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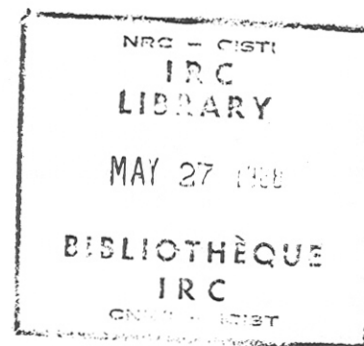
Travail
Canada

Annual Report 1986



Fire Losses in Canada

Canada



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Travail
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Ottawa, Ontario
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Ottawa (Ontario)
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April 13, 1988

To: The President and Members of the Association of Canadian Fire Marshals and Fire Commissioners

This 1986 Annual Report of Fire Losses in Canada is the sixty-fifth edition to be published. As in past years, it is compiled from information supplied by the Association of Canadian Fire Marshals and Fire Commissioners (ACFM/FC) and Statistics Canada. The report is made available to the public by distribution through provincial and territorial fire marshals and fire commissioners. Copies are also forwarded to various public, government, and university libraries and in response to specific requests.

In this year's report, we have changed Figure 1 pertaining to property loss. This graph now depicts the actual dollar loss for years 1977 through to 1986 and the adjusted dollar loss based on the Consumer Price Index for 1981 by Statistics Canada.

In 1986, the number of fire deaths remained at about the same level as in 1985. The downward trend in the total number of fires continued, and the dollar loss increased slightly. The section following, entitled "The Record", elaborates more on the trends for 1986.

I would like to express my appreciation to the members of the ACFM/FC and Statistics Canada for their co-operation in providing the necessary data for this report.

Yours truly,

Tom Dunfield
Fire Commissioner of Canada

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The Record

The 1986 fire death total of 553 was little changed from the 550 recorded in 1985. As was reported last year, the fire death total is in keeping with the general downward trend started in 1981, exclusive of 1984.

The total number of fires decreased for the sixth consecutive year. The reported number of fires, 67 884, is a decrease of approximately 4% from the record of 1985.

The property loss figures of \$973 458 302 represents an increase of approximately 4% from the 1985 dollar loss figure.

The "Residential" property classification continues to account for the largest number of fires. In 1986, there were 33 184 fires in this category, 47% of the Canadian total. These incidents resulted in 436 deaths, or approximately 79% of the nation's fire fatalities. The monetary loss amounted to \$381 million, which is 39% of the total loss.

The property classification showing the second largest number of fires is "Special Properties", where 23 691 were reported accounting for approximately 35% of the overall Canadian total. Vehicle fires accounted for 17 785 incidents, or 75% of all fires within this property classification, amounting to a dollar loss of \$48 million. The total dollar loss for the "Special Properties" classification is approximately \$114 million, or 12% of the total.

In the category "Source of Ignition", the following three groups (exclusive of miscellaneous and undetermined) lead the list of reported number fires and property dollar loss: Cooking Equipment, with 8 818 incidents and a loss of \$53.9 million; Electrical Distribution Equipment, with 7 873 incidents and a loss of \$184.9 million; Heating Equipment, with 7 805 incidents and a loss of \$97.1 million.

Electrical distribution equipment incidents increased approximately 1% over last year and, as indicated above, accounted for a loss of \$184.9 million, which is an increase of 74% from the previous year.

Table 7 provides a review of the fire data identified under the heading "Act or Omission". As in the past, the category of "Mechanical, Electrical Failure and Malfunction" had the greatest number of recorded fires, 18 263, a decrease of 2%. The 1986 dollar loss of \$172.4 million for this category is a decrease of 3% from the previous year. "Arson or Other Set Fires" accounted for

8 927 incidents, a decrease of approximately 1% from last year. However, the 1986 dollar loss of \$215.9 million from "Arson and Other Set Fires" increased an alarming 47% from the 1985 figure of \$147 million. Although for the past two years we have seen a slight decrease in the number of fires recorded as "Arson or Other Set Fires", it is quite disturbing to note an increase of approximately 67% in the dollar loss in the same period.

In summary, from the latest information compiled, the total number of fire deaths remained relatively constant, the total number of fires decreased 4% from the previous year, and the dollar loss increased 5%. Typically, the category of "Residential Properties" remains an area of utmost concern, accounting for 78% of the total number of fire deaths, 47% of the total number of fires, and 39% of the total dollar loss. The large number of electrical incidents and associated dollar loss, as well as the number of "Arson or Other Set Fires" and associated dollar loss, are representative of two other areas of major concern within the Fire Services. A continued fire protection effort by all authorities is imperative in order to reduce the loss of lives, number of fires, and property damage.

SECTION I
SUMMARY 1977-1986

TABLE 1 - CANADA FIRE LOSSES AND FIRE DEATHS

Year	Population	Number of Fires	Loss \$	Per Capita \$	Fire Deaths	Fire Death Rate*
1977	23 343 000	74 043	571 664 756	24.49	811	3.47
1978	23 598 000	75 292	654 921 917	27.75	844	3.58
1979	23 914 400	83 107	756 427 141	31.63	733	3.07
1980	24 088 500	85 530	978 986 708	40.64	833	3.46
1981	24 213 000	79 263	905 422 511	37.39	694	2.87
1982	24 658 500	76 199	998 888 902	40.51	675	2.74
1983	24 889 000	70 953	815 967 016	32.78	539	2.17
1984	25 145 000	70 730	929 479 253	36.96	598	2.38
1985	25 380 000	70 061	925 955 586	36.48	550	2.17
1986	25 354 018	67 884	973 458 302	38.39	553	2.18
TEN YEAR AVERAGE		75 306	851 117 209	34.70	683	2.81

* Fire death rate is the number of fire deaths per 100 000 population per annum.

Figure 1
PROPERTY LOSS

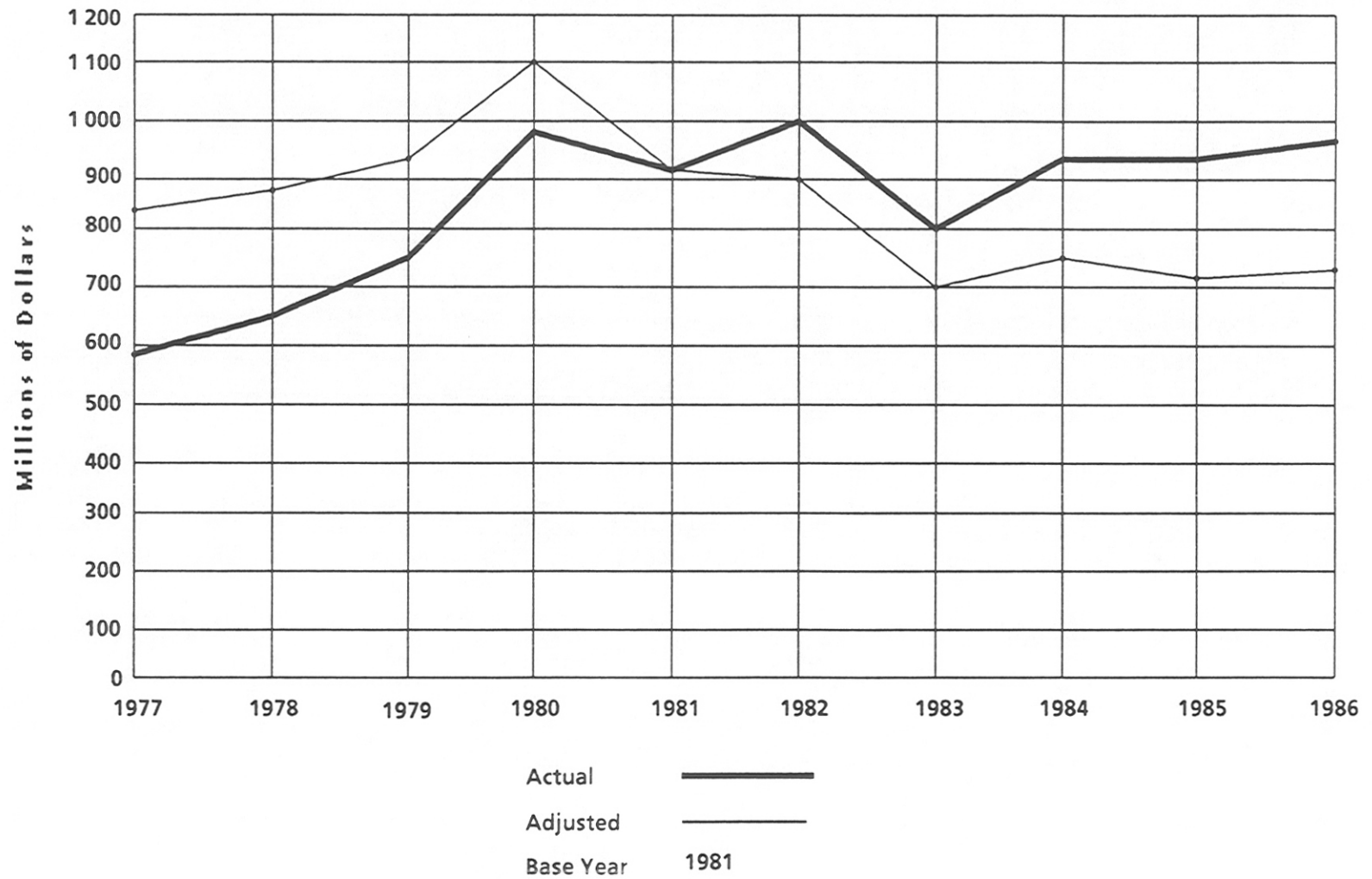


Figure 2
FIRE DEATHS



10-year average - - - -

SECTION II

FIRE LOSSES, 1986 AND 10-YEAR AVERAGE

TABLE 2 - PROPERTY LOSSES BY JURISDICTION

Jurisdiction	Population 1986	Number of Fires		Loss		Loss per capita	
		1986	10- Year Average	1986 \$	10- Year Average \$	1986 \$	10- Year Average \$
Alberta	2 375 278	7 614	9 796	97 500 768	111 798 759	41.05	50.26
British Columbia	2 889 207	7 667	7 457	109 834 964	111 327 081	38.02	40.50
Manitoba	1 071 232	5 840	6 444	53 972 761	37 702 599	50.38	36.09
New Brunswick	710 422	2 055	1 602	21 301 909	19 109 949	29.98	27.05
Newfoundland	568 349	877	897	16 046 768	16 082 751	28.23	27.88
Nova Scotia	873 199	2 420	2 575	23 611 920	25 044 653	27.04	29.12
Ontario	9 113 515	22 866	24 702	233 735 269	212 948 908	25.65	24.33
Prince Edward Island	126 600	675	595	2 720 062	3 765 224	21.49	30.26
Quebec	6 540 276	14 366	17 683	382 748 737	274 443 980	58.52	42.68
Saskatchewan	1 010 198	2 799	3 095	24 423 740	29 514 327	24.18	29.98
Northwest Territories	52 238	155	173	3 150 687	5 487 795	60.31	118.96
Yukon	23 504	139	147	1 324 153	1 696 721	56.34	76.25
National Defence	190 580	204	245	2 053 255	2 016 592	-	-
Federal Properties	238 969	207	415	1 033 309	6 837 514	-	-
SUMMARY	25 354 108	67 844	75 827	973 458 302	857 776 851	38.39	34.70

SECTION III

FIRE LOSSES BY PROPERTY CLASSIFICATION

TABLE 3 - SUMMARY OF FIRES BY PROPERTY CLASSIFICATION

Classification	Number of Fires	%	Loss \$	%	Injuries	%	Deaths	%
Residential	33 184	47.41	381 221 387	39.16	2 468	63.77	436	78.84
Assembly	2 038	3.00	81 300 141	8.35	159	4.11	5	0.90
Institutional	618	0.91	5 309 418	0.55	36	0.93	6	1.08
Business and Personal Service	522	0.77	96 063 319	9.87	46	1.19	2	0.36
Mercantile	2 037	3.00	82 164 696	8.44	181	4.68	13	2.35
Industrial Manufacturing	1 798	2.65	81 309 567	8.35	247	6.38	0	0.00
Storage	1 905	2.81	46 728 088	4.80	66	1.71	5	0.90
Special	23 691	34.90	114 104 924	11.72	300	7.75	41	7.41
Farm	1 320	1.94	50 508 772	5.19	22	0.57	1	0.18
Miscellaneous	1 771	2.61	34 747 990	3.57	345	8.91	44	7.96
TOTAL	67 884	100.0	973 458 302	100.00	3 870	100.0	553	100.00

3(a) Residential Properties

Jurisdiction	1986				Ten-Year Average 1977 - 1986			
	Number of Fires	% of Total	Loss \$	% of Total	Number of Fires	% of Total	Loss \$	% of Total
Alberta	2 468	32.00	34 421 499	35.30	3 126	41.06	28 770 656	29.51
British Columbia	3 440	45.00	53 992 095	49.16	3 327	43.40	47 586 546	43.33
Manitoba	2 158	37.00	18 169 030	33.66	2 152	36.84	13 823 571	25.61
New Brunswick	1 416	69.00	12 736 665	59.79	1 010	49.16	11 218 737	52.67
Newfoundland	513	58.00	7 774 140	48.45	515	58.73	6 537 289	40.74
Nova Scotia	1 556	64.00	9 734 807	41.23	1 618	66.87	9 859 373	41.76
Ontario	11 086	48.00	110 883 174	47.44	11 744	51.36	85 619 702	36.63
Prince Edward Island	525	78.00	1 496 582	55.02	402	59.50	1 754 658	64.51
Quebec	7 913	55.00	123 297 126	32.21	10 607	73.83	112 973 393	29.52
Saskatchewan	863	31.00	4 530 817	18.55	1 216	43.44	9 908 114	40.57
Northwest Territories	95	61.00	2 273 235	72.15	95	61.29	1 631 322	51.78
Yukon	56	40.00	1 031 753	77.92	70	50.07	977 790	73.84
National Defence	85	42.00	722 787	35.20	122	59.85	403 977	19.67
Federal Properties	10	5.00	157 677	15.26	57	27.29	606 325	58.68
SUMMARY	32 184	47.00	381 221 387	39.16	36 060	53.12	331 671 453	34.07

Percentages used in Table 3 relate to jurisdictional totals.

3(b) Residential - Detail

Occupancy	Fires	Loss \$	Injuries	Deaths
One and two family residence	21 495	247 420 158	1 327	283
Apartment, tenement, flat	6 669	82 413 212	869	108
Rooming, boarding, lodging	359	4 691 946	89	13
Hotel, inn, lodge	406	10 570 068	40	1
Motor hotel, motel	150	3 762 587	14	3
Dormitory	117	1 672 566	8	5
Mobile homes, trailer	1 187	13 576 265	73	14
Miscellaneous	1 801	17 114 567	48	9
TOTAL	32 184	381 221 387	2 468	436

3(c) Assembly

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	187	2.46	8 276 880	8.49
British Columbia	227	2.96	8 292 317	7.55
Manitoba	100	1.71	11 743 329	21.76
New Brunswick	22	1.07	847 920	3.98
Newfoundland	26	2.96	2 223 132	13.85
Nova Scotia	40	1.65	1 444 751	6.12
Ontario	833	3.64	20 649 961	8.83
Prince Edward Island	6	0.89	283 599	10.43
Quebec	480	3.34	25 088 432	6.55
Saskatchewan	59	2.11	2 139 643	8.76
Northwest Territories	3	1.94	2 750	0.09
Yukon	8	5.76	202 000	15.26
National Defence	20	9 80	92 615	4.51
Federal Properties	27	13.04	12 812	1.24
CANADA	2 038	3.00	81 300 141	8.35

3(d) Assembly - Detail

Occupancy	Fires	Loss \$	Injuries	Deaths
Theatre, studio, auditorium	33	867 383	0	0
Amusement, recreation place	198	5 814 576	11	0
School, college, university	547	20 578 351	15	0
Church, funeral parlour	118	12 165 135	22	1
Clubs, social, sport	114	4 732 229	10	0
Museum, art gallery, library	28	3 526 210	6	0
Food, beverage establishment	846	30 204 856	92	4
Passenger terminal, station	85	1 392 548	0	0
Miscellaneous	69	2 018 853	3	0
TOTAL	2 038	81 300 141	159	5

3(e) Institutional

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	65	0.85	278 603	0.29
British Columbia	43	0.56	132 829	0.12
Manitoba	55	0.94	422 418	0.78
New Brunswick	10	0.49	123 963	0.58
Newfoundland	3	0.34	700	0.00
Nova Scotia	21	0.87	2 025 966	8.58
Ontario	211	0.92	556 184	0.24
Prince Edward Island	1	0.15	445	0.02
Quebec	113	0.79	1 680 405	0.44
Saskatchewan	10	0.36	26 098	0.11
Northwest Territories	1	0.65	1	0.00
Yukon	1	0.72	500	0.04
National Defence	1	0.49	350	0.02
Federal Properties	83	40.10	60 956	5.90
CANADA	618	0.91	5 309 418	0.55

3(f) Institutional - Detail

Occupancy	Fires	Loss \$	Injuries	Deaths
Prison, jail, reformatory	132	592 955	7	0
Home for the aged	163	982 242	8	5
Child care	13	192 145	2	0
Hospital, sanatorium, clinic	266	3 300 820	18	1
Miscellaneous	44	241 256	1	0
TOTAL	618	5 309 418	36	6

3(g) Business and Personal Service

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	46	0.60	564 671	0.58
British Columbia	62	0.81	2 527 987	2.30
Manitoba	25	0.43	184 501	0.34
New Brunswick	15	0.73	176 671	0.83
Newfoundland	4	0.46	91 200	0.57
Nova Scotia	9	0.37	1 115 676	4.73
Ontario	196	0.86	2 679 187	1.15
Prince Edward Island	0	0.00	0	0.00
Quebec	127	0.88	88 205 058	23.05
Saskatchewan	11	0.39	147 199	0.60
Northwest Territories	3	1.94	3 200	0.10
Yukon	1	0.72	1	0.00
National Defence	1	0.49	200	0.01
Federal Properties	22	10.63	367 768	35.59
CANADA	522	0.77	96 063 319	9.87

3(h) Mercantile Properties

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	122	1.60	5 011 066	5.14
British Columbia	165	2.15	6 630 851	6.04
Manitoba	74	1.27	1 811 540	3.36
New Brunswick	47	2.29	1 831 614	8.60
Newfoundland	10	1.14	606 363	3.78
Nova Scotia	37	1.53	1 725 613	7.31
Ontario	881	3.85	27 790 676	11.89
Prince Edward Island	2	0.30	53 134	1.95
Quebec	637	4.43	35 127 718	9.18
Saskatchewan	46	1.64	1 316 539	5.39
Northwest Territories	5	3.23	254 700	8.08
Yukon	1	0.72	1	0.00
National Defence	10	4.90	4 881	0.24
Federal Properties	0	0.00	0	0.00
CANADA	2 037	3.00	82 164 696	8.44

3(i) Industrial Manufacturing Properties

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	107	1.41	5 968 553	6.12
British Columbia	179	2.33	11 899 315	10.83
Manitoba	86	1.47	6 617 889	12.26
New Brunswick	26	1.27	2 131 653	10.01
Newfoundland	5	0.57	252 400	1.57
Nova Scotia	23	0.95	1 531 826	6.49
Ontario	923	4.04	19 905 437	8.52
Prince Edward Island	4	0.59	11 828	0.43
Quebec	408	2.84	31 292 783	8.18
Saskatchewan	27	0.96	1 258 440	5.15
Northwest Territories	1	0.65	3 000	0.10
Yukon	2	1.44	11 400	0.86
National Defence	3	1.47	421 500	20.53
Federal Properties	4	1.93	3 543	0.34
CANADA	1 798	2.65	81 309 567	8.35

3(j) Storage Properties

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	381	5.00	7 056 069	7.24
British Columbia	220	2.87	7 340 335	6.68
Manitoba	214	3.66	4 795 399	8.88
New Brunswick	44	2.14	1 123 431	5.27
Newfoundland	63	7.18	870 963	5.43
Nova Scotia	46	1.90	379 852	1.61
Ontario	290	1.27	5 791 370	2.48
Prince Edward Island	13	1.93	290 242	10.67
Quebec	399	2.78	16 785 369	4.39
Saskatchewan	201	7.18	1 343 152	5.50
Northwest Territories	9	5.81	518 830	16.47
Yukon	4	2.88	14 000	1.06
National Defence	13	6.37	322 923	15.73
Federal Properties	8	3.86	96 153	9.31
CANADA	1 905	2.81	46 728 088	4.80

3(k) Special Properties (Outdoors and Vehicles)

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	3 697	48.56	24 190 034	24.81
British Columbia	3 127	40.79	13 826 887	12.59
Manitoba	2 883	49.37	5 860 786	10.86
New Brunswick	422	20.54	961 779	4.51
Newfoundland	245	27.94	1 929 484	12.02
Nova Scotia	548	22.64	3 056 849	12.95
Ontario	7 620	33.32	22 156 535	9.48
Prince Edward Island	94	13.93	321 103	11.80
Quebec	3 588	24.98	35 908 349	9.38
Saskatchewan	1 338	47.80	5 249 992	21.50
Northwest Territories	30	19.35	70 621	2.24
Yukon	21	15.11	64 453	4.87
National Defence	52	25.49	443 477	21.60
Federal Properties	26	12.56	64 575	6.25
CANADA	23 691	34.90	114 104 924	11.72

3(1) Special Properties - Detail

Occupancy	Fires	Loss \$	Injuries	Deaths
Outdoor property	3 591	1 864 014	40	4
Special connecting properties	35	1 496 512	0	0
Construction, demolition, vacant	457	17 398 128	48	1
Watercraft	202	3 617 148	26	0
Rail, transport vehicle and equip.	130	8 102 641	9	1
Ground transport vehicle	17 785	47 887 179	143	
Aircraft	10	379 050	6	3
Special vehicle	1 229	14 422 599	26	1
Pier, wharf	252	18 937 653	2	0
TOTAL	23 691	114 104 924	300	41

3(m) Farm Properties

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	237	3.11	2 792 706	2.86
British Columbia	43	0.56	927 122	0.84
Manitoba	121	2.07	3 257 199	6.03
New Brunswick	14	0.68	1 009 037	4.74
Newfoundland	7	0.80	26 790	0.17
Nova Scotia	48	1.98	1 430 286	6.06
Ontario	436	1.91	19 221 514	8.22
Prince Edward Island	26	3.85	248 899	9.15
Quebec	288	2.00	20 608 216	5.38
Saskatchewan	99	3.54	972 003	3.98
Northwest Territories	0	0.00	0	0.00
Yukon	0	0.00	0	0.00
National Defence	0	0.00	0	0.00
Federal Properties	1	0.48	15.000	1.45
CANADA	1 320	1.94	50 508 772	5.19

3(n) Miscellaneous Properties

Jurisdiction	Number of Fires	%	Loss \$	%
Alberta	304	3.99	8 940 687	9.17
British Columbia	161	2.10	4 265 226	3.88
Manitoba	124	2.12	1 110 670	2.06
New Brunswick	39	1.90	359 176	1.69
Newfoundland	1	0.11	2 271 596	14.16
Nova Scotia	92	3.80	1 166 294	4.94
Ontario	390	1.71	4 101 231	1.75
Prince Edward Island	4	0.59	14 230	0.52
Quebec	413	2.87	4 755 281	1.24
Saskatchewan	145	5.18	7 439 857	30.46
Northwest Territories	8	5.16	24 350	0.77
Yukon	45	32.37	45	0.00
National Defence	19	9.31	44 522	2.17
Federal Properties	26	12.56	254 825	24.66
CANADA	1 771	2.61	34 747 990	3.57

SECTION IV

TABLE 4 - ARSON AND ATTEMPTED ARSON

Jurisdiction	Offences Cleared					Persons Charged				
	Suspected or Known Incendiary	Unfounded	Actual Number	By Charge	Other- wise	Adults		Young Offenders		Not Charged
						Male	Female	Male	Female	
Alberta	745	84	661	104	93	82	13	34	1	88
British Columbia	1 073	65	1 008	120	145	68	15	50	8	66
Manitoba	400	42	358	83	41	29	10	43	10	20
New Brunswick	518	198	320	46	16	40	2	8	-	1
Newfoundland	112	7	105	17	16	15	-	3	-	17
Nova Scotia	298	57	241	40	19	24	-	15	2	9
Ontario	2 162	136	2 026	390	268	182	38	115	13	188
Prince Edward Island	28	-	28	2	1	2	-	-	-	-
Quebec	4 332	1 837	2 495	421	161	264	38	97	2	80
Saskatchewan	309	33	276	49	38	36	5	14	3	24
Northwest Territories	27	9	18	4	6	3	-	3	-	8
Yukon	18	4	14	2	2	-	-	1	3	8
CANADA	10 022	2 472	7 550	1 278	806	745	121	383	42	509

SECTION V

TABLE 5 - FIRE LOSSES BY SOURCE OF IGNITION

Source of Ignition (Igniting Object)	Number of Fires	Dollar Loss	Injuries					Deaths				
			FF	M	W	C	U	FF	M	W	C	U
No igniting object (e.g., lightning)	469	10 634 002	3	9	3	1	0	0	1	1	1	0
Cooking equipment	8 818	53 939 988	71	320	229	47	3	0	20	17	10	0
Heating equipment	7 805	97 197 240	117	117	34	17	1	2	27	14	17	0
Appliances and equipment	2 216	20 316 530	26	37	32	9	0	0	1	0	0	0
Electrical distribution Equipment	7 873	184 990 096	107	79	23	4	2	0	12	8	9	0
Other electrical equipment	1 972	25 474 833	15	25	3	2	0	0	1	1	3	0
Smoker's material and "open flame":												
Smoker's material	4 816	52 153 878	160	259	106	22	5	0	67	34	13	0
Match, lighter (not used with smoking), lamp, candle, taper	3 178	30 232 313	122	92	46	52	3	0	14	3	8	0
Cutting torch, welding equip., varied torches	3 160	34 039 918	43	69	1	2	1	1	4	1	3	0
Hot ashes, embers (non-smoking material)	474	4 230 482	17	7	1	1	0	0	1	0	1	0
Smoker's material or "open" flame, unclassified	2 059	48 265 927	21	39	13	2	1	0	24	13	6	0

TABLE 5 - FIRE LOSSES BY SOURCE OF IGNITION (cont'd)

Source of Ignition (Igniting Object)	Number of Fires	Dollar Loss	Injuries					Deaths				
			FF	M	W	C	U	FF	M	W	C	U
Exposure	1 583	15 699 266	8	5	0	1	1	0	0	0	0	0
Miscellaneous	15 507	207 228 025	255	287	68	20	5	0	51	22	22	0
Undetermined	7 954	189 055 804	321	342	98	33	5	0	73	32	15	0
TOTAL	67 884	973 458 302	1 286	1 687	657	213	27	3	296	146	108	0

FF - Firefighter

M - Men

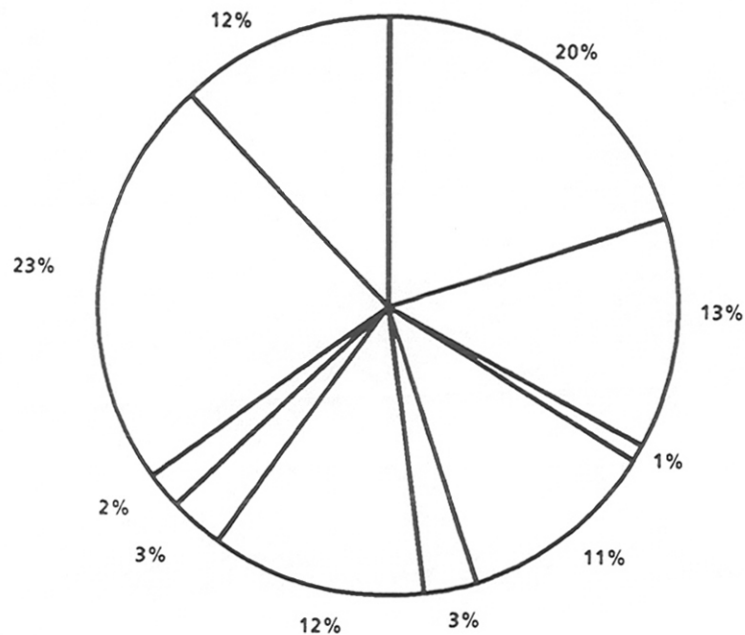
W - Women

C - Children

U - Unclassified

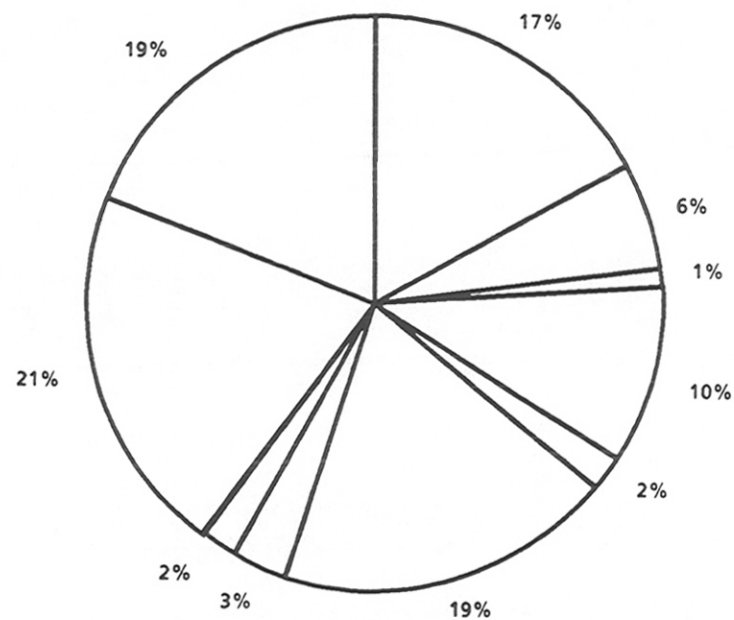
Figure 3
SOURCE OF IGNITION
1986

3(a) NUMBER OF FIRES



20%	Smoker's material
13%	Cooking equipment
1%	No igniting object
11%	Heating equipment
3%	Appliances and equipment
12%	Electrical distribution equipment
3%	Other electrical equipment
2%	Exposure
23%	Miscellaneous
12%	Undetermined

3(b) LOSS



17%	Smoker's material
6%	Cooking equipment
1%	No igniting object
10%	Heating equipment
2%	Appliances and equipment
19%	Electrical distribution equipment
3%	Other electrical equipment
2%	Exposure
21%	Miscellaneous
19%	Undetermined

SECTION VI

TABLE 6 - FIRE DEATHS AND INJURIES

TABLE 6(a) - FIRE DEATHS, 1986 AND 10-YEAR SUMMARY

Jurisdiction	1986					Fire Death Rate*	10-Year Summary	
	FF	Men	Women	Children	Total		Average No. of Deaths	Fire Death Rate*
Alberta	0	37	15	12	64	2.20	72.0	3.32
British Columbia	0	35	14	9	58	2.08	83.0	3.07
Manitoba	1	12	13	7	33	3.55	45.0	4.34
New Brunswick	0	17	6	6	29	2.64	27.0	3.82
Newfoundland	0	9	4	2	15	3.61	20.0	3.54
Nova Scotia	0	15	4	1	20	1.93	27.0	3.15
Ontario	1	86	39	24	150	2.01	203.0	2.33
Prince Edward Island	0	4	3	3	10	0.00	5.0	4.26
Quebec	1	60	42	39	142	2.02	156.0	2.44
Saskatchewan	0	17	4	1	22	2.06	34.0	3.43
Northwest Territories	0	4	2	2	8	9.78	9.0	18.96
Yukon	0	0	0	0	0	8.62	1.0	6.23
National Defence	0	0	0	2	2	0.50	1.0	-
Federal Properties	0	0	0	0	0	0.00	1.0	-
SUMMARY	3	296	146	108	553	2.18	683.0	2.79

* Fire death rate is the number of fire deaths per 100 000 population per annum.

TABLE 6(b) - FIRE INJURIES, 1986 AND FIVE-YEAR SUMMARY

Jurisdiction	1986							Five-Year Summary	
	FF	Men	Women	Children	Unclass.	Total	Fire Injury Rate*	Average No. of Injuries	Fire Injury Rate*
Alberta	102	223	71	39	0	435	20.64	430	18.28
British Columbia	78	136	73	29	27	343	13.79	383	13.45
Manitoba	0	207	40	21	0	268	21.66	270	25.58
New Brunswick	1	16	3	0	0	20	2.78	25	3.49
Newfoundland	7	27	1	0	0	35	3.79	23	3.99
Nova Scotia	71	22	17	3	0	113	12.84	91	10.51
Ontario	856	728	326	90	0	2 000	22.75	1 958	21.89
Prince Edward Island	0	0	0	0	0	0	0.00	0	0.00
Quebec	165	265	114	19	0	563	9.52	697	10.67
Saskatchewan	2	38	8	10	0	58	7.46	58	5.73
Northwest Territories	4	5	4	1	0	14	19.57	11	21.62
Yukon	0	0	0	0	0	0	25.86	4	19.21
National Defence	0	11	0	1	0	12	7.01	15	-
Federal Properties	0	9	0	0	0	9	3.00	15	-
SUMMARY	1 286	1 687	657	213	27	3 870	15.26	3 950	15.75

* Fire injury rate is the number of fire injuries per 100 000 population per annum.

SECTION VII

TABLE 7 - ACT OR OMISSION CAUSING FIRE

Act or Omission	No. Fires	Dollar Loss	Injuries					Deaths				
			FF	M	W	C	U	FF	M	W	C	U
Arson or other set fires:												
Arson/suspected arson	2 699	48 506 830	164	41	21	3	0	0	12	4	0	0
Other set fires	6 228	167 414 264	80	33	21	7	1	0	27	15	4	0
Misuse of source of ignition:												
Smoker's material	1 379	13 532 286	22	53	20	5	5	0	26	12	4	0
Child playing with	1 331	9 976 002	60	32	37	56	2	0	2	1	11	0
Welding, cutting, thawing	384	11 995 296	6	25	0	1	3	0	3	0	0	0
Unclassified	7 753	84 644 995	173	266	110	25	0	1	47	30	22	0
Misuse of material ignited	5 002	42 712 561	98	319	170	39	2	0	21	11	8	0
Mechanical, electrical failure, malfunction	18 263	172 400 751	170	168	56	12	2	1	12	10	15	0
Construction, design or installation deficiency	2 404	34 072 359	37	30	9	3	1	0	9	3	8	0
Misuse of equipment	1 312	13 193 145	22	38	8	3	0	0	4	1	2	0
Human failing:												
Asleep	150	1 550 147	1	17	6	2	0	0	3	2	0	0
Suspected impairment by alcohol, drugs, medication	171	1 482 835	1	27	6	1	2	0	13	7	2	0
Miscellaneous	5 767	40 355 805	65	187	84	18	4	1	22	12	4	0
Vehicle accident	699	15 560 185	2	17	0	0	1	0	13	4	0	0
Miscellaneous	14 342	316 060 841	385	434	109	38	4	0	82	34	28	0
TOTAL	67 884	973 458 302	1 286	1 687	657	213	27	3	296	146	108	0

FF - Firefighter

M - Men

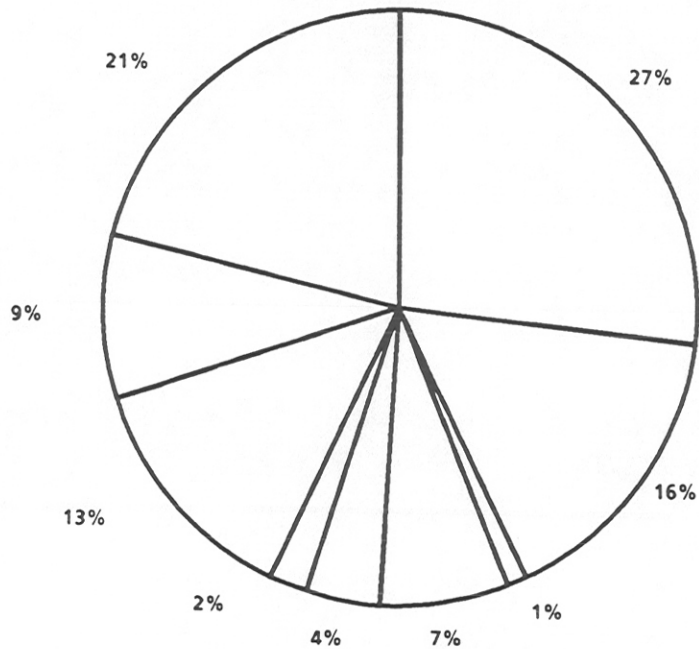
W - Women

C - Children

Figure 4

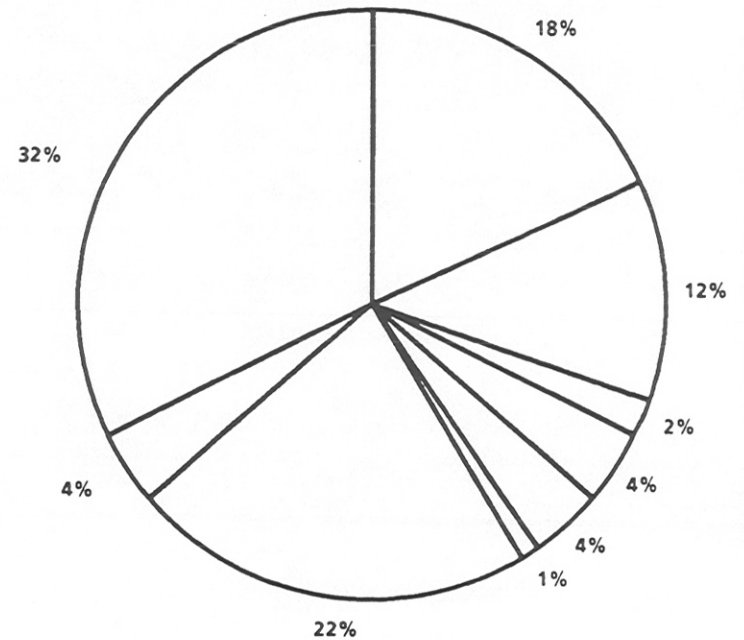
ACT OR OMISSION CAUSING FIRE 1986

4(a) NUMBER OF FIRES



27%	Mechanical, electrical failure
16%	Misuse of source of ignition
1%	Vehicle accident
7%	Misuse of material ignited
4%	Construction, design or installation deficiency
2%	Misuse of equipment
13%	Arson or other set fires
9%	Human failing
21%	Miscellaneous

4(b) LOSS



18%	Mechanical, electrical failure
12%	Misuse of source of ignition
2%	Vehicle accident
4%	Misuse of material ignited
4%	Construction, design or installation deficiency
1%	Misuse of equipment
22%	Arson or other set fires
4%	Human failing
32%	Miscellaneous

SECTION VIII

TABLE 8 - LOSSES OF \$500 000 and Over
Table 8(a) Alberta

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
County of Parkland	86.01.03	Petroleum refinery	Part failure, leak, break	1 000 000	0	0
Improvement Dist. #14	86.02.08	Rail transport vehicle - unclassified	Rail vehicle accident	4 827 000	5	1
Improvement Dist. #14	86.02.08	Rail transport vehicle - unclassified	Rail vehicle accident	2 230 000	0	0
Edmonton	86.02.08	Church, chapel	Unknown	850 000	0	0
Fort Saskatchewan	86.03.05	High school	Unknown	2 000 000	0	0
Improvement Dist. #16	86.03.25	Basic industrial chem. manufacturing	Part failure, leak, break	542 000	0	0
County of Strathcona	86.04.12	Petroleum refinery x	Unknown	500 000	0	0
Improvement Dist. #16	86.04.25	Petroleum, natural gas well	Unknown	1 376 000	0	0
Improvement Dist. #17	86.05.18	Petroleum, natural gas well	Unknown	716 000	0	0
Calgary	86.06.02	Restaurant	Smoker's material	1 001 000	1	0
Red Deer	86.06.02	Apartment - over 20 units	Part failure, leak, break	574 885	0	0
Edmonton	86.06.04	Furniture Store	Electrical short circuit	860 896	0	0

Table 8(a) Alberta (cont'd)

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Grassy Lake	86.06.11	Grain elevator	Unknown	676 000	0	0
Calgary	86.06.27	High school	Arson or set fire- reason unknown	1 000 000	5	0
Improvement Dist. #18	86.08.25	Petroleum, natural gas well	Const. design, installation deficiency	3 400 000	0	0
Edmonton	86.11.07	Amusement centre	Unknown	630 000	0	0
Edmonton	86.11.23	Apartment - 3 to 20 units without business	Asleep	600 300	0	0
Calgary	86.11.26	Apartment - over 20 units	Overheated cooking oil	2 600 000	1	0
Calgary	86.12.06	Building under major renovation	Suspected arson	3 274 000	14	0

Table 8(b) British Columbia

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
North Vancouver City	86.01.01	Restaurant	Misuse of equipment - unclassified	1 144 821	0	0
Stikine Region	86.01.23	Basic nonferrous metals manufacture	Unknown	3 500 000	0	0
Vancouver	86.02.07	Restaurant	Unknown	500 000	0	0
Tumbler Ridge	86.02.21	Coal mine	Accident	2 049 288	0	0
Ashcroft	86.03.01	Hotel, inn, lodge: year round use	Arson or set fire - - motive unknown	764 000	0	0
Valemount	86.04.09	Sawmill, planing mill	Welding or cutting too close	2 500 000	0	0
Vancouver	86.04.25	Loose or bagged foods storage	Unknown	1 500 000	2	0
Richmond	86.04.28	General business office	Arson or set fire - motive unknown	534 418	0	0
Fraser-Fort George	86.04.29	Sawmill, planing mill	Unknown	750 000	0	0
Abbotsford	86.06.16	Shed	Cleaning, washing parts	564 500	1	0
Vancouver	86.06.22	Vacant property	Suspected set fire - motive unknown	706 248	0	0
Abbotsford	86.06.24	Apartment, townhouse over 20 units	Unknown	1 834 824	1	0
Okanagan-Similkameen	86.06.29	Automobile	Automobile accident	520 095	0	0

Table 8(b) British Columbia (cont'd)

Location	Date	Property/Classification	Dollar Loss	Casualties		
				Injuries	Deaths	
Westside	86.08.09	High school	Arson or set fire - vandalism	1 000 000	0	0
Kamloops	86.08.29	Motor vehicle accessory sales	Unknown	800 000	1	0
Surrey	86.09.23	Misc. storage properties - unclassified	Unclassified	650 000	0	0
Vancouver	86.10.12	Department store	Part failure, leak, break	1 000 000	0	0
Kelowna	86.10.23	Church, chapel	Arson or set fire - motive unknown	500 000	0	0
West Vancouver	86.11.04	Hotel: transient dorm, type	Unknown	611 524	0	0
East Kootenay	86.11.14	Restaurant	Suspected set fire - motive unknown	600 000	0	0
Surrey	86.11.18	Misc. business and personal service	Part failure, leak, break	726 000	0	0
Prince George	86.11.23	Wood products storage	Inadequate control of open fire	2 000 000	0	0
Penticton	86.11.25	Dwelling year-round use (1-family)	Design deficiency	500 000	0	0
Langley	86.12.08	General warehouse	Arson or set fire - motive unknown	601 107	0	0

Table 8(c) Manitoba

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
LGD Gillan	86.01.30	Airport	Undetermined	1 100 000	0	0
Winnipeg	86.01.31	Apartment	Incendiary	526 338	1	0
Clearwater Lake	86.02.17	Aircraft hangar	Undetermined	2 000 000	4	0
RM. Swan River	86.02.18	Saw mill	Undetermined	599 634	0	0
Brandon	86.02.21	Warehouse	Undetermined	750 000	9	0
Winnipeg	86.02.22	Industrial manufacturing	Undetermined	3 478 255	0	0
Winnipeg	86.05.23	Industrial manufacturing	Undetermined	1 000 691	0	0
Brandon	86.06.26	Church	Lightning	1 600 000	0	0
Winnipeg	86.07.22	School	Incendiary	4 516 000	3	0
Winnipeg	86.08.29	Town house under construction	Undeterminate	520 783	1	0
Split Lake I. R.	86.10.03	School	Undetermined	2 414 000	0	0

Table 8(d) New Brunswick

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Bathurst	86.03.26	Farm facilities	Not reported	511 662	0	0

Table 8(e) Newfoundland

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Southern Harbour	86.06	Fish plant	Welding	2 500 000	0	0

Table 8(f) Nova Scotia

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Riversdale	86.08.07	Wood products mill	Undetermined	1 000 000	0	0
Swartz Clothing	86.09.15	Clothing store	Incendiary	1 000 000	0	0
Veteran's Memorial Hospital	86.10.30	Hospital	Undetermined	2 000 000	0	0
St. Mary's Church	86.12.03	Church	Undetermined	766 000	0	0
Wood Motors	86.12.18	Car dealership and building under construction	Incendiary	2 100 000	0	0

Table 8(g) Ontario

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Haldimand	86.01.01	Manufacturing/processing	Arson	1 000 000	0	0
Picton	86.01.11	Restaurant	Misuse of material	800 000	14	1
Parry Sound	86.01.17	Book store	Undetermined	581 750	4	0
Scarborough	86.02.07	Commercial unclassified	Undetermined	1 000 000	5	0
Rodney	86.02.08	Restaurant	Undetermined	550 000	1	0
Campbellford	86.02.20	Commercial unclassified	Mechanical/electrical failure	735 000	0	0
Guelph	86.02.20	Commercial unclassified	Undetermined	1 918 600	8	0
Coleman	86.02.22	Mine	Mechanical/electrical failure	2 500 000	0	0
Thunder Bay	86.02.22	Furniture, appliance store	Arson	540 000	1	0
Chatam	86.03.01	Dwelling 7 to 12 units	Mechanical/electrical failure	636 000	0	0
Milton	86.03.24	Tractor trailer	Vehicle accident	2 330 000	0	0

Table 8(g) Ontario (cont'd)

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
North York	86.03.26	Office	Misuse of equipment	500 000	0	1
Armstrong	86.04.10	Barn	Undetermined	750 000	0	0
Renfrew	86.04.17	Church	Undetermined	2 000 000	0	0
Caperol	86.05.02	Hardware store	Arson	1 288 000	0	0
Toronto	86.05.10	Commercial special sales	Undetermined	600 000	12	0
Vaughan	86.06.08	Lumber yard	Undetermined	1 500 000	0	0
Woodstock	86.06.15	Fabric manufacturing unclassified	Mechanical/electrical failure	2 000 000	0	0
Sudbury	86.06.24	Manufacturing unclassified	Mechanical/electrical failure	1 050 000	0	0
Kenora	86.07.03	Manufacturing unclassified	Misuse of igniting object	600 000	0	0
Kirkland	86.07.16	Dwelling 2 to 6 units	Mechanical/electrical failure	1 120 000	1	0
Brockville	86.08.02	School	Arson	700 000	0	0
Dysart	86.08.24	Department store	Undetermined	1 600 000	3	0

Table 8(g) Ontario (cont'd)

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Carleton Place	86.09.22	Library	Arson	2 200 000	0	0
Sudbury	86.11.19	Manufacturing/metal processing	Mechanical/electrical failure	900 000	0	0
Toronto	86.11.20	Sports, country club	Undetermined	1 125 000	5	0
Parry Sound	86.11.30	Tavern	Undetermined	500 000	0	0
Scarborough	86.12.05	Warehousing and storage	Arson	800 000	3	0
Bagot and Blythfield	86.12.12	Commercial unclassified	Mechanical/electrical failure	750 000	0	0
Oxford	86.12.13	Barn	Undetermined	1 200 000	0	0
Midland	86.12.24	Church	Arson	1 000 000	4	0
Fort Erie	86.12.27	Tavern	Arson	1 000 000	0	0

Table 8(h) Prince Edward Island

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
-	-	-	-	0	0	0

Table 8(i) Quebec

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
La Tuque	86.01.01	Storage/metal products	Not reported	505 000	0	0
La Salle	86.01.02	Apartment	Not reported	887 101	0	0
Saint-Roch-des-Aulnaies	86.01.08	Industrial manufacturing properties	Not reported	1 900 000	0	0
Biencourt	86.01.11	Industrial manufacturing properties	Not reported	1 750 000	0	0
Saint-Odilon-de-Crambourne	86.01.14	Food processing slaughter house	Not reported	584 000	0	0
Nicolet	86.01.16	Industrial manufacturing properties	Not reported	613 165	0	0
Montreal	86.01.16	Church	Not reported	1 200 000	0	0
Westmount	86.01.19	Apartment	Not reported	650 680	0	0
Longueuil	86.01.21	Commercial sales store	Not reported	967 000	0	0
Clarendon	86.02.14	Storage wood, furniture, paper products	Not reported	1 100 000	0	0
Quebec	86.02.20	School	Not reported	1 150 000	0	0
Mont-Royal	86.02.20	Industrial manufacturing properties	Not reported	1 460 000	0	0
Joliette	86.02.24	Property under construction or demolition	Not reported	3 500 000	0	0

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Longueuil	86.02.26	Commercial sales store	Not reported	691 500	0	0
Granby	86.02.27	Farm facilities	Not reported	618 165	0	0
Saint-Damien	86.02.28	Farm facilities	Not reported	900 000	0	0
Sainte-Victoire d'Arthabaska	86.03.02	Office	Not reported	1 200 000	0	0
Longueuil	86.03.09	Apartment	Not reported	680 556	0	0
Mistassini	86.03.22	Motor hotel, motel	Not reported	1 449 000	0	0
La Sarre	86.04.04	Commercial store	Not reported	650 000	0	0
Saint-Flavien	86.04.08	Farm facilities	Not reported	604 174	0	0
Abitibi, Lac Parent	86.04.21	Industrial manufacturing properties	Not reported	500 000	0	0
Sainte-Anne-des- Plaines	86.04.26	Farm facilities	Not reported	684 489	0	0
Thetford-Mines	86.05.21	Club, social, sport	Not reported	757 066	0	0
Saint-Constant	86.05.22	Mining/quarrying	Not reported	1 093 000	0	0
Montreal	86.05.23	Industrial manufacturing properties	Not reported	550 000	0	0
Jonquière	86.05.29	Apartment	Not reported	550 000	3	0
Chandler	86.05.31	Theatre, motion picture	Not reported	1 500 000	0	0

Table 8(i) Quebec (cont'd)

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Côte-Saint-Luc	86.06.03	Apartment	Not reported	2 250 000	0	0
Waswanipi	86.07.01	Industrial manufacturing properties	Not reported	4 500 000	0	0
Sainte-Justine	86.07.03	Commercial sales store	Not reported	1 650 000	0	0
Sainte-Jacques	86.07.19	School	Not reported	2 500 000	0	0
Grenville	86.08.02	Industrial manufacturing properties	Not reported	675 000	0	0
Ascot	86.08.06	Apartment	Not reported	585 000	0	0
Baie James	86.08.14	Department store	Not reported	2 000 000	0	1
Montreal	86.08.29	Theatre	Not reported	500 000	0	0
Chandler	86.09.03	Industrial manufacturing properties	Not reported	3 000 000	0	0
Saint-Hugues	86.09.16	Agriculturel products bulk storage	Not reported	5 000 000	2	0
Wendover et Simpson	86.09.27	Industrial manufacturing properties	Not reported	2 004 380	3	0
Montreal	86.09.25	Apartment	Not reported	700 000	0	4
Montreal	86.10.04	Storage, wood, furniture, paper products	Not reported	950 000	0	0
Montreal	86.10.06	Industrial manufacturing properties	Not reported	3 000 000	0	0

Table 8(i) Quebec (cont'd)

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
La Salle	86.10.10	Apartments	Not reported	1 074 000	0	0
Saint-Jérôme	86.10.14	Food processing unclassified	Not reported	850 000	0	0
Sainte-Anne-des-Monts	86.10.19	Commercial store	Not reported	1 080 994	2	0
Arthabaska	86.10.19	Commercial store	Not reported	3 500 000	0	0
Montreal	86.10.26	Office	Not reported	80 000 000	12	0
Saint-Élie d'Orford	86.11.01	School	Not reported	563 262	0	0
Saint-Donat	86.11.03	Out buildings	Not reported	700 000	0	0
Sept-Îles	86.12.05	Recreational facility	Not reported	600 000	0	0
Montreal	86.12.08	Commercial store	Not reported	500 000	1	0
Port-Cartier	86.12.15	Property under construction, or demolition	Not reported	1 300 000	0	0
Montreal	86.12.16	Industrial manufacturing properties	Not reported	15 000 000	3	0
La Sarre	86.12.18	Commercial store	Not reported	500 000	0	0
Saint-Hubert	86.12.21	Office	Not reported	3 736 000	0	0
Pont-Rouge	86.12.23	Commercial store	Not reported	500 000	0	0
Saint-Léonard	86 12 31	Food or beverage establishment	Not reported	786 000	0	0

Table 8(j) Saskatchewan

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
Yorkton	86.04.24	Clay product manufacturing	Installed too close	1 700 000	0	0
Swift Current	86.05.15	School	Set Fire	500 000	0	0
Carrot River	86.05.27	Bridge	Exposure from grass fire	1 000 000	0	0

Table 8(k) Northwest Territories

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
-	-	-	-	0	0	0

Table 8(1) Yukon

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
-	-	-	-	0	0	0

Table 8(m) National Defence

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
-	-	-	-	0	0	0

Table 8(n) Federal Jurisdiction

Location	Date	Property/Classification	Act or Omission	Dollar Loss	Casualties	
					Injuries	Deaths
-	-	-	-	0	0	0

APPENDIX

PROVINCIAL FIRE MARSHALS AND FIRE COMMISSIONERS

Mr. Francis Ryan
Provincial Fire Commissioner
Department of Justice
Pleasantville Fire Station
ST. JOHN'S, Newfoundland
ALC 5T7

Mr. Charles Ronald Kennedy
Provincial Fire Marshal
Department of Municipal Affairs
P.O. Box 2000
3 Queen Street
CHARLOTTETOWN, P.E.I.
C1A 7N8

Mr. P. Langlois
A/Provincial Fire Marshall
Department of Labour
5151 Terminal Road
HALIFAX, N.S.
B3J 2T8

Mr. M. Carr
Provincial Fire Marshall
Department of Labour
470 York Street
P.O. Box 6000
FREDERICTON, N.B.
E3B 5H1

Mr. A.S. Barlett
A/Provincial Fire Commissioner
Saskatchewan Environment and
Public Safety
5th Floor
1870 Albert Street
REGINA, Saskatchewan
S4P 3V7

Mr. W.D. MacKay
Provincial Fire Commissioner
Alberta Labour
506 - IBM Building
10808-99th Avenue
EDMONTON, Alberta
T5K 0G2

Mr. Gordon Anderson
Provincial Fire Commissioner
Ministry of Municipal Affairs
2780 East Broadway
VANCOUVER, B.C.
V5M 1Y8

Mr. L. McPhee
Fire Marshal
Northwest Territories
Fire Prevention Service
Government of the Northwest
Territories
YELLOWKNIFE, N.W.T.
XOE 1H9

Mr. Gaetan Levasseur
Directeur général de la prévention
des incendies
Ministère des Affaires municipales
Imm. Cook-Chaveau
20, avenue Chauveau
Québec (Québec)
G1R 4J3

Mr. J. Bateman
Provincial Fire Marshal
Ministry of the Solicitor General
3rd Floor
7 Overlea Blvd.
TORONTO, Ontario
M4H 1A8

Lt.-Gen. H.H. Singleton
Canadian Forces Fire Marshal
Department of National Defence
OTTAWA, Ontario
K1A 0K2

Mr. L.R. Hipperson
Fire Marshal
Yukon Territory
Government of the Yukon
WHITEHORSE, Y.T.
Y1A 2C6

Mr. H. Thiessen
A/Provincial Fire Commissioner
Department of Manpower and Labour
Room 510, Norquay Building
401 York Street
WINNIPEG, Manitoba
R3C 0V8

Mr. T.J. Dunfield
A/Fire Commissioner of Canada
Fire Prevention Branch
Labour Canada
OTTAWA, Ontario
K1A 0J2