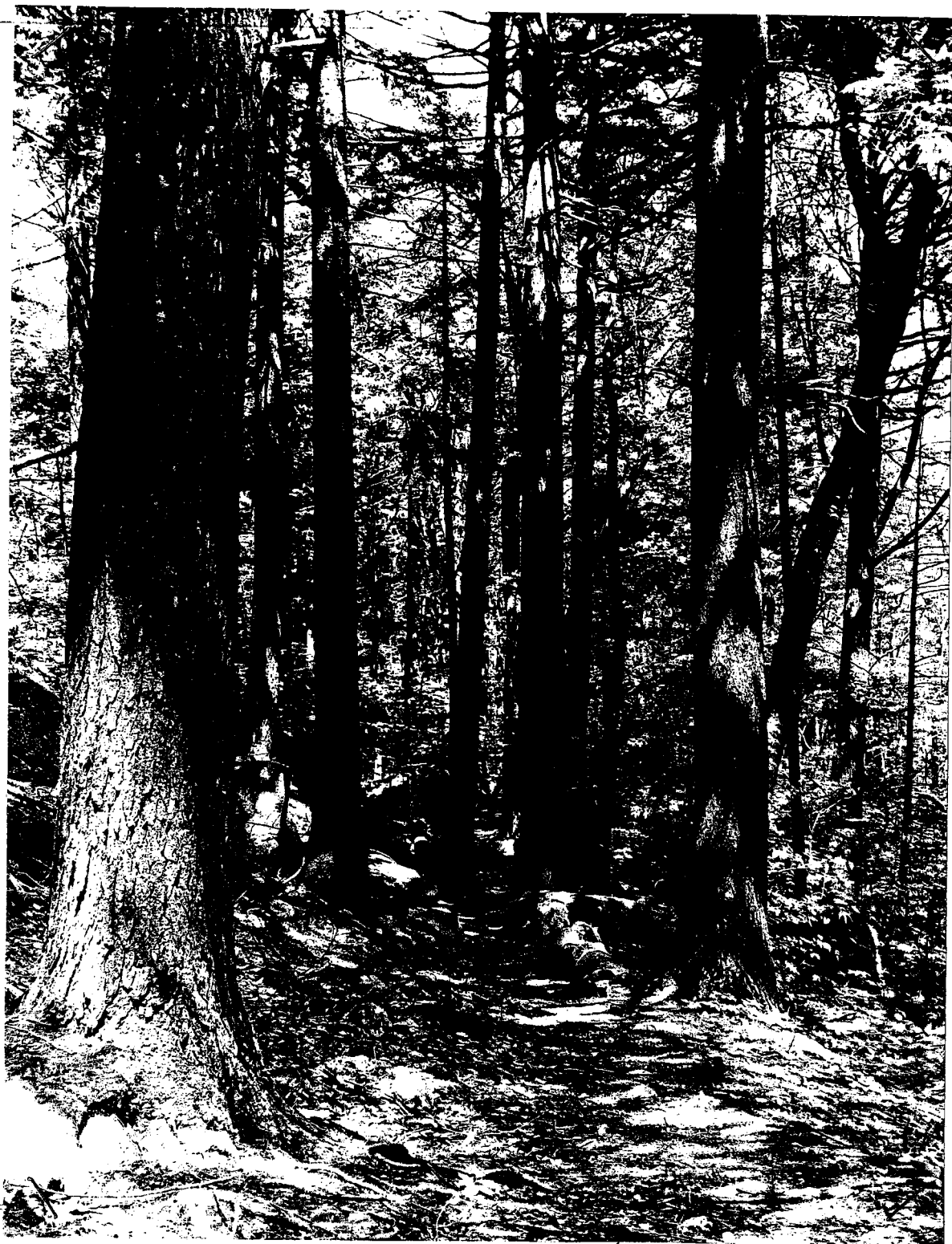


APPENDIX

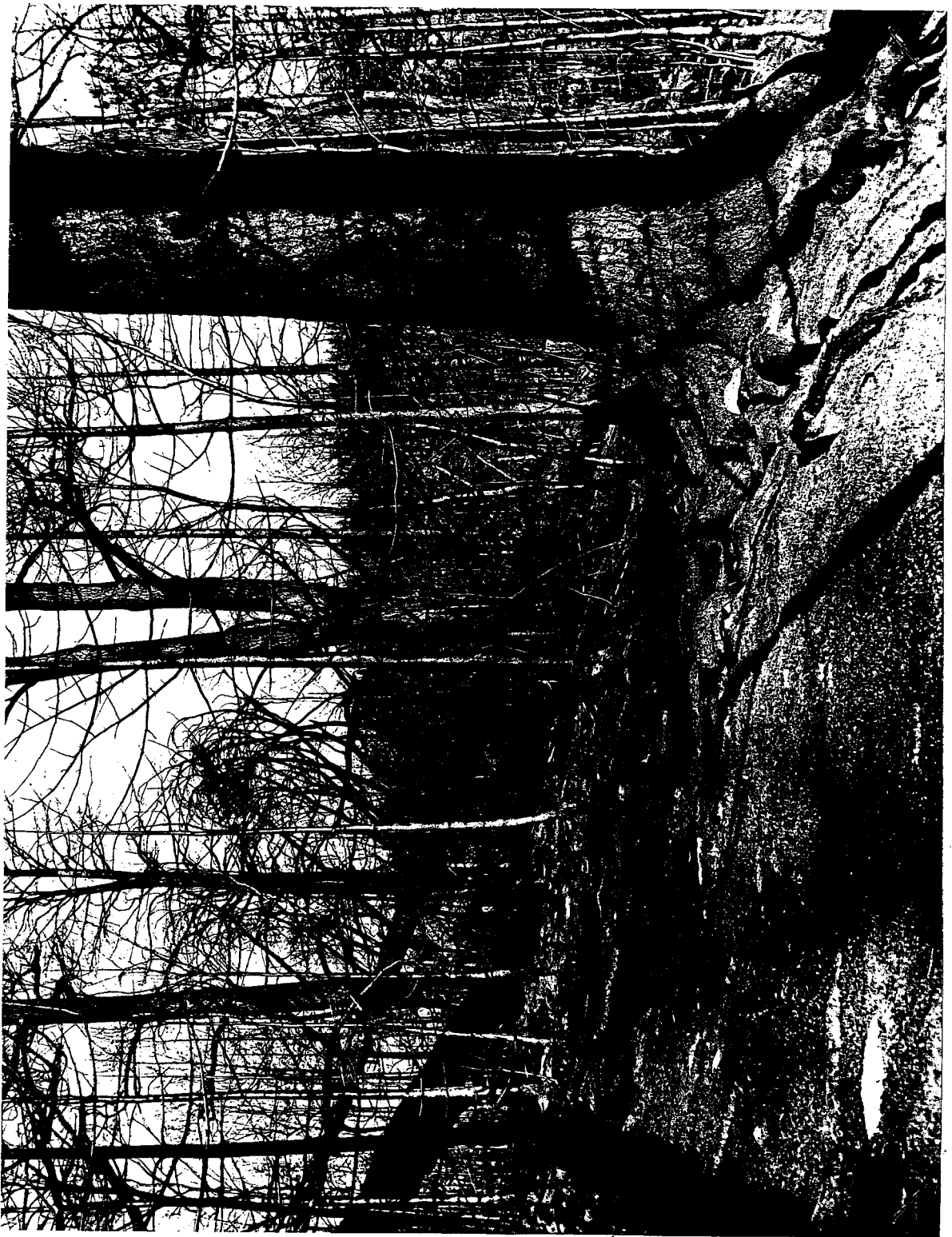
PHOTOGRAPHS

All but two of the following photographs illustrate damage done by the Mount Desert Island Fire in or near Acadia National Park. The other two were taken before the fire and are included to show contrasting unburned conditions in typical forest areas. Photographs of the going fire or of suppression action on it are not available. All but the two views credited to Paul G. Favour, Jr., Park Ranger, were taken by W. H. Ballard, Anchor Light Studio, Southwest Harbor, Maine.



(Photo by W. H. Ballard)

Fire ravaged the former beauty of Acadian coniferous forests like this in many delightful spots within the park.



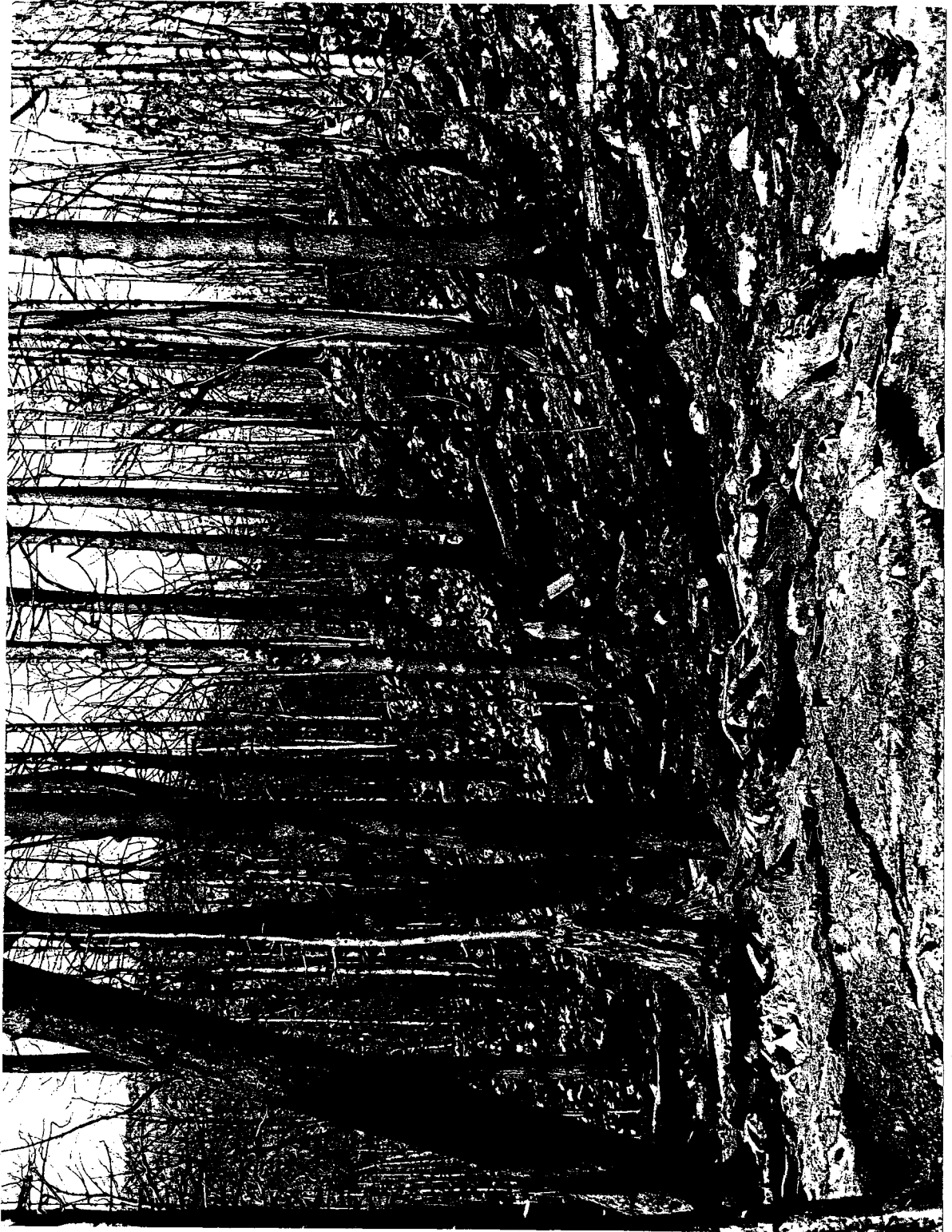
(Photo by W. H. Ballard)

All that remains of some once attractive white pine stands is utter desolation. The crown fire burned high and the ground fire deep.



The dominating impression -- no living thing survived! Crown, surface, and ground fires -- all three -- swept through this stand of white pine to leave a veritable ghost forest. Some subsequent blow-down has occurred.

(Photo by W. H. Ballard)



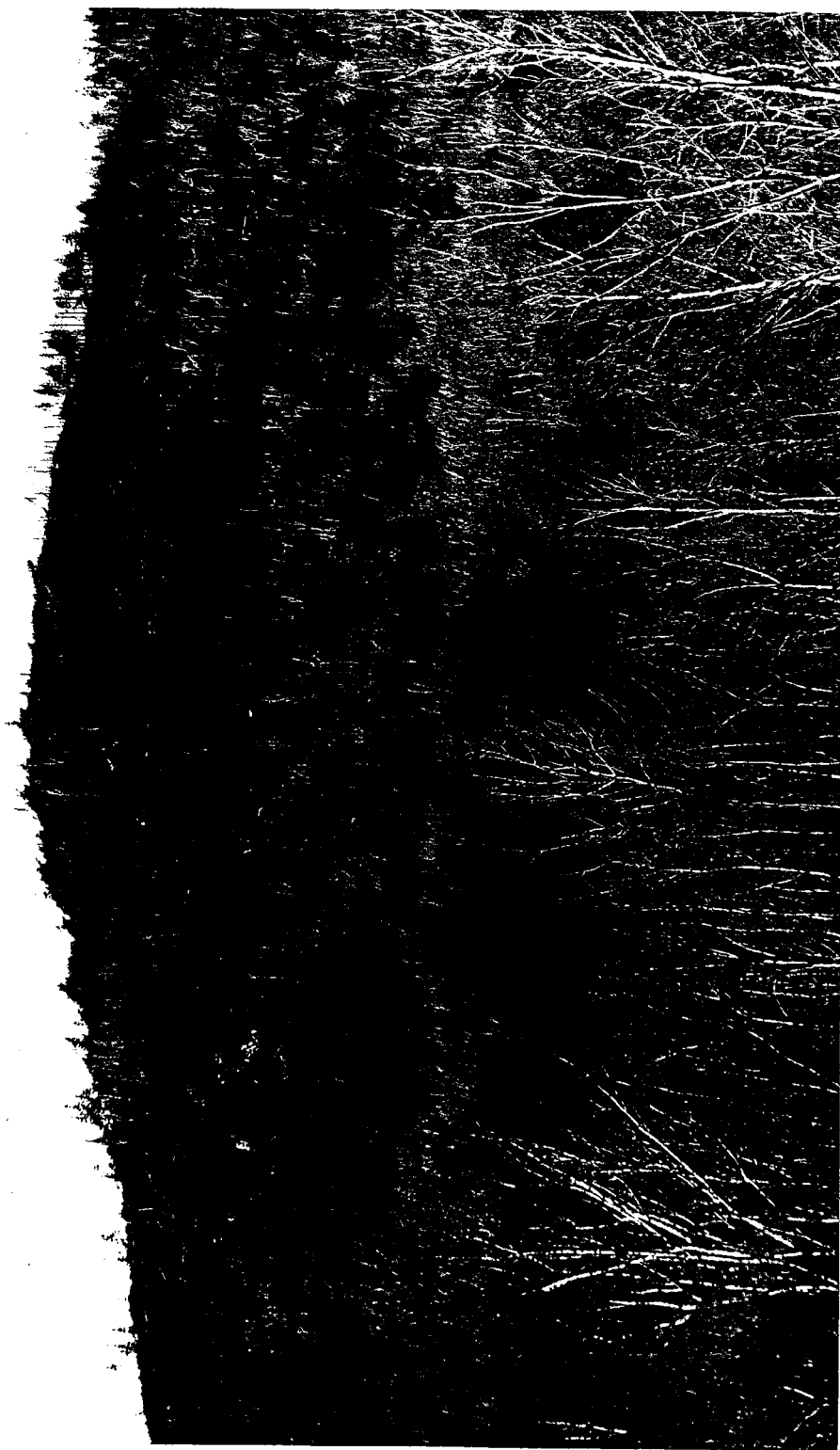
(Photo by W. H. Ballard)

Where mineral soil was deeper, white pine tree roots were less burned or exposed by fire. Such fire-killed stands evidence greater windfirmness thus far, but intense crown and surface fires left no survivors.



With root anchorage burned away by ground fire, spruce stands on Otter Point, The Bubbles and elsewhere collapsed like jackstraws in subsequent winds. Note unburnt trunks and branches. More intense fires can now occur in such areas than before, unless timber salvage and cleanup are accomplished.

(Photo by W. H. Ballard)



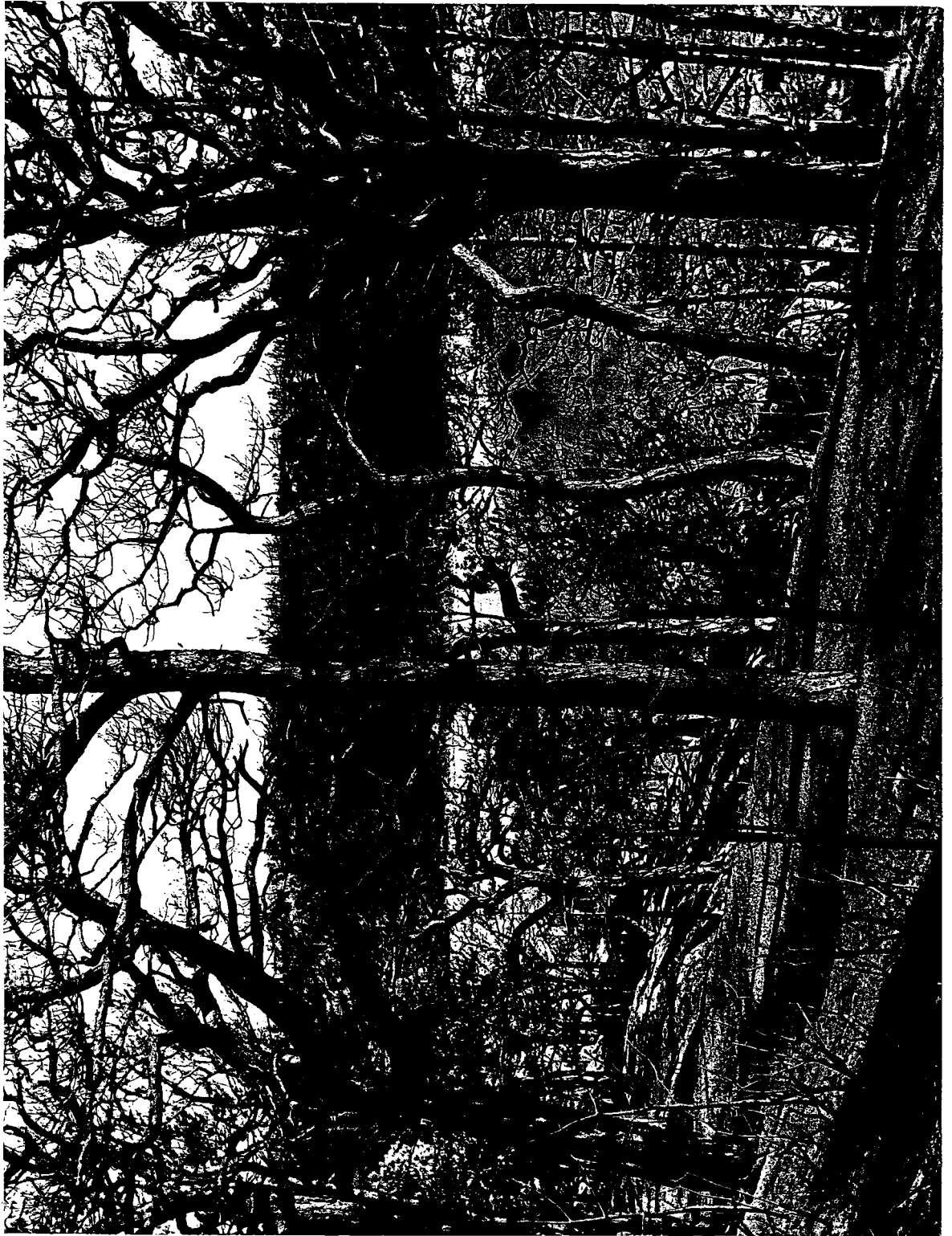
(Photo by P. G. Favour, Jr.)

Formerly exhibiting one of the finest old-growth spruce forests in the park, the stands on top of The Bubbles were undermined by ground fire, then toppled over by wind --- now a sad spectacle of tangled forest wreckage en masse. In this view of North Bubble the hardwood stands in the foreground are unburned.



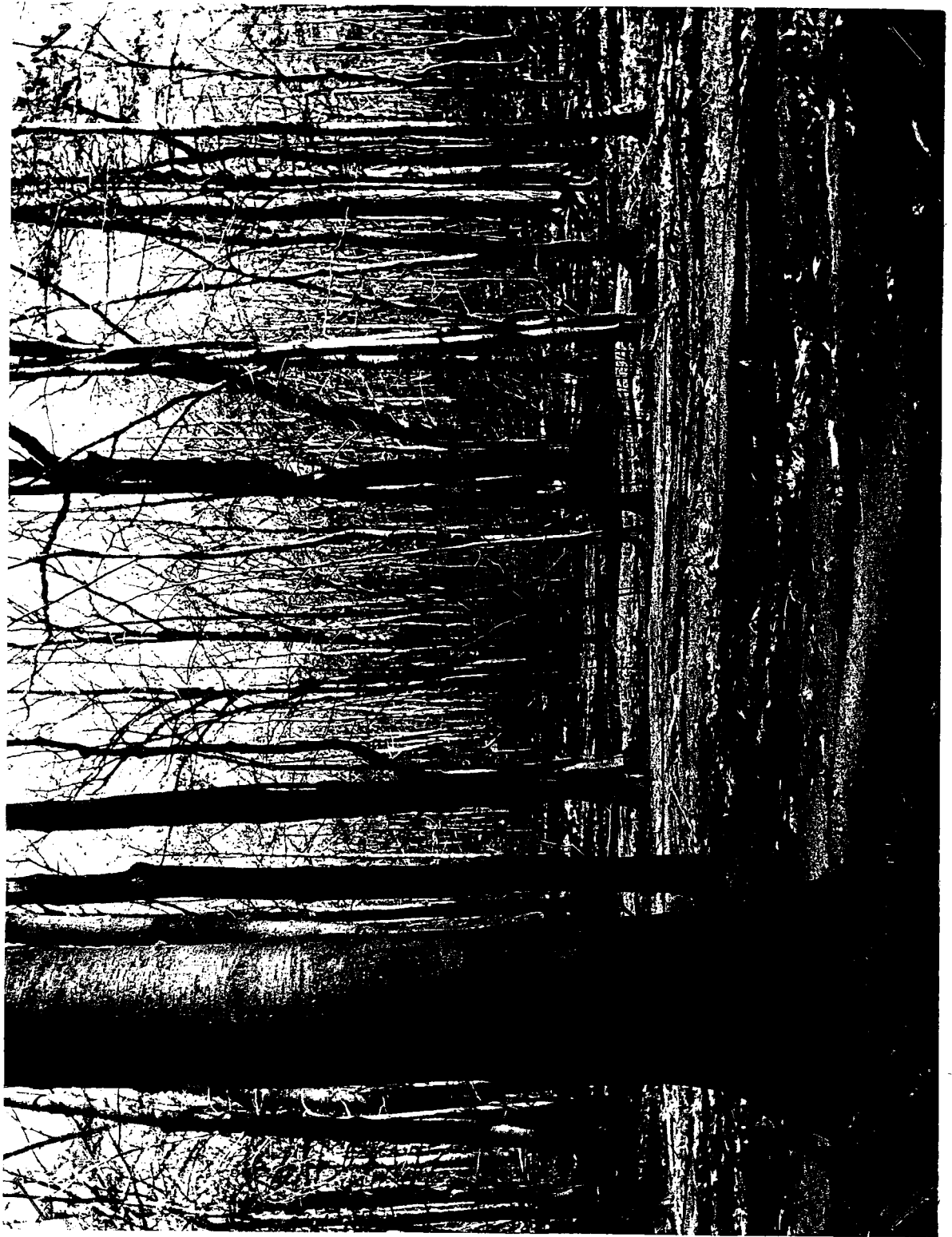
(Photo by W. H. Ballard)

Where fire and then wind struck stands in locations similar to this the scenic attractiveness of spruce forest meeting rock-bound coast will not return for many years.



(Photo by W. H. Ballard)

Erstwhile picturesque groups of pitch pine trees along East Ocean Drive were left standing, stark black -- and dead!



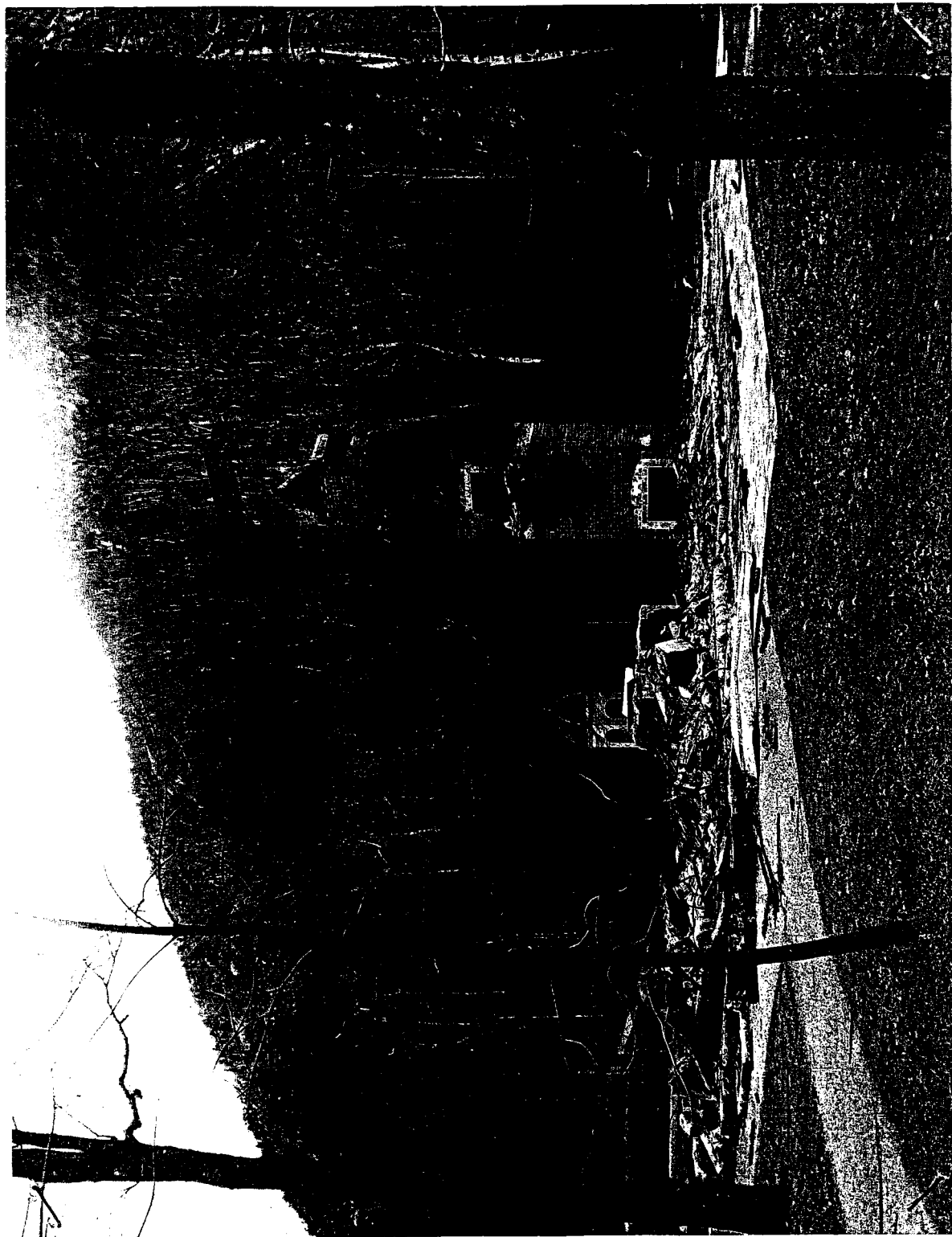
(Photo by W. H. Ballard)

At least one spring must pass before the full extent of fire damage in hardwood stands will be evident, particularly where the burn was intense, as in this stand.



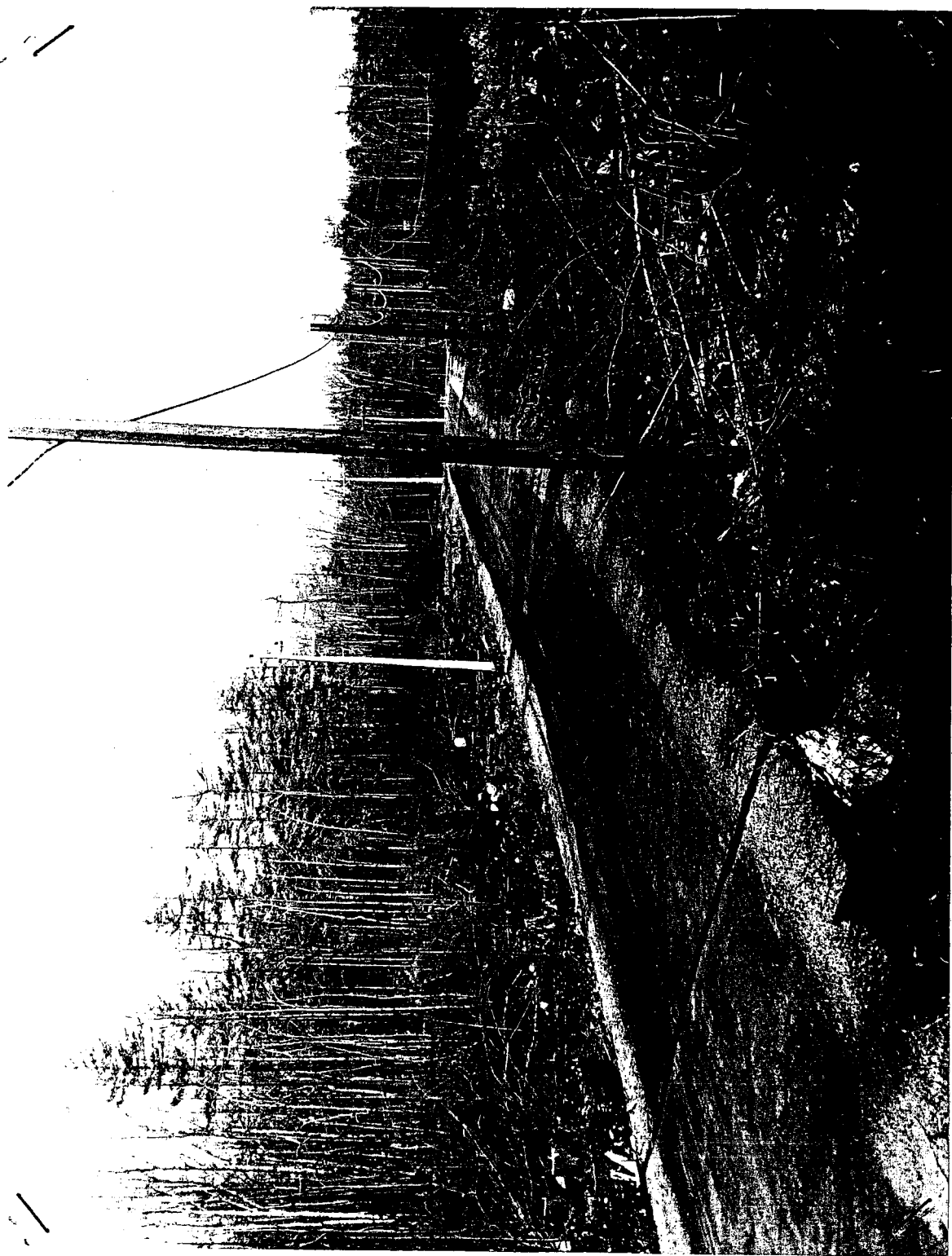
(Photo by W. H. Ballard)

Where the burn was relatively light, as in some youthful hardwood stands, few, if any, of the dominant trees are likely to succumb.



(Photo by W. H. Ballard)

A chimney and a small mass of rubble, remains of the park's Spring House in Sieur de Monts Spring area, are typical of the buildings razed in and about Bar Harbor.



(Photo by P. G. Favour, Jr.)

Immediately after burned utilities lines were replaced the companies cut clearance strips to prevent damage to new lines from windthrow of fire-killed trees.

COMPARATIVE RECORD OF PRECIPITATION

Cooperative Weather Bureau Station, Bar Harbor, Maine (1884 to 1940)
and Fire Ranger Station, Acadia National Park (1943 to 1947)

(Showing precipitation during the months of August,
September, October and November for the periods 1884
to 1940, 1943 to 1946 and the year of the Mount
Desert Island Fire -- 1947.)

*Period or Year	Precipitation in Inches				
	August	September	October	Total Aug., Sept. & Oct.	November
Mean precipita- tion 57 yr. period 1884 to 1940	3.25	3.97	4.38	11.60	4.55
Year 1943	9.25	2.61	5.54	20.40	7.18
Year 1944	0.74	5.78	3.73	10.31	5.57
Year 1945	1.66	2.15	5.56	9.37	6.03
Year 1946	5.34	0.90	2.57	8.81	5.31
Mean precipita- tion for 4 year period 1943 to 1946	4.25	2.86	5.11	12.22	5.62
YEAR 1947	0.56	2.53	0.08	3.02	5.56
1947 precipita- tion departure from mean for 1884 to 1940	-2.69	-1.59	-4.40	-5.53	1.01
1947 precipita- tion departure from mean for 1943 to 1946	-5.69	-0.48	-5.03	-5.20	0.04

*Precipitation data for the years 1941 and 1942 not available.

FIRE RECORD

Acadia National Park

1937 to 1946 Inclusive

(Number of Fires by Causes, Total Number of Fires,
Acreage Burned and Total Suppression Costs by Years)

Year	Number of Fires by Causes						Total No. Fires	Park Acreage Burned	Total Cost
	Sec.	Inc.	D.B.	Misc.	C.F.	Lang.			
1937	6			1			7	1	\$280
1938	6						6	7	12
1939	2	3	1		1	1	15	9	90
1940	18	3	1	1	1		24	16	55
1941	5	4	3	2	1		15	8	24
5Yr. Ave.	8.8	2.0	1.0	.8	.5	.2	13.4	5.2	\$ 92
1942	1	3					4	16	11
1943							0	0	0
1944	2						2	0	15
1945							0	0	0
1946	3		1	1			5	10	15
5Yr. Ave.	1.2	.6	.2	.2			2.2	5.2	\$ 3
Total 10 Yr.	50	13	6	5	3	1	78	67	\$502

ACADIA NATIONAL PARK

Summary of Allotments for Forest Fire Control Purposes
From Forest Protection and Fire Prevention Funds and
From Fire Protection of Forests, Forest Industries and
Strategic Facilities (National Defense) Appropriation,
Including Positions Authorized.

(Fiscal Years 1939 - 1948)

Fiscal Year	Appropriation				Fire Control Aid Positions Authorized	
	FP & PP		FPST & SF (ND)			
	Total	*Per Equipment	Total	*Per Equipment		
1939	\$ 350	}	-	-	**	
1940	895		\$745	-	**	
1941	380		200	-	**	
1942	240	}	\$ 930	\$ 60	2 for 4 mos. ea.	
1943	90					150
1944	-					-
1945	-	-	1,240	-	2 for 4 mos. ea.	
1946	515	-	1,140	-	2 for 4 mos. ea.	
1947	1,738	83	-	-	2 for 2 mos. ea.	
1948	700	-	-	-	2 for 4.5 mos. ea.	
					1 for 4.5 mos.	
Total	\$4,928		\$5,340	(Grand Total \$6,268)		
Average Total Yearly Allotment			-	\$827	-	

- *Amounts allotted for equipment are included in total allotment figures.
**Fire lookout and fire guard services were provided under the Civilian Conservation Corps program during the years indicated.

**OVERHEAD PERSONNEL FROM POINTS OUTSIDE OF ACADIA NP
WHO ASSISTED IN SUPPRESSION ACTION ON FIRE**

National Park Service Personnel	NPS Title	Headquarters	Assisted on Fire From Oct. to Nov.	
Allen, T. J.	Regional Director, Region I	Richmond, Va.	27	2
Arnold, F. H.	Regional Forester, Region I	Richmond, Va.	25	9
Benton, E. O.	Fire Control Aid	Shenandoah NP	23	5
Berg, L. Y.	Park Ranger	Shenandoah NP	23	7
Campbell, B. T.	Chief Ranger	Blue Ridge Pkwy	25	5
Coffman, J. D.	Chief Forester	Washington, D.C.	27	2
Cook, L. F.	Asst. Chief Forester	Washington, D.C.	23	7
Dunn, C.	Mixed Gang Foreman	Great Smoky Mts. NP	25	5
Ellsworth, Ivan	Superintendent	Saratoga NHP	25	3
Foster, H. H.	Custodian	Camden Hills NDA	24	3
Gibbs, R.	Chief Ranger	Shenandoah NP	25	7
Hall, J. T.	Laborer	Mammoth Cave NP	25	5
Johnson, J. R.	Fire Control Aid	Shenandoah NP	23	2
Johnson, P. H.	Park Ranger	Shenandoah NP	23	5
Liles, G. B.	Chief Ranger	Mammoth Cave NP	25	5
Luck, J. W.	Park Warden	Blue Ridge Pkwy	25	3
McKeown, E. D.	Park Ranger	Mammoth Cave NP	25	3
Moore, R. B.	Forester, Region One	Richmond, Va.	22	7
Prentiss, J. R.	Custodian	Perry's Victory & International Peace Memorial NP	25	3
Priest, J. M.	Park Warden	Great Smoky Mts. NP	25	7
Reynolds, L. E.	Maintenance Foreman	Mammoth Cave NP	25	3
Robertson, R.	Maintenance Man	Camden Hills NDA	24	8
Sanders, G. L.	Laborer	Mammoth Cave NP	25	6
Savage, W. L.	Forester, Region One	Richmond, Va.	22	9
Schreiber, G. P.	District Ranger	Blue Ridge Pkwy	25	6
Stuever, V. R.	Telephone Lineman Foreman	Shenandoah NP	25	2
Sullivan, R. C.	Fire Control Aid	Shenandoah NP	25	3
Van Woelden, J.	Park Ranger	Shenandoah NP	25	3
Wingsier, F.	Park Warden	Great Smoky Mts. NP	25	7
Wright, E. L., Jr.	Park Ranger	Colonial NHP	25	2

(Continued)

**OVERHEAD PERSONNEL FROM POINTS OUTSIDE OF ACADIA NP
WHO ASSISTED IN SUPPRESSION ACTION ON FIRE**

U. S. Forest Service Personnel	U. S. F. S. Assignment	Headquarters	Assisted on Fire From October
Black, J. E.	Equipment, Region 8	Atlanta, Ga.	25 to 31
Cooper, J. W.	Fire Control, Region 8	Atlanta, Ga.	25 to 31
Frykman, J. L.	Asst. Supervisor, Cherokee NF	Cleveland, Tenn.	25 to 31
MacNaughton, V. B.	Talladega NF	Centerville, Ala.	26 to 31
Newcomb, L. S.	State & Private Forestry	Valdosta, Ga.	25 to 31
Pilmer, H. E.	State & Private Forestry Region 8	Atlanta, Ga.	25 to 31
Renshaw, E. W.	Supervisor, Nantahala NF	Franklin, N. C.	25 to 31
Ruff, F. J.	Wildlife and Range Manage- ment, Region 8	Atlanta, Ga.	25 to 31
Smith, A. D. Jr.	State & Private Forestry, Region 8	Atlanta, Ga.	25 to 31
Spring, J. B.	<i>Chatt. NF: Asst. Sup.</i> State & Private Forestry	Gainesville, Ga.	25 to 31
Wiener, A. A.	Region 6	Portland, Ore.	29 to 31

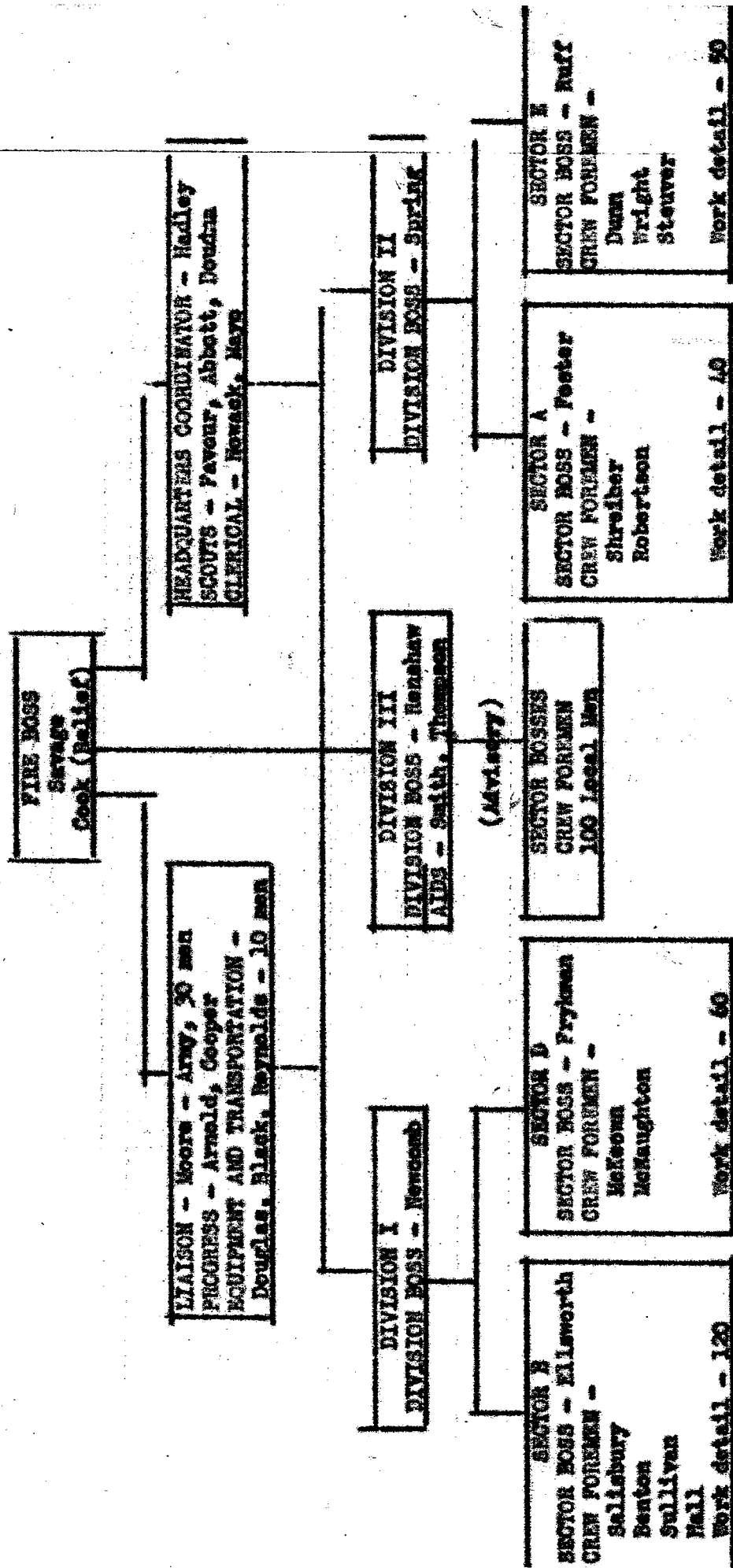
**LIST OF AGENCIES PARTICIPATING IN
MOUNT DESERT ISLAND FIRE**

Exclusive of National Park Service

<u>Agency</u>	<u>Type of Participation</u>
1. U. S. Forest Service	Loan of supervisory personnel and equipment
2. U. S. Air Corps	Air Force - labor crews, transportation of men and equipment, supplies and equipment, communications, mess facilities, air reconnaissance, weather data
3. U. S. Navy	Pumper crews, pumping equipment, radio communication, transportation of supervisory, weather data
4. U. S. Coast Guard	Pumper crews, pumping equipment, radio communication
5. Local Fire Departments	Fire trucks, pumping equipment, crews,
6. University of Maine	Student fire crews, radio communications, pumper equipment repair crew
7. Bangor Seminary	Student fire crews
8. American Red Cross	Canteen (mess) service on fire line and at town canteens, clothing and supplies
9. Maine State Police	Patrol, protective service, radio communication
10. Estates	Fire crews, equipment
11. Telephone Company	Installation field telephone, expediting fire calls.
12. Civilian Air Patrol	Transportation of equipment from Laconia, N. H. to Bar Harbor Airport

MOUNT DESERT ISLAND FIRE
OCTOBER - NOVEMBER 1947

ORGANIZATION CHART - TYPICAL DAY



Total - 444 men on detail including supervisory and specialized

MAN POWER DISTRIBUTION TABLES
Mount Desert Island Fire

TABLE I - EARLY STAGES OCT. 17 TO 23

Date	Shift	Total on Duty		Description
		Labor	Supervision	
17	Day	24	3	Fire at Fresh Meadow from initial attack to patrol and mop-up by the combined forces of the Town of Bar Harbor and Acadia National Park
17	Night	24	3	
18	Day	20	2	
18	Night	5	0	
19	Day	6	1	
19	Night	1	0	
20	Day	1	0	
20	Night	0	1	
21	Day	300	4	First breakover with attack by combined forces of Town of Bar Harbor, Acadia National Park, cooperative local forces and Army Air Force
21	Night	150	2	
*22	Day	86	5	Action on Aunt Betty Pond sector by National Park Service and cooperative forces to blow up on evening of October 23
22	Night	38	3	
23	Day	150	5	
23	Night	200	5	

* From October 22 data reflects action on Park sectors only.

MAN POWER DISTRIBUTION TABLES
Mount Desert Island Fire

TABLE 2 - ATTACK, HOLDING AND MOP-UP STAGES
SHOWING REORGANIZATION FOLLOWING BLOW-UP OF OCT. 23.

NATIONAL PARK SERVICE ACTION ONLY

DATE	SHIFT	TOTAL ON DUTY		DIVISION I				DIVISION II				OVERHEAD AND SPECIAL	
		LABOR	SUP.	SECTOR B		SECTOR D		SECTOR A		SECTOR E		LABOR	SUP.
				Labor	Sup.	Labor	Sup.	Labor	Sup.	Labor	Sup.		
OCT.													
24	Day	251	11	125	2			120	2			6	7
24	Night	219	10	125	2			120	2			4	6
25	Day	221	16	100	5	50	2	66	4			5	5
25	Night	112	12	55	5	20	2	35	3			2	2
26	Day	300	30	65	5	40	4	50	5	30	4	11	12
26	Night	112	14	55	4	15	2	25	4	15	2	2	2
27	Day	313	32	120	5	60	4	40	3	50	4	43	15
27	Night	112	14	55	8	15	1	25	2	15	1	2	12
28	Day	290	28	184	5	40	4	30	3	20	4	16	12
28	Night	110	14	35	6	10	2	45	2	10	2	10	2
29	Day	210	26	100	5	20	4	40	3	40	4	10	10
29	Night	102	12	45	4	10	1	35	3	10	1	2	3
30	Day	144	26	65	5	15	4	20	3	40	4	4	10
30	Night	65	12	29	5	10	1	20	2	5	2	1	2
31	Day	112	26	40	6	9	2	20	4	25	4	9	10
31	Night	69	13	24	5	1	1	10	2	10	2	24	3
NOV.													
1	Day	69	21	36	5	5	1	10	4	5	3	13	8
1	Night	41	10	27	2	3	1	5	3	5	1	1	3
2	Day	50	19	20	5	15	1	6	3	5	3	4	7
2	Night	21	8	6	2	4	1	4	2	6	1	1	2
3	Day	56	16	25	5	10	1	2	3	13	1	6	6

MAN POWER DISTRIBUTION TABLES
Mount Desert Island Fire

TABLE 3 - INTERIOR MOP-UP AND PATROL
FINAL STAGES NOV. 3 TO NOV. 14

DATE	SHIFT	TOTAL ON DUTY		DESCRIPTION
		LABOR	SUP.	
3	Night	5	3	Patrol only one man each sector
4	Day	51	15	Patrol on each sector and mop-up Gorge (Div.I and CCC Camp - Collect equipment
4	Night	5	3	Patrol only one man each sector
5	Day	51	15	Patrol and mop-up by sectors. Mop-up of interior fires - Collect equipment
5	Night	4	3	Patrol only one man each sector
6	Day	21	10	Patrol each sector, mop-up of Southwest Pass and interior fires - Collect equipment
6	Night	4	3	Patrol only one man each sector
7	Day	15	11	Patrol 2 men each sector - mop-up of interior fires - collect equipment
7	Night	4	3	Patrol only one man each sector
8	Day	8	6	Patrol 2 men each sector - collect and repair equipment
8	Night	3	2	Patrol 1 man each division
9	Day	8	3	Patrol 2 men each sector - standby
9	Night	4	2	Patrol 1 man each division - standby
10	Day	12	2	Patrol 1 man each sector - road clearing - equipment
10	Night	3	-	Patrol 1 man each division
11	Day	10	2	Patrol 1 man each sector - road clearing - equipment
11	Night	3	-	Patrol 1 man each division
12	Day	4	1	Patrol 1 man each division
12	Night	-	-	No patrols
13	Day	2	1	Patrol 1 man each division
13	Night	-	-	No patrols
14	Day	1	1	Final accounting - fire declared out

Acadia National Park
Bar Harbor, Maine

October 29, 1947.

MOP-UP INSTRUCTIONS MOUNT DESERT ISLAND FIRE

1. Continue maximum use of all power pumps, particularly in daytime. This operation is priority No. 1 throughout mop-up period.
2. No sector to be left unattended during daytime throughout mop-up operations.
3. "Black Out" progressively widening strip to 100 feet.
4. Cut all branches overhanging the line, up to a height of six feet.
5. Dig a trench 12 inches wide to mineral soil or bare rock with mattocks or Pulaski tools immediately on edge of burned area. Cut all dead roots to same width. To avoid chance of scattering smoldering peat, pull the peat into the fire. Clean rocks may be rolled outside, or in, whichever is more convenient. Some places will have boulders too large to move by hand and where fire has been between such boulders, attempt to scratch peat out with a stick or other object. Any exception to the trenching requirement must be approved by the Fire Boss upon specific recommendation by the Division Boss.
6. After the line is dug, cut all green coniferous branches within one foot of the ground progressively back for a distance of 25 feet from the line. These branches to be scattered (not piled) beyond the 25 foot strip.
7. Cut and remove all down limbs or logs that extend across line. These cuts are to be made outside of the burn, and the burned portion placed (not piled) at least 25 feet inside the line.
8. Following completion of above operations, fell burning snags of 5 feet or more height progressively back inside line to a distance of 300 feet.
9. Fire trucks will patrol all hard surfaced roads along the fire line and inside the burned area, mopping up snakes within 300 feet of road.
10. Night operations will be reduced gradually as conditions safely permit, making maximum use of manpower in the daytime for more effective operation.
11. Do not forget to feel for heat.

(Sgd) Wilbur L. Savage,

Fire Boss.

MOUNT DESERT ISLAND FIRE

Table Showing Length of Fire Line by Sectors, Divisions and Total Perimeter

LOCATION AND/OR AGENCY RESPONSIBLE	LENGTH OF FIRE PERIMETER - MILES							GRAND TOTAL
	WORKED AND/OR HELD LINE				OTHER FIRE PERIMETER			
	Wildland	Roads	Stream	Total	Lake	Ocean	Total	
NATIONAL PARK SER.								
1/ Sector E	3.4	-	1.6	5.0	-	0.5	0.5	5.5
Sector D	1.8	2.1	-	3.9	-	-	-	3.9
DIVISION I	5.2	2.1	1.6	8.9	-	0.5	0.5	9.4
2/ Sector A	3.4	0.9	-	4.3	3.1	-	3.1	7.4
Sector E	2.2	0.3	0.8	3.3	-	-	-	3.3
DIVISION II	5.6	1.2	0.8	7.6	3.1	-	3.1	10.7
Total Perimeter Park Sectors	10.8	3.3	2.4	16.5	3.1	0.5	3.6	20.1
DIVISION III	8.3	3.8	1.5	13.6	-	-	-	13.6
Halls Cove to Otter Point	3/ 2.5	2.8	-	5.3	-	5.7	5.7	11.0
Total Perimeter Outside Sectors	10.8	6.6	1.5	18.9	-	5.7	5.7	24.6
GRAND TOTAL PERIMETER	21.6	9.9	3.9	35.4	3.1	6.2	9.3	44.7
Interior unburned islands Park Service sectors								
Southwest Pass	0.6	0.1	-	0.7				
The Gorge	0.2	-	0.1	0.3				
Total Interior	0.8	0.1	0.1	1.0				
TOTAL FIRE LINE IN PARK SECTORS	11.6	3.4	2.5	17.5	3.1	0.5	3.6	20.1

1/ Includes spot fire at Otter Point

2/ Includes unburned island CCC Camp Area

3/ Mainly estate lands along Eastern Ocean front

SUMMARY OF ACREAGE BURNED

Mount Desert Island Fire

ACREAGE BURNED BY FIRE STAGES*

Date	Acreage Burned**		Total
	Inside Park	Outside Park	
18		100	100
22	85	1,940	2,025
23	1,065	2,940	3,595
Final	8,750	8,438	17,188***

ACREAGE BURNED BY TOWNS*

Town of	Inside Park	Outside Park	Total
Bar Harbor	8,084	8,364	16,448
Mount Desert	666	74	740
Total	8,750	8,438	17,188***

*Area of water surface within fire perimeter has been deducted.

**Area burned as of early morning on date shown.

***Based on revisions and corrections by Hadley and Lawrence,
November 13, 1947.

SUMMARY OF FIRE DAMAGE
Mount Desert Island Fire

Item Destroyed or Damaged	Estimated Damage		Total
	Inside Park	Outside Park	
Timber	\$337,125	\$218,565	\$555,690
Physical Improvements			
Buildings and improvements	133,800	9,100,000*	9,233,800
Roads and trails	104,000	310,000*	414,000
Lands	11,200	1,500,000*	1,511,200
Other	-	90,000*	90,000
Total	\$586,125	\$11,218,565	\$11,804,690

* Estimated real value by Bar Harbor Town Assessors.

**MAJOR ITEMS OF EQUIPMENT SECURED
Mount Desert Island Fire**

EQUIPMENT PURCHASED

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
4	Trucks, Ford 3 pickups, 1 ton and 1 stake - 1½ ton	\$5,087.39
6	Pacific Marine Power pumps	3,203.70
50	Back pack pumps, 5 gal.	720.00
10,000 ft.	Linen fire hose, 1½"	4,500.00
TOTAL		\$13,511.09

EQUIPMENT CONTRIBUTED BY WAR ASSETS ADMINISTRATION

<u>Quantity</u>	<u>Item</u>	<u>Value</u>
11½,000 ft.	Fire hose, e.j.r.l.	\$26,500.00
5	Trailer pumps, Chrysler	2,000.00
4	Chain saws, gasoline powered	1,200.00
100	Back pack pumps, 5 gallon	500.00
TOTAL		\$30,200.00

TOTAL VALUE ALL MAJOR ITEMS OF EQUIPMENT SECURED \$43,191.09

**SUMMARY OF FIRE SUPPRESSION COSTS
Mount Desert Island Fire**

TOTAL PARTICIPATION AND COSTS

(Includes personal services, travel, subsistence, equipment, and all incidental items)

Emergency Reconstruction and Fighting Forest Fires Appropriation (Estimated)	15,950 man hours	\$46,502.39
National Park Service Appropriations	4,329.8 " "	7,501.24
Contributed Costs (Estimated)	51,072 " "	155,512.00
GRAND TOTAL	51,351.8 " "	\$209,515.63

FIRE SUPPRESSION COSTS
Mount Desert Island Fire

EMERGENCY RECONSTRUCTION AND FIGHTING FOREST FIRES FUNDS (ESTIMATED)

Personal Services - 15,950 man hrs.			\$18,738.80
Base Pay		\$8,234.80	
U. S. Forest Service	\$1,800.00		
Hired fire fighters	6,277.30		
University of Maine	\$3,600.00		
Banger Seminary	677.30		
Local	2,000.00		
Specialized labor	157.50		
Overtime		10,504.00	
National Park Service overhead	8,608.00		
U.S. Forest Service overhead	1,904.00		
Travel (including subsistence)			6,125.00
National Park Service overhead		4,500.00	
U. S. Forest Service overhead		1,500.00	
Hired fire fighters		100.00	
Specialized labor		25.00	
Transportation of Things			2,500.00
Express, freight and air		2,500.00	
Communication Services			500.00
Telephone and telegraph		500.00	
Printing and Binding			25.00
Acadia maps		25.00	
Other Contractual Services			100.00
Hire of trucks and drivers		100.00	
Supplies and Materials			3,500.00
Gas, oil, small equipment		3,500.00	
Equipment			15,013.59
Trucks		5,087.39	
Pumpers		3,203.70	
Hose, 1½" linen		4,500.00	
Miscellaneous items		2,222.50	
TOTAL 15,950 man hrs.			\$46,502.39

**FIRE SUPPRESSION COSTS
Mount Desert Island Fire**

PAID FROM NATIONAL PARK SERVICE FUNDS (ACTUAL)

<u>Director's Office</u>		\$1,055.91
Services - 291.8 man hrs.	\$ 945.85	
Travel (including subsistence)	110.06	
<u>Region One Office</u>		1,183.27
Services - 392 man hrs.	1,111.57	
Travel (including subsistence)	71.70	
<u>Acadia National Park</u>		2,865.54
Services - 191/2 man hrs.	2,865.54	
<u>Other NPS Areas</u>		2,396.52
Services - 170 1/2 man hrs.	2,291.77	
Travel only	104.75	
TOTAL	4,329.8 man hrs.	\$7,501.24

**FIRE SUPPRESSION COSTS
Mount Desert Island Fire**

CONTRIBUTED COSTS (ESTIMATED)

ARMY AIR FORCES		\$110,165.00
Services - 25,056 man hrs.	\$36,000.00	
Travel and transportation	29,465.00	
Communications	1,000.00	
Supplies and materials	34,000.00	
Mass service	\$20,000.00	
Miscellaneous supplies	14,000.00	
Equipment	10,000.00	
U. S. NAVY		5,047.00
Services - 2,336 man hrs.	2,500.00	
Travel	256.00	
Transportation	200.00	
Communications	60.00	
Supplies and materials	531.00	
Equipment	1,500.00	
U. S. COAST GUARD		5,100.00
Services - 1,900 man hrs.	2,250.00	
Travel	175.00	
Communications	25.00	
Supplies and materials	800.00	
Equipment	1,850.00	
TOWN OF MOUNT DESERT FIRE DEPARTMENT		900.00
Services - 800 man hrs.	800.00	
Supplies and materials	100.00	
TOWN OF BAR HARBOR FIRE DEPARTMENT		800.00
Services - 500 man hrs.	500.00	
Supplies and materials	50.00	
Equipment	250.00	
AMERICAN RED CROSS		2,500.00
Mass service	2,500.00	
OTHER FIRE DEPARTMENTS		500.00
Services - 400 man hrs.	400.00	
Supplies and materials	100.00	
WAR ASSETS ADMINISTRATION		30,200.00
Equipment	30,200.00	
Fire hose	26,500.00	
Trailer pumps	2,000.00	
Chain saws	1,200.00	
Backpack pumps	500.00	
TOTAL 31,072 man hrs.		\$155,512.00

November 20, 1947.

MEMORANDUM for the Director.

Enclosed in triplicate is the requested itemized estimate of all costs in which the Service and Acadia NP are concerned as a result of the Mount Desert Island fire of October 17 - November 14. A summary of the four major items involved in this estimate is given below:

Estimate of Cost of Fire Suppression . . .	\$ 81,442
Estimate of Cost of Replacement or Repair of Buildings and Other Physical Improvements Destroyed or Damaged by Fire	249,000
Estimate of Cost of Cleanup and Fire Hazard Reduction	176,000
Estimate of Reforestation Costs	50,000
Total Amount of Estimate	\$579,442

As far as we know now this is a complete estimate of all costs for which funds will be needed. It is possible that there are some other items which we are not aware of at present.

Thomas J. Allen,
Regional Director.

Enclosure 993

cc: Acadia, w/c estimate

(Acadia National Park Fire)

SUMMARY OF ESTIMATE

Estimate of Cost of Fire Suppression	\$ 84,442.00
Estimate of Cost of Replacement or Repair of Buildings and Other Physical Improvements Destroyed or Damaged by Fire	249,000.00
Estimate of Cost of Cleanup and Fire Hazard Reduction	196,000.00
Estimate of Reforestation Costs	50,000.00
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Total Amount of Estimate	\$579,442.00
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(Acadia National Park Fire)

ESTIMATE OF FIRE SUPPRESSION COSTS

<u>Personal Services</u>			
Base Pay		\$17,396.41	\$27,900.41
NPS Overhead	\$9,161.61		
USFS Overhead	1,800.00		
Hired fire fighters	6,277.30		
University of Maine	\$3,600.00		
Bangor Seminary	677.30		
Local	2,000.00		
Specialized Labor	157.50		
Overtime		10,504.00	
NPS Overhead	8,600.00		
USFS Overhead	1,904.00		
<u>Travel (including subsistence)</u>			6,125.00
NPS Overhead		4,500.00	
USFS Overhead		1,500.00	
Hired fire fighters		100.00	
Specialized labor		25.00	
<u>Transportation of Things</u>			2,500.00
Express, freight and air shipping charges for delivery of pumps, hose, hand tools, other fire fighting equipment and supplies		2,500.00	
<u>Communication Services</u>			500.00
Telephone toll and telegraph charges		500.00	
<u>Printing and Binding</u>			25.00
100 maps of Acadia NP		25.00	
<u>Other Contractual Services</u>			100.00
Hire of two 2-ton trucks for 2 days including drivers		100.00	
<u>Supplies and Materials</u>			3,500.00
Gasoline, oil, equipment repair parts, flashlights, headlamps, hose fittings, hose gaskets, batteries, tires, tubes, food items, and small hand tools.		3,500.00	

Equipment

\$43,791.09

Hose, 1 1/2 inch, e.j.r.l. and linen,

12,000 feet @ \$.21 to \$.45 per foot

\$31,000.00

Pumps, Pacific Marine, Type Y,

6 new @ \$533.95 each

3,203.70

Trailer pumps, Chrysler,

5 new @ \$400 each

2,000.00

Trucks, one 1 1/2 Ton stake body and three

1/2 ton pickups, all new

5,087.39

Other items, including 1 chain saw and

150 backpack pumps

2,500.00

Estimated Total Cost of Suppression\$81,891.50

(Acadia National Park Fire)

SUMMARY OF
ESTIMATE OF COST OF REPLACEMENT OR REPAIR OF BUILDINGS AND OTHER PHYSICAL
IMPROVEMENTS DESTROYED OR DAMAGED BY FIRE

Buildings and other developments destroyed		\$133,800.00
Planned for replacement	\$82,200.00	
Not planned for replacement	51,600.00	
Cleanup of building and development sites		11,200.00
Repair of fire damage to roads and trails		22,000.00
Rehabilitation of roads and trails following cleanup and hazard reduction operations		82,000.00
•Estimated Total		\$219,000.00
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Cost to clear sites and replace or repair required facilities and improvements		\$115,400.00
Value of buildings and developments <u>not</u> to be replaced		51,600.00
Rehabilitation of roads and trails following cleanup and hazard reduction operations		82,000.00
•Estimated Total		\$219,000.00

•Represents same total under two breakdowns

(Acadia National Park Fire)

ESTIMATE OF COST OF REPLACEMENT OR REPAIR OF BUILDINGS AND OTHER PHYSICAL IMPROVEMENTS DESTROYED OR DAMAGED BY FIRE

Buildings and Other Developments Destroyed, to be Replaced		\$82,200.00
1. Sieur de Monts Exhibit Building and Quarters No. 2		\$25,000.00
22,000 cu. ft. @ \$1.00 per cu. ft.	\$22,000.00	
Terrace, steps and walls	3,000.00	
2. Sieur de Monts Comfort Stations		20,000.00
2 buildings @ \$10,000 each		
3. Bear Brook Campground Community House		5,800.00
6,500 cu. ft. @ \$.90 per cu. ft.		
4. Bear Brook Campground Ranger Quarters		6,000.00
5. Bear Brook Campground Men's Toilet		4,500.00
4,500 cu. ft. @ \$1.00 per cu. ft.		
6. Bear Brook Campground Women's Toilet		3,800.00
3,800 cu. ft. @ \$1.00 per cu. ft.		
7. Bear Brook Campground Amphitheatre		3,500.00
8. Storm Beach Garage		3,000.00
9. Storm Beach Laundry Building		2,500.00
10. Storm Beach Library Building		3,500.00
11. Lake Wood Beach Women's Bathhouse		1,100.00
2,200 cu. ft. @ \$.50 per cu. ft.		
12. Lake Wood Beach Men's Bathhouse		800.00
1,600 cu. ft. @ \$.50 per cu. ft.		
13. Lake Wood Beach Latrines (2)		700.00
700 cu. ft. each @ \$.50 per cu. ft.		
14. Road and Trail Signs		1,000.00
15. Gates, Guard Rails and Foot Bridges		1,000.00

Buildings and Other Developments Destroyed, <u>Not</u> to be Replaced		\$51,600.00
1. Homan House Residence		
4,150 sq. ft. @ \$10.00 per sq. ft.	\$41,500.00	
Furnishings of residence	6,500.00	
Purchased from 1945		
appropriation	\$4,000	
Purchased from other		
funds	\$2,500	
2. Homan House Garage		
7,200 cu. ft. @ \$.50 per cu. ft.	3,600.00	
Cleanup of Sites of Buildings and Other Developments Destroyed		11,200.00
17 building sites and 3 groups of other		
sites (guard rails, gates and bridges)		
@ \$560.00 each, based on following		
average costs per site:		11,200.00
Supervision, 40 hrs. @ \$1.75 per hr.	\$ 70.00	
Labor, 400 hrs. @ \$1.00 per hr.	400.00	
Truck and driver, 40 hrs. @ \$2.25 per hr.	90.00	
Repair of Fire Damage to Roads and Trails		22,000.00
Trails, 40 miles	10,000.00	
Roads, including shoulders, 22 miles	12,000.00	
Rehabilitation of Roads and Trails Following Cleanup and		
Hazard Reduction Operations		82,000.00
1. Repair to base	30,000.00	
2. Repair to surface	34,000.00	
3. Repair to shoulders	10,000.00	
4. Repair to miscellaneous		
timber drainage structures	8,000.00	
<u>Estimated Total Cost of Replacement or Repair of Buildings and</u>		
<u>Other Physical Improvements Destroyed by Fire</u>		<u>\$219,000.00</u>

ESTIMATES OF COST OF CLEANUP AND FIRE HAZARD REDUCTIONRoadside Cleanup and Hazard Reduction

22 miles of hard-surfaced park roads require treatment to a width of 200 ft. on each side to eliminate the heavy accumulations of unsightly and hazardous fire-killed or windthrown trees. This will include cutting stumps as close to ground as possible or pulling them out where trees are uprooted, lopping of limbs, bucking trees to log lengths, removal of logs and uprooted stumps, piling and burning tops and limewood. Cost of this treatment estimated at \$2,000 per mile, both sides of road.

\$44,000General Cleanup and Hazard Reduction Beyond Roadside Strips

Of the total area of 8,630 acres burned within the park, 1,067 acres are included within the strips requiring special treatment along park roadsides. On approximately half of the remaining 7,563 acres, or 3,800 acres, it is considered essential to reduce severe fire hazard conditions and clean up to improve appearances. This work will include felling standing fire-killed trees or severing the trunk from the stump and roots of windthrown trees; lopping of limbs, bucking trees to convenient lengths for handling, placing logs flat on ground, piling and burning tops and limewood. Cost of this treatment estimated at \$40 per acre.

152,000

Estimated total cost of cleanup and hazard reduction

\$196,000

(Acadia National Park Fire)

ESTIMATE OF REFORESTATION COSTS

Approximately 5%, or 430 acres, of the park area burned was unforested before the fire, consisting of open meadows, marshes or fields. It would be inappropriate to plant these lands to forest.

On areas such as the steeper slopes of Champlain, Flying Squadron, Cadillac, and Sargent Mountains, forest vegetation was generally sparse or lacking before the fire, possibly resulting to some extent from the severe fire of 1850 which swept the entire island. Bare or nearly bare outcropping rock and talus slopes with huge exposed broken boulders are the typical surface conditions in these areas. They are estimated to occupy 25% of the burned area, or about 2,100 acres. Reforestation on these sites would be either impossible or impracticable and is not proposed.

In those portions of the burned area within the park where the fire was most intense the organic and mineral soil was impoverished so badly that it will be incapable of supporting more than sparse tree growth for many years. This condition probably occurs on about 15% of the park area burned, or 1,300 acres. No attempt to reforest these areas can be contemplated in the near future.

On the remaining park land within the burn, about 4,800 acres, the forest growth is not completely killed, nor will all the remaining live trees die or windthrow as a result of the fire, because this portion of the area was less severely burned than that mentioned in the preceding paragraph. It is estimated that at least half the former stand will survive, generally speaking, over this area as a whole. Moreover, where the soil is not too badly depleted by fire it is reasonable to anticipate that pioneer or "fire type" tree species such as aspen, gray birch, paper birch and pin cherry will regenerate naturally within a few years. On sites respectively suitable for them longer lived species, such as beech, yellow birch, maple, pine, spruces, fir and hemlock will gradually replace these temporary type species through natural succession.

With the reasonable expectancy of forest restoration by natural means on most of these 4,800 acres, assured further by the fire hazard reduction and cleanup treatment contemplated, it is unlikely that for national park purposes artificial reforestation need be applied on more than 1,000 acres within the park burn. About half of this acreage occurs as scenic foreground along park roadsides and in locations intensively visited by the public where replanting for aesthetic purposes is of first importance. The other 500 acres includes areas of secondary aesthetic importance, or scenic background. Here in places where natural regeneration is slow, uncertain or inadequate it should be augmented by planting to hasten and assure improvement of appearances. The cost of planting in these two situations is estimated as follows:

Planting of scenic foreground areas along park roads and other important visitor-use sites, 500 acres @ \$75 per acre	\$37,500
Reforestation of important scenic background areas where adequate natural regrowth appears doubtful, 500 acres @ \$25 per acre	<u>12,500</u>
<u>Estimated Total Cost of Reforestation</u>	\$50,000