

**Alaska Department of Natural Resources**

# **Division of Forestry**

## **1989 Annual Report**



**Trees are the answer.**

**Forests are Alaska's greatest renewable resource.**

**April, 1990**



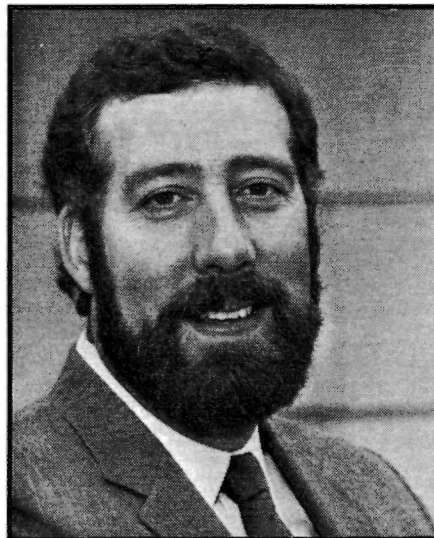
Alaska Department of  
**NATURAL  
RESOURCES**



# Table of Contents

---

STATE FORESTER COMMENTS . . . . .	i
OVERVIEW . . . . .	2
HIGHLIGHTS . . . . .	3
FIRE MANAGEMENT	
Wildland Fire Protection . . . . .	5
Assistance to the Oil Spill . . . . .	5
New Technology in Fire Suppression . . . . .	6
New Suppression Agreement with Canada . . . . .	7
Fire Prevention . . . . .	8
Aviation . . . . .	9
Prescribed Burning . . . . .	10
Rural Community Fire Protection Program . . . . .	11
FOREST PRACTICES	
Forest Practice Act . . . . .	12
RESOURCE MANAGEMENT	
State Forest Land Management . . . . .	13
Fuelwood Program . . . . .	13
Commercial Harests on State Lands . . . . .	14
Reforestation . . . . .	15
Site Preparation . . . . .	15
State Forest Nursery . . . . .	16
Tree Program . . . . .	18
Insects . . . . .	18
SUPPORT SERVICES	
Rural Forestry Assistance . . . . .	21
Board of Forestry . . . . .	21
Training . . . . .	21
FISCAL REPORT . . . . .	23
APPENDIX . . . . .	27
DIRECTORY . . . . .	35
ORGANIZATION CHART . . . . .	37



Malcolm R. "Bob" Dick  
Director

## SHARING OUR VISION

### Forestry: Our Future

Calendar year 1989 challenged the Division of Forestry. Controversy was common, budgets were under attack while operational expectations increased. Division staff, however, dug in and the jobs got done. Forest fires were extinguished, forest harvests were checked and timber sales were held. In addition to our core responsibilities, the division was deeply involved in forest practices negotiations, land use plans, seedling productions and other projects.

The 1989 annual report gives Alaskans an overview of what we do. Statistics buffs will find numbers that document fire suppression and timber sales. Many people don't know about one set of statistics: revenue. The division makes money by selling the right to cut trees on state land. Our revenue varies with markets and amount of timber sold but timber values continue to increase. The potential value of the state's timber

resource is an untold story we intend to further explore.

Who would guess the Division of Forestry would play a key part in the Valdez Oil Spill? Our Incident Command System (ICS) trained staff is normally used for large forest fires, but these folks were used with great effect on the spill. The division is proud of its part in building structure from chaos.

Another story unto itself is the administration of forest harvest regulations known as Forest Practices. The division played a major part in negotiating revisions to the existing law. It's a major effort not yet complete that substantially will change the way we administer the act.

The most significant new challenge is the Total Resource Enhancement Program or "TREE" Program. Alaska's economy will undergo fundamental change as we exit an oil based economy and enter a multi-resource based economy. The division is developing a business plan that projects how we can play a part in the new economy. The bottom line: the Division of Forestry, with the proper tools can produce significant State revenue and private sector employment.

Many challenges await the division: How do we do more with less? What doesn't get done? Those are the questions we are paid to answer. Our customers, Alaska citizens, expect that. The exciting challenges concern tomorrow: What could we do for our customers if we got a green light to really develop our forest resources? You will have our recommendations in 1990!

## Overview

### Introduction

The Division of Forestry (DOF) was established in November 1981. Prior to that time it was a section within the Division of Forest, Land & Water Management. Today it is one of eight divisions under the direction of the Commissioner of Natural Resources with a mission to manage and protect the state's forest resources.

The division manages state forested lands for multiple use and sustained yield. It encourages development of the timber industry and forest products markets; conducts personal-use and commercial fuelwood and timber sales; gives technical assistance to forest landowners; operates the State Forest Nursery; and administers the Forest Practices Act.

To perform these functions, the division is organized with a Central office for policy and program direction, and Regional offices, which provide program direction and support. In addition, there are ten Area offices which accomplish field work on a statewide basis.

The division employs 79 full time, 129 seasonal, 17 student interns and, on the average, 950 emergency firefighter employees.

The Division of Forestry program is designed to:

- \*protect water quality, fish and wildlife habitat, and other forest values through the use of appropriate forest practices,

- \*provide efficient management of the benefits and products associated with a dynamic forest system,

- \*manage a wildland fire program on public, private, and municipal lands; and

- \*provide administrative and technical services necessary to support program activities and fully meet state administrative directives.

## Highlights

### Reflecting on an Active Year

1989 was a challenging year and the Division of Forestry made a difference statewide. Consider that:

\*The division cooperated with other state and federal agencies to provide fire protection for 134 million acres of private, state and municipal lands.

\*Responded to 382 fires which burned 57,434 acres of state protected land.

\*Received more than \$2,100,000 for the state through assistance to lower forty-eight states fire suppression activities. Instate fire suppression efforts on federal land recovered more than \$2,600,000 from the Bureau of Land Management.

\*Provided 163,291 hours of work for emergency fire fighters for a total payroll of \$1,805,955. Of this amount 109,043 hours and \$1,232,587 was due to out-of-state assignments.

\*Administered aviation contracts and rentals along with fuel purchases putting \$2,734,839 into the Alaska economy during the year.

\*Provided 5,300 cords of fuelwood for homeowners personal use, and made available 15,620 lineal feet of houselogs to Alaskans to build their own log homes.

\*Executed 74 commercial timber sale contracts and 21 beachlog salvage licenses for 21,600,000 board feet of sawlogs, pulpwood, fuelwood, and other forest products.

\*Produced 721,374 seedlings for reforesting federal, state, private, and municipal lands and 34,681 seedlings and cuttings for wildlife habitat and soil stabilization.

\*The division planted 422 acres with 219,400 seedlings and direct seeded another 486 acres.

\*Completed a draft of "Timber Inventory Statistics for the Haines State Forest Resource Management Area 1985" and distributed for review.

\*Sponsored and led a three day spruce bark beetle conference on the Yukon River for Gana-A'Yoo Ltd. Native Corporation.

\*The division hosted a sawmill clinic and Zig-Zag Yarder demonstration in McGrath in cooperation with the U.S. Forest Service and the University of Alaska Extension Service. Twenty five interested local individuals and loggers attended.

\*Initiated a spruce bark beetle lethal trap project on state land at Devil's Elbow on the Kuskokwim River.

\*The division completed ten in-house operation reviews identifying programmatic and operational changes which could improve performance in all categories of responsibility. Results are now being implemented.

\*Dedicated a 50 acre burned-over-site within the Tanana Valley State Forest to the memory of Karen Lewandoski. The site was planted with Siberian larch, lodgepole pine and white spruce seedlings by a Fairbanks boy scout troop.

---

## Highlights

\*The division provided technical expertise to outline the requirements for prescribed burn plans to Delta farmers as part of their Development Schedule and Farm Conservation Plans.

\*Appointed the Tanana Valley State Forest Citizens Advisory Committee. The eleven member group has advisory responsibilities to the division for management of the State Forest.

\*The division evaluated the Compressed Air Foam System. Foam improves the efficiency of the engine and crew by extending the water's penetrating capability while evaporating slower.

\*The division began work on development of a managed forest resources program called the TREE PROGRAM which will give guidance in the years to come.

\*Guided a Susitna Valley field trip for foresters from Alaska and the Pacific Northwest that were attending the Society of American Foresters Annual Meeting.

\*Dedicated the new McGrath Area office in June.

\*Provided 55 personnel to assist in the oil spill cleanup activity.

## Fire Management

### Wildland Fire Protection

The Division of Forestry had near normal fire occurrence in 1989. There were 382 fires on the 134 million acres within its cooperative fire protection area. The northern portion of the state is under federal protection. This portion encountered an abnormally low occurrence of 60 fires. The low occurrence level made federal protection agencies suppression resources available to support the Division of Forestry's suppression actions.

The majority of the acres burned were caused by lightning and occurred in the southwest part of the state near McGrath. Lightning caused fires burned 43,797 acres, of which 13 fires in the limited action protection category burned a total of 42,156 acres. Allowing these fires to burn resulted in significant cost savings. An additional 13,638 acres were burned due to human causes.

The eastern portion of the state protection area remained dry late into the year. This dry period caused the Tok and Delta areas to experience higher than normal late season human-caused fires.

Alaska sent fire fighting crews, along with 74 fire overhead (management) team personnel, to support the fire activities in Oregon and Idaho during August and September. Aircraft and supplies were also sent.

The state managed Emergency Fire Fighting Crews were mobilized for assignments in and out of the state. There were 40 crew-hires during the season earning \$1,805,955 from the state payroll.

### EMERGENCY FIRE FIGHTERS WAGES PAID BY AGENCY

Calendar			
Year	State	Federal	Total
1980	614,887	600,561	1,215,448
1981	1,705,360	2,898,293	4,603,599
1982	19,950	1,230,351	1,250,301
1983	1,553,258	1,969,374	3,522,532
1984	234,388	507,004	741,392
1985	561,238	2,656,350	3,166,588
1986	2,515,750	2,832,208	5,347,958
OT <sup>1</sup>	561,770		561,770
1987	646,674	5,352,799	5,999,473
1988	4,474,107	5,146,861	9,620,968
1989	1,805,955	2,276,175	4,082,130
<b>TOTAL</b>	<b>14,693,337</b>	<b>25,469,976</b>	<b>40,112,159</b>

<sup>1</sup> Special appropriation due to Fair Labor Standards Act (FLSA) overtime ruling.

### HISTORICAL EMERGENCY CREW USE OUT OF STATE (20-person crews)

Year	Number of Crews
1970	40
1973	6
1981	18
1982	4
1985	30
1986	22
1987	59
1988	54
1989	54

### Assistance to the Oil Spill

The division became involved within 2 hours after the accident occurred when the request was received to activate special use aircraft with infrared scanning capability. Other special equipment and communications capability was sent from our fire suppression warehouse supplies. The division's fire overhead (management) team, and the division's members of the state/federal Class I national level fire overhead team served in several locations for extended periods of time to coordinate the response efforts among the agencies involved. Aviation management specialists were provided to organize flight coordination and supervision at Valdez, Homer and Seward. At the request of the Alaska Division of Emergency Services, the division provided a comprehensive aviation



## Fire Management

procurement, operations, and safety plan for Valdez. The division also provided and implemented detailed and operationally effective communications plan for the Valdez area. In total 55 personnel were directly involved in the activities.

Perhaps the most notable experience was the successful application of the fire community's "Incident Command System" (ICS) in a non-fire emergency. ICS offers a standard organization structure and role definitions that personnel can work under when managing a complex event. Required positions are identified which are applicable to managing a complex event. Because of the division's interagency relationship with the federal sector, access to assistance from across the nation was available. Division personnel received special commendations from other agencies and municipalities for their successful efforts.

### New Technology in Fire Suppression

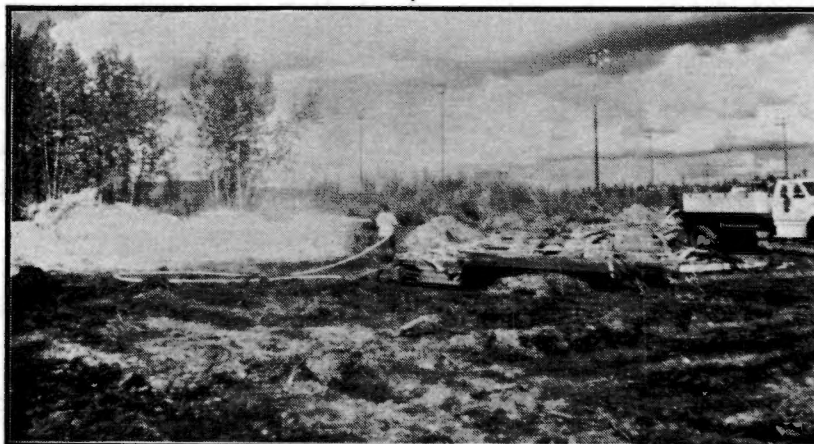
The division completed a comprehensive study on the benefits of adding compressed air and a wetting agent to a standard fire engine. The purpose of the study was to evaluate the effec-

tiveness of compressed air generated foam when used in direct and indirect fire suppression actions for the various fuels encountered in Alaska. Application on structures to enhance exposure protection from wildland fires was also evaluated.

Field trials, test burn extinguishment, and actual use on going fire situations were conducted from May to September 1989. From these tests the division concluded that incorporating a Compressed Air Foam System (CAFS) on fire engines substantially improves fire control success. In addition, inclusion of a wetting agent significantly reduces the personnel hours required to totally extinguish fires after initial control action by approximately 50% in many cases.

Based on the results of the evaluation the division plans to incorporate additional systems within the engine fleet through future budget requests. Transfer of the technology to the structural fire organizations will also be under taken.

The evaluation report contains comprehensive details and additional recommendations. It is available upon request from the division's Chief, Fire Management, Central Office, Anchorage, Alaska.

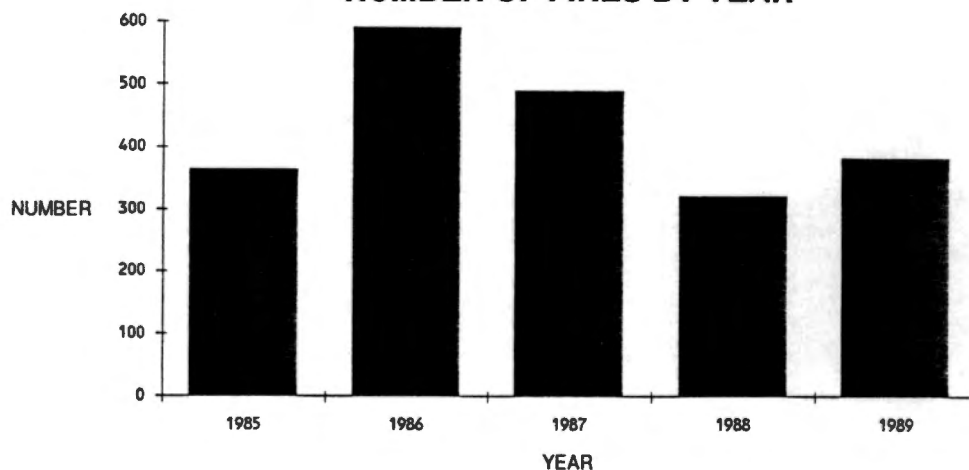


Compressed Air Foam System Being Tested

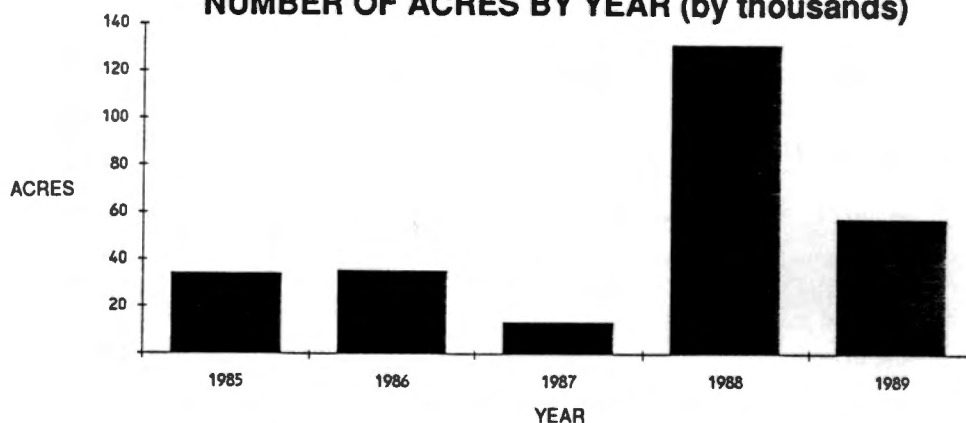


## Fire Management

**NUMBER OF FIRES BY YEAR**



**NUMBER OF ACRES BY YEAR (by thousands)**



### **New Suppression Agreement with Canada**

The division entered into a cooperative fire suppression agreement with the Yukon Territory, Canada. This arrangement allows the fire suppression resources of one agency to be shared with the other when they are needed on fire suppression and can be spared by the sending agency. This agreement required substantial coordination by the two countries as it had to be reviewed by State Departments, U.S. Forest Service, Environmental Protection Agency, and various legal departments among others. The benefits are substantial.

Often the lower 48 states are involved in heavy fire suppression actions and absorb all the fire suppression resources which may be needed to support Alaska during a serious fire period. Now, critically needed and specialized resources can be obtained from the Yukon Territory within very short delivery time. This year Yukon Territory retardant aircraft were used to control fires in the Alaska's Interior after Alaska's retardant aircraft had moved to the lower 48 or terminated their contracts. The support is reciprocal and future years will no doubt see Alaska supporting the Yukon Territory with their suppression efforts.

# Fire Management

## Fire Prevention

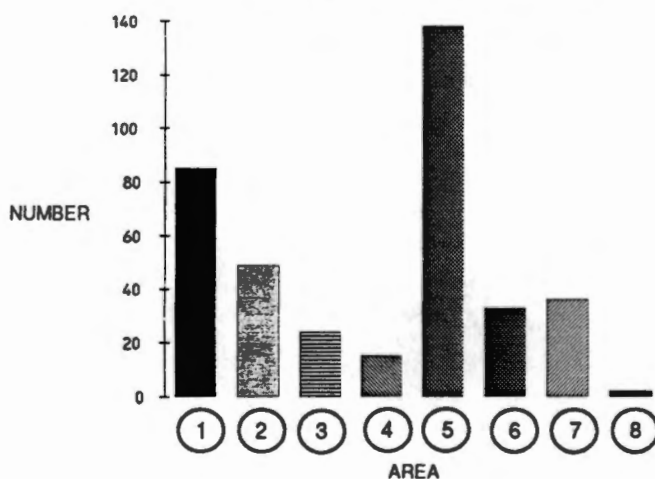
National events in Yellowstone during 1988 and the large fires in the western states in 1988 and 1989 focused attention and heightened public awareness of the forest fire problem. As a result, division personnel, around the state, were called on to have Smokey the Bear bring out the prevention message.

Fire prevention programs were conducted at 40 elementary schools, two

summer camps, an Amway Jamboree, three July 4th parades, two fairs and one shopping mall. Approximately 5,500 school children and an uncounted number of adults received instruction on ways they can prevent wildfires.

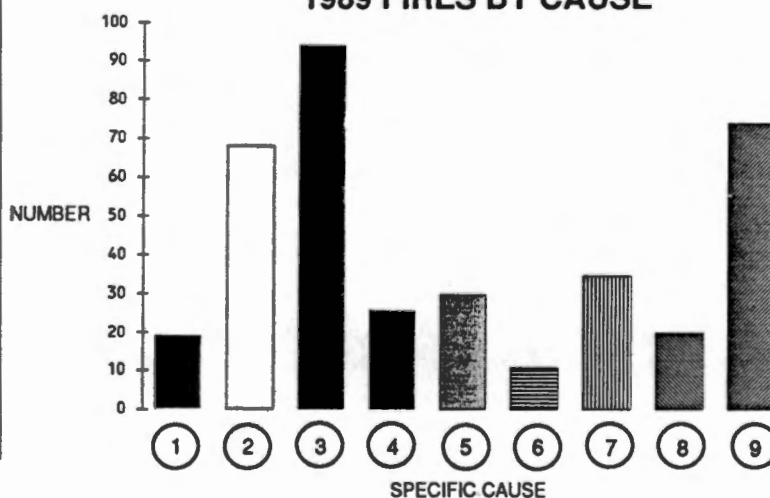
As public awareness increased, along with education presentations, the requests for open burning permits rose. A total of 3,240 permits were issued.

### 1989 FIRES BY AREA



- 1 ANCH/MAT-SU
- 2 KENAI/KODIAK
- 3 COPPER RIVER
- 4 SOUTHWEST
- 5 FAIRBANKS
- 6 DELTA
- 7 TOK
- 8 SOUTHEAST

### 1989 FIRES BY CAUSE



- 1 LIGHTNING
- 2 CAMPFIRE
- 3 FIELD/DEBRIS
- 4 SMOKING
- 5 CHILDREN
- 6 INCENDIARY
- 7 FIREWORKS
- 8 DUMP/TRASH
- 9 OTHER CAUSES

## Fire Management

### Aviation

The most significant single event to occur this year was the grounding of the Exxon Valdez and the subsequent oil spill. Many division personnel participated actively in Valdez and other spill impact areas.

Aviation specialist from both Northern and Southcentral Regions and the central office were sent to Valdez to assist the Department of Environmental Conservation and the Division of Emergency Services in aircraft procurement, management, logistics, and dispatch. The division's southwest area pilot Bob Robertson flew the oil spill with a hand-held Forward Looking Infrared Radar unit and effectively mapped the spill perimeter for several days.

Large fire activity for the state was down this year with only the southwest area having project size fires. This below normal large fire activity in the Northern Region resulted in a reduction in flight hours from 1,262 in 1988 to 837 this year. Aircraft costs were reduced by \$100,000 dollars and the program was able to absorb a \$200,000 increase in aircraft availability. Total aircraft costs were \$1.4 million vs. \$1.5 for 1988.

The seven state aircraft flew 568 hours this year which is down from 700 in 1988. The T-28's flew 396 hours compared to 639 in 1988. The two Beaver's flew 172 hours compared to 70 in 1988.

Detection flight hours were actually higher in 1989 amounting to 270 hours compared to 174 in 1988. The 1989 figures reflect a more normal detection workload. In 1988 many detection requests went unfilled due

to the commitment to the interagency air attack pool. Costs were approximately \$146,000.

Two state air tankers based at Ft. Wainwright flew a total of 84 hours and delivered 86,000 gallons of long term retardant and 12,800 gallons of foam. This compares to 31,000 gallons delivered in 1988 of which 16,000 was long term retardant and 15,000 was foam.

Costs for availability and flight time was \$490,000 which was down from \$792,000 in 1988. It should be noted that foam was seldom requested this season in favor of the long term retardants.

The Northern Region contracted for two medium helicopters for 90 days in Fairbanks and 60 days in Delta. Flight hour totals were 108 compared to 425 hours in 1988. Both contracts were new in 1989 with a considerable increase in availability costs. These costs increased from \$300,000 in 1988 to \$470,000 in 1989. Both contracts were extended beyond normal contract periods due to high fire danger.

Most of the rental activity occurred in Tok in September due to late season fires. Overall rental helicopter utilization was low (40 hours) due to lack of escaped fires this season.



## Fire Management

### Prescribed Burning

The 1989 prescribed burning season was reasonably good. Weather conditions varied considerably throughout the areas where burning is normally conducted. This resulted in some areas having optimum burning conditions while other areas had poor or marginal conditions.

The Delta area personnel completed two prescribed burns to enhance bison habitat for the Department of Fish and Game. Five hundred acres of short and tall grasses were burned to enhance the nutrient quality of bison forage. The second prescribed fire was 3,000 acres of berm piles on the Delta Bison Range. The burning was completed under ideal conditions

with very few problems occurring and all objectives reached.

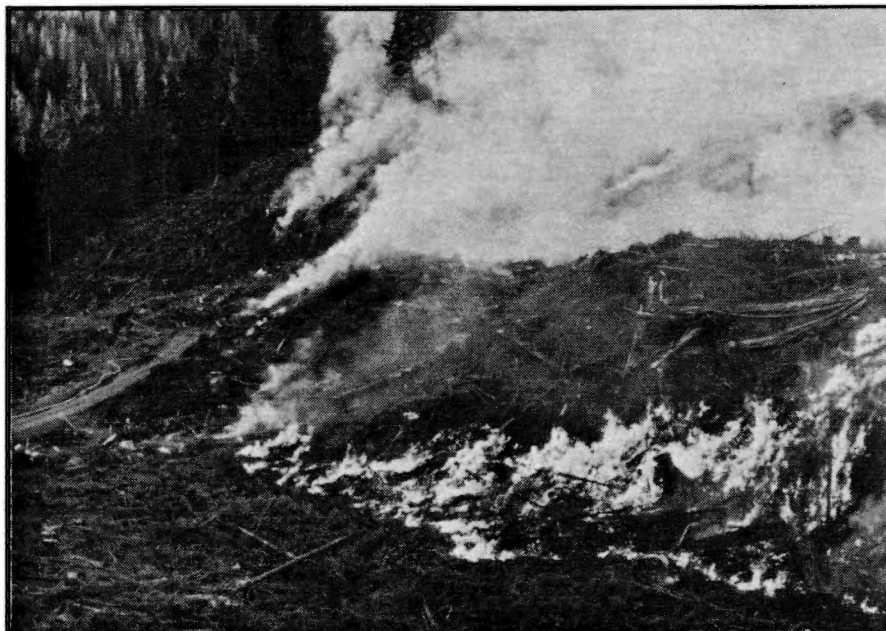
The Haines area personnel completed a prescribed burn on 60 acres of logging slash from a 1988 harvested cutting unit. Burning was successful, and the site was then planted with 15,000 Sitka spruce seedlings.

Efforts to complete a prescribed burn on the Bradley Lake Hydro-project by the Southcentral Region were hampered by wet weather. A helitorch was used to burn 40 acres of spruce bark beetle infested slash in the right-of-way clearing. An additional 40 acres are planned for burning before June 1990.



Berm Piles on the Delta Bison Range

## **Fire Management**



**Logging Slash at Haines**

### **Rural Community Fire Protection Program**

Title IV of the Rural Community Development Act of 1972 authorized the Secretary of Agriculture to provide financial, technical and other assistance to rural fire departments.

The program has been administered through the three regional offices and has provided 50/50 cost share grants to rural fire departments to help organize, equip and train them. To accommodate more organizations a \$5,000 limit has been placed as a maximum grant.

In 1989, the division provided 18 cost share grants to fire departments in the amount of \$61,925 under the Rural Community Fire Protection Program.

## Forest Practices

### Forest Practices

After more than six months of negotiations, a thirteen member steering committee developed a cooperative agreement to make major revisions to the Alaska Forest Practices Act.

At the heart of the agreement is a streamside management program for protection of fisheries habitat and water quality. On private land, streams, rivers and lakes would be classified into nine types. Allowable timber harvest activities dependent upon the physical characteristics and fisheries value of each type would be set out.

On state land, timber sales would have to follow existing area or forest plans. Prior to individual timber sales, site-specific plans will be written to provide for public and agency review. Among the issues to be addressed will be: fish and wildlife habitat, water quality, and non-timber uses such as recreation and mining.

The agreement also outlines specific timetables for public and state agency review of proposed timber operations. Deadlines are established for completion of reviews by state agencies.

Companion bills SB 317 and HB 331 were introduced by Governor Cowper too late in the 1989 legislative session to receive substantive consideration. The legislation, a product of the cooperative agree-

ment, is being considered by the 1990 legislature.

Anticipating passage of the legislation early in 1990 the division began drafting new regulations. In accordance with the proposed revision (SB 317) of the Forest Resources and Practices Act draft regulations were sent out for agency review and comment in late November, 1989.

Forest Practice Activities	1988	1989
Number of Notifications	198	215
Acreage Under Notification	57,034	84,908
Number of Inspections	143	127
Number of Training Sessions	7	8
Alaska Coastal Management Project Reviews	77	118



## Resource Management

### State Forest Lands Management

The Division of Forestry manages 2,057,000 acres of state forest lands within the Tanana Valley State Forest and Haines State Forest Resource Management Area. The division also provides technical advice and conducts resources management on another 3,000,000 acres of state land on which forestry has been classified as one of its uses. Resource management activities included planning, harvesting, site preparation, reforestation, research, and education.

Multiple use planning is a growing division priority. Balancing fish and wildlife resources, commodity production, and recreation continues to challenge the division's resource managers. The planning process continues to evolve as a means for resource managers to take public input, evaluate technical needs and, finally, to allocate resources.

Division personnel were involved in numerous planning efforts - Susitna Forest Plan; Kashwitna Plan; Six Rivers Plan; Tanana Valley Area Plan Update; Anchor River - Fritz Creek Habitat Area Plan; Bradley Lake Habitat Mitigation; Nushagak and Mulchatna Rivers Recreation Plan; and Northwest Area Plan.

### Fuelwood Program

Personal use fuelwood continues to be a very popular program. This public service is provided around the state by the division. Program objectives are to provide fuelwood at a reasonable cost to residents and to improve forest stand conditions on Alaska's forest lands.

Use of fuelwood as a primary source of home heating rises and falls with the price of heating oil. With oil prices on the upswing in 1989, a higher demand for fuelwood can be expected in 1990.

Increased demand brings the need for new access development. As old fuelwood areas are cut out new ones must be opened. The public that uses fuelwood does not have the capability to build new access roads so looks to the state to provide this service. Without access roads the future of the fuelwood program is questionable. One way the division has been able to provide access is to allow fuelwood removal from an area after a commercial sale is finished. This allows for better site cleanup by utilization of the low grade material.

Statewide a total of 1,250 permits were issued for 5,300 cords.

RESOURCE MANAGEMENT	1988	1989
Area/Forest Management Plans	28	15
Log Brands Administered	73	161
Timber Sale Inspections	465	483
Sale Contracts Executed	69	69
Log Salvage Licenses Issued	9	19
Miles of Road Maintained	208.7	217
Miles of Road Constructed	39.8	46
Urban Forestry Reports	0	35

## Resource Management

### Commercial Harvests on State Lands

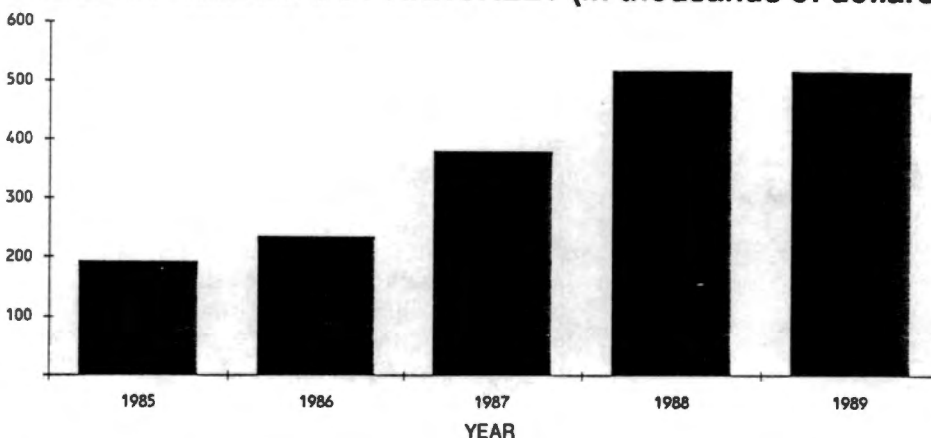
As a result of the division's forest resource management efforts, state lands have provided jobs and commodities while returning income to the state.

The challenges the division faced in 1989 stemmed from the ever increasing demands for a varied use of forest resources. The public desires both consumptive and nonconsumptive uses. These desires result in conflict. Future harvesting proposals for the Susitna Valley and the Cape Yakataga areas were the most controversial.

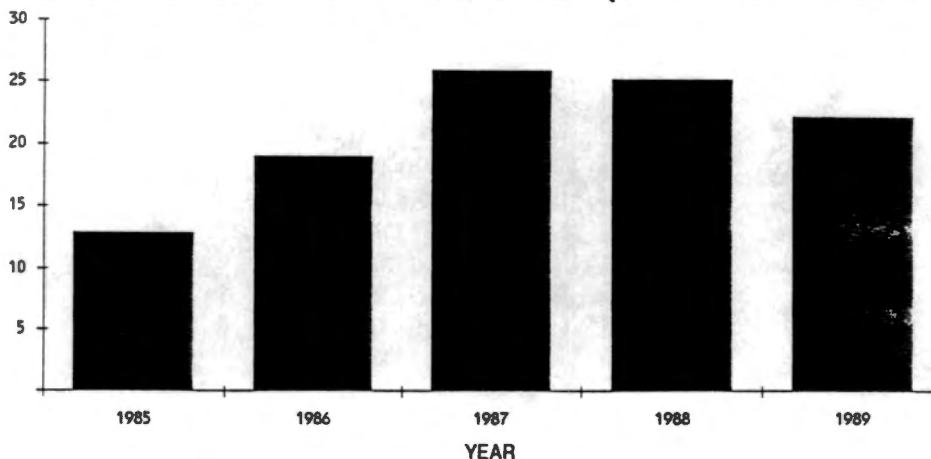
Harvesting timber to provide revenue, employment and to improve forest conditions continued statewide with the sale of 69 timber sales. A total of 21.6 million board feet of sawlogs, fuelwood and houselogs were made available.

With market conditions improving during 1989 timber harvested was slightly ahead of timber sold for the first time since 1986. A total of 22.7 million board feet was removed from state land with 12.5 million coming from the Northern Region, 8.3 million from the Southeast Region and 1.9 million from the Southcentral Region.

### VALUE OF TIMBER CUT ANNUALLY (in thousands of dollars)



### VOLUME OF TIMBER CUT ANNUALLY (in millions of board feet)



## Resource Management

### Reforestation

The goal of the reforestation program is to plant areas in an inexpensive manner with genetically compatible seedlings.

The objectives of the division's reforestation program are to:

- reforest areas harvested or otherwise disturbed as a result of fire or other activity in accordance with the Forest Resources and Practices Act;

- maintain or increase the white spruce component for stands that contain a significant proportion of white spruce before harvest;

- maintain or increase the hardwood species for stands that are predominantly hardwood before harvest.

The division continued its reforestation program, planting 219,400 seedlings on 422 acres and direct seeding 421 acres. Most of the planting was done by contract crews while most of the direct seeding was done by division employees.

The present reforestation effort of the division has been able to support the harvest activities taking place today. Any increase in harvest level or reduction of the estimated 10,000 to 12,000 acres in need of some form of reforestation will require an expanded program.

Scarification using Dozer with Blade

REFORESTATION	1988	1989
Seedlings Grown	175,000	800,000
Hardwood Cuttings Grown	0	7,500
Bushels of Cones Collected	0	107
Pounds of Seed Processed	25	32
Acres Surveyed for Regeneration	1,264	816
Acres Scarified	146	1,228
Acres Direct Seeded	101	486
Acres Planted	32	422
Seedlings Planted	35,500	219,400

### Site Preparation

There are several methods available to prepare a site for reforestation. The method primarily used on state lands, either by the timber sale operator or state contractor, is mechanical. Mechanical preparation is accomplished with a dozer equipped with a shear blade or pulling a disc-trencher.

A total of 1,228 acres received some form of site preparation. Of the total 51 acres were disc-trenched, 60 acres prescribed burned and the remaining 1,117 acres were prepared by a blade equipped dozer. The division had 671 burned acres on which the timber salvage would not pay the scarification cost, prepared under a state contract. The remaining 557 acres were prepared by the timber sale operators under the sale requirements.





## Resource Management

### State Forest Nursery

#### Nursery Management

The Alaska State Forest Tree Nursery produces and distributes tree seedlings to expedite reforestation on private and public lands. The objectives of the nursery are to:

- provide forest tree planting stock in quality and quantity for private and publicly-owned forest lands;

- provide seedlings at a nominal cost so that reforestation will not be hindered by high costs;

- assure that private and public managers plant genetically compatible seedling stock for site conditions and;

- provide improved seedling stock by having a tree improvement nursery program to collect seeds locally from genetically superior forest trees.

In 1989 seedlings were grown to meet orders from the U.S. Forest Service, Elmendorf Air Force Base, Mat-Su Borough, Alaska Soil Conservation Service, private individuals, and the Division of Forestry. Seedlings were used:

- to reforest recently harvested and old burned areas;

- on research projects;

- for bank stabilization and;

- for wildlife habitat.

#### Nursery Operations

During 1989 the state nursery was improved in the following ways:

- the first section of a moose-proof fence was installed around the outside growing yard;

- an area was cleared and soil was brought in for bareroot seedling testing and production;

- the growing yard received additional gravel and was graded;

- bid specifications were prepared for the seedling storage and seed freezers and;

- a temporary forest technician was hired.

The computer age has come to the nursery. A computer is being used to assist with record keeping and tree seedling distribution. Increased efficiency in the production of high quality seedlings will be provided through computer software programs.

The nursery provided 1955 days of employment for Palmer Correctional Center inmates with community custody security levels. This effort benefited both the Department of Corrections and the division.

A seedling cold storage facility was constructed to store seedlings in the Northern Region through the winter until planters are ready for them. The facility consists of a 12' x 40' metal culvert with a 3 1/2' ice floor, and overlaid with 4" blueboard foam and several feet of top-soil

## Resource Management



Seedling Cold Storage Under Construction

1989 Seedling Production			
Species	Number	Species	Number
Sitka Spruce	31,586	Siberian Pine	352
White Spruce	412,904	Balsam Fir	1,670
Lodgepole Pine	48,592	Noble Fir	686
Scotch Pine	48,592	Grand Fir	392
Paper Birch	45,000	Pacific Willow	3,000
Siberian Larch	76,464	Feltleaf Willow	5,700
Tamarack	8,280	American Green Alder	10,800
Blue Spruce	20,086	Thinleaf Alder	3,600
Norway Spruce	2,412	Siberian Peashrub	1,098
Subalpine Fire	4,000	Mountain Ash	2,095
Mountain Hemlock	1,078	Chokecherry	1,808
Balsam Poplar	2,800	European Bird Cherry	2,228
Aspen	600	Japanese Cherry	4,176
Western Redcedar	596	Siberian Crabapple	196
Bristlecone Pine	588		
		<b>TOTAL</b>	<b>756,055</b>

## Resource Management

### Tree Program

#### "Alaska's Forests--Our Future"

The Division of Forestry personnel participated in a process to establish long-range commitments for total resource enhancement of state owned forest land. This process is called the TREE Program. The program is designed to clarify the state's role in forest resource management.

The division's overall mission is defined, followed by specific goals, objectives, tasks and target dates for completing management actions. These responsibilities are assigned to the regional and area offices for a five year period. Implementation is now underway.

"Alaska's Forests--Our Future" is a document describing:

- the public's view of forest management and the divisions position;
- the Alaska forest resource;
- the division's five year TREE Program commitments; and
- an overview of forestry for the future.

Upon completion of this planning effort, the division will initiate a statewide working group to promote cooperative forest management efforts with all forest landowners. This effort will meet the federal requirements of the Resource Planning Act.

### Insects

In 1989 much media attention was brought upon insect activity. Trees weakened by leaf feeders, suckers or drought are prone to invasion by wood borers thus carrying pathogens along with them. Over the years, the trees slowly and silently die until their condition finally becomes so noticeable it can not be ignored. This is the condition presently found on the Kenai Peninsula.

The division's single insect and disease forester answered 200 phone requests, made 50 on-site visits to provide treatment recommendations, and spoke on numerous occasions to local governments and interest groups. A video was prepared on hazard trees, and two television appearances were made regarding maintenance of forest health. A tour was led on the Kenai Peninsula for interested legislators. A three day spruce bark beetle conference was organized and held on the Yukon River to help Native Corporations understand the insect problem on their lands.

### Spruce Bark Beetle

Alaska spruce beetle populations decreased in 1989 by more than 200,000 acres. On-going as well as new infestations now cover approximately 177,000 acres throughout southcentral and interior Alaska's spruce forests. Of this total 83,345 infested acres were found on state and private lands.



## Resource Management

Spruce beetle activity is most apparent near Summit Lake, Cooper Landing and the Russian River Campground area. Spruce beetle infestation was extremely high in the Cooper Landing residential area where more than 90% of all spruce greater than 5 inches in diameter has been killed.

Across Kachemak Bay from Homer, spruce beetle populations are increasing in the Sitka spruce stands of Kachemak Bay State Park where more than 10,000 acres are lightly infested.

Activity in the Anchorage Bowl and Chugiak-Eagle River areas continues to decrease. However, activity is increasing in other less populated areas along the Yukon River from Anvik to Nulato where approximately 140,000 acres of native ownership have been infested.

The results of the lethal trap tree project at Devil's Elbow on the Kuskokwim River indicated that spruce beetles were present but not in large enough numbers to cause extensive damage.

### Engravers (Ips Bark Beetles)

An increase of 5,500 acres over 1988 or approximately 7,000 acres of engraver infestation were detected in interior Alaska. Some 500 acres of spruce stands bordering logging roads and recent timber harvest areas within the Bonanza Creek Experimental Forest are showing signs of infestation.

### Spruce budworm

No spruce budworm activity was detected in Alaska's spruce stands in 1989.

### Large Aspen Tortrix

Tortrix population in interior Alaska declined for the third consecutive year. Increased activity was observed near Copper Center, the Mat-Su Valley and on the Kenai Peninsula. Increased defoliation is expected in these areas next year.

### Gypsy Moth

One adult male gypsy moth was trapped in Centennial Park Campground on the outskirts of Anchorage in 1987. A pheromone trapping program was carried out in 1988 and expanded state-wide in 1989. No adult gypsy moths were captured in the traps in either year.

## Resource Management

1989 FOREST INSECT AND DISEASE INFESTATION IN ALASKA BY LAND OWNERSHIP AND PEST IN ACRES				
PEST	NATIONAL FOREST	OTHER FEDERAL	NATIVE	STATE & PRIVATE
<b>Spruce Beetle</b> <i>Dendroctonus</i> <i>rufipennis</i>	10,695	83,710	25,901	57,444
<b>Engravers</b> <i>Ips perturbatus</i>		14		6,884
<b>Large Aspen Tortrix</b> <i>Choristoneura</i> <i>conflictana</i>		4,713	850	5,874
<b>Spear-Marked Black Moth</b> <i>Rheumaptera hastata</i>				467
<b>Black-headed budworm</b> <i>Acleris gloverana</i>	15,338		3,595	
<b>Spruce budmoth</b> <i>Zeiraphera</i> sp.	78,430	9,920		
<b>Cottonwood Defoliation</b>	8,404	4,524		
<b>Willow Defoliation</b>		8,481	2,036	6,445
<b>Alaska-yellow cedar Decline</b>	376,005	1,478	9,028	5,293
<b>Winter damage (Sitka spruce)</b>	5,424			
<b>High Water Damage</b>	856		78	
<b>Totals:</b>	<b>495,152</b>	<b>112,840</b>	<b>41,488</b>	<b>83,967</b>
<b>State Total (Insects and Disease)*: 733,447</b>				
*These values do not include many of the most destructive diseases (e.g., wood decays and dwarf mistletoe) because these losses are not detectable in aerial surveys.				

## Support Services

### Rural Forestry Assistance

Presently the division is not funded for a rural forestry assistance forester. This person could provide on-site professional assistance to private landowners who want to manage their forested land to meet a future goal. Area office forestry personnel have tried to fill this void by assisting rural landowners when they can.

To help area office staff provide rural forestry assistance the division provided service forestry training sessions in Palmer, Fairbanks and Soldotna.

The division was able to satisfy 35 rural forestry assistance requests. With a rural forestry assistance forester position the division could provide advice to people we have had to turn down in the past.

### Board of Forestry

The 14-member Board of Forestry was brought up to full membership by Governor Cowper with appointment of three new members and reappointment of two others. The 1989 Board members are: Walt Begalka, Alaska Loggers; Jim Eggleston, U.S. Forest Service; Joseph Henri, Alaska Miners; Steve Kallick, Environmentalist; Gary Lee, Native/Doyon; Robert Loescher, Native/Sealaska; Robert Loiselle, Native/Klukman; Ralph Malone, Society of American Foresters; John Peckham, United Fisherman of Alaska; Ted Smith, Public; John Sturgeon, Native/Koncor; John Thomas, Unions; Joe Evans, Coastal Management; and Malcolm Dick, State Forester.

Under the chairmanship of John Sturgeon, the Board has become active in

looking at issues of statewide and regional concern. The Board looked at such issues as the pending revision of the Forest Practices Act, funding for reforestation on state lands, pending Goodpaster River legislation, the division's operating budget, and timber sale program review.

Board meetings were held in Anchorage, Fairbanks, and Juneau. In conjunction with the Anchorage and Fairbanks meetings, tours were conducted to look at different operations of the division. While in Anchorage the Board visited harvest units on the Mat-Su Moose Range to inspect scarification and regeneration efforts. The Fairbanks tour emphasized harvest operations, reforestation, and interior forest stand conditions.

### Training

The division continued to maintain its capability in the Incident Command System (ICS) and ICS qualifications. Our Type II Fire Management Overhead Team gained experience in the "All Risk" aspects of ICS while assisting with the Valdez Oil Spill. Additionally, the division provided overhead team members to the Interagency Type I Overhead Team during the oil spill emergency.

Feature courses this year were I-403 Information Officer, several 300 level Planning Section courses, I-376 Air Tanker Coordinator, Methods of Instruction, the newly developed Fire Suppression Tactics course and Alaska Emergency Fire Fighter Crew Boss. These courses were coordinated with the interagency cooperators to meet statewide training objectives.

## Support Services

TYPE TRAINING	NUMBER OF COURSES	PARTICIPANTS
Emergency Fire Fighter	7	184
Wildfire for Fire Departments	15	160
Initial Attack	5	50
Extended Attack	21	154
Fire Management	20	114
Administrative	5	7
Supervision and Management	29	83
First Aid and Safety	4	72
Computer Management	25	54
Technical Resource Training	1	4
Forest Management	8	21
<b>TOTALS</b>	<b>140</b>	<b>903</b>



# **FISCAL REPORT**

---

**FISCAL YEAR ACTUALS 1989**  
(in Thousands)

<b>FUNDING SOURCES:</b>	<b>FOREST MANAGEMENT</b>	<b>FIRE SUPPRESSION</b>
General Funds	\$8,347.0	\$7,104.4
Federal Funds	409.1	2,250.0
Other Funds	281.5	0.0
<b>COMPONENT TOTALS</b>	<b>\$9,037.6</b>	<b>\$9,354.4</b>

<b>RESOURCE MANAGEMENT:</b>	<b>Northern Region</b>	<b>Southcentral Region</b>	<b>Southeast Region</b>	<b>Central Office</b>	<b>Project Totals</b>
Resource Management	473.4	599.4	419.1		1,491.9
Forest Emergency Access		2.2			2.2
Mat-Su Timber Study				23.5	23.5
Forestry Costal Zone Management			16.9		16.9
Reforestation				183.1	183.1
Resource Federal Funds	64.3	91.9	23.7		179.9
<b>SUBTOTAL</b>	<b>\$537.7</b>	<b>\$ 693.5</b>	<b>\$ 459.7</b>	<b>\$ 206.6</b>	<b>\$1,897.5</b>

<b>FIRE MANAGEMENT:</b>					
Presuppression	\$2,246.9	\$3,273.5	\$21.7	\$469.4	\$6,011.5
Rural Community Fire Prot/Fed				63.8	63.8
Anchorage School District Interns		48.7			48.7
<b>SUBTOTAL</b>	<b>\$2,246.9</b>	<b>\$3,322.2</b>	<b>\$ 21.7</b>	<b>\$ 533.2</b>	<b>\$6,124.0</b>

<b>FOREST ADMINISTRATION:</b>					
Federal Coop Forestry Asst.				117.1	117.1
Forest Administration				650.0	650.0
Unbudgeted RSA's	193.4	51.6	4.0		249.0
<b>SUBTOTAL</b>	<b>\$ 193.4</b>	<b>\$51.6</b>	<b>\$4.0</b>	<b>\$767.1</b>	<b>\$1,016.1</b>

<b>FOREST MANAGEMENT</b>					
<b>COMPONENT</b>	<b>\$2,978.0</b>	<b>\$4,067.3</b>	<b>\$485.4</b>	<b>\$1,506.9</b>	<b>\$9,037.6</b>
<b>FIRE SUPPRESSION COMPONENT</b>					<b>\$9,354.4</b>
<b>FOREST MANAGEMENT BUDGET REQUEST UNIT</b>					<b>\$18,392.0</b>

# FISCAL YEAR BUDGET 1990

(in Thousands)

<b>FUNDING SOURCES:</b>	<b>FOREST MANAGEMENT</b>	<b>FIRE SUPPRESSION</b>
General Funds	\$8,310.1	\$3,539.4
Federal Funds	488.6	150.0
Other Funds	35.9	0.0
<b>COMPONENT TOTALS</b>	<b>\$8,834.6</b>	<b>\$3,689.4</b>

<b>RESOURCE MANAGEMENT:</b>	<b>Northern Region</b>	<b>Southcentral Region</b>	<b>Southeast Region</b>	<b>Central Office</b>	<b>Project Totals</b>
Tanana Valley State Forest	3.5				3.5
Small Timber Sales	429.8	217.5	7.3	89.6	744.2
Forest Stewardship	69.7	125.3	183.3	123.0	591.3
Icy Bay			107.3		107.3
Haines State Forest			68.0		68.0
Mat-Su Timber Study				7.6	7.6
Forest Practices		34.7	162.1	1.5	198.3
Forestry Costal Zone Management			22.5		22.5
Reforestation	124.4	35.0	5.0	85.9	250.3
State Forest Nursery				50.1	50.1
Forestry Program Development	77.4			82.0	82.0
Board of Forestry				12.5	12.5
<b>SUBTOTAL</b>	<b>\$627.4</b>	<b>\$ 412.5</b>	<b>\$ 555.5</b>	<b>\$ 542.2</b>	<b>\$2137.6</b>

<b>FIRE MANAGEMENT:</b>					
Presuppression	\$1,803.2	\$2,666.6	\$16.7	\$450.6	\$4,937.1
Rural Community Fire Prot/Fed				68.0	68.0
Anchorage School District Interns		56.6			56.6
<b>SUBTOTAL</b>	<b>\$1,803.2</b>	<b>\$2,723.2</b>	<b>\$ 16.7</b>	<b>\$ 518.6</b>	<b>\$5,061.7</b>

<b>FOREST ADMINISTRATION:</b>					
Federal Coop Forestry Asst.				420.6	420.6
Forest Administration	343.7	369.6	107.6	393.8	1,214.7
<b>SUBTOTAL</b>	<b>\$ 343.7</b>	<b>\$ 369.6</b>	<b>\$107.6</b>	<b>\$814.4</b>	<b>\$1,635.3</b>

<b>FOREST MANAGEMENT</b>					
<b>COMPONENT</b>	<b>\$2,774.3</b>	<b>\$3,505.3</b>	<b>\$679.8</b>	<b>\$1,875.2</b>	<b>\$8,834.6</b>
<b>FIRE SUPPRESSION COMPONENT</b>					<b>\$3,689.4</b>
<b>FOREST MANAGEMENT BUDGET REQUEST UNIT</b>					<b>\$12,524.0</b>

# APPENDIX

---



# REGION CUT-AND-SOLD REPORT

## CY 1989

### VOLUME - MBF SCRIBNER

#### VOLUME CUT

REGION	SAWTIMBER	OTHER PRODUCTS <sup>1</sup>	VOLUME
Northern	7,171.0	5,370.0	12,541.0
Southcentral	897.0	962.0	1,859.0
Southeast	7,567.7	743.0	8,310.7
<b>TOTAL</b>	<b>15,635.7</b>	<b>7,075.0</b>	<b>22,710.7</b>

#### VOLUME SOLD

REGION	SAWTIMBER	OTHER PRODUCTS <sup>1</sup>	VOLUME
Northern	5,548.0	8,324.5	13,872.5
Southcentral	842.0	1,148.0	1,990.0
Southeast	5,737.0	1.0	5,738.0
<b>TOTAL</b>	<b>12,127.0</b>	<b>9,473.5</b>	<b>21,600.5</b>

<sup>1</sup> OTHER PRODUCTS includes Pulp logs, Fuelwood, House logs, etc.

## CONTRACTS ISSUED BY TYPE AND AREA - CY 1989

### COMMERCIAL USE

### PERSONAL USE

	Fuelwood Sales	Saw log Sales	Beach log Salvage	Fuelwood Permits	House log Sales	Saw log Sales
--	-------------------	------------------	----------------------	---------------------	--------------------	------------------

#### Northern Region

Fairbanks	31	7	0	712	0	0
Delta	6	5	0	70		
Tok	1	1	0	29	0	0
<b>TOTAL</b>	<b>38</b>	<b>13</b>	<b>0</b>	<b>811</b>	<b>0</b>	<b>0</b>

#### Southcentral Region

Mat-Su	4	5	0	340	3	4
Kenai	6	1	0	74	2	1
Copper River	0	0	0	54	2	0
McGrath	0	0	0	0	23	0
<b>TOTAL</b>	<b>10</b>	<b>6</b>	<b>0</b>	<b>468</b>	<b>30</b>	<b>5</b>

#### Southeast Region

Juneau	0	4	7	0	0	0
Haines	0	3	0	0	0	1
Ketchikan	0	0	14	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>7</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>1</b>

<b>GRAND TOTAL</b>	<b>48</b>	<b>26</b>	<b>21</b>	<b>1,279</b>	<b>30</b>	<b>6</b>
--------------------	-----------	-----------	-----------	--------------	-----------	----------

# CUT- AND-SOLD ON STATE LANDS REPORT

## 1959-1989

YEAR	ANNUAL SALES	ANNUAL CUT	
	VOLUME (MBF)	VOLUME (MBF)	VALUE (\$)
1959-66	231,109	93,227	\$238,415
1967	134,371	45,816	164,782
1968	97,948	47,974	162,210
1969	246,415	49,018	221,371
1970	14,926	53,568	229,101
1971	41,077	43,191	246,091
1972	23,110	50,591	401,133
1973	449,452	38,356	218,357
1974	21,146	51,241	376,450
1975	4,655	33,540	430,486
1976	2,358	41,714	73,043
1977	2,412	60,251	544,884
1978	6,932	30,301	638,806
1979	156,235	32,382	1,016,585
1980	4,949	47,547	1,254,500
1981	18,402	53,678	1,491,554
1982	24,154	35,198	488,512
1983	72,145	35,511	402,774
1984	21,087	28,044	833,793
1985	20,178	12,864	192,109
1986	10,469	18,995	233,862
1987	27,588	25,884	379,540
1988	27,475	25,177	515,980
1989	21,600	22,711	514,632

## SAWTIMBER

### CY AVERAGE STUMPAGE PER MBF

YEAR	ASPEN	BIRCH	COTTONWOOD	HEMLOCK	SITKA SPRUCE	WHITE SPRUCE
1981	0.00	32.22	7.46	14.53	24.82	35.96
1982	0.00	27.27	10.00	10.92	28.24	25.65
1983	14.47	29.95	0.00	3.50	166.93	39.95
1984	10.60	26.70	0.00	0.00	32.72	20.20
1985	0.00	0.00	15.10	21.85	17.65	26.52
1986	20.13	30.00	15.10	9.22	19.44	25.00
1987	10.00	8.76	0.00	14.13	18.78	7.32
1988	2.03	0.00	9.42	3.00	97.80	21.11
1989	2.13	7.01	9.96	5.88	71.29	34.25

# **1989 STATEWIDE FIRE STATISTICS** **AFS--STATE--USFS**

**Number of Actual Fires:** 485  
**Number of Acres Burned:** 68,892.7

<b>Number of Fires and Acres By Cause</b>		
	<b>LIGHTNING</b>	<b>MAN CAUSED</b>
<b>Fires</b>	45	440
<b>Acres</b>	53,387.9	15,504.8

## | | |------------------------------| | <b>ACTIVITY BY LANDOWNER</b> | |------------------------------|

<b>State of Alaska Responsibility</b>		
<b>Agency</b>	<b>Number of Fires</b>	<b>Number of Acres</b>
State Land and Water	39	7,272.0
State Dept. of Transportation	17	1.9
State Refuge	0	0.0
State Parks	15	1.9
State Railroad	2	0.2
State Forest	5	5.6
State University	3	0.9
Boro/City	19	4.2
Private	236	913.4
Canada	1	0.1
<b>Total State Responsibility</b>	<b>337</b>	<b>8,200.2</b>

<b>Alaska Fire Service (AFS) Responsibility</b>		
<b>Agency</b>	<b>Number of Fires</b>	<b>Number of Acres</b>
Bureau of Land Management	27	41,203.5
National Park Service	4	28.3
Fish & Wildlife Service	14	7,641.4
Bureau of Indian Affairs	4	1.7
Native Lands	41	1,988.9
Military	14	195.9
Canada	1	9,000.0
<b>Total AFS Responsibility</b>	<b>105</b>	<b>60,059.7</b>

<b>U.S. Forest Service Responsibility</b>		
<b>Agency</b>	<b>Number of Fires</b>	<b>Number of Acres</b>
USFS	43	632.8
<b>Total USFS Responsibility</b>	<b>43</b>	<b>632.8</b>

# 1989 STATEWIDE FIRE STATISTICS

## FIRES AND ACRES BY AREA AND MANAGEMENT OPTION<sup>1</sup>

### STATE PROTECTION

AREA <sup>2</sup>	CRITICAL		FULL		MODIFIED		LIMITED		UNPLANNED		TOTAL	
	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC
AMS	73	24.6	8	41.6	3	2.1	1	0.1	0	0.0	85	68.4
KK	40	8.7	7	973.3	1	140.0	1	6.0	0	0.0	49	1,128.0
CR	5	0.9	10	7.3	7	10.5	2	26.0	0	0.0	24	44.7
SW	2	0.2	5	13,455.1	4	150.6	4	34,570.0	0	0.0	15	48,175.9
F	120	31.4	16	8.4	1	0.1	1	0.1	0	0.0	138	40.0
D	18	44.9	13	53.6	0	0.0	2	4.0	0	0.0	33	102.5
T	12	1.2	16	308.3	6	13.6	2	7,550.0	0	0.0	36	7,873.1
SE	0	0.0	1	0.1	1	2.0	0	0.0	0	0.0	2	2.1
<b>TOTAL</b>	<b>270</b>	<b>111.9</b>	<b>76</b>	<b>14,847.7</b>	<b>23</b>	<b>318.9</b>	<b>13</b>	<b>42,156.2</b>	<b>0</b>	<b>0.0</b>	<b>382</b>	<b>57,434.7</b>

### ALASKA FIRE SERVICE PROTECTION

AREA <sup>2</sup>	CRITICAL		FULL		MODIFIED		LIMITED		UNPLANNED		TOTAL	
	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC
GAL	1	3.0	2	202.0	1	0.1	0	0.0	0	0.0	4	205.1
TAL	0	0.0	4	41.8	2	3.5	2	45.0	0	0.0	8	90.3
UYK	2	4.5	13	1,013.2	9	301.2	8	13.0	2	9,002.0	34	10,333.9
FCC	0	0.0	1	5.0	0	0.0	3	27.1	10	163.8	14	195.9
<b>TOTAL</b>	<b>3</b>	<b>7.5</b>	<b>20</b>	<b>1,262.0</b>	<b>12</b>	<b>304.8</b>	<b>13</b>	<b>85.1</b>	<b>12</b>	<b>9,165.8</b>	<b>60</b>	<b>10,825.2</b>

### U. S. FOREST SERVICE PROTECTION

AREA <sup>2</sup>	CRITICAL		FULL		MODIFIED		LIMITED		UNPLANNED		TOTAL	
	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC
CGF	0	0.0	4	0.6	1	0.6	0	0.0	0	0.0	5	1.2
CMF	0	0.0	11	2.4	0	0.0	1	3.7	0	0.0	12	6.1
KNF	0	0.0	15	620.2	0	0.0	5	1.5	0	0.0	20	621.7
STF	0	0.0	4	1.8	0	0.0	2	2.0	0	0.0	6	3.8
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>34</b>	<b>625.0</b>	<b>1</b>	<b>0.6</b>	<b>8</b>	<b>7.2</b>	<b>0</b>	<b>0.0</b>	<b>43</b>	<b>632.8</b>

### STATEWIDE

AREA	CRITICAL		FULL		MODIFIED		LIMITED		UNPLANNED		TOTAL	
	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC	NO	AC
<b>TOTAL</b>	<b>273</b>	<b>119.4</b>	<b>130</b>	<b>16,109.7</b>	<b>36</b>	<b>623.7</b>	<b>34</b>	<b>42,241.3</b>	<b>12</b>	<b>9,165.8</b>	<b>485</b>	<b>68,892.7</b>

#### <sup>1</sup>Management Option Definitions

**Critical:** Life and property sites that receive rapid and aggressive suppression.

**Full:** Areas of high value resources where fire adversely impacts the resource management objective. Attack is aggressive with an effort to extinguish the fire immediately.

**Modified:** Areas of high value resources but where the alternative exists to trade acres burned for suppression cost. Initial attack is immediate, but resource managers guide the suppression effort.

**Limited:** Areas where wildfire is not having an adverse impact and no suppression action is taken except to prevent the fire from burning on to a higher value land.

#### <sup>2</sup>Area Definition

AMS - Anchorage/Mat-Su Area  
 KK - Kenai/Kodiak Area  
 VCR - Valdez/Copper River Area  
 SW - Southwest Area (McGrath)  
 F - Fairbanks Area  
 D - Delta Area  
 T - Tok Area  
 SE - Southeast Region  
 GAL - Galena Zone  
 TAL - Tanana Zone  
 UYK - Upper Yukon Zone  
 FCC - Fire Coordination Center (Fairbanks)  
 CGF - Chugach National Forest  
 CMF - Tongass National Forest -- Chatham Area  
 KNF - Tongass National Forest -- Ketchikan Area  
 STF - Tongass National Forest -- Stikine Area

# **1989 FIRE STATISTICS STATE RESPONSIBILITY LANDS**

**Number of fires:** 337  
**Number of Acres Burned:** 8,200.2

## **FIRES AND ACRES BY STATE AREA<sup>1</sup>**

	<b>AMS</b>	<b>KK</b>	<b>VCR</b>	<b>SW</b>	<b>F</b>	<b>D</b>	<b>T</b>	<b>SE</b>
No.	83	40	15	4	137	33	16	2
Acres	66.2	740.4	28.4	6,940.2	39.9	102.5	7.2	2.1

## **FIRES AND ACRES BY BLM ZONE AND USFS**

	<b>Galena</b>	<b>Upper Yukon</b>	<b>Tanana</b>	<b>U. S. Forest Service</b>
No.	0	6	1	0
Acres	0.0	233.3	40.0	0.0

## **FIRES AND ACRES BY SIZE CLASSIFICATION<sup>2</sup>**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
No.	245	80	8	2	1	0	5
Acres	25.9	108.0	208.7	365.0	592.6	0.0	6,900.0

## **FIRES AND ACRES BY OWNER**

	<b>State</b>	<b>Private</b>	<b>Canada</b>
No.	110	236	1
Acres	7,286.7	913.4	0.1

## **FIRES AND ACRES BY CAUSE**

	<b>Lightning</b>	<b>Human</b>	<b>Total</b>
No.	14	323	337
Acres	7,137.2	1,063.0	8,200.2

### <sup>1</sup>State Area

AMS - Anchorage/Mat-Su Area  
 KK - Kenai/Kodiak Area  
 VCR - Valdez/Copper River Area  
 SW - Southwest Area (McGrath)  
 F - Fairbanks Area  
 D - Delta Area  
 T - Tok Area  
 SE - Southeast Region

### <sup>2</sup>Size Classification Definition

Class	Acres
A	0.00 to 0.25
B	0.26 to 9.90
C	10 to 99
D	100 to 299
E	300 to 999
F	1000 to 4900
G	5000 and over



# 1989 FIRE STATISTICS STATE PROTECTION AREA

**Number of Fires:** 382  
**Number of Acres Burned:** 57,434.7

## FIRES AND ACRES BY STATE AREA<sup>1</sup>

	AMS	KK	VCR	SW	F	D	T	SE
No.	85	49	24	15	138	33	36	2
Acres	68.4	1,128.0	44.7	48,175.9	40.0	102.5	7,873.1	2.1

## FIRES AND ACRES BY SIZE CLASSIFICATION<sup>2</sup>

	A	B	C	D	E	F	G
No.	265	96	10	1	4	2	4
Acres	28.0	155.4	368.7	140.0	1,772.6	7,550.0	47,420.0

## FIRES AND ACRES BY OWNER<sup>3</sup>

	BLM	NPS	FWS	STA	PRI	NAT	USFS	CITY	CAN
No.	14	0	9	74	236	3	0	19	1
Acres	41,120.8	0.0	7,631.9	7,009.2	913.4	0.7	0.0	4.2	0.1

## FIRES AND ACRES BY CAUSE

	Lightning	Human	Total
No.	19	363	382
Acres	43,797.2	13,637.5	54,437.7

## SEARCH AND RESCUE BY STATE AREA<sup>1</sup>

	AMS	KK	VCR	SW	F	D	T	SE
No.	2	5	0	1	1	0	2	0

### <sup>1</sup>State Area

AMS - Anchorage/Mat-Su Area  
KK - Kenai/Kodiak Area  
VCR - Valdez/Copper River Area  
SW - Southwest Area (McGrath)  
F - Fairbanks Area  
D - Delta Area  
T - Tok Area  
SE - Southeast Region

### <sup>2</sup>Size Classification Definition

Class	Acres
A	0.00 to 0.25
B	0.26 to 9.90
C	10 to 99
D	100 to 299
E	300 to 999
F	1000 to 4900
G	5000 and over

### <sup>3</sup>Owner Definition

BLM - Bureau of Land Management  
NPS - National Park Service  
FWS - Fish and Wildlife Service  
STA - State  
PRI - Private  
NAT - Native  
USFS - U.S. Forest Service  
CAN - Canada

# DIVISION OF FORESTRY AIRCRAFT UTILIZATION REPORT

Category:	Flight Hours					Flight Cost				
	DOF FEP <sup>1</sup>	Contract		Rental		DOF FEP <sup>1</sup>	Contract		Rental	
		Fixed Wing	Rotor Wing	Fixed Wing	Rotor Wing		Fixed Wing	Rotor Wing	Fixed Wing	Rotor Wing
1. Detection	270.9	---	3.1	62.2	---	72,564	---	1,376	16,948	---
2. Air Coordination	62.7	---	---	---	---	19,749	---	---	---	---
3. Reconnaissance	55.1	---	12.3	21.2	16.5	13,176	---	5,622	6,808	10,147
4. Helitack	---	---	39.4	---	16.5	---	---	19,561	---	6,837
5. Retardant/Bucket	---	100.2	22.5	---	15.1	---	153,887	10,108	---	22,545
6. Prepositioning	41.5	6.3	33.4	4.5	46.6	11,134	11,403	15,618	1,462	16,478
7. Cargo/Paracargo	4.8	---	29.2	5.9	---	600	---	26,803	13,732	14,235
8. Fire Transport	14.4	---	246.4	326.4	265.1	2,617	---	121,216	151,573	145,778
9. Non-Fire Transport	25.5	---	21.6	14.8	6.6	3,796	---	10,510	7,116	3,498
10. Smokejumper Delivery	---	---	2.1	6.8	---	---	---	952	1,386	---
11. Training/Maintenance	87.1	---	5.1	39.9	---	21,851	---	2,345	6,556	---
12. Misc. (Describe)	6.0 <sup>2</sup>	---	21.0	4.5	3.3	750	---	9,411	4,464	1,485
13. Totals	568.0	106.5	436.1	486.2	369.7	146,237	223,522	223,522	210,045	221,003
14. No. Passengers	52	---	3,990	664	480	---	---	---	---	---
15. Cargo	11,300	---	518,218	10,785	42,904	---	---	---	---	---
16. No. Gallons Retardt.	---	168,175	---	---	---	---	---	---	---	---
17. Foam	---	---	---	---	---	---	---	---	---	---
18. No. Gallons Water	---	---	31,400	---	5,200	---	---	---	---	---
19. \$ Availability in Excess of Flight \$	---	559,455	968,280	---	10,565	---	---	---	---	---
20. Gallons	---	---	---	---	---	---	---	---	---	---
21. Fuel Gallons/Cost	Wet	90,675	70,810	wet	68,957	---	---	---	---	---

## SUMMARY

Total Line 13	\$ 966,097
Plus Line 19	\$1,538,300
Plus Line 21	\$ 230,442
<b>TOTAL COST</b>	<b>\$2,734,839</b>

<sup>1</sup>DOF FEP-Division of Forestry Federal Excess Property

<sup>2</sup>Search and Rescue (SAR)

# FORESTRY DIRECTORY

**Director's Office**  
3601 C Street, Suite 1058  
P.O. Box 107005

Anchorage, Alaska 99510-7005

762-2501

Bob Dick, Director/State Forester

George Hollett, Dep Dir/Mgmt.

Elmer Hurd, Dept Dir/Op

Ruth Tadda, Secretary

**Fire Management**

Frenchie Malotte, Section Chief

762-2505

**Aviation**

Bud Graham, Supervisor

762-2509

**Resource Management**

Joe Wehrman, Section Chief

762-2506

**Alaska State Forest Nursery**

Hiland Road

P.O. Box 650

Eagle River, Alaska 99577

694-5880

Joe Stehlik, Nursery Manager

**Northern Region Office**

3700 Airport Way

Fairbanks, Alaska 99709

451-2660

Les Fortune, Regional Forester

**Delta Area Office**

P.O. Box 1149

Delta Junction, Alaska 99737

895-4225

Al Edgren, Area Forester

**Tok Area Office**

Box 10

Tok, Alaska 99798

883-5134

Dick Malchow, Area Forester

**Fairbanks Area Office**

3700 Airport Way

Fairbanks, Alaska 99709

451-2700

Don Fuller, Area Forester

**Southcentral Region Office**

3601 C Street, Suite 1008

P.O.Box 107005

Anchorage, Alaska 99510-7005

762-2217

David Wallingford, Regional Forester

**Hotline Recording: 762-2412**

**Fire Information in Summer**

**Christmas Tree Permit in**

**December**

**Kenai/Kodiak Area Office**

HC 1, Box 107

Soldotna, Alaska 99669

262-4124

Jim Peterson, Area Forester

**Mat/Su Area Office**

Mile 8.2 Big Lake Road

P.O. Box 520455

Big Lake, Alaska 99652

892-6027

Jim Eleazer, Area Forester

**Southwest Area Office**

Box 130

McGrath, Alaska 99627

524-3010

Joe Stam, Area Forester

**Valdez/Copper River**

**Area Office**

P.O. Box 185

Glennallen, Alaska 99588

822-5534

Martin Maricle, Area Forester

**Southeast Region Office**

400 Willoughby Ave, 5th Floor

Juneau, Alaska 99801

465-2491

Jim McAllister, Regional Forester

**Haines Area Office**

P.O. Box 263

Haines, Alaska 99827

766-2120

Roy Josephson, Area Forester

**Icy Bay Field Office**

P.O. Box 460

Cordova, Alaska 99574

424-3933

Chris Foley, Forester

**Icy Bay Area Office**

**Juneau Area Office**

400 Willoughby Ave, 5th Floor

Juneau, Alaska 99801

465-2491

**Bruce Johnson**

**Icy Bay Area Forester**

**Drew Grant**

**Juneau Area Forester**

**Ketchikan Area Office**

2230 Sealevel Dr, #217

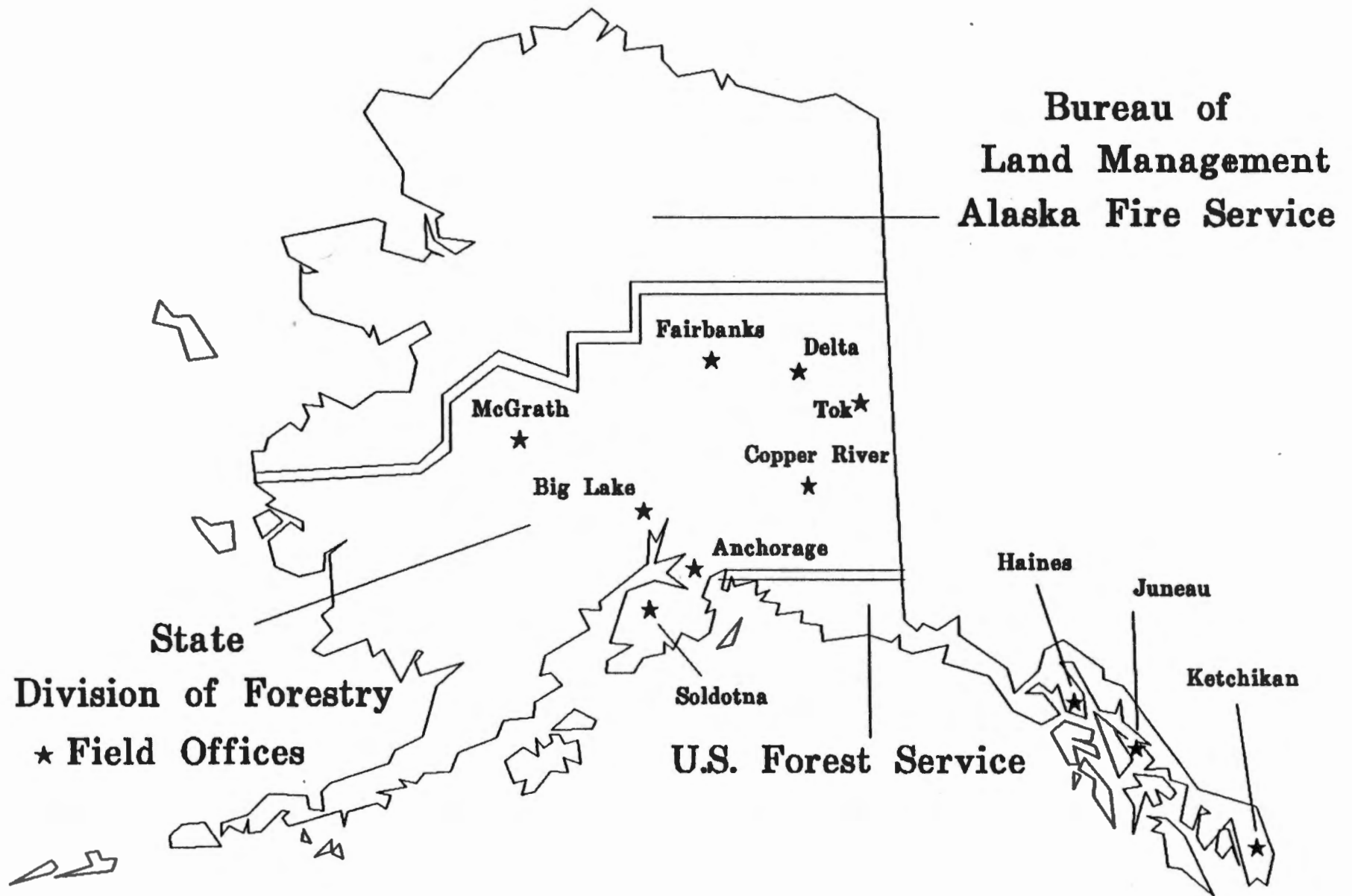
Ketchikan, Alaska 99901

225-3070

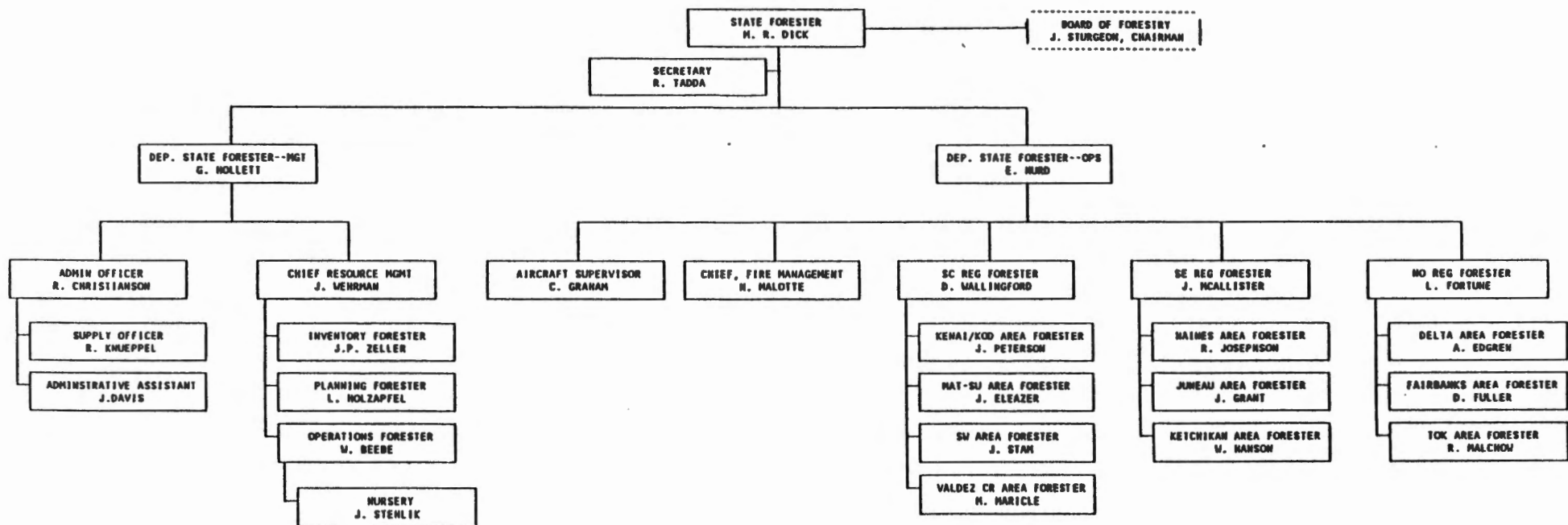
Bill Hanson, Area Forester

April 1990

# Agency Fire Protection Areas



DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY



12-31-89