



## **CANADA REPORT**

**2006**

by

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The 2006 wildland fire season in Canada will reflect an above average year for both fire numbers and hectares consumed when compared to the 10 and 20 year averages. In general terms the wildland fire activity was not focussed regionally, as in the past, but all agencies experienced periods of increased activity. As of December 31<sup>st</sup>, Canada recorded 9,713 fires for 2,079,553.71 hectares.

The Canadian winter was relatively mild in many areas, with below normal snow and moisture levels being reported in most areas with some moisture deficit recorded in south central Montane Cordillera area of BC. On the heels of the mild winter, spring arrived early in all regions. This had most agencies forecasting an active wildland fire season. Alberta (AB), Nova Scotia (NS) and New Brunswick (NB) all moved their official start of the wildland fire season to March 1<sup>st</sup> from the normal April 1<sup>st</sup> in anticipation of an early start to the season.

The spring weather system seemed to bear out this prediction as the warm dry April continued into May across most of Canada. Early May saw open fire bans issued in some of the Maritime Provinces, parts of AB and British Columbia (BC), in response to the increasing wildland fire hazard. AB had requested and received through the Canadian Interagency Forest Fire Centre (CIFFC) additional type I initial attack (IA) crews in anticipation of an increase in wildland fire activity. The situation calmed shortly, only to ramp-up quickly in mid May, with AB and BC responding to multi wildland fire starts, with air tankers and crews once again moving into AB. The 2006 wildland fire season witness its first fatality with the downing of a Saskatchewan (SK) CV-580 airtanker on a practice mission. One hundred and forty type 1 wildland firefighters were mobilized by May 20<sup>th</sup> to assist AB with this early season outbreak. By the end of May all resources had returned home and all agencies had an opportunity to complete their training and bring their equipment and aircraft capacity up to 100%.

Wildland fire activity was generally light across most of Canada during the first part of June with some occurrence resulting in large fires in northern SK. Warming and drying conditions spread across Ontario (ON) and Québec (QC) with some dry lightning resulting in 138 knew starts in QC over two days. The fire danger rating had increased significantly across the northern boreal areas. The drying trend continued across the northern prairies and into northern BC by the end of the third week of June. Wildland fire activity remained generally light with a few large fires and some interagency mobilization of personnel. The wildland fire hazard continued to rise across the west through the last week of June prompting AB to import a large number of IA crews from

BC and ON in anticipation of escalating wildland fire activity. As potential gave way to reality, resource requests into CIFFC began to pile up. Multiple fire starts were reported in BC, PC, AB, SK and MB with large fires recorded in all western provinces. Sending agencies were required to heavily risk manage their internal resources in order to assist the western areas. Airtankers, personnel and equipment poured into the affected agencies from the Northwest Territories (NT), New Brunswick (NB), QC and primarily ON. By the end of June the availability of resources were stretched to the maximum, leaving outstanding requests for IA crews and airtankers for MB and AB.

The escalation of wildland fire activity continued into July. Competition for available resources had extended to all western wildland fire management agencies. Outstanding requests for, in excess of 400 professional type I firefighters, overhead positions, equipment and airtankers were left pending on the CIFFC Duty Officer desk. In the 10 day period from June 28 to July 7 there were 1,400 fires logged nationally, most of which were in the western provinces, with the bulk in BC. Large fires and continuing IA pressure in all western provinces continued to put a heavy strain on limited resources. Compact arrangements were opened to access potential resources through that venue. CIFFC rapidly moved to National Preparedness Level (NPL) V and allocated limited resources through negotiation amongst requesting agencies. The Canada-United States Reciprocal Forest Fire Fighting Arrangement was activated and an Incident Management Team, 100 type 1 professional firefighters and a high level infrared scanner aircraft were imported in support of the BC wildland fire fighting requirements. Outstanding requests for personnel were now over 700. A Director's call was convened between the impacted wildland fire agencies and a proposed "Incident Prioritization Worksheet" distributed in order to assist in the allocation of limited resources between four requesting agencies. Slightly moderating weather reduced critical requirements to one agency thus eliminating the continuation of the incident prioritization proposal. Although the fire danger has decreased along with the demand for resources there remained a considerable amount of fire on the western landscape that continued to require work. To add to this, the fire indices were steadily rising through out north-western ON and into QC with no significant precipitation expected into the foreseeable future. From July 7<sup>th</sup> to the 23<sup>rd</sup> another 1,140 fire were recorded. This time the majority of the fire activity shifted to ON and with this rise in new fire activity, came the increased demand on strained and tired resources. To add to the critical shortage of resources, the current personnel on line required recycling with no ready supply of skilled personnel available. By July 24<sup>th</sup> outstanding requests to replace returning personnel and maintain IA readiness again hovered around 400 personnel. Most agencies had either recalled their resources or could not make resources available due to increases in activity or escalating fire danger indices. By the end of July a slight moderation in weather, cooled eastern Canada and the northern portions of the western provinces. Although short lived, this allowed for some resources to be freed up and help with the re-supply of firefighters into BC. BC once again began to ramp-up with escalating wildland fire activity occurring in the south central portion of the province. Shortfalls in type 1 sustained actions crews were still the norm with the possibility of ever increasing requirement as BC's historic fire season was now set to begin. The United States (US) moved to NPL V on July 29<sup>th</sup>. At this preparedness level they begin to look outside their borders for additional resources and a call to Canada for assistance

came, but with our current situation and potential, we could not assist at this time.

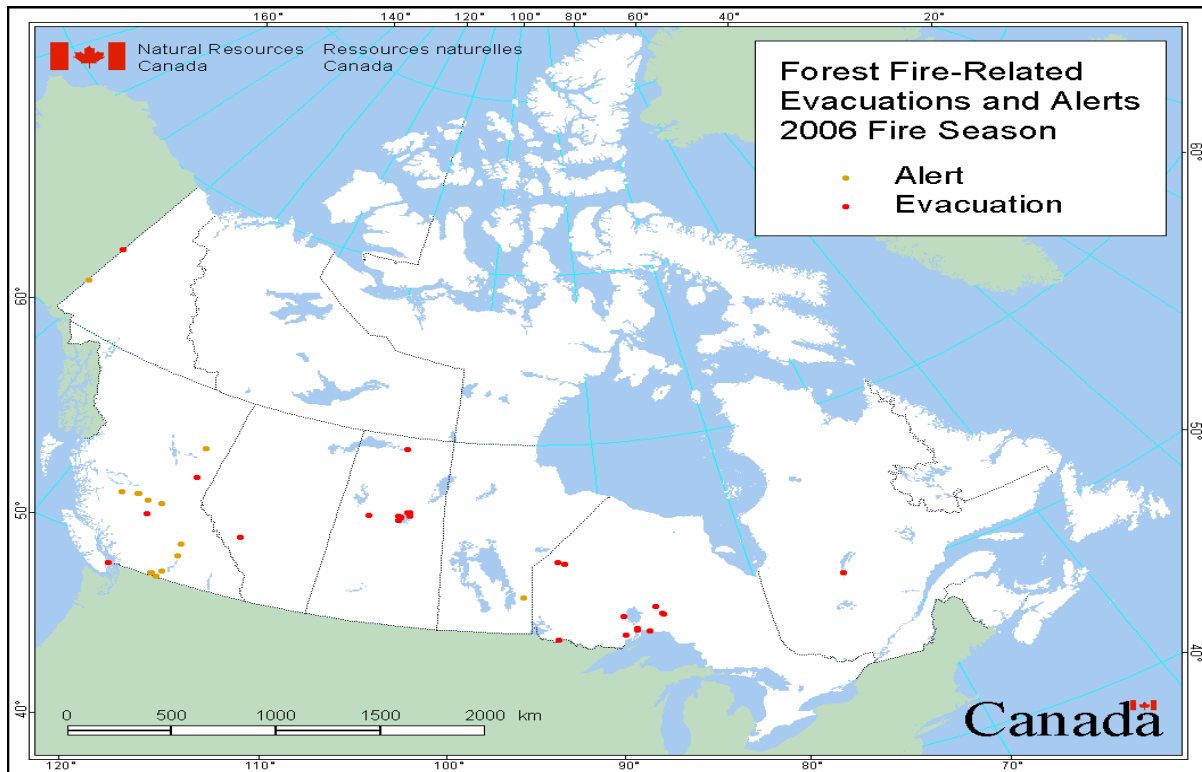
CIFFC moved to a NPL III in late July early August, the wildland fire situation stabilized somewhat, but the potential still remained high. Sporadic wet and dry lightning, high temperatures, localized damaging and erratic winds with a continuing moderate degree of fire activity was the norm from south central BC extending in a 300km wide band along the 49<sup>th</sup> parallel into central ON. Wildland fire personnel were still committed to the fire activity that had occurred through-out July along with the continuing high level of readiness and initial attack on new starts. The limited availability of IA and specialty personnel available were held in readiness for the next potential outbreak. July closed out with ON assisting Michigan with a burn-out team on a fire close to the ON/MI border and another 4/20p sustained action (SA) crews and assorted overhead positions being mobilized into BC with outstanding orders for additional SA crews still in the queue.

The first two weeks of August saw the BC situation stabilize. Wildland fire management resources in BC began to demobilize from their assignments and return home and by August 15<sup>th</sup> CIFFC NPL had dropped to NPL I. South central BC, south west AB south east MB and northwest ON remain areas of concern but local resources were sufficient to meet their requirements. With the slowing of the fire situation in Canada, the potential to provide assistance to the US increased. First eleven smokejumpers were mobilized from BC to Montana, then on August 18<sup>th</sup> 6/20p type 1 sustained action (SA) crews along with over 40 overhead positions from BC, SK, YT, PC and AB were mobilized from the Canadian west to Boise ID for briefings and deployment. The personnel were deployed to various wildland fires through-out the US Eastern Great Basin and the Pacific Northwest geographic areas. With the wildland fire situation remaining somewhat stable in Canada, CIFFC was able to fill another request from the US and on August 25<sup>th</sup> four 20p type 1 SA crew along with 18 overhead positions from ON, left for Boise ID and subsequently were deployed into the Northern Rockies geographic area. Although the fire situation remained stable, by the end of August there were signs that the season was about to escalate. Large fires in northern Washington were threatening to cross the Canadian border into BC, The areas of concern noted earlier were still hot and dry. The wildland fire season in these areas of Canada were showing no signs of ending.

The first half of September felt like July. Saturday September 2<sup>nd</sup> the Tatoosh Complex in northern Washington crossed the border into BC. A few days later the Tripod Complex was only a few kilometres south. The US ordered another 5/20p type 1 SA crews on Sept 6<sup>th</sup> to replace the returning crews on September 12<sup>th</sup>. Arrangements were being made to drop-off the returning SK personnel and pick-up the 3<sup>rd</sup> lift when the situation in Canada began to unravel. The personnel destined for the US were rerouted on September 9<sup>th</sup> to fulfil a 4/20p, plus a short Incident Management Team order from BC. This along with other pending and potential requirements for resources within Canada required CIFFC to “Unable To Fill” the order for the US. The first week of September saw 107 new starts in BC and 157 new starts in ON. Orders from ON begin to role in. By September 13<sup>th</sup> BC had logged an additional 157 fires and ON an unprecedented 485 new starts. The period from Sept 6<sup>th</sup> to the 13<sup>th</sup>, 839 new fires were reported and CIFFC

moved up to NPL IV. This was the second largest fire occurrence week of the 2006 wildland fire season. At the height of this activity CIFFC delivered 300 professional firefighters and overhead, 10 skimmer airtankers, 400 medium power pumps and 10,000 lengths of fire hose in response to ON requirements. The season stretched on until Oct. 2<sup>nd</sup> when the final interagency personnel returned to AB from ON. Equipment retrieval and return continued into the late fall.

## 2006 Wildland Fire Related Evacuations and Alerts



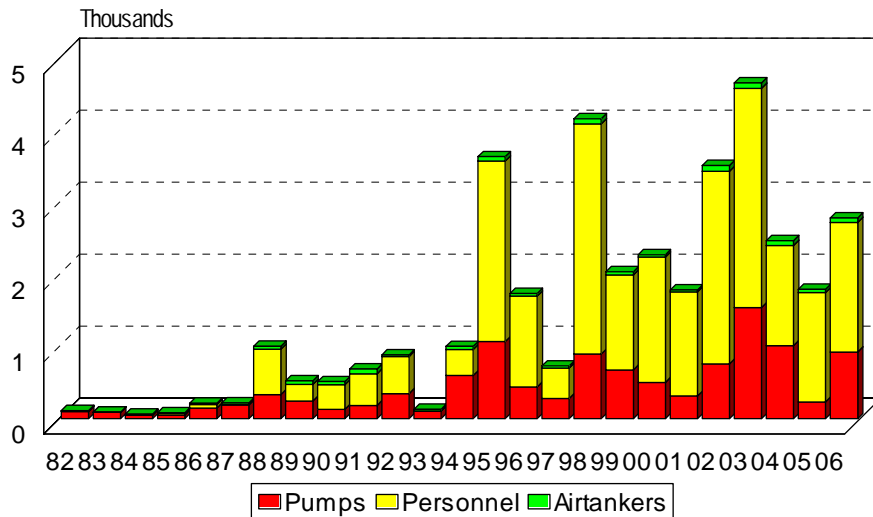
The map above shows the number of communities as compiled by Natural Resources Canada either on alert for or evacuated due to wildland fire activity during the 2006 season.

CIFFC responded to 138 resource requests during the 2006 wildland fire season, which resulted in the mobilization of approximately 1,800 type 1 professional wildland fire management personnel from across Canada including 126 from the US and 268 exported to the US. In addition to personnel, 16 airtanker groups for a total 63 airtankers, 18 bird dog aircraft and 2 rotary-wing, and 928 medium fire pump kits, 22,191 lengths of hose, 900 sprinkler heads, along with other associated fire management equipment were mobilized in response to the wildland fire activity.

As shown in the following graph, (Resource Units) agency dependence on outside resources continues to remain at a high level. This year, once again, the national operational procedures, agreements, arrangements and exchange standards that have been developed and are in place for many of the agencies including CIFFC were tested. The continued development and acceptance of national and international standards for all resources and operational procedures will continue to raise the level professionalism in wildland fire management in Canada.

## Resource Units

1982 - 2006



Using transport cost estimates reported from member agencies, conservative airtanker flight times along with personnel numbers and duration data tracked over the wildland fire season, it is estimated that approximately (not available at the time of writing) dollars worth of resource sharing was facilitated through CIFFC.

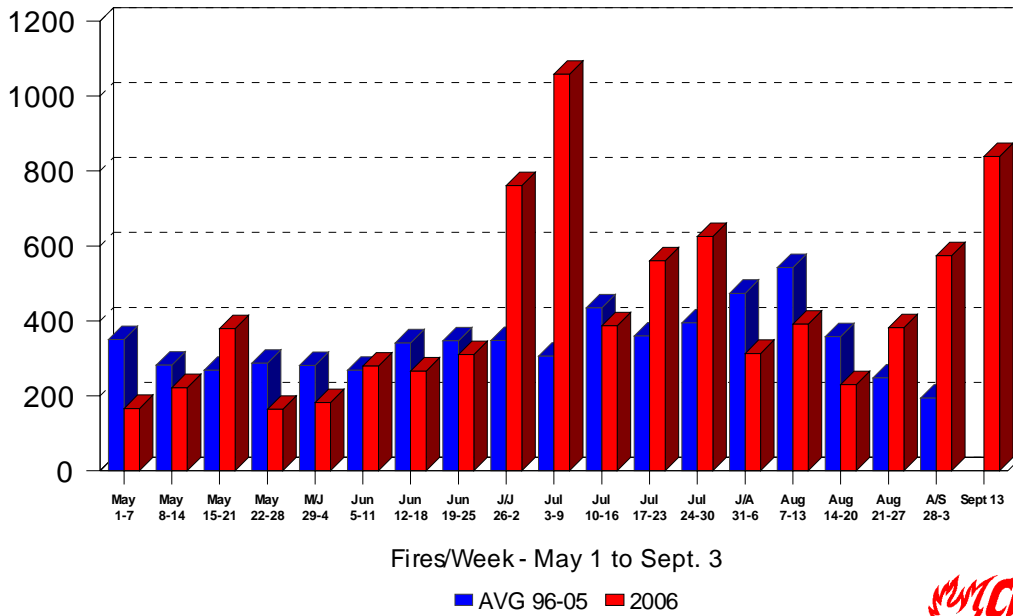
As a result of the heavy wildland fire activity from BC to ON, Canada, as a whole, experienced an above average wildland fire year with fire numbers not experience since the late 1980's. As of December 31<sup>st</sup>, 2006, Canada recorded 9,713 fires covering 2,079,553.71 hectares compared to the ten year end of season average of 7,445.3 fires and 1,957,247 ha respectively. There were 44 prescribed fires reported for a total of 8,498.61 hectares.

The following statistics show that by December 31<sup>st</sup> out of a total of 9713 fires consuming 2,079,553.71 hectares, 768 were managed under a Modified Response, consuming 1,600,992.07 hectares. The fires that received a Modified Response account for only 7.90% of the total fires, but 76.9% of the total area consumed.

WILDLAND							Prescribed Fire	
FIRES			HECTARES			Fires	Ha	
	Full	Modified	Total	Full	Modified	Total		
*BC	2428	143	2571	110127	25507	135634		
*YT	46	34	80	1176	93857	95033		
*AB	1938	0	1938	118781.73		118781.73	22	2387.11
*NT	72	94	166	5304.78	48092.25	53397.03		
*SK	341	160	501	134078.2	1069641.31	1203719.51		
*MB	558	124	682	7167	158883	166050		
*ON	2169	112	2281	68987.4	80530	149517.4	11	162.40
*QC	623	60	683	13768.1	110407	124175.1		
*NL	89	7	96	2788.1	648.20	3436.3	1	92
*NB	310	0	310	506.4		506.4		
NS	234	0	234	1576		1576		
*PE	36	0	36	50.48		50.48		
PC	101	34	135	14250.45	13426.31	27676.76	10	5857.1
TOT	8945	768	9713	478561.64	1600992.07	2079553.71	44	8498.61

The following graph shows the number of fire starts by week for 2006 as compared to the 10 year average. The anomalies in fire occurrence during the 2006 season can be clearly seen.

## FIRES 2006 vs. 10 Year Average



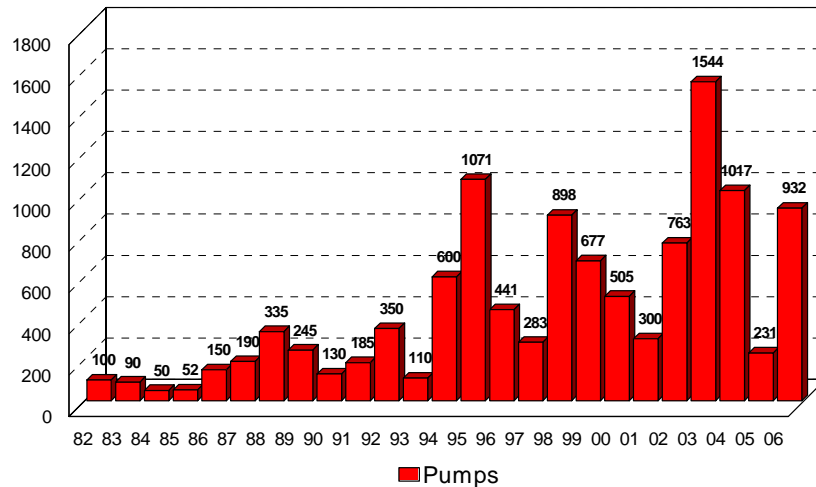
As of December 31<sup>st</sup>, 2006, there had been 3 wildland fire related fatalities reported. The following table shows total fire related fatalities in years past.

### Wildland Fire Related Fatalities

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Fatalities	6	3	3	0	3	4	2	0	2	4	0	0	0	0	0	2	0	3	2	0	3

## Mobilizations 2006

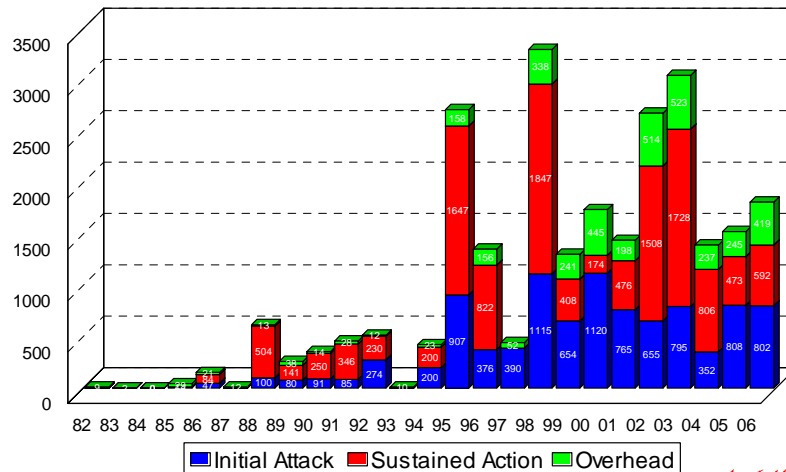
### Pumps 1982 - 2006



As of September 15, 2006

## PERSONNEL MOBILIZED

### 1982 - 2006

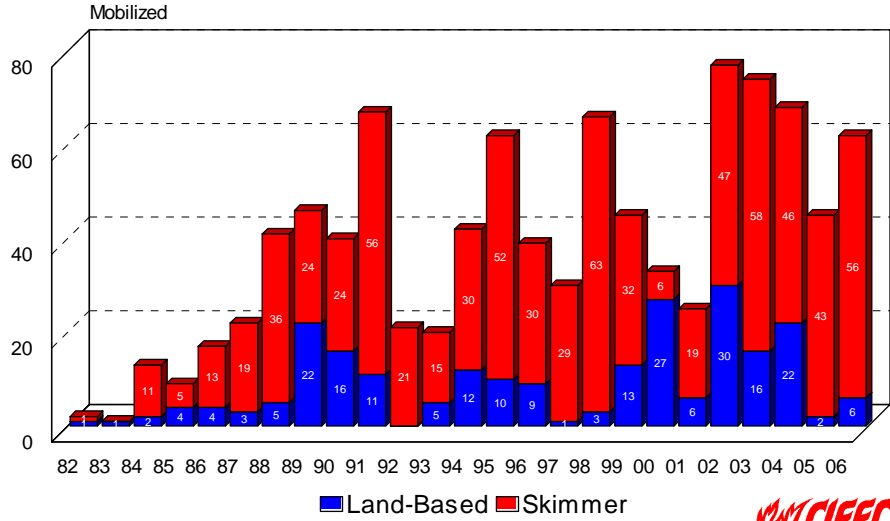


As of September 18, 2006

# Mobilizations 2006

## Airtankers

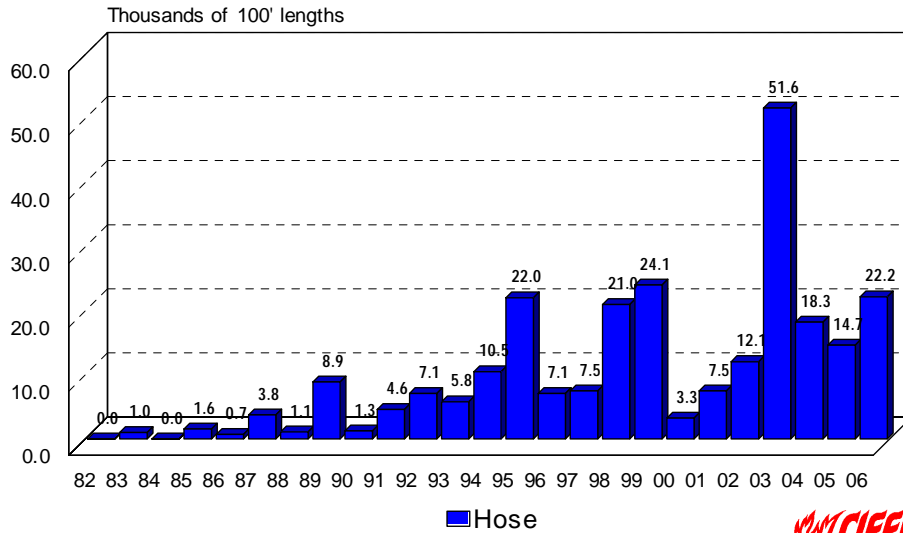
1982 - 2006



as of September 11, 2006

## Hose

1982 - 2006



as of September 15, 2006

Wildfire Starts												
Total Number of Fires (Lightning & Human Caused)												
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Ave.	2006
BC	1,358	1,175	2,665	1,208	1,539	1,266	1,781	2472	2398	970	1,683.2	2571
YT	149	112	196	160	55	68	69	77	282	83	125.1	80
AB	376	445	1,696	1,355	782	974	1,430	1191	1597	1359	1,120.5	1938
NT	350	105	399	170	275	127	85	160	297	261	222.9	166
SK	428	491	1,266	735	417	857	878	642	328	322	636.4	501
MB	423	373	516	612	353	538	754	1148	234	246	519.7	682
ON	1,243	1,634	2,267	1,002	636	1,562	1,114	1015	431	1961	1,286.5	2281
QC	1,250	876	854	1,037	516	1,003	895	716	319	1374	884	683
NF	148	110	192	228	219	202	143	191	153	145	173.1	96
NB	367	368	288	606	333	490	317	228	240	305	354.2	310
NS	272	371	348	462	210	486	267	274	258	304	325.2	234
PE	25	34	26	34	26	34	29	14	20	13	25.5	36
PC	72	51	127	40	108	107	85	115	90	95	89	135
<b>Total</b>	<b>6,461</b>	<b>6,145</b>	<b>10,840</b>	<b>7,649</b>	<b>5,469</b>	<b>7,714</b>	<b>7,847</b>	<b>8243</b>	<b>6647</b>	<b>7438</b>	<b>7,445.3</b>	<b>9713</b>

Totals as of December 31 <sup>st</sup> , 2006	
<b>Full Response Fire Numbers</b>	8945
<b>Modified Response Fire Numbers</b>	768
<b>Total</b>	9,713

Wildfire Hectares												
Total Area Burned in Hectares												
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Ave.	2006
BC	22,669	2,960	76,574	11,581	17,673	9,677	8,529	264,733	220,468	35091	66,996	135634
YT	105,935	10,120	385,579	185,956	7,651	17,772	35,700.0	49,036.8	1,817,511	170691	278,595	95033
AB	1,990	4,728	734,816	122,612	14,676	153,459	496,566.69	55,481.83	234,763.8	60601.92	187,970	118781.73
NT	371,545	126,532	1,459,360	550,046	177,814	111,262	27,089.17	127821.4	515,621.1	224631.06	369,172	53397.03
SK	14,516	3,884	995,498	180,820	140,922	183,820	879,582.6	126590.8	258,441	213523.3	299,760	1203719.51
MB	116,724	35,009	408,918	121,826	86,129	86,199	81,174.0	430170	23,117	72680	146,195	166050
ON	451,927	38,528	158,218	328,248	6,633	10,733	172,512.0	314,219.1	1,616	42308	152,494	149517.4
QC	691,590	393,079	418,318	97,747	39,205	33,068	1,013,749	87860.3	3,044	831022	360,868	124175.1
NF	82,448	8,981	40,226	39,292	148,820	1,275	35,484.0	36533.1	2,361.8	22834	41,825	3436.3
NB	1,770	178	303	1,211	336	604	246.4	237	289	355	553	506.4
NS	643	564	397	1,822	488	530	211.25	1256.76	290.02	516.5	672	1576
PE	196	107	77	77	29	27	132.3	11.61	15.4	49.71	72	50.48
PC	16,581	298	31,284	65,368	7,538	21,419	7,086.9	141133.01	197,904	32142	52,075	2767.76
<b>Total</b>	<b>1,878,534</b>	<b>624,968</b>	<b>4,709,568</b>	<b>1,706,606</b>	<b>647,914</b>	<b>629,845</b>	<b>2,758,063.31</b>	<b>1,635,084.71</b>	<b>3,275,442</b>	<b>1,706,445</b>	<b>1,957,247</b>	<b>2,054,644.71</b>

Totals as of December 31 <sup>st</sup> , 2006	
<b>Full Response Hectares Consumed</b>	478561.64
<b>Modified Response Hectares Consumed</b>	1600992.07
<b>Total</b>	2,079,553.71