Fire Management Branch
Department of Conservation & Environment

# A SUMMARY OF FOREST FIRE STATISTICS, 1972-73 TO 1980-81

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#### FOREWORD

The introduction of a computer-based system of recording fire data has allowed a much more comprehensive analysis of forest fire statistics for Victoria than has previously been possible. This report gives the results of some analyses for the period 1972-73 to 1980-81.

The analyses presented are those that it was considered would provide an overview of the forest fire problem at both the State and Divisional level. As the computer data base continues to expand, further analysis will be possible.

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Chief Division of Forest Protection

## LIST OF TABLES

1	General S	<u>tatistics</u>	
	Table 1:	Number of fires and areas burnt by Divisions.	6
	2:	Area burnt by land status.	6
2	Fire Orig	<u>ins</u>	
	Table 3:	Number of fires by land status at origin.	6
	4:	Area burnt (%) by origin for land status	
		categories.	フ
	5:	Number of fires (%) by land status at origin for	
		Divisions.	7
	6:	Area burnt (%) by land status at origin for	
		Divisions.	7
3	Monthly D	istribution	
	Table 7:	Monthly distribution of fire number (%) for	
		Divisions.	8
	8:	Monthly distribution of area burnt (%) for	
		Divisions.	8
4	Cause		
	Table 9:	Number of fires (%) by cause (source) for Divisions.	9
	10:	Number of fires (%) by cause (agency) for Divisions.	10
	11:	Area burnt (%) by cause (source) for Divisions.	11
	12:	Area burnt (%) by cause (agency) for Divisions.	1,2
	13:	Number of fires (%) by cause (source) for land	
		status at origin.	13
	14:	Number of fires (%) by cause (agency) for land	
		status at origin.	14
5	Detection	/Suppression	
	Table 15:	Number of fires (%) by detection methods for	
		Divisions.	15
	16:	Number of fires (%) by first attack agency for	
		Divisions.	15
	17:	Number of fires (%) by first attack agency for	
		land status at origin.	16

	18:	Number of f	ires (%)	with CFA i	involvement for	
		Divisions.			1	.6
	19	Number of f	ires (%)	by first a	attack methods. 1	.6
6	Fire Area	Classes				
	Table 20:	Number of f	ires (%)	by area cl	lasses for Divisions. 1	6

#### INTRODUCTION

This report presents the results from some analyses of fire data for the 9 years 1972/73 to 1980/81. The intention in conducting the analyses was to more clearly define the nature of the forest fire problem in Victoria at both the State and Divisional level, and to provide a sound basis for protection planning.

#### METHOD

Many of the data describing fires attended by the FCV from 1972/73 to 1980/81 are now on computer file within the Government Computing Service Burroughs system. The data were analysed using both the facilities available on SPSS and specially written FORTRAN programs.

Only fires that originated in, or burnt into, the Fire Protected Area (FPA) were included (i.e. fires with Land Status codes 1 to 8), and the areas burnt refer only to areas burnt within the FPA. The results presented will therefore differ slightly from those which would be obtained from analysis of fire statistics presented in Annual Reports for the period. Statistics in these reports, up to and including the 1974/75 fire season, include information on all fires attended by the FCV whether inside or outside the FPA.

Data for the years 1972/73 to 1977/78 were obtained by coding information taken from fire reports prepared under the old format. In some instances complete information could not be obtained and therefore not all fires in the computer file were available for each analysis. The numbers of fires on which each analysis was based are shown in the table headings.

<sup>1</sup> N H Nie et al (1975) SPSS - Statistical package for the social sciences. 2nd Edition. McGraw-Hill.

<sup>2</sup> Division of Forest Protection (1981) Instructions for completing Form 338B - Final Fire Report, Part 1.

#### RESULTS AND DISCUSSION

A detailed discussion of the results of the analyses has not been attempted here. This section provides a brief summary of the nature of the forest fire problem in Victoria while more detailed information can, when required, be obtained from the tables which are appended.

## l General Statistics (Tables 1 and 2)

In the 9 year period there were 4196 fires which burnt 964225 hectares within the FPA. The greatest number of fires (19.8%) occurred in Eastern Division and the least number (9.1%) in Central Division. The greatest area burnt (60.3%) was in Western Division and the least (0.4%) in Northern Division. Much of the area burnt in Western Division was in the semi-arid regions of the Big Desert and Sunset Country. Of the total area 86.5% was State Forest (SF), 7.5% National Park (NP), 3.6% private property (PP), 1.7% Protected Public Land (PPL) and 0.7% other classes of public land (OPL).

#### 2 Fire Origins (Tables 3 to 6)

Most fires (57.1%) originated in SF and these were responsible for burning 81.2% of the total area. 30.5% of fires originated in PP (both inside and outside the FPA) and burnt 14.6% of the area, with the 4.6% of fires which originated in NP burning 3.5% of area. The remaining 7.8% of fires, which originated in either PPL or OPL, burnt only 0.7% of the total area.

Fires which originated in all classes of public land were responsible for burning 15216 hectares or 44.3% of the total area of PP burnt within the FPA. Conversely, fires which originated in PP burnt 122248 hectares or 13.1% of the total area of public land.

#### 3 Monthly Distribution (Tables 7 and 8)

The distribution of the number of fires by month of origin peaked for the State at 22.9% during January. However, both Eastern and Southern Divisions also have earlier peaks with 17.4% and 11.7% of fires respectively originating during September. The importance of fires in early spring in these Divisions in particular is emphasised by the statistics relating to the monthly distribution of area burnt. Of the total areas burnt in Eastern and Southern Divisions, 48.9% and 60.8% respectively were burnt by fires which originated in September.

Statistics of the area burnt by fire originating in the summer months showed a big variation. In December and January 21.7% and 23.9% respectively of the total was burnt but this dropped dramatically to only 4.7% in February. In fact, more area was burnt by fires originating in each month of spring than by those originating during February.

#### 4 Cause (Tables 9 to 14)

Lightning was the greatest single cause of fire throughout the State being responsible for 23.9% of all fires. On a Divisional basis it ranged from 35.8% of fires for Eastern Division to 6.7% for Northern Division. When viewed in terms of area burnt lightning becomes even more important, with 60.3% of the total area being burnt by lightning caused fires and ranging from 1.6% in Northern Division to 85.2% in Western Division.

Deliberate lighting with malicious intent was the next most important source with 17.7% of fires in the State and 10.6% of the total area burnt. It is a consistent source of fire in all Divisions ranging from 11.0% of fires in North Eastern Division to 33.1% in Central Division.

The groups of people (agencies) responsible for most forest fires were farmers and/or farm employees (10.6% of number and 10.8% of area), other local residents (6.9% and 1.0%) and recreationists (10.0% and 0.7%). Escapes from departmental burning operations accounted for 2.7% of all fires and 4.4% of the total area burnt.

#### 5 <u>Detection/Supression</u> (Tables 15 to 19)

The FCV system of fire lookouts discovered 33.3% of fires, landowners/residents 24.0% and FCV employees 13.6%. Only 2.8% of fires were discovered by FCV-hired patrol aircraft.

The FCV was the first attack agency on 57.7%, and the CFA on 31.3%, of fires which originated in or affected the FPA. The importance of the CFA as a first attack agency varied substantially between Divisions from 8.5% of fires in Eastern Division to 53.4% of fires in Northern Division. The CFA were in attendance at 51.3% of fires which burnt within the FPA.

Tankers were used in first attack on 74.2% of fires, handtools on 50.6% and machines (dozers) on 19.2%. Aerial attack using long-term fire retardant was only used on 1.0% of fires.

## 6 Fire Area Classes (Table 20)

For the State 62.9% of fires were controlled at areas from 0-1 hectare. Western Division with 50.8% had the lowest proportion of fires controlled at this size while Central Division with 74.8% had the highest. Only 2.6% of fires in the State exceeded 1000 hectares.

#### APPENDIX

TABLES 1 - 20

The following abbreviations have been used in table construction.

## 1 Land Status

SF = State forest

NP = National park

PPL = Protected public land

OPL = Other public land

PP = Private property

PP (IN) = Private property within the Fire Protected Area

PP (OUT) = Private property outside the Fire Protected Area

#### 2 Divisions

C = Central

E = Eastern

N = Northern

NE = North Eastern

s = Southern

SW = South Western

W = Western

# 3 Agencies

FCV = Forests Commission Victoria

CFA = Country Fire Authority

NPS = National Parks Service

SEC = State Electricity Commission

MMBW = Melbourne and Metropolitan Board of Works

4 A dash (-) has been used to indicate when there was no record for a classification. Zero has been used where a record for the classification occurred but was less than 0.05%.

TABLE 1 NUMBER OF FIRES AND AREAS BURNT BY DIVISIONS (4194 FIRES)

DIVISION	NUMBER NO.	OF FIRES	Al HA•	REAS %	YEARLY NO∙	MEANS HA.
C E	381	9.1	5585	0.6	42	621
	830	19.8	241995	25.1	92	26888
Ŋ	481	11.5	3522	0.4	53	391
NE	580	13.8	52374	5.4	64	5819
ទ	520	12.4	59387	6 + 1	58	6599
S₩	736	17.5	19842	2.1	82	2205
W	886	15.9	581520	60.3	74	64613
STATE	4196	100.0	964225	100.0	465	107136

TABLE 2 AREAS BURNT BY LAND STATUS (4196 FIRES)

LAND STATUS	TOTAL	AREAS	YEARLY MEAN
	HA•	%	HA.
SF	834298	86.5	92700
NP	72795	7.5	8088
PFL	16121	1.7	1791
OPL	6663	0.7	740
FF(IN)	34348	3.4	3817
STATE	964225	100.0	107136

TABLE 3 NUMBER OF FIRES BY LAND STATUS AT ORIGIN (4196 FIRES)

LAND STATUS (ORIGIN)	NUMBER NO.	OF FIRES %	YEARLY MEAN NO.
SF	2398	57.1	266
ИP	193	4+6	21
<b>F'F'</b> L	40	1.0	4
OPL.	286	6.8	32
PP(IN)	1137	27.1	126
PP(OUT)	142	3.4	16
STATE	4196	100.0	465

TARLE 4 AREAS BURNT(%) BY ORIGIN FOR LAND STATUS CATEGORIES (4196 FIRES)

LAND STATUS			L, 6	AND STA	ATUS	
(ORIGIN)	STATE	: SF	NP	PPL	OPL	PP(IN)
SF	81.2	87,4	34.9	48.8	43.0	41.4
ИĿ	3.5	1.2	32.1		••••	0.2
PPL	0.2	0.1		8.2	0.0	0.0
OPL	0.5	0.1	0.0	0.1	40.6	2.7
PP(IN)	8.2	6.5	6.9	16.1	6.1	49.5
PP(OUT)	6.4	4.7	26.1	4.8	10.3	6.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 5 NUMBER OF FIRES(%) BY LAND STATUS AT ORIGIN FOR DIVISIONS (4196 FIRES)

LAND STATUS (ORIGIN)	STATE	С	Œ	N N	TVISIO NE	N S	SW	W
SF NP PPL OPL PP(IN) PP(OUT)	57.1 4.6 1.0 6.8 27.1 3.4	33.1 22.8 0.3 4.5 37.7	70.1 2.8 1.1 3.4 21.9	69.3 0.4 10.0 3.5 16.8	55.4 1.2 0.3 7.2	62.7 4.4 3.3 4.6 24.6	42.3 2.0 0.5	59.8
TOTAL	100.0	100.0					100.0	

TABLE 6 AREA BURNT(%) BY LAND STATUS AT ORIGIN FOR DIVISIONS (4196 FIRES)

LAND STATUS				D	IVISIO	Ń		
(ORIGIN)	STATE	С	E	И	NE	S	ន្ធម	W
SF NP	81.2 3.5	62.2 3.2	80.6	35.2		70.7	51.0	86.5
PPL	0.2	0.0	0.6 0.2	0.0	0.0	7.7 1.4	0.2	4.7 0.1
OFL FP(IN)	0.5 8.2	1.0 28.5	0.2 6.5	3.6 2.7	0.3 46.6	0.1 20.1	$12.1 \\ 13.2$	0,2 4,0
PP(OUT)	6.4	5.1	11,9	58.5	0.1	0.0	23.4	4.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 7 MONTHLY DISTRIBUTION OF FIRE NUMBER(%) FOR DIVISIONS (4195 FIRES)

				[1]	VISION	1		
нтиом	STATE	С	E	N	ΝE	S	รผ	لما
JULY	0.3	0.3	0.7	0.6	_	0.2	0.3	
AUGUST	1.7	0.7	5.3	0.2	0.7	1.9	0.5	0.9
SEPTEMBER	6.1	1.48	17.4	2.1	0.2	11.7	2.7	1.8
OCTOBER	6.2	5.2	8.1	4.2	4.3	۵.9	5.3	8.0
NOVEMBER	7.8	2.9	8.3	8.1	5.0	8,7	6.5	13.2
DECEMBER	19.1	19.2	19.4	20.0	23.9	19.8	14.9	17.7
JANUARY	22.9	25.7	15.3	24.1	26.2	26.7	22.3	24.6
FEBRUARY	13.9	17.6	12.2	14.5	15.2	10.6	16.2	12.1
MARCH	13.2	15.5	9.6	13.1	17.6	8.3	18.6	10.5
APRIL	7.6	10.0	3.1	10.8	6.7	4.8	10.5	9.3
MAY	1.1	0.8	0.6	2.3	0.2	0.4	1.9	1.8
JUNE	0.1	0.3	_	-	-	-	0.3	
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 8 MONTHLY DISTRIBUTION OF AREA BURNT(%) FOR DIVISIONS (4195 FIRES)

				D I	VISIO	ĺ		
нтиом	STATE	C	Ε	И	ΝE	S	SW	W
JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY	0.0 0.6 16.9 8.4 20.0 21.7 23.9 4.7	0.0 0.0 9.4 35.9 1.0 19.3 11.8 8.0	0.0 2.1 48.9 19.4 8.1 6.2 10.3	0.6 0.1 1.6 0.9 2.7 47.8 15.3 6.0	0.0 0.0 0.9 0.4 29.4 40.3 8.6	0.0 0.8 0.8 15.0 5.4 8.6 1.2	0.0 3.0 16.7 8.7 2.7 25.1 16.5 21.7	0.8 0.8 29.3 28.0 28.0 5.9
MARCH	1.7	7+8	0.8	11+4	15.5	0.5	2.4	0.9
AFRIL MAY	1.9 0.2	8 + 6 0 + 0	3.8 0.3	12.4 1.2	4.9 0.0	4+6 0+2	2.9 0.3	0.5 0.1
JUNE	0.0	0.0	_	_		-	0.0	-
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 9 NUMBER OF FIRES(%) BY CAUSE(SOURCE) FOR DIVISIONS (4196 FIRES)

TOTAL	S NEW YORK	ロンドランド	OTHER	÷Ω	777 +217 - 277 277 - 277		E TERRIORIA E CONTRACO E CONTRACO	MODAL OF CALLED TO COLUMN	FORET TRANSMISSION		WASTE DISPOSAL-INDUSTRIAL				TOATH OFF WINDRUGGEROOM OF THE STATE OF THE	BURNING OFF THE CEBEE TWO SSTRUB		Ď	OTTO THE PROPERTY OF THE PROPERTY OF A PERSON OF A PER	CANDITOR BARBEROLD (C)	DIDI DINABETTE MATELIALE DIDI	GRANTAID INTERTON NACHTAIN	SATEGRADULAND TAIC	MANUAL CAMENSHIM	EXEATOT WO THO AT		SOURCE
100.0	9.4	4. • • •		بر د درا	0.4	T • O	) - U	; ; ;	1.8		N €	:: :	17.7	0.5	4.0				· 80 • 1:	6 + 9	:: <b>.</b> 4		1.0		23.9		STATE
100.0	ហ ទ	4.7	7.9	: : :	0.3	0+5	o ç	. <u></u> 	1.6		3.7	: :3	33.1	į	i N	4.7	1	?	i A	4.2	ب د د	0.5	1.0	0.3	14,4		ဂ
100.0	7.3	د • •	7.0	N U	0.8	1	0.6	6	0.7	:	1.6	0.6	20.1	0.1	4.2	5.7	0.	ک <sub>+</sub> 0	4.0	1.7	<u></u>	. !	0+1		35.8		ग
100.0	15	6.7	2.7	0.6	٥ ۲	0 2	٥ د د	ı	1.0		3.7	<u>-</u> -	13.7	o. 8	1.2	3,1	0 ?	٠ د د	3.6.8	20.2	1,9		N	0.4	6.7	;	z z
100.0	æ <b>.</b>	5,7	4.1	N	Ē	O မ	0,9	1.0	2.1	;	-	:. • •	11.0	0 N	្សា ស	3.8 8	I	1.0	6.4	6·2	± •	○ • •	<u>ب</u>	0.2	34.5	Î	JA NOISIVI
100.0	6 · ::	1.9	6.7	;÷ }3	;	i	O. 2	0.6	7 . 3	, ,		0,6	19.6	٠, ٥	4.8	7.9	ı	N • •	ت د د	3.7	1.0	į	0.6	į	33.8	ŧ	z o
100.0 100.0	15.4	۱. خ	UI 4	<b>О</b> •	0.7	:	0,3	О •	3. 8	<b>(</b>	× .	N. 7	16.0	<u>;</u>	U 4	æ. ∵	0.4	0.3	8 4 8	8 +8	1.8	Ī	1,5	0.4	8.4	Ē Ž	<u>s</u>
100.0	7.2	្យ •	2,7	0.4					:- •														<b>ن</b> د	0.9	N &	2	Ξ

TABLE 10 NUMBER OF FIRES(%) BY CAUSE(AGENCY) FOR DIVISIONS (4195 FIRES)

100.0	100.0 100.0	:00.0	100.0	100.0	100.0 100.0 100.0 100.0 100.0	100.0	100.0	TOTAL
20.7		25.8 8	19.0	35.8	25.7	34.8	27+2	
6.7		ម ស	ပၢ • မ	5.7	4· 8	8.9	6.8	
0.4	<u>٠</u>	i	I	្ ស	ည • စ	i	0.7	GRAZING LEASEHOLDER
3.0	N	1.7	N. 9	4.4	1.6	23. 9	ک د د	TRAVELLER
ŧ	<u>۰</u>	o.4	1	≓ •	į	0.3	0.3	MILITARY
1.6	(برز م	1.0	ب ب	0 + 6	ស្ន	24.5	N. ○	FARMER/FARM EMPLOYEE-PART TIME
12.4	5	10.6	9,3	4.6	9+3	5.8 8	ω. •	FARMER/FARM EMPLOYEE-FULL TIME
1.0	إن	ស ភូ	1.6	2.7	0.5	رة د د	2.1	RESIDENT-PORT TIME
A . O	œ	3.7	6.9	3 + 1	۲. د	Ст	4 3	RESIDENT-PERMANENT
3.7	٠ ح	1.3	? *	6.7	;-: • [54]	? !:	₩ •	RECREATIONIST-DAY VISITOR
(A)	N	<u>-</u> نک	1.7	9.0	<del>;</del>	1.0		RECREATIONIST-FISHERMAN/SHOOTER
4 + 8	M	N.9	₩ • •	6 • 0		∴ •	3.0	RECREATIONIST-CAMPER
į	0	i.	1	0 <b>.</b> 2	0.1	0.3	0.3	RECREATIONIST-BUSHWALKER
0.7	<u></u>	1.9	0.9		0.6	1.3	1.0	EMPLOYEE-OTHER INDUSTRY
1.6	<b>⊢</b>	1 . 3	2.1	1 + 3	1.4	1.3	:- :-	EMPLOYEE-OTHER DEPARTMENT
1.9	<u></u>	3.5	رة <u>+</u>	0.8	4.7	4. U	2.7	EMPLOYEE-FOREST DEPARTMENT
2.4	N	- - -	ည • •	± 0		1.8	2 • 3	EMPLOYEE-FOREST INDUSTRY
2.8	÷	٠ 4.	2.6	8 • 1	1.0	8 • 1	3.5	CHILDREN
26.8	<b>\$</b>	33.8	34.5	6.7	35.8	 4.4	23.9	LIGHTNING
ε	RS	<u>~</u> د	EN EN NOISIUM	z E	m	С	STATE	AGENCY

TABLE 11 AREA BURNT(%) BY CAUSE(SOURCE) FOR DIVISIONS (4196 FIRES)

TOTAL	UNKNOWN	OTTEN TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE TO	RELIGHT-BURNING OFF	RELIGHT-PRESCRIBED FIRE	RELIGHT-WILDFIRE	下17万年0万天5	BURNING BUILDING	HOUSE-STOVE-FLUE	POWER TRANSMISSION	WASTE DISPOSAL-INDUSTRIAL	WASTE DISPOSAL-DOMESTIC	DELIBERATE LIGHTING-MALICIOUS	TRAIN	BURNING OFF-WINDROW-HEAP			PRESCRIBED BURNING-DEPARTMENTAL	CAMPFIRE-BARBEQUE	PIPE-CIGARETTE-MATCH	BURNING VEHICLE-MACHINE	SNIGGING-HAULING	EXHAUST-OTHER	EXHAUST-CHAINSAW	LIGHTNING	SOURCE
100.0	2,9	<u>:-</u>	6.4	5 <del>;</del> <u>†</u>	0.2	0,0	0,4	0,2	:- N	0,1	0 N	10.6	0,0	ه. در	3,9	0,0	٠. د	o. 4	0.1	<u></u>	0.0	0.9	0.0	60.3	STATE
100.0	4.0	2.6	4.0	0.6	0.0	0.0	0,0	0 + 8	0.1	0.0	0.0	15.9	i		21.2	į	39.3	4.7	0.1	0.7	0.0	1.0	0.0	3 + 6	C
100.0	1.9	0.6	19,4	10.6	0.6	Ī	0.0	0.0	0.0	0,4	0.0	29.4	0.0	ن 4 •	4	0.0	5.7	0.6	<u>٠</u>	0.0	I	0.0	0.1	23.0	हरा
100.0	8.2	37.0	0 , 8	0.4	0.0	0.0	0.0	ī	.∸ N	: : :	0 . 1	12.8	ហ •	4.0	 ស	0.0	0.0	19.0	4.9	о. •	<b>#</b>	0.9	0,0	1.6	z E:
100.0	24.7	2.7	0.4	0.1	î	0.0	0.0	0.0	16.4	0+0	0.0	 1	0.0	.ъ • ил	0 + 4	į	89 6-5-	0.3	િ અ	0.0	0.0	0 2 3	0.0	39+6	DIVISION
100.0	() ()	<u>.</u>	11.0	0,2	ē	ı	0.0	0.0	0.1	0.0	0.0	7.0	0.0	5	26.7	1	ស ម	<u>,</u>	0.0	0.4	i	0.0	ł	13.0	o –
Ċ	24 + 3	0.6	ু • •	16.2	0.0	1	0.0	±0.5	0.3	0.1	0 + 8	21 * 3	1 3	0 + 3	3 + 1	0 • N	0.0	54 P-	<b>○</b> • №	0.0	Ī	2.1			<u>အ</u> Έ
100.0	O. 2	о •	<u>;</u> ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	o <u>÷</u>	о И	į	0.6	0,0	<b>○</b> <i>€</i> //	0.0	0.3	о СП	0.0	ი • •	1 + 6	į	0 N	O <b>,</b>	0,0	1.7	i	1.4	0.0	85. 2	٤

TABLE 12 AREA BURNT(%) BY CAUSE(AGENCY) FOR DIVISIONS (4195 FIRES)

TOTAL	CAKNOWN	GRAZING LEASEMOLDER	15	MILITARY	FARMER-FARM EMPLOYEE-PART TIME	FARMER-FARM EMPLOYEE-FULL TIME	RESIDENT-PART TIME	RESIDENT-PERMANENT	RECREATIONIST-DAY VISITOR	RECREATIONIST-FISHERMAN-SHOOTER	RECREATIONIST CAMPER	RECREATIONIST-BUSHWALKER	EMPLOYEE-OTHER INDUSTRY	EMPLOYEE-OTHER DEPARTMENT	EMPLOYEE-FOREST BEPARTMENT		DAMA	LIGHTNING	AGENCY
100.0	11.9 2.2	- -	0.4	0.0	0.4	10.4	0.2	0.8	0.1		0.2	0,3	O . :	<u>ن</u> نب	4.4	₽ •	0.0	60.3	STATE
100.0 100.0 100.0 100.0 10	1.0 16.2	1	0.1	0.0	3.8								<b>∴</b> :	8 + 6	<b>4</b> 0 •⊍	٥.٥	0.1	3.6	C
100.0	28.0	(II 6-	0.1	Ī	0.9	19.3	0.0	<b>?</b> .:	0.2	0.0	0.0	0+2	0.0	10.1	o પ્	Π • 4	0.0	23.0	हरा
100.0	29.5 3	0.0	٥. ۲	0.2	0.1	39.1	o •	1.0	;- :	10.0	4.7	0.0	0 , 3	₽ • •	0 ; 3	1.0	ببر + نن	1 . 6	N H
100.0	16.9 26.3	1	0.0	•	Q.0	;- • •	۰ ٥	O.	0,1	0.1	٥. 4	Ĭ	0.0	3,9	œ • ᠘∄	1 + 9	0.0	39.6	NE NOTERIA
100.0	0.4 21.4	1	0.2	0 + 3	0.1	19.3	0 :	O •	0.0	0.4	≥ 3	원	1.6	ય 4	25,3	7.9	0.0	13.0	ဟ
0.0 100.0 100.0	N 0 0 4 N	о N	≥ • '	• •	1.0	 4. Φ.	0.8	는 + 나	0.9	0,3	か い い	0.0	0.1	0+2	는 6 2	14.8	၀ ?	9.7	ON C
100.0	23.1																		٤

TABLE 13 NUMBER OF FIRES(%) BY CAUSE(SOURCE) FOR LAND STATUS AT ORIGIN (4196 FIRES)

TOTAL	ORNACON		THE PROPERTY OF THE PROPERTY O	7.	OT TOTAL PRINCIPLE STATE OF THE	77 TOLICE STATES	MIDURATE BOLDENG	BURNIAG BUY DING	TORER TRANSMISSION	WHOLE DISTUSAL INDUSTRIAL	CACTE DIOCAL TUMES LC	DACTE DISTORAL TONCOTTO		TRAIN OFF WINLKOW-HEAF			TRECTHER BONKING LETTER BENGAL	PPTOPT TOTAL THE ALTER TOTAL AND A SECTION OF THE PROPERTY OF	CAKEGIST BASSING CH	PRODUCTS AND STREET SAFETY	CARCORNO HACCINO	ANTRO TARLENIE TARR	EXHAUST-OTHER	EXHAUST-CHAINSAW	LIGHTNING	SOURCE	
100.0	9+4	4 4 17	្រ •	 N	0.4	0	: O	· (* /	 	i Ui	1.+4	17.7	. 0.5	; 4 ; 6				· @	6.9		. 0	> <del>-</del>	<u> </u>	0.4	23.5	STATE	
100.0	9.7	بر • •	:2 • 4	1.48	0.4	0 N	0 N	C + C	· - · · · · · · · · · · · · · · · · · ·	1.5		20.6	0 + 2	. <b>-</b>			13.0	 : 0		<u>,                                    </u>	. 🗢			⊃. b	33.0	:: Sp	
100.0	4.6	22 6	0	į	ı	ī	1	î	0,5	į		4	ī	O.		ī	1.6					i			) 1) 4. 9		- 2×1
100.0	7.5	7 + 3	I	1	ŧ	I	1	ļ	ស មា	ì	ī	40.0	i	ស ញ	ស	į	ł	10.0	5.0			N + U	) ]		17.5		
100.0	12.2	نة خ څ	4 U	0+3	0.7	ţ	ŗ	Ę	্ ১	14.0	4 ડો	16.8	<u>م</u> د:	1.7	4.9	0.7	į	7.0	10,5	4,6	i	N.			id It	740 0180	STATUSCOSTOTALS
100.0	9.1	7.7	∺ 1 •	0.5	○ •	0.1	1.2	ان بـــ	3.6	N N				12.3		0 N	٥. د	4+6			0.1					del	T 21 /

TABLE 14 NUMBER OF FIRES(%) BY CAUSE(AGENCY) FOR LAND STATUS AT ORIGIN (4195 FIRES)

TOTAL	CNKNOWN	OTHER	GRAZING LEASEHOLDER	TRAVELLER	MILITARY	FARMER/FARM EMPLOYEE-PART	FARMER/FARM EMPLOYEE-FULL	RESIDENT-PART TIME	RESIDENT-PERMANENT	RECREATIONIST-DAY V.	RECREATIONIST-FISHERMAN/SMOOTER	RECREATIONIST-CAMPER	RECREATIONIST-BUSHWALKER	EMPLOYEE-OTHER INDUSTRY	EMPLOYEE-OTHER DEPAR	EMPLOYEE-FOREST DEPA	EMPLOYEE-FOREST INDI	CHILIPEN	LIGHTNING	AGENCY	
						PART TIME	THEULAL TIME			VISITOR	RMAN/SHOOTE	<i>~</i>		STRY	DEPARTMENT	DEPARTMENT	INDUSTRY				
100.0	27.2	6 + 8	0.7	₽ 6	0 + 3	N• ○	8.6	2.1	4.8	3 + 4	ند	3.0	0.3	1.0	1.5	2.7	2.3	ن د د	23.9	STATE	
100.0	30.2	4 2	;	<u>.</u> ئ	0.4	O + 57	2.7	0.6	N 1.	4.1	4.0	3.7	0 . 3	0 + 8	0,8			2.7	33.0	ហ្វ	
100.0 100.0 100.0 100.0	38.3	3 + 6	о •	1.6	i	Ī	1.6	I	I	6.7	1.46	2.6	1.6	I	3.6	1.0	į	12,4	24.9	₹	
100.0	42,5	7.5	I	ខ្ម	ស • •	ស •	1	ಬ • •	i	1	7.5	5°, O	м •	ب د ان	į	1	ł	J. O	17.5	P F	SULVIS
100.0 100.0	34.6	12.9	0.7	۰ •	!	0.3	2.4	0.7	0.8	ت. • 9	0.7	4 (1	0 . 3	1.4	8 4	1.0	0.7	4 UI	⊶ 5	OPL	STATUS (ORIGIN)
100.0	17.5	10.8	0.1	1.9	i	نا د.	≥ 20 4 4	ा • •	10.0	# . 3i	2.7	<u>+</u> •	!	:- -4	1.0	0 5	N •	3,4	11.4	् ए ए	

TABLE 15 NUMBER OF FIRES(%) BY DETECTION METHOD FOR DIVISIONS (2548 FIRES)

	DIVISION												
	STATE	С	E	И	ИE	S	SW	W					
FIRE LOOKOUT FCV PATROL AIRCRAFT	33.3 2.8	34.8 -	38.9 7.5	25.3 -	35.1 2.3	34.7 5.9	33.2 -	28.8 2.1					
FCV GROUND PERSONNEL FOREST INDUSTRY EMPLOYEE	13.6 2.9	10.6 2.2	18.7 3.5	9.5 2.3	10.2	16.1 5.5	12.8 1.6	13.7					
NON-PATROL AIRCRAFT OTHER INDUSTRY EMPLOYEE	0.5 2.3	- 3₊8	1.0 1.5	- 2₊5	0.5 2.4	0.6 3.1	0.4	0.5					
LANDOWNER/RESIDENT TRAVELLER	24.0 7.7	25.0 7.3	11.2 5.5	31.8 10.3	30.6 7.8	16.7 7.5	28.0	28,7 7,4					
OTHER UNKNOWN	8.4 4.5	10.1 6.2	4.0 8.2	13.1 5.2	7.1 1.0	4.7 3.2	9+1 4+3	11.2 2.6					
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					

TABLE 16 NUMBER OF FIRES(%) BY FIRST ATTACK AGENCY FOR DIVISIONS (2548 FIRES)

AGENCY	STATE	С	E	DIV: N	ISION NE	S	SW	[4]
FCV CFA NPS SEC MMBW OTHERS	57.7 31.3 4.2 0.3 0.6 5.9	39.5 35.1 19.4 0.8 1.6 3.6	79.7 8.5 4.8 - - 7.0	43.4 53.4 - 0.4 - 2.8	54.2 36.2 0.3 0.3	69.9 16.0 3.6 0.3 3.3 6.9	50.8 40.9 1.6 0.5 -	50.1 41.4 4.1 0.3 - 4.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 17 NUMBER OF FIRES(%) BY FIRST ATTACK AGENCY FOR LAND STATUS AT ORIGIN (2548 FIRES)

			LAND 9	STATUS	ORIGIA	()	
AGENCY	STATE	SF	NF	FFL	OF L	FF	구국
						(IN)	(QUT)
FCV	57.7	71.2	22.1	60.0	44.3	45.8	30.5
CFA	31.3	21.7	22.1	25.7	44.8	44.6	64.2
NPS	4.2	1.2	52.6	2.9	2.4	0.7	_
SEC	0.3	0.3	_	_	•	0.4	1. + 1
MMBW	0.6	0.8	-	2.7	0.5	0.3	_
OTHERS	5.9	4.8	3+2	8,6	8.1	8.2	4.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 18 NUMBER OF FIRES(%) WITH CFA INVOLVEMENT FOR DIVISIONS (4017 FIRES)

			r r	VISION			
STATE	C	E	N	NË	S	SM	W
51.3	63.5	22.4	71.6	52.5	35.7	66.1	59.1

TABLE 19 NUMBER OF FIRES BY FIRST ATTACK METHODS (2625 FIRES)

METHOD		ОМ	%
GROUND GROUND GROUND	ATTACK-HANDTOOLS ATTACK-TANKER ATTACK-MACHINE ATTACK-PUMP + HOSE ATTACK-RETARDANT	1327 1949 505 121 26	50.6 74.2 19.2 4.6 1.0

TABLE 20 NUMBER OF FIRES(%) BY AREA CLASSES FOR DIVISIONS (4196 FIRES)

AREA CLASS				DIV:	ISION			
(HA)	STATE	C	E	И	ΝE	S	ទា	W
0-1	62.9	74.8	51.5	69.7	68.2	57.6	75.9	50.8
2-5	12.2	10.2	11.0	16.6	13.4	11.5	9.7	13.7
6-10	4.6	2.4	5.8	5.2	3.8	5.2	4.9	4.2
11-20	4.0	2.6	4.7	4.2	4.7	4+6	2.7	4.2
21-50	4.5	5.3	6.3	2.5	3.6	5.4	2.9	4.9
51-100	3.1	1.3	5.7	0.6	2.1	5.2	1.0	4.0
101-500	4.9	3.1	8.4	1.0	2.4	6.9	1.8	8.1
501-1000	1.2	****	2.4	_	0.2	1.3	0.3	3.4
>1000	2+6	0.3	4.0	0.2	1.6	2.3	0.8	6.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0