizona, California, and Nevada, BIA-New Mexico, USDA-FS Regions 3 and 5, and Santa Barbara County. The crew also assisted Grand Canyon NP and Sequoia and Kings

Canyon NP in several fuels management projects. Due to the amount of time spent assigned to fire assignments in 1999 there were not many opportunities for any other project work and prescribed fire assignments in 1999.

***Interagency Hotshot Crew Workload Distribution, 1990 – 1999***

<b>Year</b>	<b>Number of Fires</b>	<b>% Time Wildfire Suppression</b>	<b>% Time Prescribed Fires</b>	<b>% Time Other Projects</b>
1990	26	54	9	12
1991	30	51	5	20
1992	29	54	5	29
1993	22	51	14	13
1994	46	82	2	9
1995	23	60	9	10
1996	48	72	3	14
1997	22	41	20	24
1998	30	63	9	19
1999	34	72	4	12

***Interagency Hotshot Crew Wildland Fire Assignments, 1999***

**ALPINE IHC:**

<b>Fire Name</b>	<b>Location/Agency</b>	<b>Dates</b>
Region 3 Support	Gila NF, New Mexico	May 30 – June 2
Box Canyon	Cibola NF, New Mexico	June 2 - 4
Water Canyon	Laguna Pueblo, BIA, NM	June 4 - 9
Mt. Emma	Grand Canyon NP, Arizona	June 9 - 19
South Sewemup	Grand Jct. Dist. BLM, CO	June 27- July 2
Toms Canyon	Grand Jct. Dist. BLM, CO	July 2 - 3
Black Ridge Complex	Grand Jct. Dist. BLM, CO	July 4 - 11
Burned Point	Lewis & Clark NF, MT	July 23 - 27
Bull Elk Park	Big Horn NF, Wyoming	July 28 – Aug. 3
ABC Misc.	Salmon – Challis NF, Idaho	August 3 – 6
Deer Creek	Boise Dist. BLM, Idaho	August 6 – 12
Pilot	Stanislaus NF, California	August 24 – 30
Coulterville	Merced CDF, California	Aug. 30 – Sept. 1
Willow	San Bernadino NF, California	September 1 - 5
MHRD Complex	Plumas NF, California	September 5 - 17
Big Bar Complex	Shasta – Trinity NF, CA	Sept. 17 – Oct. 7

**ARROWHEAD IHC:**

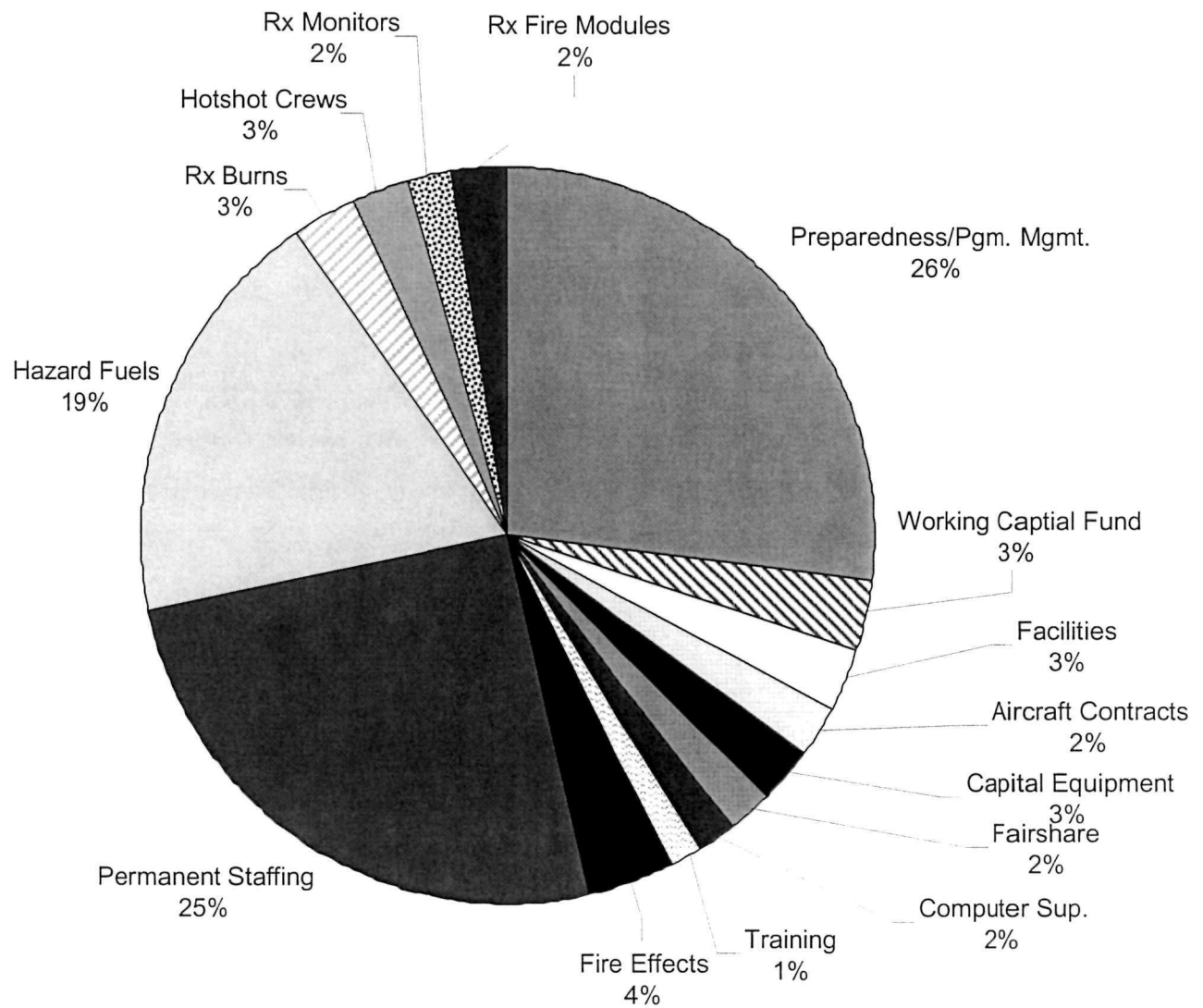
Fire Name	Agency/ Location	Dates
Jump Spring	Az. Strip BLM AZ	May 29-June 6
Water Canyon	Laguna Reservation NM	June 5 - 10
Troy	Grand Canyon NP AZ	June 11
Mt. Emma	Grand Canyon NP AZ	June 12 - 17
Power	San Bernardino NF CA	July 6 - 9
Marshall Creek	Alaska State AK	June 12 - 19
Spanish	Los Padres NF CA	June 20 - 27
Rave	Susanville BLM CA	Aug 4 - 9
Santa Paula	Los Padres NF CA	Aug 15 - 17
Moses	Battle Mnt. BLM NV	Aug 19 - 22
Daisy	Battle Mnt. BLM NV	Aug 22 - 23
Pass Creek	Winnemucca BLM NV	Aug 24 - 27
MHRD Complex	Plumas NF CA	Aug 28 - Sep 4
Rich Bar Complex	Sequoia NF CA	Sep 8 - 9
Cow Flat	Sequoia NF CA	Sep 10
Kirk	Los Padres NF CA	Sep 10 - 11
Kirk Complex	Los Padres NF CA	Sep 12 - Oct 16
Horseshoe	Los Padres NF CA	Oct 12 - 13
Pendola	Tahoe NF CA	Oct 16 - 23

***FIRE USE MODULE ASSIGNMENTS***

MODULE NAME	WFU		Rx FIRE IGNITION		Rx FIRE PREP.		HAZARD FUEL	
	#	ACRES	#	ACRES	#	MILES	#	ACRES
BANDELIER	4	6780	30	25,973	8	3.01	2	7
BLACK HILLS	6	5742	15	7112	4	1.2	3	60
BUFFALO RIVER	0	0	48	10336	8	1	9	51
GREAT SMOKY	6	2428	43	13036	7	1	4	
SAGUARO	6	9321	2	630	3	.6	1	2
WHISKEYTOWN	11	18883	13	9146	2	57	3	201
YELLOWSTONE	11	165440	13	11284	4	13.4	3	12
ZION	9	11025	16	4211	8	4.5	1	4.5
TOTAL FY99	53	21,961	150	81,908	44	83.7	23	341.5
TOTAL FY98	17	42,781	97	46,512	55	39.04	22	104.6
TOTAL FY97	9	23,242	73	17,218	34	22.00	4	15.0
TOTAL FY96	15	47,779	45	10,590	41	20.30	9	35.0
TOTAL FY95	6	2,165	44	13,250	42	27.10	9	147.0

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## FY 99 FIRE MANAGEMENT AUTHORIZATIONS



## *SEVERITY FUNDING*

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Severity funding can be authorized on a not-to-exceed limit up to \$100,000 for each request by the Regional Fire Management Officer or his/her designee. All requests over \$100,000 must be approved through the National Park Service's Fire Management Program Center in Boise, Idaho.

Severity funding is intended to increase initial attack preparedness and fire prevention response to an anticipated long-term fire potential greater than what is encountered during the normal fire year. This severe fire potential may be the result of long term drought, unusual fuel conditions, storm damage, or other conditions.

Severity differs from step-up planning in that step-up plans are approved by the Support Office Fire Management Officer, and are driven by staffing classes which are determined by the burning index. Step-up plans are short-term increases in preparedness and prevention in response to normal weather changes. The use of severity funds must be terminated as soon as the conditions that justified the severity change.

During 1999 severity appropriations (totaling \$693,381) provided for recruitment and utilization of emergency hire (AD) crews, additional supplies and materials, additional mileage on engines, added overtime for fire staff, expanded availability for helicopters and airtankers, expanded communications costs, detail of staff from other areas, extending seasons for temporary employees, and vehicle rental.

REGION	REQUESTING UNIT	AMOUNT
Intermountain	Bandelier Nat Mon	\$9,825
	Big Thicket Nat. Preserve	\$2,500
	Chiricahua Nat. Monument	\$3,442
	El Malpais Nat. Monument	\$20,544
Southeast	Big Cypress Nat. Preserve	\$174,860
	Everglades National Park	\$482,210
		\$693,381

**INTERAGENCY FAIRSHARE PROGRAMS**

REGION	UNIT	DESCRIPTION	AMOUNT
Fire Management Program Center		NWCG	67,000
		ADP Contract (DOI)	40,000
		Shared costs for SACS	60,000
		NPS Bldg. Costs	31,000
		Hq. Receptionist	5,000
		FF Memorial/Landscape	2,000
		FF retirement Personnel	40,000
		IFCC AOP Shared Cost	20,000
		NARTC	101,000
		Great Basin Training Center	8,000
		Fire Planner	40,917
		Fire training Spec.	28,615
		Qualifications system	29,893
		Tri -Data Program Manager	15,525
		AFS Software use/APT	20,000
		<b>TOTAL</b>	<b>488,950</b>
Pacific West	Santa Monica Mnts. Joshua Tree Lassen Volcanic Lava Beds Whiskeytown Channel Islands	NZ/SZ DOI Coordinators	25,000
		Western Great Basin Coord	15,000
		Ely NV ECC	3,000
		Puget Sound Coord ctr	23,976
		Dispatch/Angeles	16,500
		Fed. Interagency Comm	5,150
		Susanville Interagency fire	15,457
		MICC Interagency command	7,500
		Redding IEC	10,325
		Bell 212 Helicopter	30,000
		<b>TOTAL</b>	<b>151,908</b>
Midwest	Voyagers Wind Cave	Arkansas Coordination	1,000
		Ohio Coordination	1,000
		Missouri Coordination	3,000
		WICS Coordination	1,350
		North Dakota Coordination	1,000
		Minn.Incident Command	4,600
		Interagency Helicopter	
		<b>TOTAL</b>	<b>18,790</b>



Intermountain		NRCC Dispatch Support	5,000
		Reg Dispatcher GS-7	47,930
		WSFCC-BLM Colorado	10,000
		EGBCC BLM Dispatch	5,500
		WICC BLM WYO	5,000
		DOI Position Missoula	26,000
		SWA Fire Cache Maint	2,500
		RMACC Forest Svc.	10,000
		Cedar City Dispatch	3,000
		SOAR Fairshare	10,000
		SOAR Dispatch Center	4,500
	Grand Teton	Fairshare/ Bridger Teton	22,000
	Rocky Mountain	Dispatch Ctr. Ft. Collins	7,500
	Saguaro	So.AZ Dispatch Office	8,500
	Saguaro	Smoke Coordinator	6,000
	Carlsbad Caverns	Lincoln Zone helicopter	20,000
	Mesa Verde	Helitack agreement	16,000
	Dinosaur	Aircraft operations	10,000
	Zion	Interagency helicopter	15,000
		<b>TOTAL</b>	<b>234,430</b>
Southeast		Interagency Helicopters	15,000
		Southern Area hotshots	5,000
		Southern Area Cache	25,000
		Southern Area Coord ctr	35,000
		<b>TOTAL</b>	<b>80,000</b>
Northeast		Virginia ICC	23,140
		EICC & Dulles Module	500
		<b>TOTAL</b>	<b>23,640</b>
National Capital		Virginia Coord Ctr.	8,500
		<b>TOTAL</b>	<b>8,500</b>

# 1999 SERVICEWIDE

## FIRE STATISTICS



## ***NORMAL FIRE YEAR STATISTICS***

The normal fire year calculation is based on an analysis of National Park Service fire history for 10 years, from 1990 through 1999. "Normal" occurrence is defined as the third worst year in a 10-year analysis period, and the statistics for each size class may be derived from different years.

<b>SIZE CLASS IN ACRES</b>	<b>NUMBER OF WILDLAND FIRES</b>	<b>NUMBER OF WILDLAND FIRE USE</b>
A (0 - 0.2)	567	51
B (0.3 - 9.9)	212	19
C (10 - 99.9)	79	10
D (100 - 299.9)	13	4
E (300 - 999.9)	19	8
F (1,000 - 4,999.9)	3	4
G (5,000+)	4	3
<b>TOTALS:</b>	<b>897</b>	<b>99</b>

Start Days: 330 (Wildfires); 329 (Wildland Fire Use)

Peak number of starts in a day: 32 (WF); 52 (WFU)

## ***NATIONAL WILDLAND FIRE ACTIVITY***

<b>FIRE TYPE</b>	<b># FIRES</b>	<b>NPS ACRES</b>
Suppressed on NPS lands by NPS full control strategy	517	28,181.7
Suppressed on NPS lands by NPS modified control	30	164,388.2
Suppressed on NPS lands by other federal agency	8	53.3
Suppressed on NPS lands by non-federal agency	84	257.6
<b>WILDLAND FIRE USE</b>	<b>99</b>	<b>41,863.2</b>
<b>PRESCRIBED FIRES</b>	<b>319</b>	<b>132,665.5</b>
<b>NATURAL OUTS ON NPS LANDS</b>	<b>106</b>	<b>379.6</b>
<b>MUTUAL AID BY NPS ON OTHER LANDS</b>	<b>288</b>	
<b>SUPPORT ACTIONS (NON-LOCAL)</b>	<b>1,137</b>	
<b>FALSE ALARMS</b>	<b>87</b>	

### ***WILDLAND FIRES BY SIZE CLASS***

SIZE CLASS IN ACRES	AGENCY LANDS		ALL LANDS
	FIRES	ACRES	ACRES
A (0 - 0.2)	349	38.3	38.9
B (0.3 - 9.9)	181	313.9	372.5
C (10 - 99.9)	52	1,939.5	2,325.0
D (100 - 299.9)	7	1,082.4	1,082.4
E (300 - 999.9)	5	3,574.0	5,321.0
F (1,000 - 4,999.9)	4	7,354.0	10,993.0
G (5,000+)	2	34,164.0	256,081.0
TOTALS:	600	48,466.1	276,153.8

There were 600 wildland fires reported on NPS land in 1999, which is 66 percent of the normal fire year calculation. Approximately 88 percent of the wildfires were controlled at less than 10 acres in total size.

### ***WILDLAND FIRES BY CAUSE***

#### **NATIONAL PARK SERVICE LANDS**

CAUSE	# FIRES	# ACRES	% FIRES	% ACRES
Lightning	172	38,785.3	28	80
Campfire	87	229.3	15	1
Smoking	42	85.3	7	0
Debris Burning	36	6,112.6	6	13
Incendiary	62	2,302.7	10	5
Equipment Use	43	210.4	7	0
Railroads	14	186.6	3	1
Children	19	104.5	3	0
Miscellaneous	125	449.4	21	1
TOTALS:	497	48,446.1		

% may not equal 100 due to rounding

## ***LARGE WILDLAND FIRES<sup>1</sup>***

<b>REGION</b>	<b>PARK</b>	<b>FIRE NAME</b>	<b>NPS ACRES</b>	<b>TOTAL ACRES</b>
Pacific West	Joshua Tree	Juniper	14,000.0	14,000.0
	Santa Monica Mnts.	East	0.0	2,000.0
Southeast	Big Cypress	Deep Lake 1	2,520.0	2,520.0
	Everglades	Brown	1,565.0	1,565.0
	Shenandoah	Shop Run II	2,206.0	2,206.0
Midwest	Shenandoah	Bootensgap	1,081.0	1,081.0
	Buffalo	Robertson	1,063.0	1,063.0
	Northwest	Uvgoon 2	86,335.0	88,345.0
Alaska	Yukon Charlie	Witch	34,909.0	46,965.0
	Yukon Charlie	Beverly	20,164.0	20,164.0
	Yukon Charlie	Jessica	19,775.0	48,442.0
	Yukon Charlie	Pingo	1,439.0	38,174.0

## ***LARGE WILDLAND FIRE USE***

<b>REGION</b>	<b>PARK</b>	<b>FIRE NAME</b>	<b>NPS ACRES</b>	<b>FUEL TYPE</b>
Intermountain	Grand Canyon	Mt. Emma	1,123.0	Timber/Hardwood Litter
	Grand Canyon	Camelot	1,264.0	Timber/Hardwood Litter
	Glacier	Anaconda	10,812.0	Timber/Litter & Understory
	Saguaro	Box Canyon	6,476.0	Chaparral
Southeast	Everglades	Lostmans	3,155.0	Herb/Tall Grass
Pacific West	Yosemite	North Park	11,705.4	Timber/Closed Litter
	Yosemite	South Park	2,299.0	Timber/Closed Litter

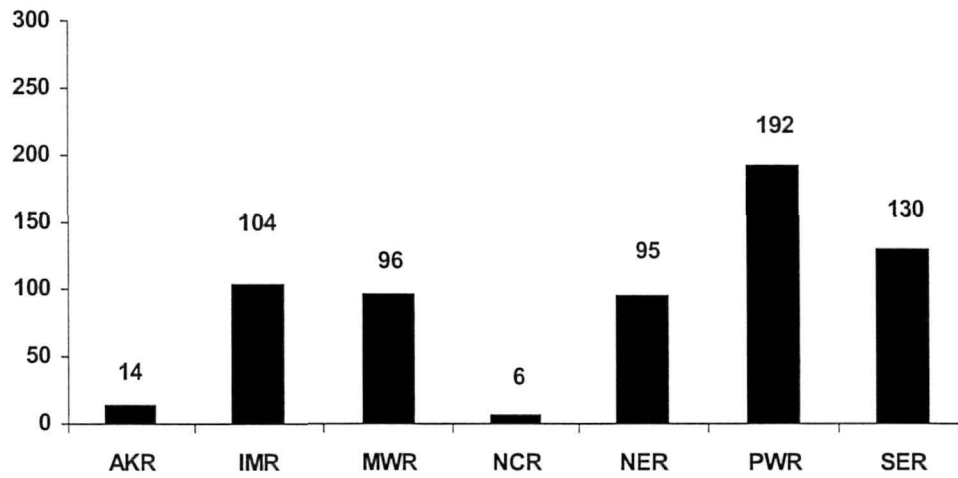
<sup>1</sup> "Large", for the purpose of these tables, would include any fire totaling over 1,000 acres regardless of land ownership.

## LARGE PRESCRIBED FIRES

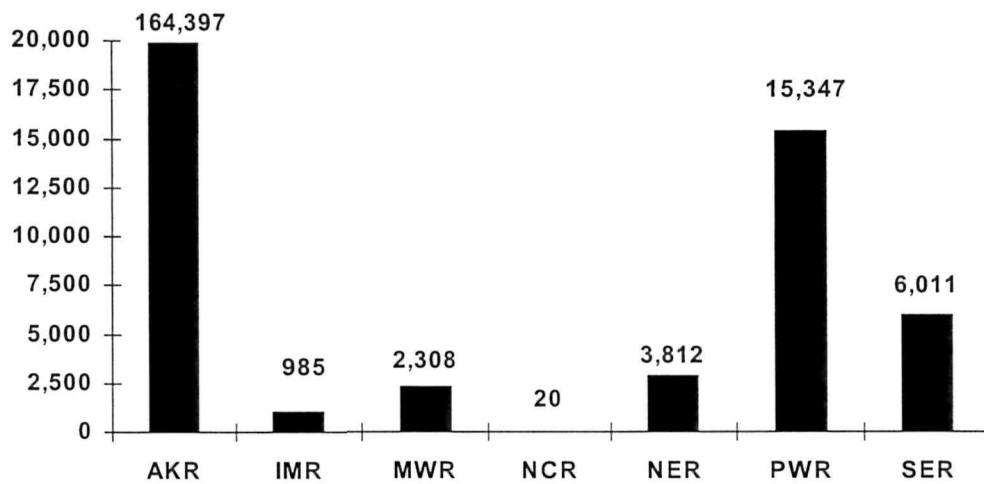
Region	Park	Fire Name	Agency Acres	Fuel Type
Intermountain	Grand Canyon	Shoshone	1,297.0	Timber/Hardwood Litter
	Grand Canyon	Outlet	3,842.0	Timber/Hardwood Litter
	Grand Canyon	Walhalla	3,225.0	Timber/Hardwood Litter
	Zion	Pocket Mesa	1,640.0	Timber/Hardwood Litter
	Grand Teton	S. Grovent	1,050.0	Chap/Dormant Brush/Slash
	Grand Teton	Cow Lake 2	1,350.0	Timber/Closed Litter
	Bandelier	Unit 38	1,404.0	Herb/Timber Grass/Understory
	Big Thicket	FMU 1501	1,300.0	Chaparral/Chapar (6 feet)
Midwest	Tallgrass Prairie	West Side 2	7,897.0	Herb/Tall Grass
	Tallgrass Prairie	Two Section	2,008.0	Herb/Tall Grass
	Badlands	Big Buffalo	4,785.0	Herb/Short Grass
	Buffalo	Gene Rush	1,200.0	Timber/Hardwood Litter
	Ozark	Stegall99	322.0	Herb/Tall Grass
Pacific West	Sequoia & Kings	Lewis Creek	2,374.0	Timber/Litter/Understory
	Lake Mead	Twin Complx	3,000.0	Chaparral/Brush
	Santa Monica	Shepherds	1,552.0	Chaparral/Chapar
	John Day	Windy Pt.	2,108.0	Herb/Short Grass
Southeast	Big Cypress	Skillet1 Rx	5,248.0	Herb/Tall Grass
		Air Pines Rx	3,719.0	Chaparral/Southern Rough
		Highway 1Rx	1,658.0	Chaparral/Southern Rough
		Lost Dog Rx	3,044.0	Chaparral/Southern Rough
		Alligats Rx	3,161.0	Chaparral/Southern Rough
		Baxteris RX	1,791.0	Chaparral/Southern Rough
		Skillet3	2,349.0	Herb/Tall Grass
		Allis1 Rx	2,372.0	Chaparral/Southern Rough
		Lost Hogan	1,489.0	Chaparral/Southern Rough
		Baker Rx	5,853.0	Chaparral/Southern Rough
		Cowbell Rx	8,107.0	Chaparral/Southern Rough
		Aerojet	4,021.6	Herb/Tall Grass
		Blks D E G	1,719.0	Chaparral/Southern Rough
		HQ Context	2,699.0	Herb/Tall Grass
		Blocks J/F2	1,022.0	Chaparral/Southern Rough
		Block A	2,645.0	Chaparral/Southern Rough
		West of A	6,878.0	Chaparral/Southern Rough
	Shenandoah	Shop Run	1,024.0	Timber/Hardwood Litter

## WILDFIRES BY REGION

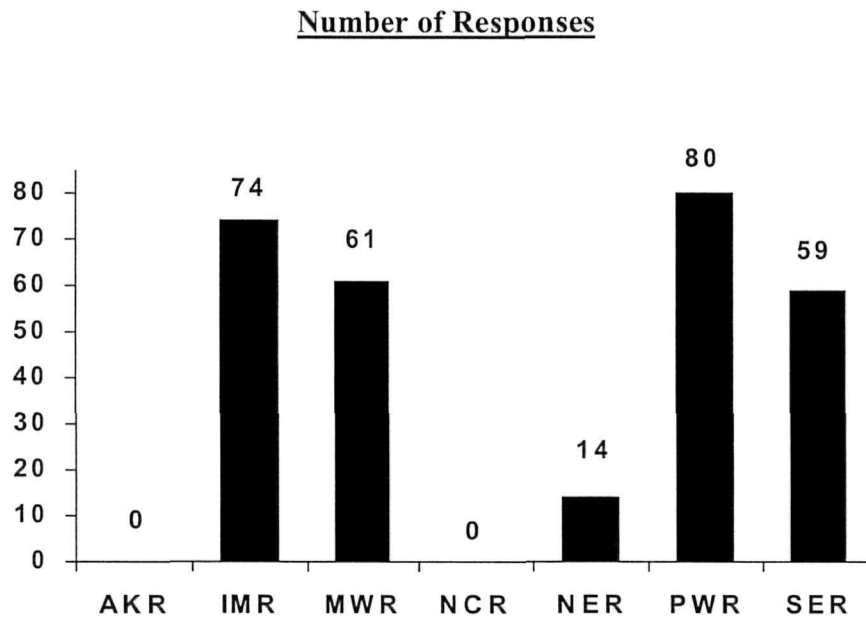
Number of Fires



Number of Acres



## MUTUAL AID RESPONSES BY REGION



**Key:**

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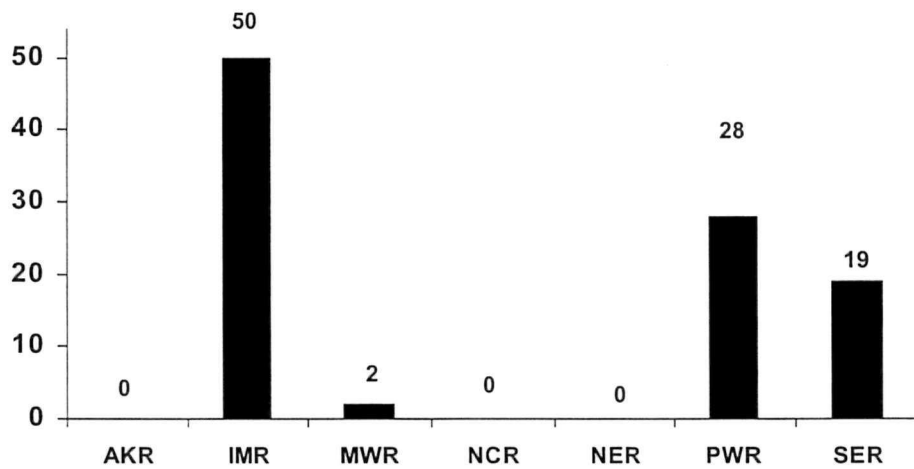
AKR =	Alaska Region	NER =	Northeast Region
IMR =	Intermountain Region	PWR =	Pacific West Region
MWR =	Midwest Region	SER =	Southeast Region
NCR =	National Capital Region		

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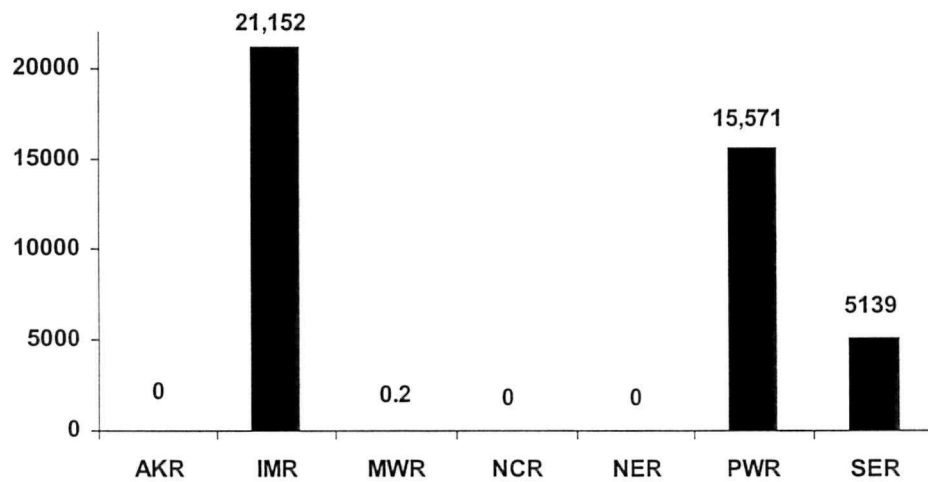


## WILDLAND FIRE USE BY REGION

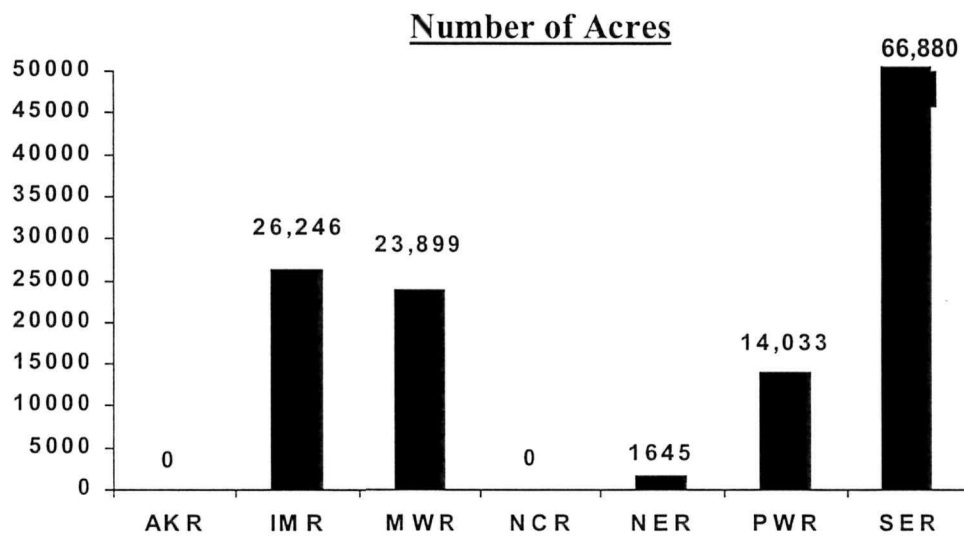
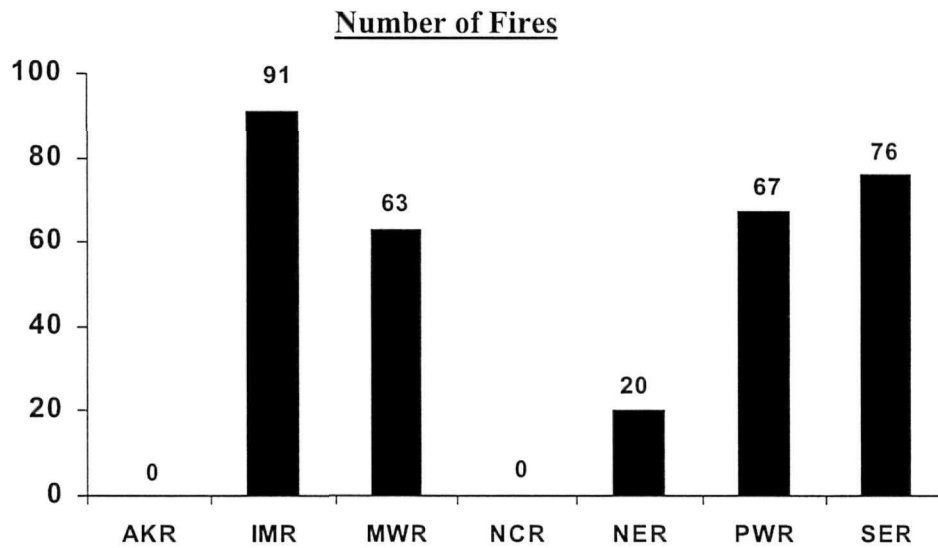
Number of Fires



Number of Acres

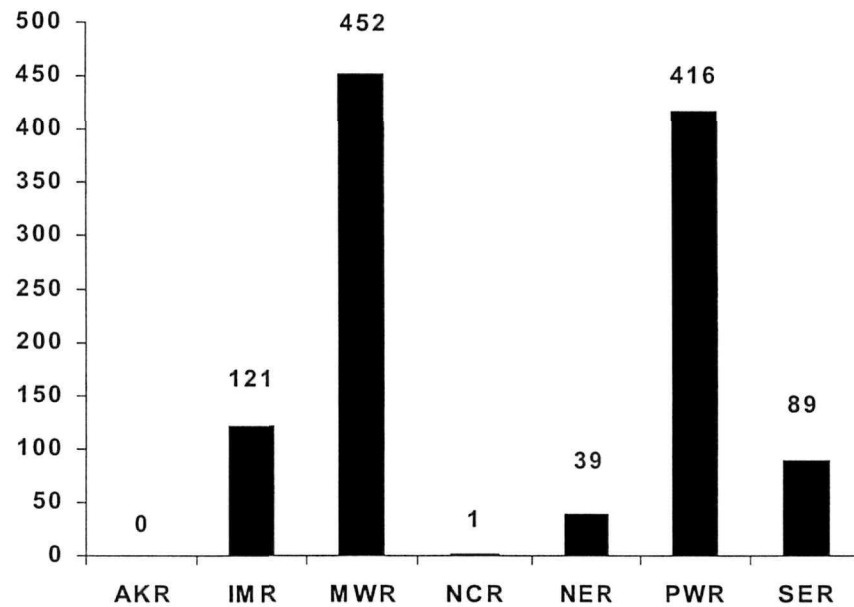


## PREScribed FIRES BY REGION

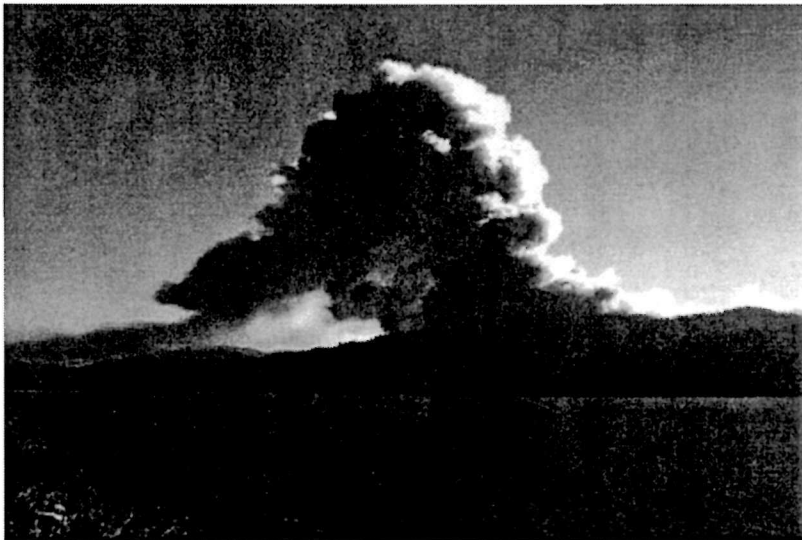


## SUPPORT ACTIONS BY REGION

Number of Support Actions

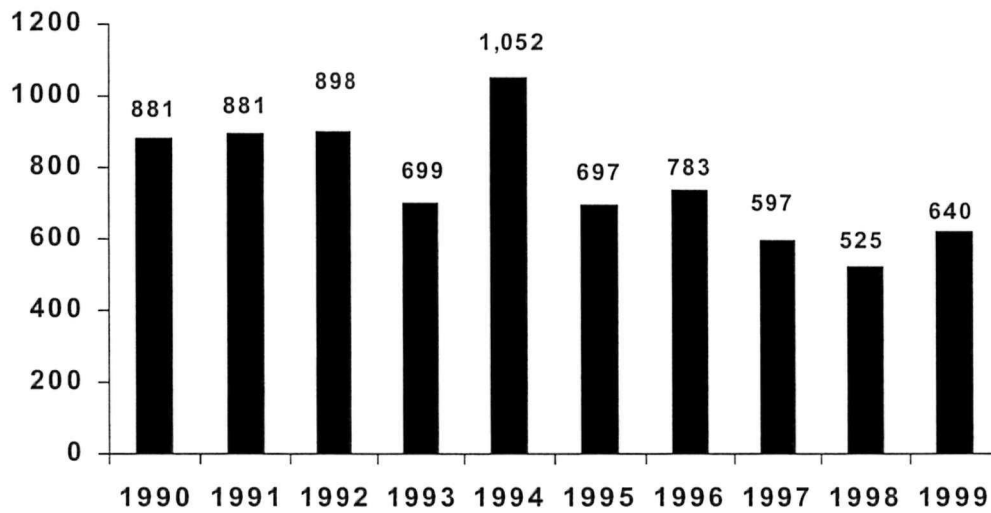


# 1990-1999 SERVICEWIDE FIRE STATISTICS

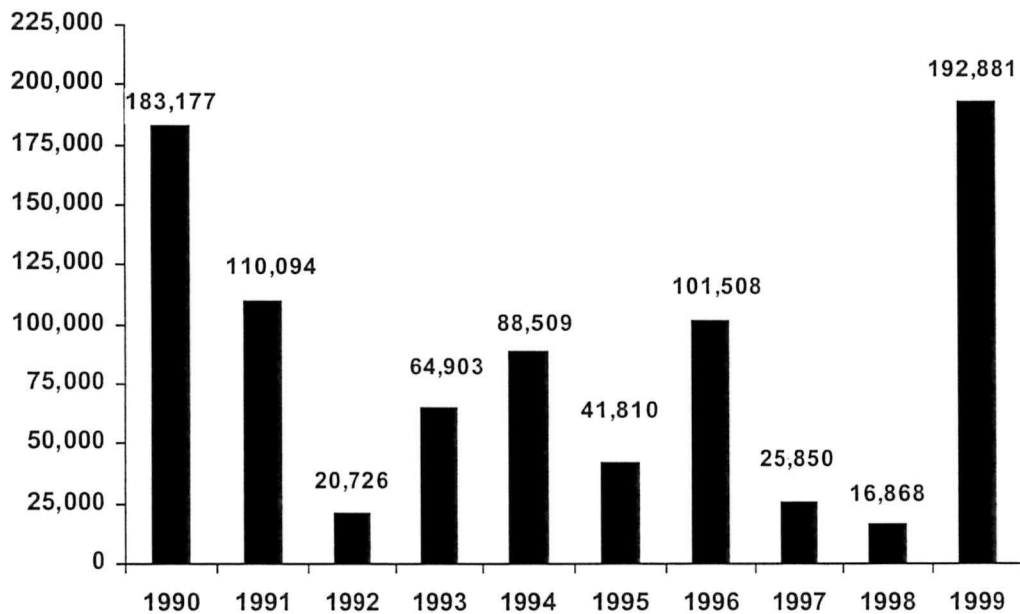


## NPS WILDFIRES, 1990-1999

Number of Fires

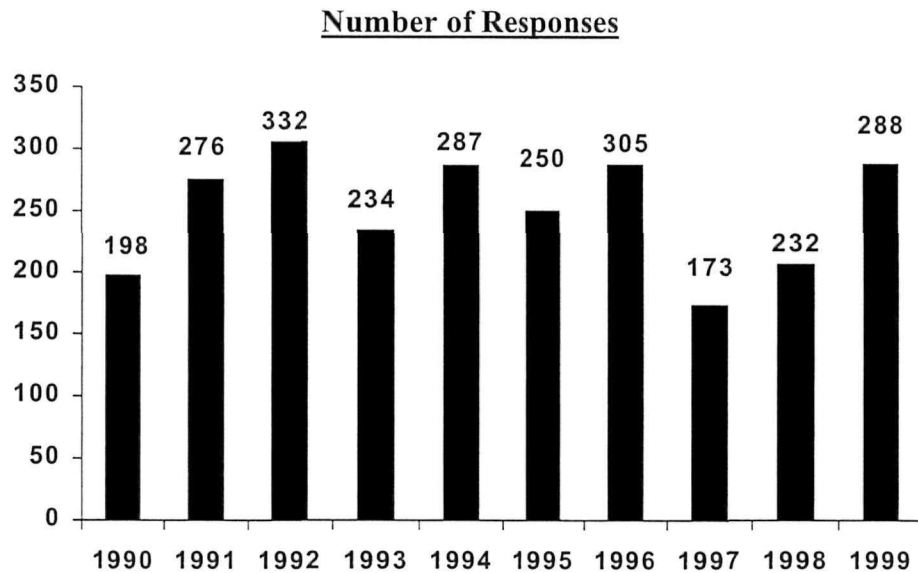


Number of Acres

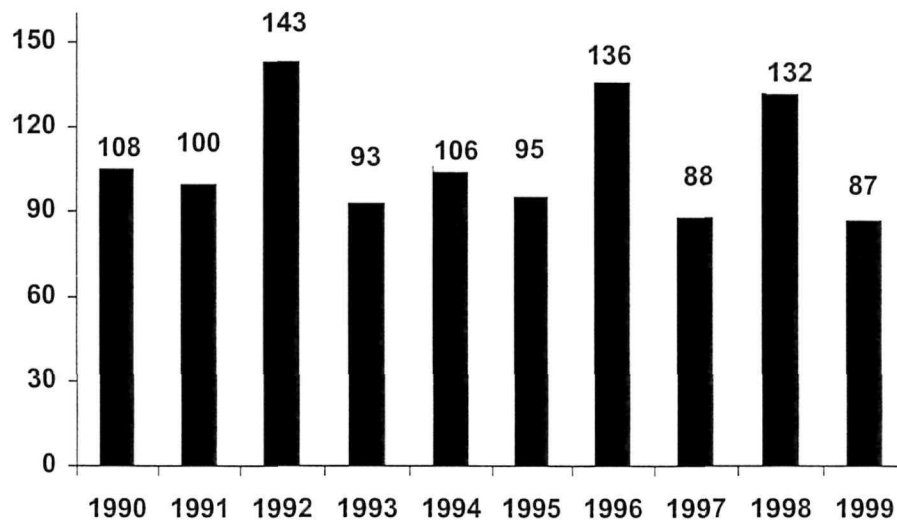


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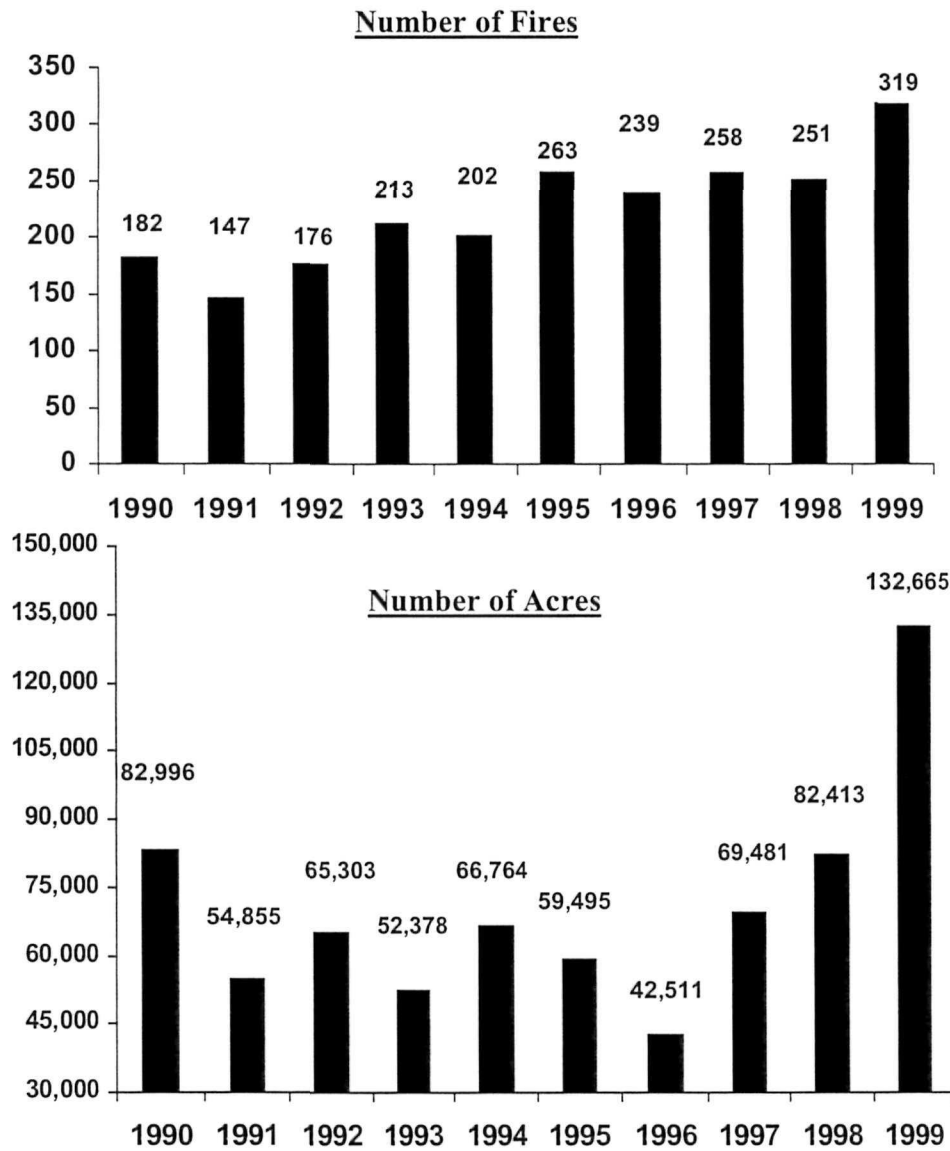
## NPS MUTUAL AID RESPONSES, 1990 - 1999



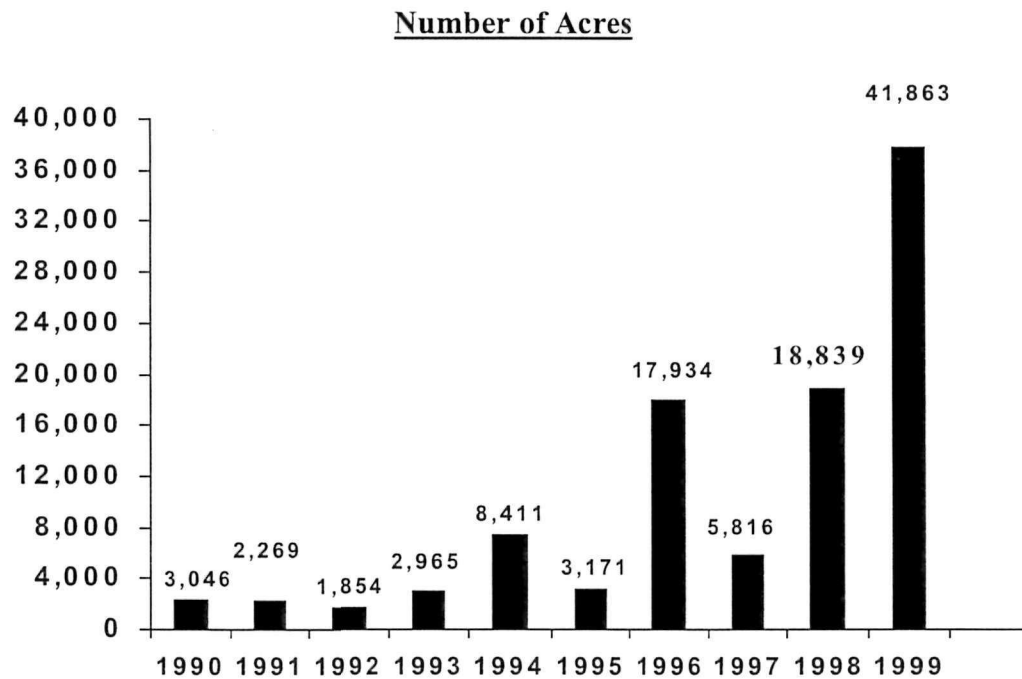
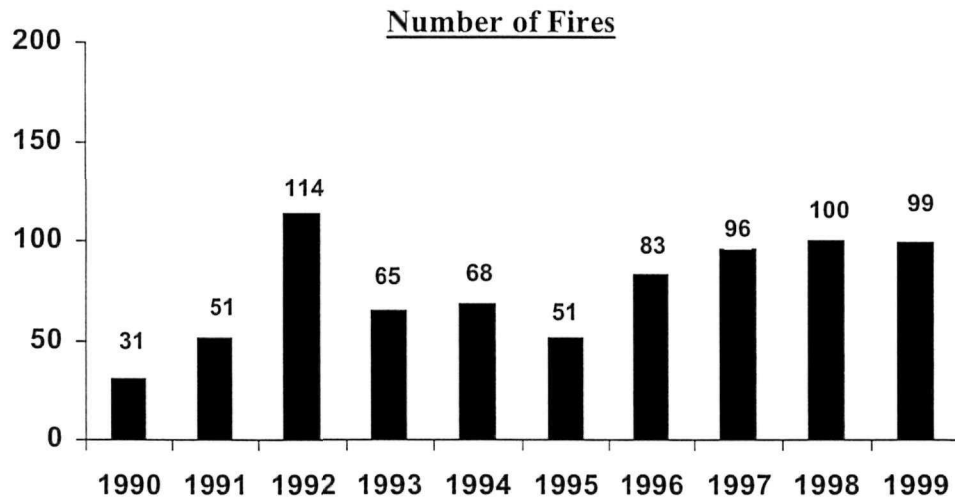
## NPS FALSE ALARMS, 1990-1999



## NPS PRESCRIBED FIRE, 1990 - 1999

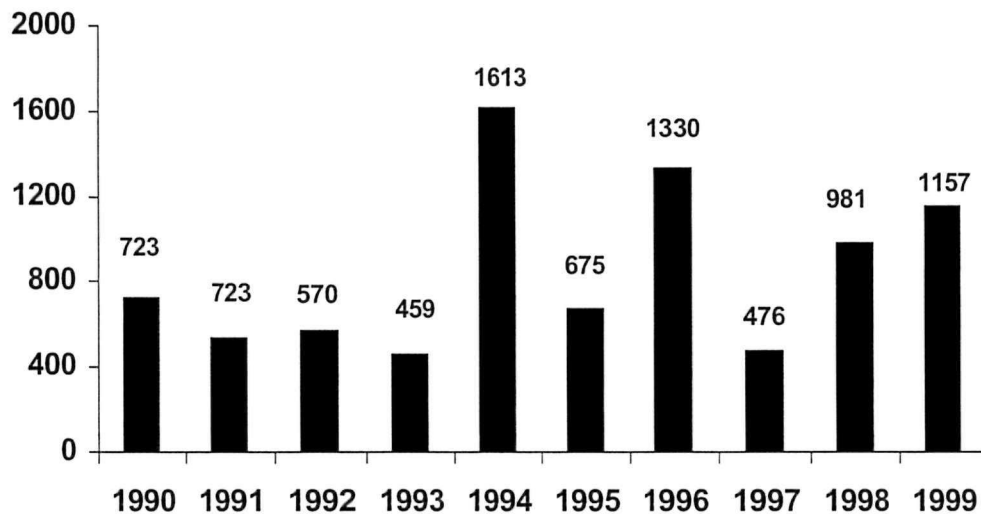


## NPS WILDLAND FIRE USE , 1990-1999





## NPS SUPPORT ACTIONS, 1990-1999



### 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.

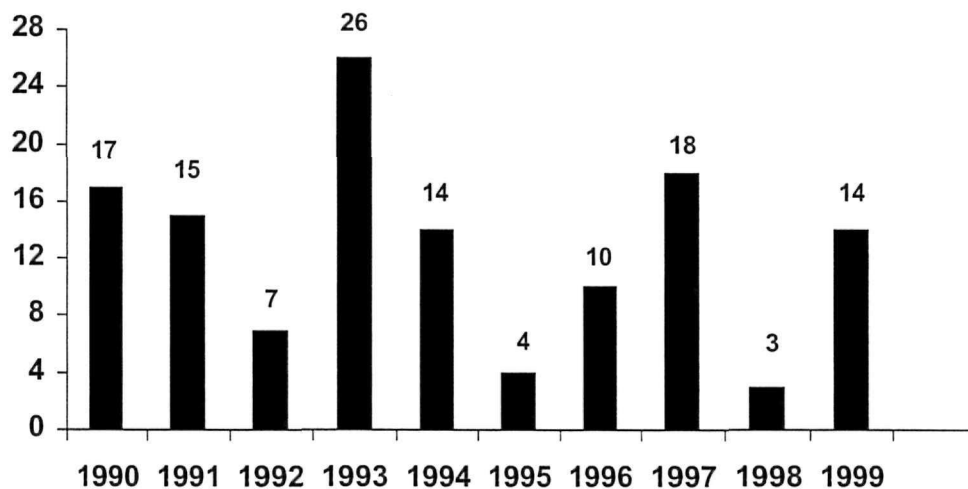
The above graph displays the number of support action dispatches, consequently the actual number of individuals dispatched is substantially greater. These figures do not include people who were involved in mutual aid or local suppression activities, or the people involved in fire related support positions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

*1990 - 1999*  
*FIRE STATISTICS*  
*BY REGION*

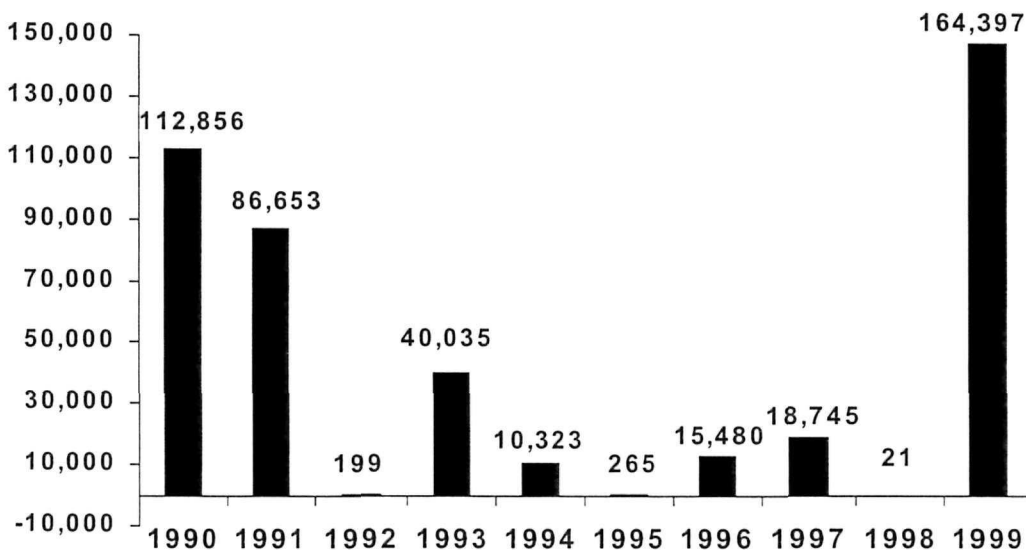


## ALASKA REGION WILDFIRES, 1990 - 1999

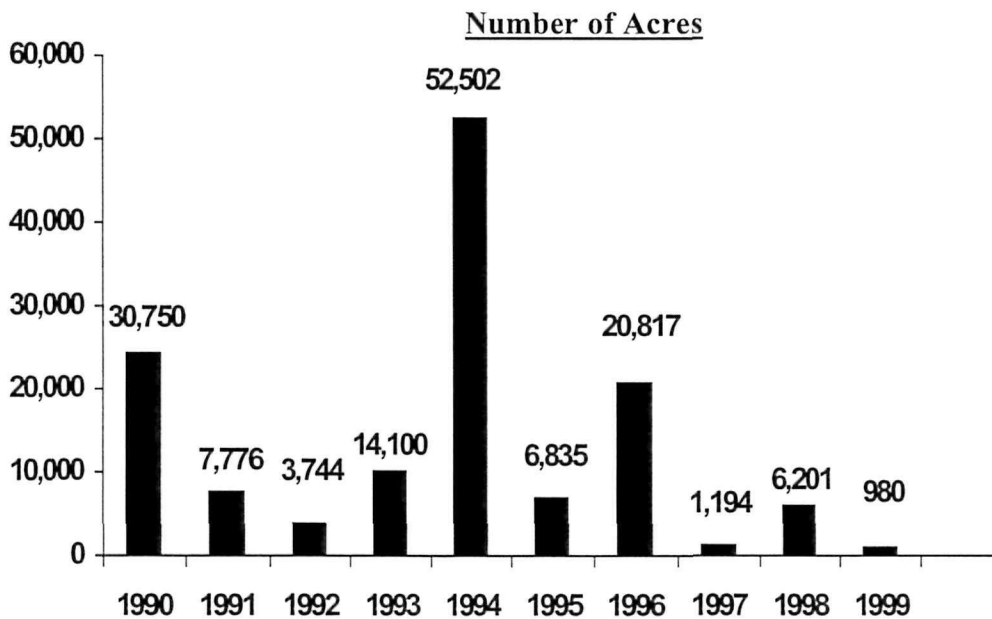
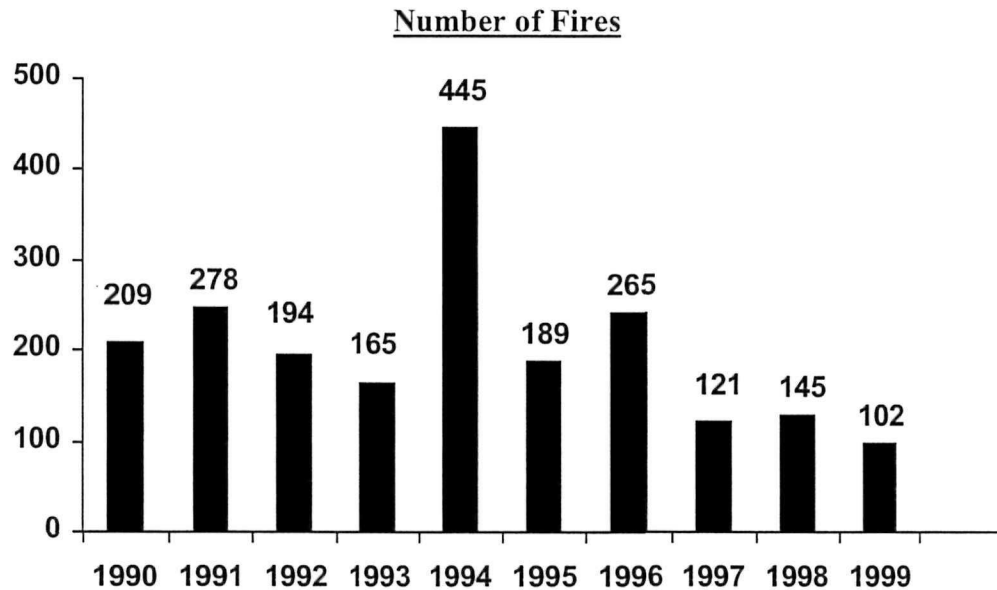
### Number of Fires



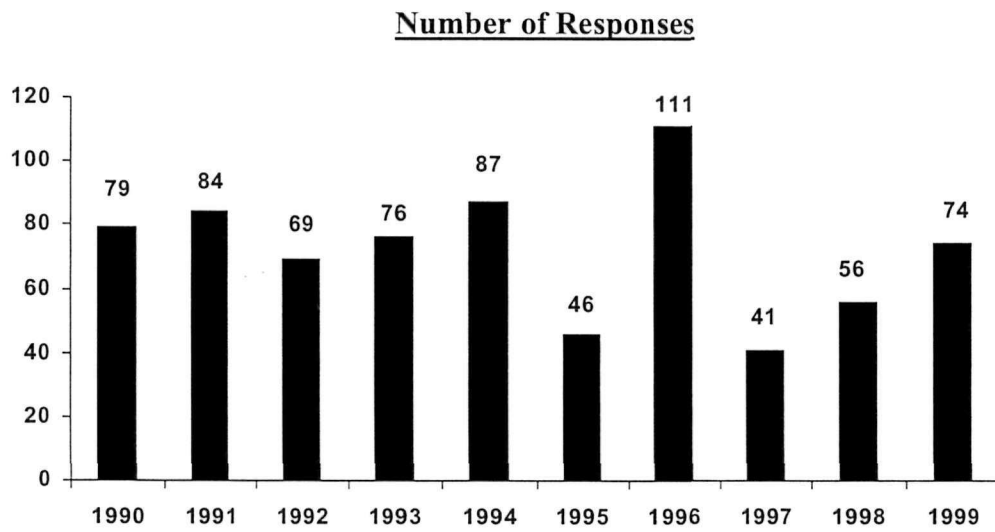
### Number of Acres



## INTERMOUNTAIN REGION WILDFIRES, 1990 - 1999

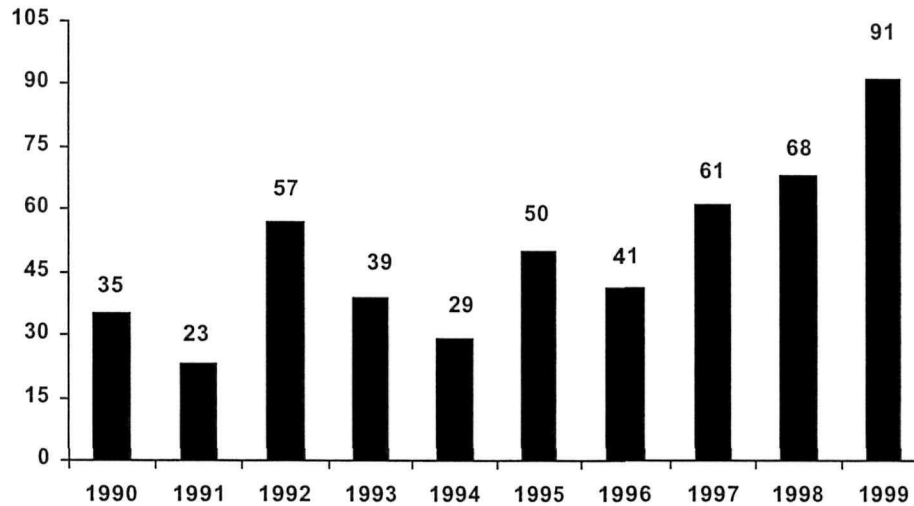


**INTERMOUNTAIN REGION  
MUTUAL AID RESPONSES, 1990-1999**

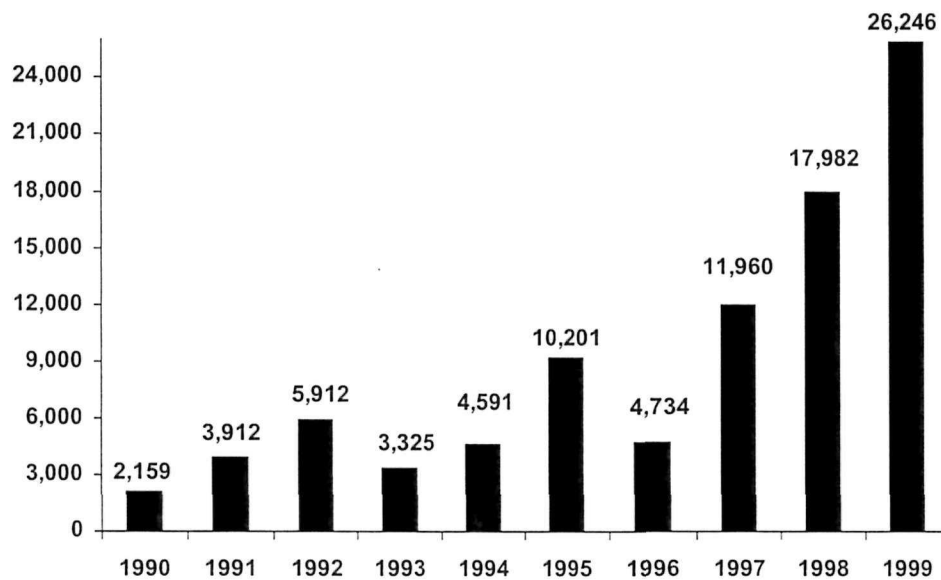


## INTERMOUNTAIN REGION PRESCRIBED FIRES, 1990-1999

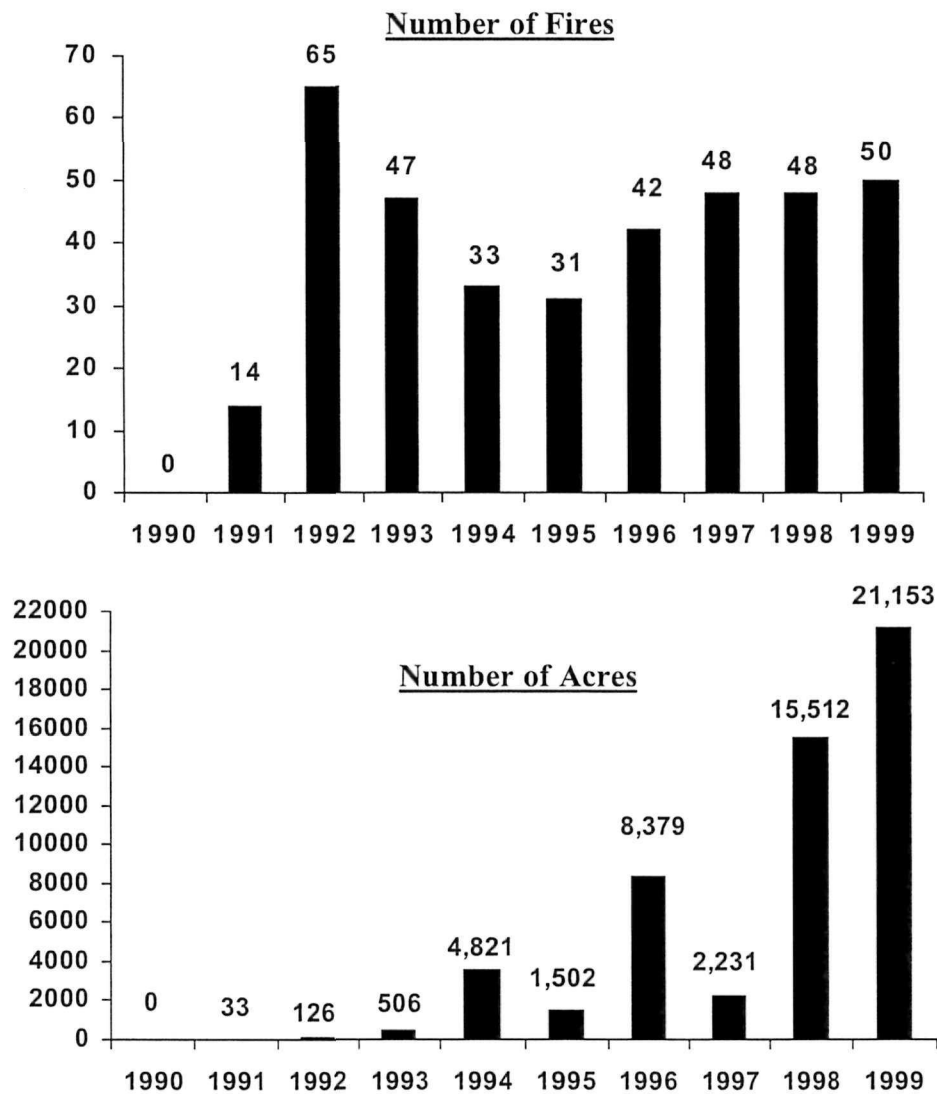
Number of Fires



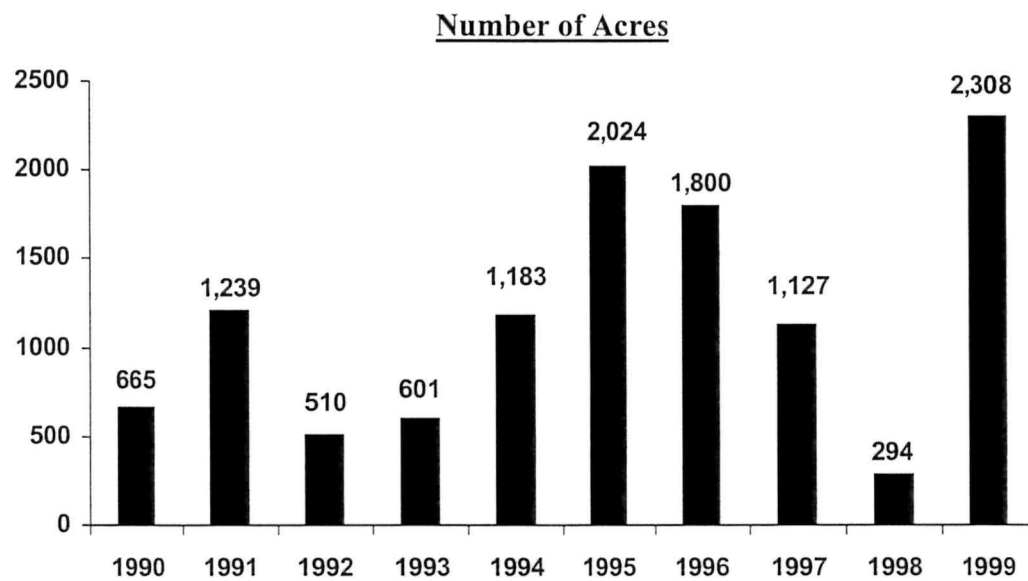
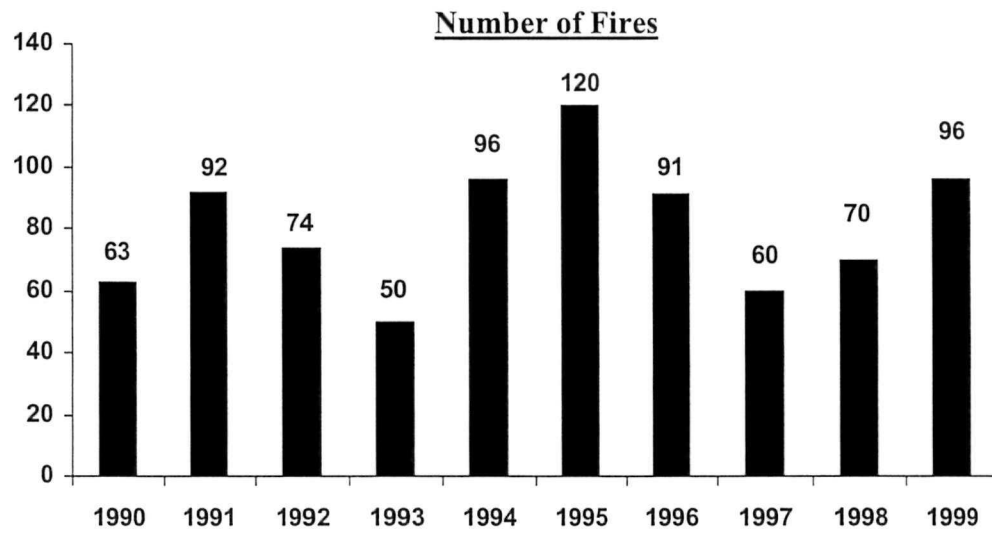
Number of Acres



## INTERMOUNTAIN REGION WILDLAND FIRE USE, 1990-1999

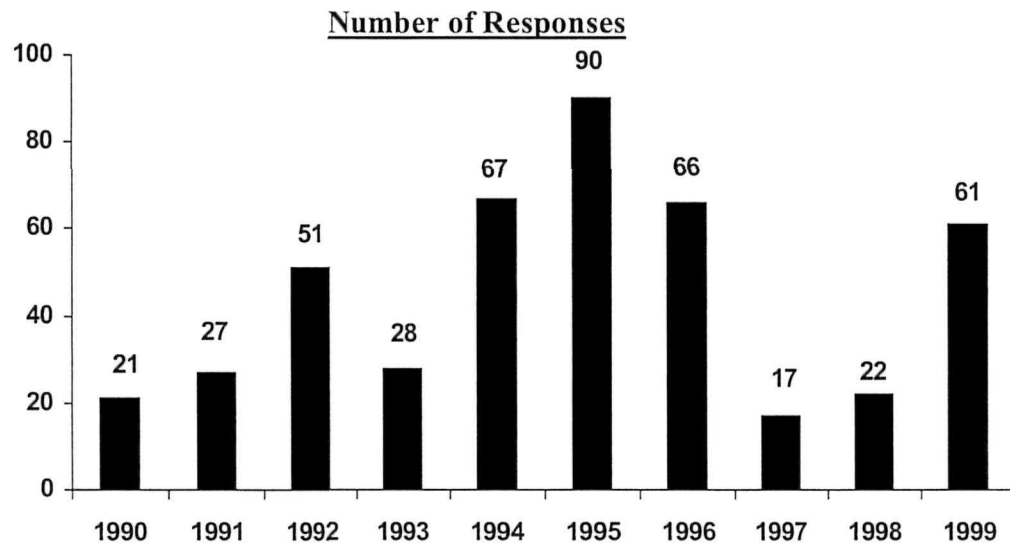


## MIDWEST REGION WILDFIRES, 1990-1999



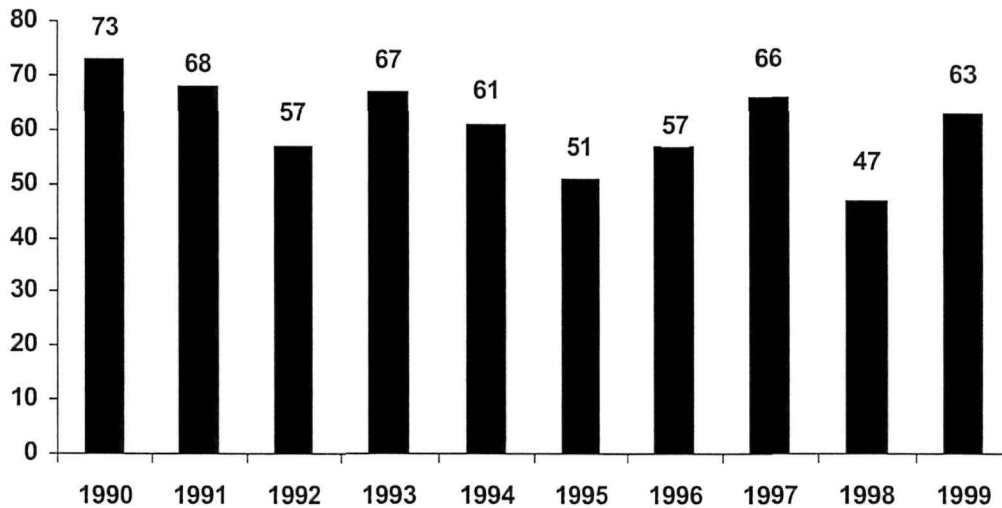


**MIDWEST REGION  
MUTUAL AID RESPONSES, 1990-1999**

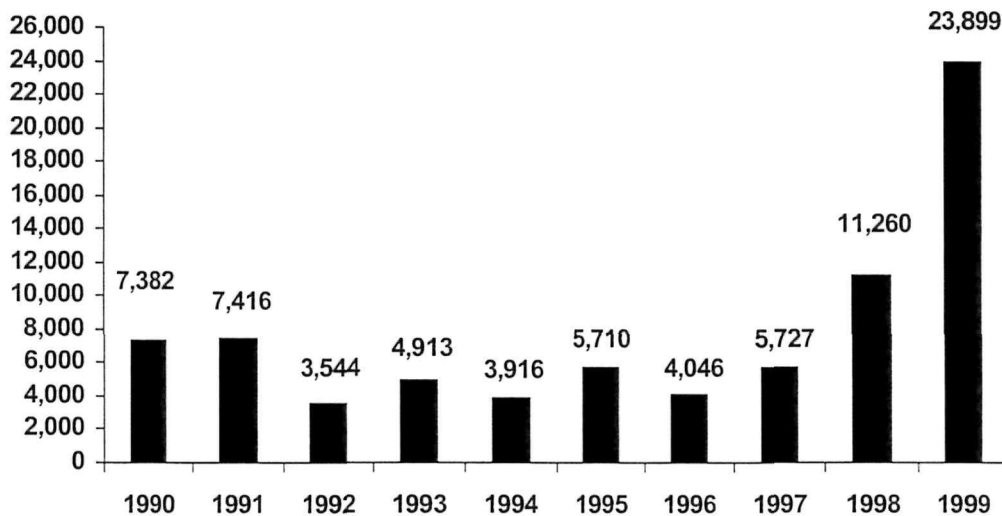


**MIDWEST REGION  
PRESCRIBED FIRES, 1990-1999**

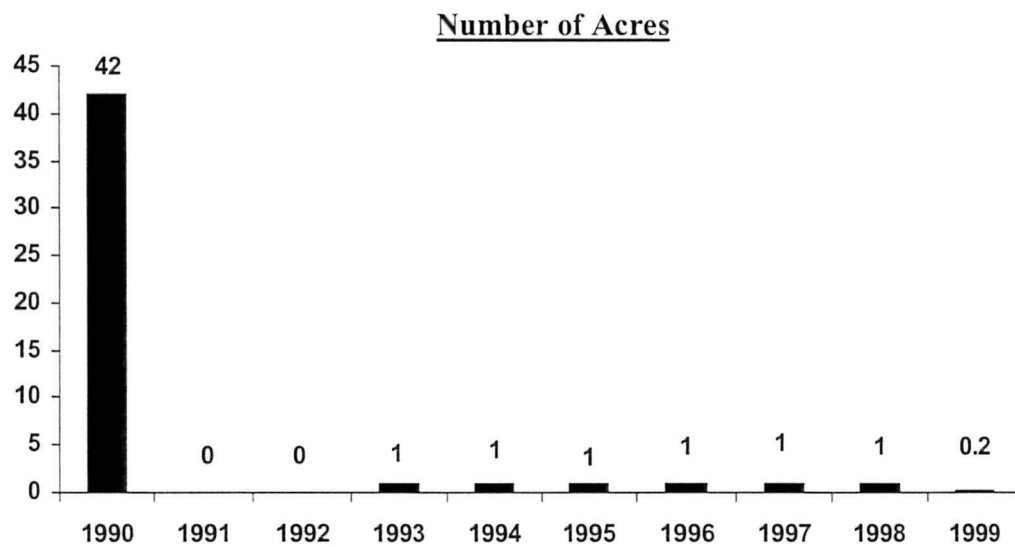
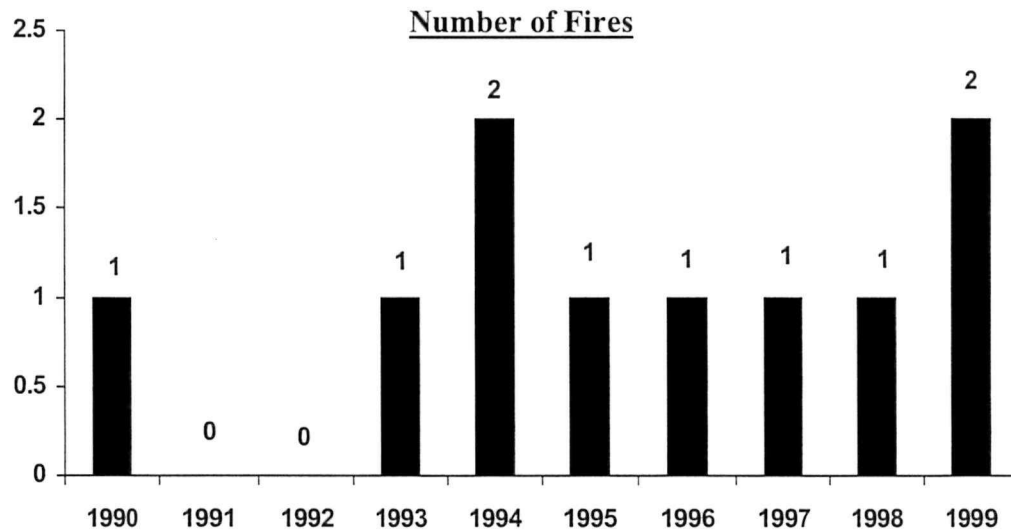
**Number of Fires**



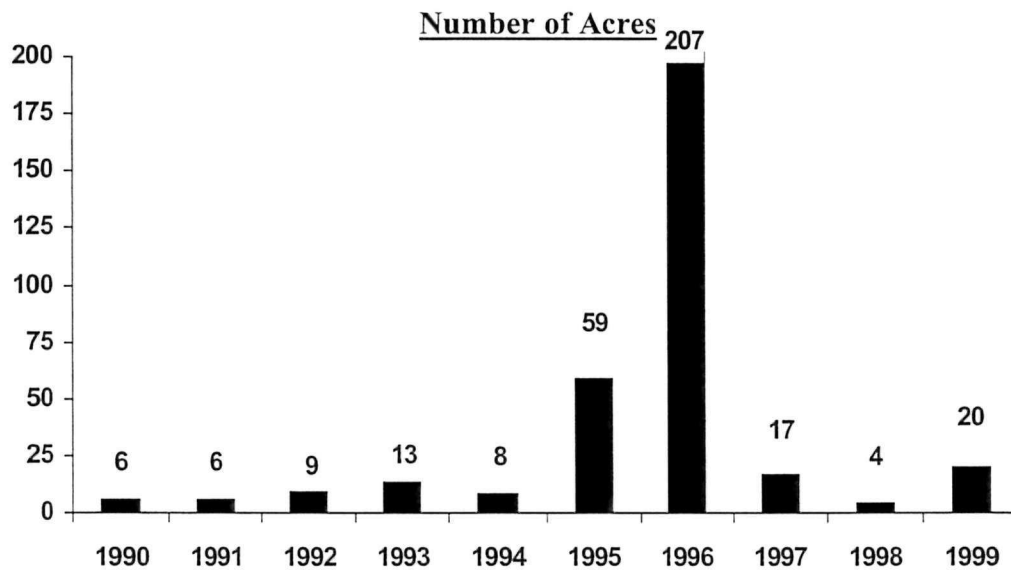
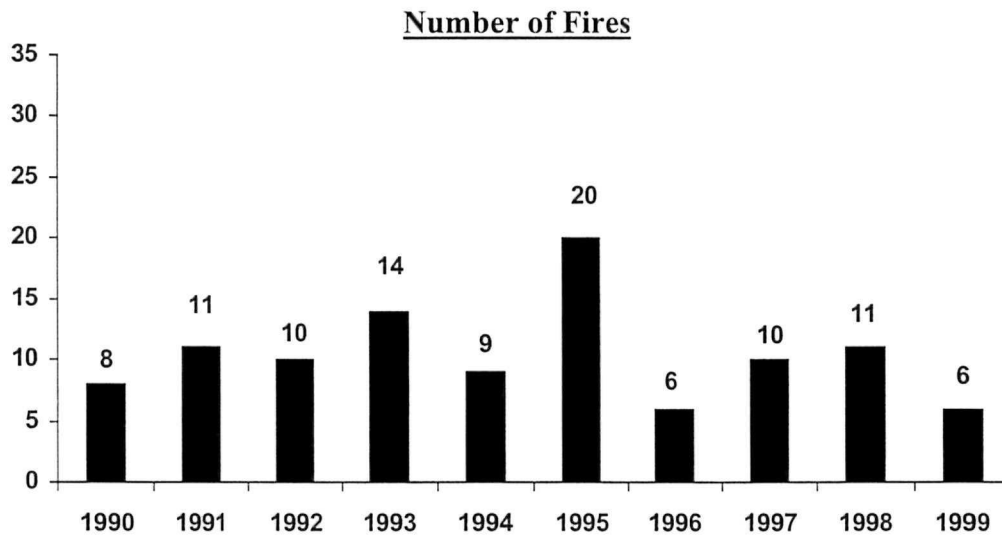
**Number of Acres**



**MIDWEST REGION  
WILDLAND FIRE USE, 1990-1999**

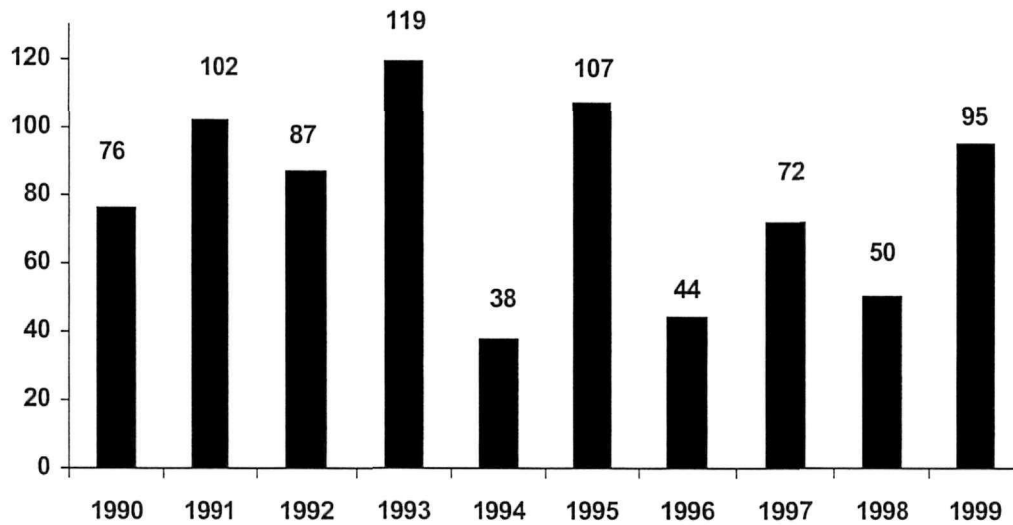


## NATIONAL CAPITAL REGION WILDFIRES, 1990-1999

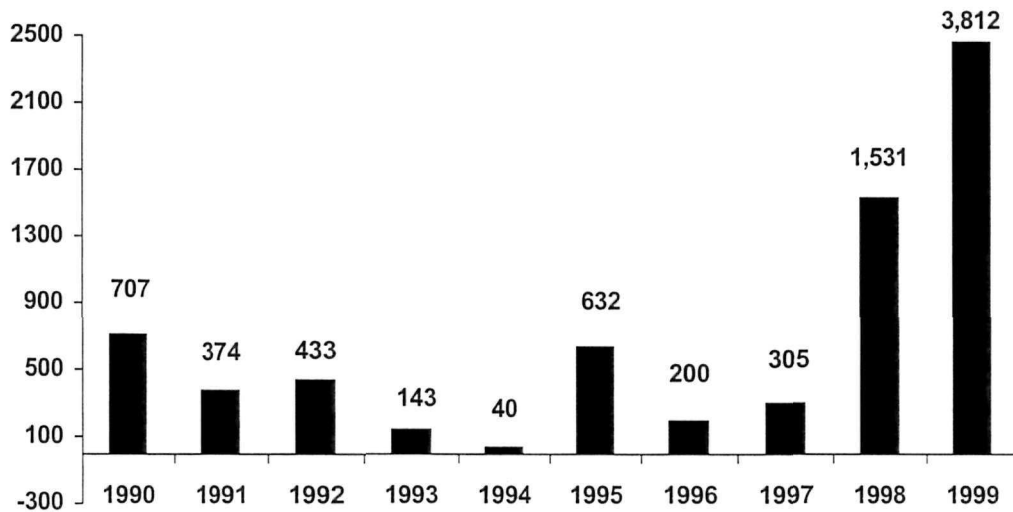


## NORTHEAST REGION WILDFIRES, 1990-1999

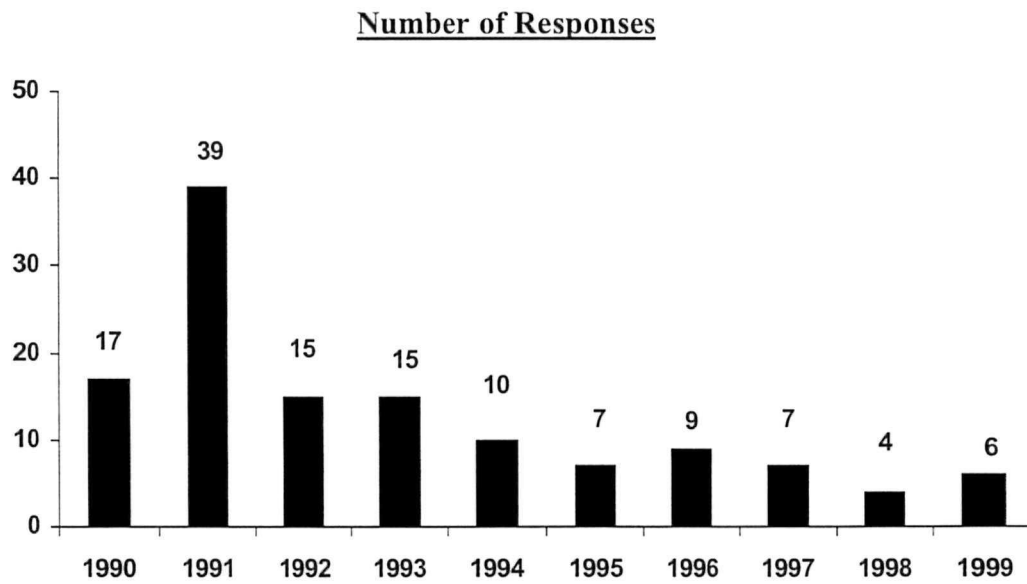
### Number of Fires



### Number of Acres

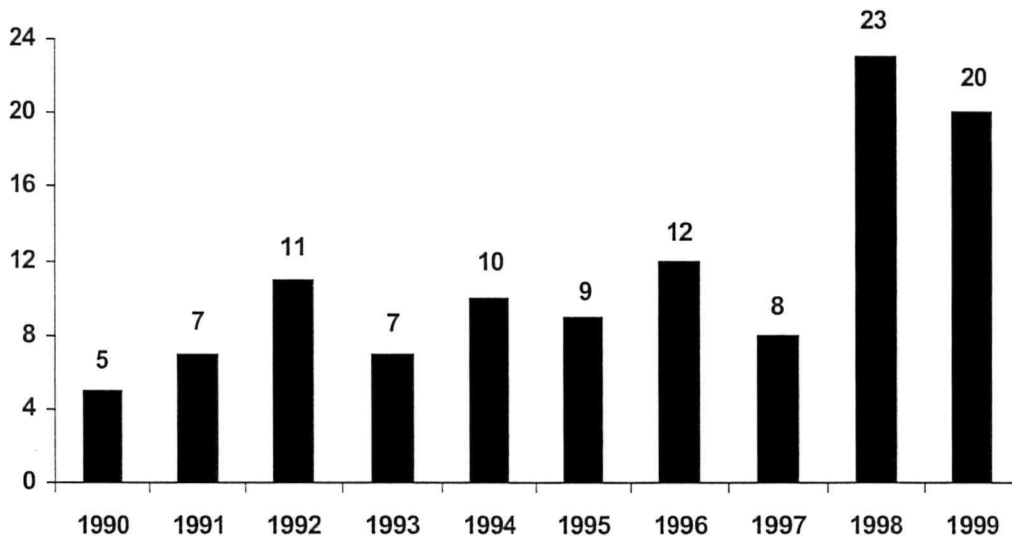


**NORTHEAST REGION  
MUTUAL AID RESPONSES 1990-1999**

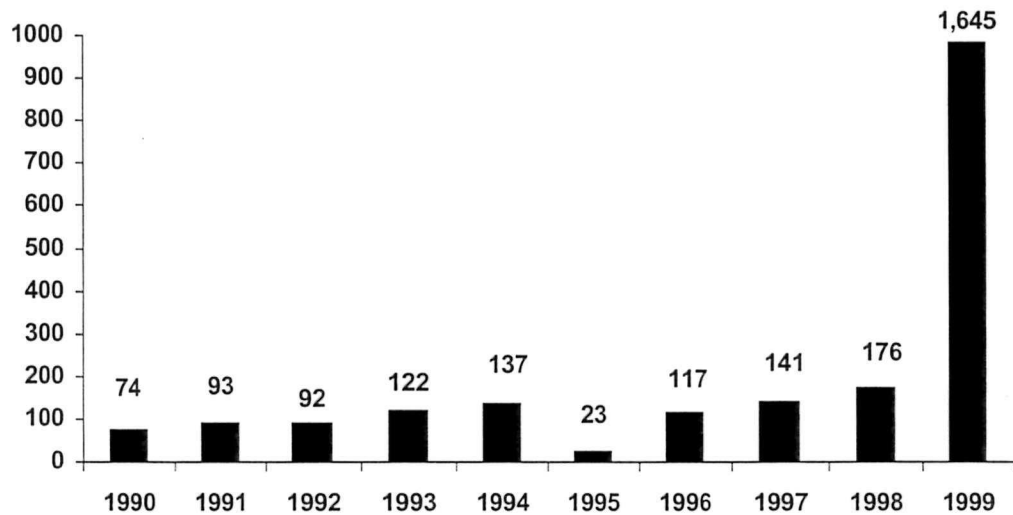


**NORTHEAST REGION  
PRESCRIBED FIRES, 1990-1999**

Number of Fires

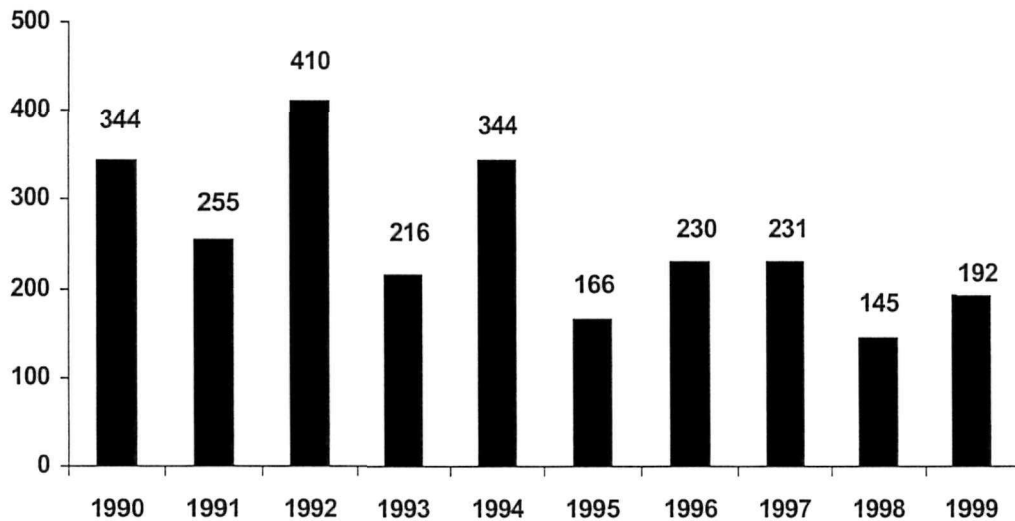


Number of Acres

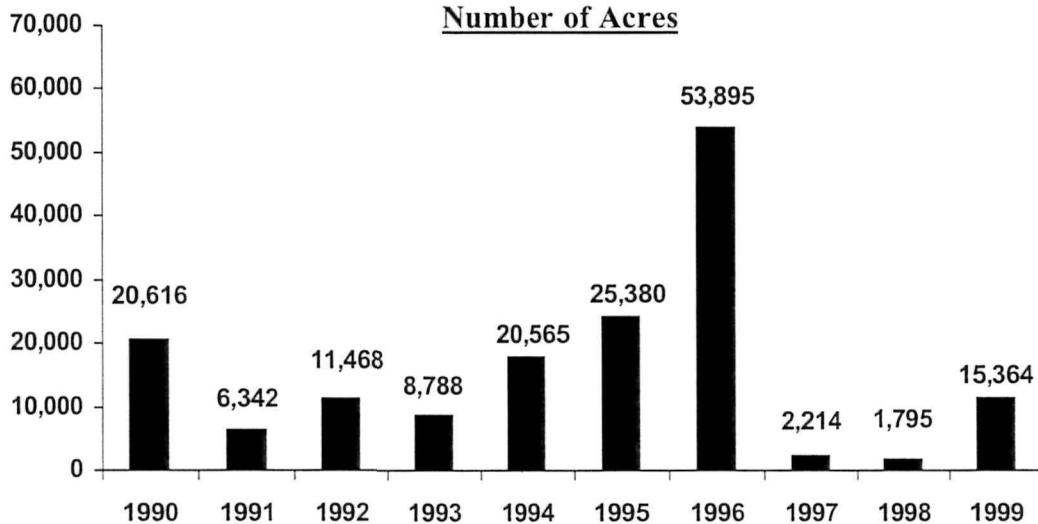


## PACIFIC WEST REGION WILDFIRES, 1990-1999

Number of Fires



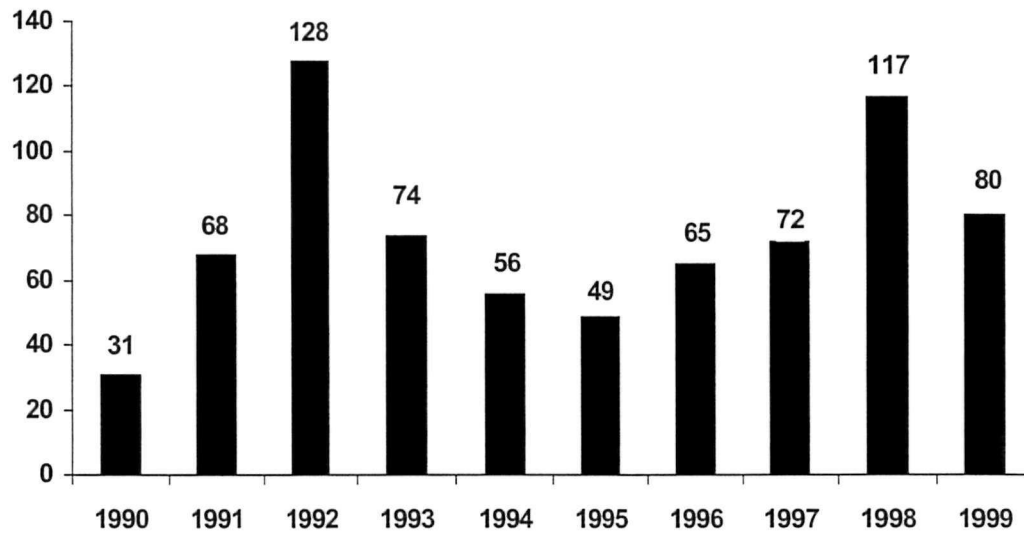
Number of Acres





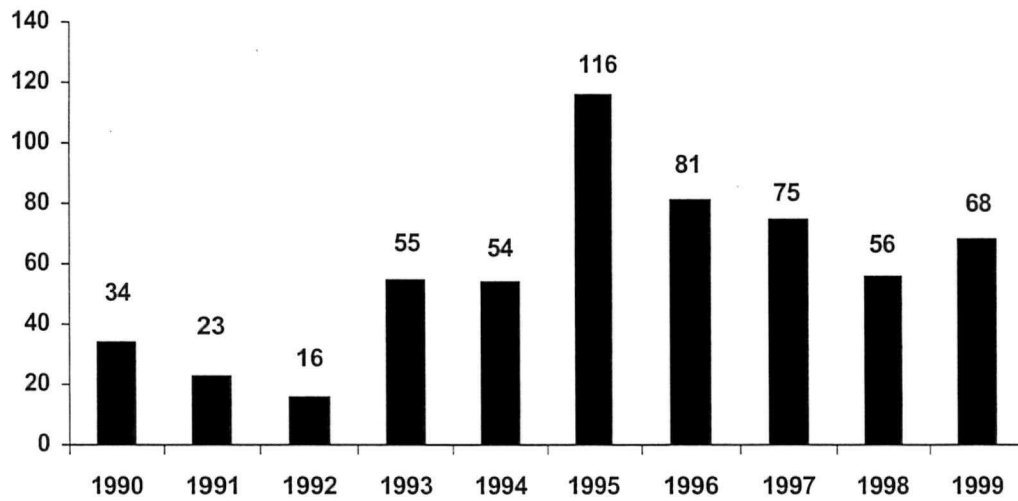
**PACIFIC WEST REGION  
MUTUAL AID RESPONSES, 1990-1999**

Number of Responses

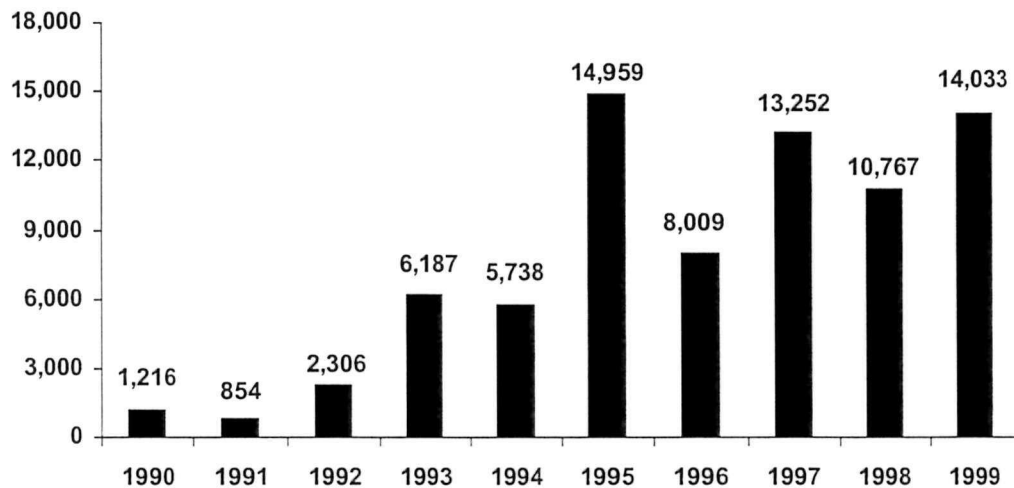


**PACIFIC WEST REGION  
PRESCRIBED FIRES, 1990-1999**

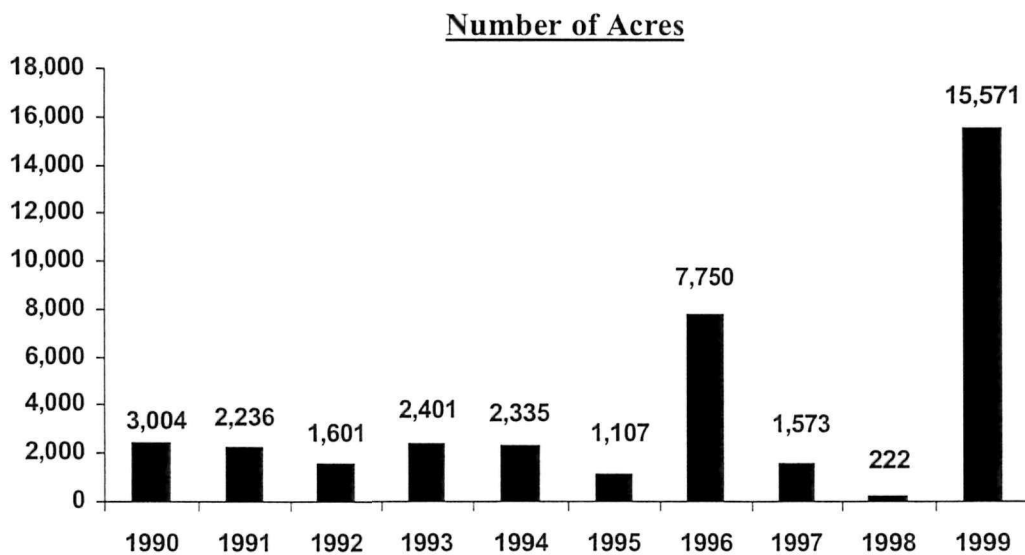
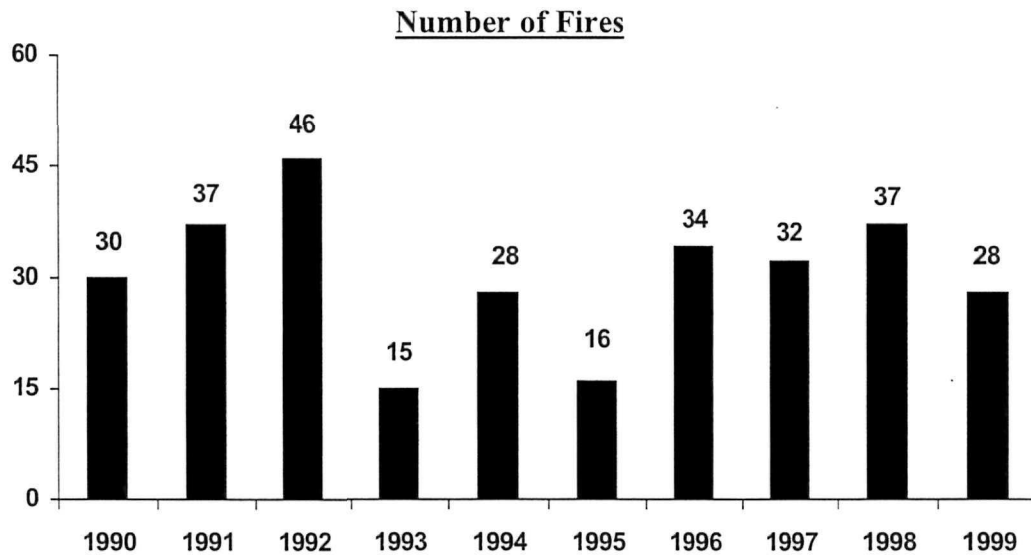
Number of Fires



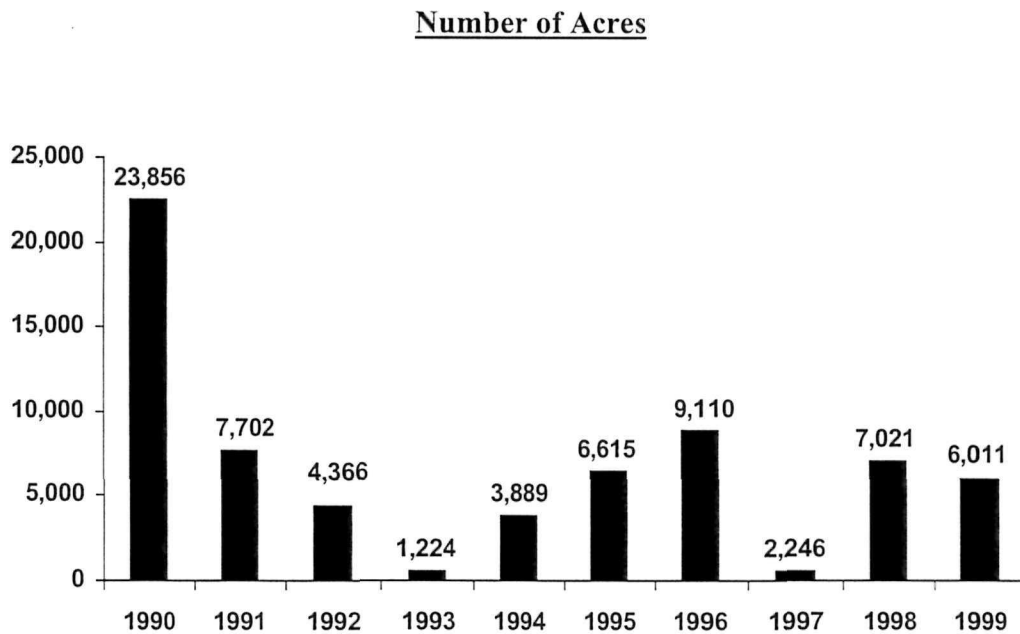
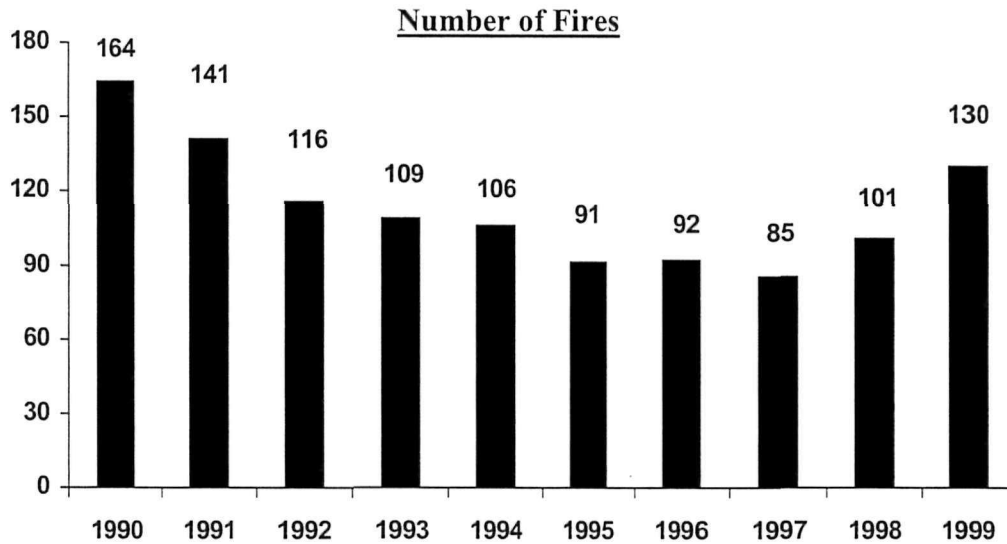
Number of Acres



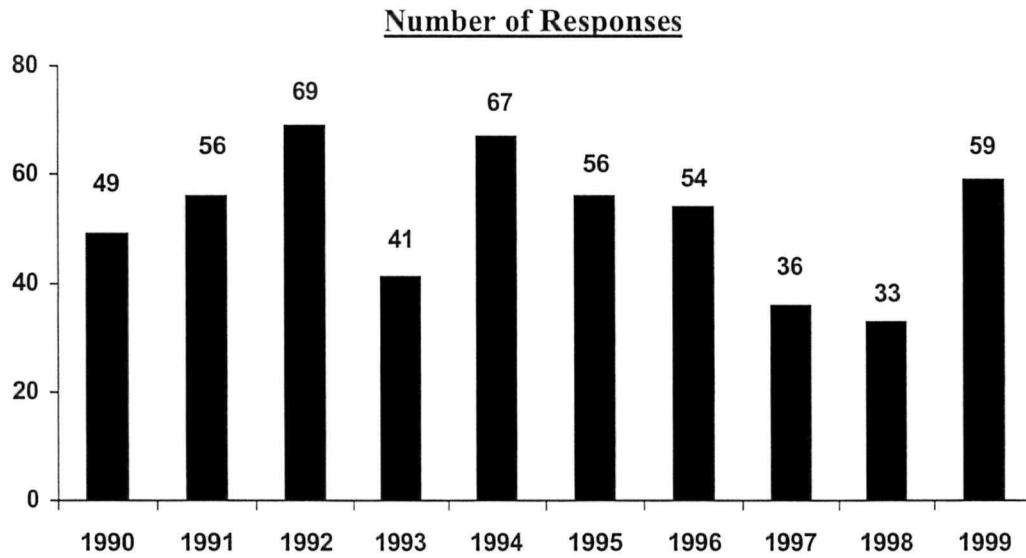
# **PACIFIC WEST REGION WILDLAND FIRE USE, 1990-1999**



## SOUTHEAST REGION WILDFIRES, 1990-1999

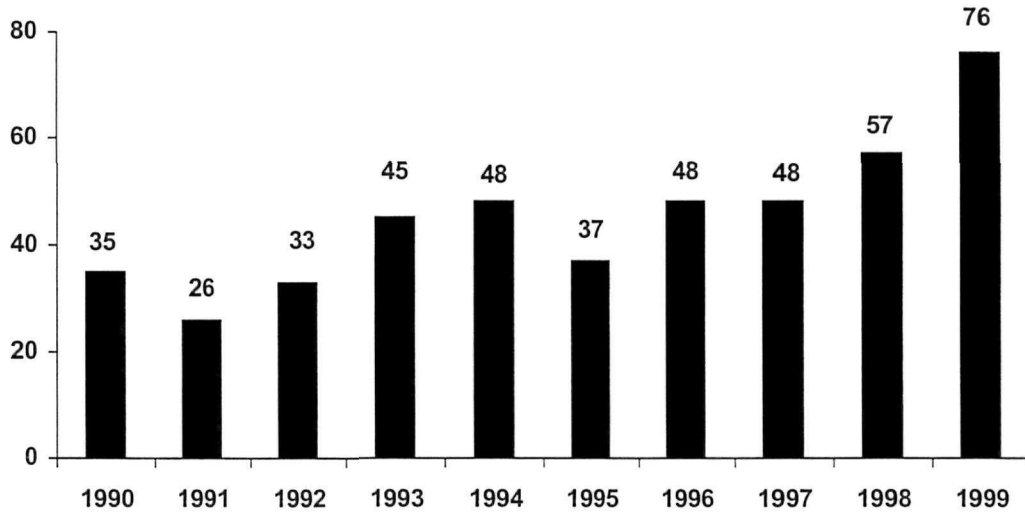


**SOUTHEAST REGION  
MUTUAL AID RESPONSES, 1990-1999**

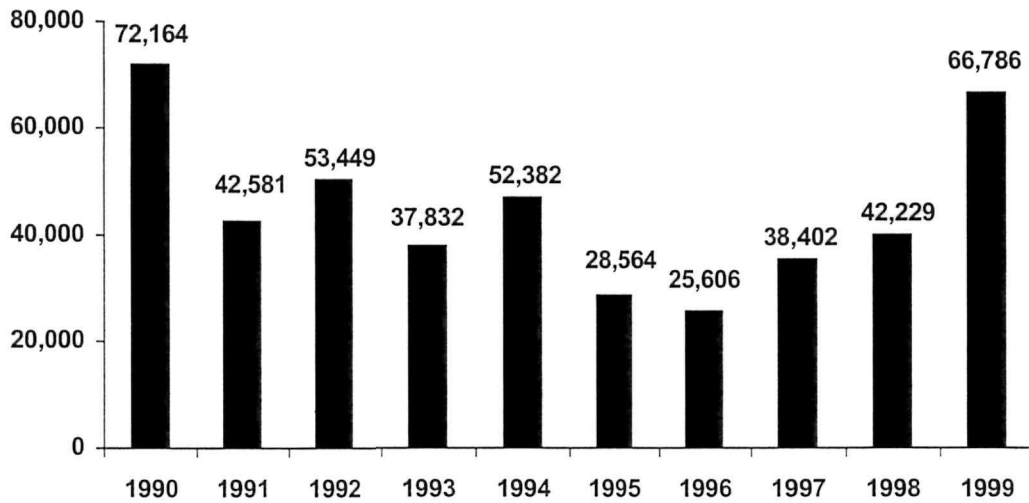


**SOUTHEAST REGION  
PRESCRIBED FIRES, 1990-1999**

Number of Fires



Number of Acres



**SOUTHEAST REGION  
WILDLAND FIRE USE, 1990-1999**

