



CANADIAN INTERAGENCY FOREST FIRE CENTRE INC.
CENTRE INTERSERVICES DES FEUX DE FORÊT DU CANADA INC.

CANADA REPORT 2017



CANADA REPORT 2017

Preamble

The 2017 Fire Season was extremely challenging for the CIFFC organization with a particular focus on supporting British Columbia.

From early July through Mid September resources from across Canada and Internationally were mobilized to assist firefighting efforts in British Columbia. When the ash finally settled British Columbia reported 1338 fires for a record high area burned of 1,215,532 hectares.

The 2017 fire season confirmed that the Canadian wildland fire “family” has expanded globally as unprecedented international support was received from Australia, New Zealand and Mexico. In excess of 600 firefighters and overhead staff from these international partners were mobilized to the fire lines in BC. CIFFC will continue working to identify new potential partners in order to provide options to our members when domestic supplies of resources are depleted.

Fire Season

The first weekly CIFFC Situation Reports were issued on April 19 and 26 respectively and noted very light fire loads nationally, with normal spring conditions.

Early May saw a moderate hazard building in Northern Alberta (AB) with Parks Canada (PC) busy planning and implementing prescribed burns across several western and central national parks. Meanwhile, Ontario and British Columbia were supporting flooding operations within their respective jurisdictions.

CIFFC continued to monitor the fire situation through the month of May as wildland fire management agencies across the country were busy with annual fire season preparedness and seasonal staff training. By the end of May the fire hazard in Northern AB had again increased with a number of new fires occurring in Alberta and Wood Buffalo National Park. British Columbia Fire Management Staff remained engaged with Emergency Management British Columbia assisting with flood mitigation efforts.

By mid June, BC’s commitment to flood support was finally reduced. As June wore on the national fire situation remained relatively benign for new starts although BC did report that all southern fire centres were experiencing building indices through the latter half of June. This carried on through the Canada Day long weekend and into the first week of July as the province experienced record breaking high temperatures. Through the first few days of July new fires in BC began drawing steadily on provincial resources.

Over the July 6-10 period BC received over 200 new starts demonstrating aggressive fire behaviour. Due to heavy smoke, detection of new starts was also identified as a challenge with some new fires found at 500 ha. From July 6 through the 10th BC increased from an Agency Preparedness Level (APL) 2 to APL 4. Consequently, CIFFC went to National Planning Level (NPL 3) on July 9 as a result of significant resource orders received from BC.

By July 11 BC was in a provincial state of emergency with several wildfires burning out of control. Temperatures remained high with no precipitation forecasted. Resources from AB,SK,QC,NB,NT and ON had already been mobilized and were being deployed to priority targets.

CIFFC’s NPL increased to 4 on July 12 and then to Level 5 on July 18 as the hot dry weather in BC persisted and extreme fire behaviour necessitated a supply of additional resources. The CIFFC NPL would stay at 5 until September 11, a record 55 consecutive days. BC’s APL increased to 5 on July 17, and would stay at that level until September 11 as well.

Consideration of international resources was triggered early on and by mid July International Interagency Resource representatives were set up at the CIFFC Fire Centre in preparation for additional resource orders from BC. The first international resources arrived on July 19, (overhead from Australia). Crews from Mexico, crews and overhead from Australia and crews and overhead from New Zealand were mobilized to BC starting in early August.

By late July Ontario’s (ON) APL had risen to a 3 and then 4 by mid August. Although the resulting draw on national resources was minimal (one Tanker group) there was an impact on resource availability (reduction) during this period. The latter part of August also saw increasing indices in both Manitoba (MB) and Saskatchewan (SK) with their respective APLs’ rising to 4 with significant associated fire activity.

By the third week of July PC's APL had risen to a 4 with challenging large fires reported in a few western National Parks. Resources were mobilized to assist PC as well as continuing to supply BC with replacement staff on a rotational basis after each tour of duty through the latter parts of July, August and into September.

PC continued to have a difficult extended fire season with the Kenow fire in Waterton Lakes National Park taking a significant run during the second week of September.

By September 11, BC began to see a downtrend in resource requirements followed by PC a few days later as the unseasonably warm and dry weather finally gave way to a more fall-like pattern.

Most out-of-province personnel were released from BC by September 21. Equipment was returned to lending agencies over the ensuing months and the long process of equipment refurbishment would take well into until the new year.



By early September the need for airtanker resources in Canada was reduced allowing CIFFC once again to exercise the Canada US Reciprocal Firefighting Arrangement with 2 Tanker groups from ON mobilized to Montana for a short deployment.

Summary

2017 saw about 13% fewer fires nationally than the 10 yr average, but total area burned was up almost 30% over the 10yr average. During the course of the fire season CIFFC responded to almost 300 Resource Orders (a new record) ultimately mobilizing 581 Initial Attack and 1949 Sustained Action firefighters, along with 729 overhead personnel. In addition 26,000 lengths of hose, 960 medium pumps and 27 airtankers were deployed throughout the fire season. Although the primary target for most of those resources was British Columbia, Parks Canada, Yukon, Northwest Territories, Saskatchewan, Manitoba, Ontario, and Quebec all received assistance from their CIFFC partners at one time or another during 2017.

Once again CIFFC member agencies were able to take advantage of a contract jet aircraft to facilitate the mobilization and demobilization of personnel across Canada and to and from Mexico. The CIFFC Coordination Centre took over the contract and management of the aircraft on behalf of the member agencies in 2017, which had been managed by the province of Ontario in the previous 2 seasons. The contract aircraft flew 42 missions transporting a total of 3154 personnel over the course of the 2017 fire season.

Agency Seasonal Summaries



British Columbia

In stark contrast to the summer that was to come, B.C. observed an unusually quiet spring wildfire season. Between April and the end of June, 255 wildfires had burned 1,625 hectares of land. In an average fire season, there would have been about 420 fires and 26,800 hectares burned in this same time span.

Although wildfire activity was low during this time, the province was experiencing notably severe flooding during the spring season. Hundreds of firefighters and other personnel from the BC Wildfire Service were brought in to assist with flood response efforts.

The fire danger for many regions of B.C. began to climb significantly throughout June, although crews were still observing relatively few fire starts. The Cariboo region in particular saw unseasonably hot and dry conditions, as well as record-high Build Up Index (BUI) ratings in several areas. (The BUI is a numeric rating of the total amount of fuel available for combustion, in the event

a wildfire does occur.) These developing conditions set the stage for what was to become one of the worst fire seasons on record.

A series of events that took place between July 6 and July 8 dramatically escalated the fire season, and it quickly became clear that firefighters and personnel were coming face-to-face with one of the most challenging summers of their careers. A series of widespread thunderstorms between July 6 and July 8 contributed to over 190 new wildfire starts - the majority of which occurred in the Cariboo. Many of these wildfires grew rapidly and displayed aggressive, dangerous fire behaviour. A number of these fires started in areas close to communities, such as (but not limited to) Williams Lake, 100 Mile House, Princeton, Cache Creek / Ashcroft, Clearwater, Quesnel, and many others.

The majority of "Wildfires of Note" from the 2017 season started during this early-July period. The amount of new fire starts declined and stabilized after this early-July spike, but generally hot and dry conditions prevailed for much of the summer, giving little reprieve in the fight against the existing fires throughout the Cariboo and Southern Interior. In August, a second wave of heightened fire activity was experienced, with several major fires cropping up throughout southeastern B.C. and the Southern Interior. The wildfire season remained active until near the start of fall, when cooler, wetter conditions finally gave crews the upper hand on the fire situation.

Alberta

The 2017 fire year in Alberta yielded below average fire arrivals with 47,000 hectares burnt which was 15 percent of the fire year average. The fire season started slowly with snow persisting in many areas through April. The boreal forest in general, and the northern east slope areas of the province experienced frequent rains during the summer suppressing fire danger conditions. However, the southern east slopes area experienced by a different synoptic weather pattern. Little precipitation during the summer months elevated fire danger conditions to extreme levels in August and September. A forest closure and numerous fire bans were established in many areas of southern Alberta during this time. The Kenow wildfire was the only wildfire of note in the province in 2017 that significantly impacted Waterton Lakes National Park and a number of neighbouring municipalities.

Northwest Territories

The NWT experienced an above average number of fires and area burned in 2017 with a season that began relatively normal. Fire conditions in July ameliorated slightly but rebounded into August causing an extended season into early September. The NWT experienced three fires of concern directly affecting communities and one large landscape fire that required value protection to 35 different sites. Overall conditions were manageable and allowed for support from the NWT to be extended to southern provinces.

Saskatchewan

In Saskatchewan the 2017 fire season had a slow start with the majority of the fires starting after July 1st 2017. This gave us the opportunity to export staff to assist other jurisdictions with wildfires, exports were mainly to BC. Lightning storms began to cross the province the last few days of July igniting significant fires across the north and northeast of the Province.

Of the total 353 wildfires for the year 183 started After July 31st, 2017. The Northeast side of the province had some significant fires from these starts.

The conditions were fairly dry and there was significant wind events that were contributing factors to the size and complexity of some of the larger fires on the landscape.

With the dryer fall some of the major fires wet well towards the end of September.

The southern part of the province had a long open fall and as a result there were many late fires, mostly human caused, well into November.

Quebec

The 2017 forest-fire protection season ended with a total count of 290 fires that affected 6,630 hectares of forest in the intensive protection zone (IPZ). It was characterized by a rainy spring which helped to limit significantly fires caused by human activity. The fall was warmer and drier than usual. SOPFEU responded to a fire spreading over 23 hectares in October.

The number of fires caused by human activity, as well as the number of fires caused by lightning, were below the seasonal average of the last ten years. In fact, 2017 rates third among seasons with the lowest number of fires since 1984. Each year in Quebec, an average of 486 fires affect 61,240 hectares of forest in the intensive protection zone.

The season was particularly marked by the importance of the resources loaned by Quebec. Most loans were provided to British Columbia which was struggling in the context of a historic season.

New Brunswick

The season started off relatively slow with a rainy May which saw staff busy supporting various flood responses. During the month of June we experienced an increase in sunshine but intermittent rain events kept indices in check. The middle of July saw a shift to hotter dryer weather patterns which contributed to an increase in Indices however fire starts were relatively low and fire behavior observed was slow to moderate which resulted in successful Initial attack . One Incident of note During late July was the Miscou fire which was the result of a structure fire that escaped into the forest and due to the proximity to the coast and local wind affects grew quickly to approx. 40ha. and saw the evacuation of local residents however this evacuation lasted only a few days.

We experienced a hotter drier Fall than usual this weather pattern of warm dry air saw indices increase right though till mid-October , and while we were responding to fires into October the majority were under control within the first operational period however there were challenges of managing resources due to typical seasonal workloads. Overall we saw a season with hotter and drier temperatures but not a drastic increase in occurrences and believe this to be due to the lack of lightning events as well as staff's quick response.

Nova Scotia

The winter of 2017 was fairly normal for Nova Scotia with regards to snowfalls and temperatures. We had the majority of our fires in April and May before green up. The rest of the season was fairly quiet for us. This fire season we had 175 fires which burnt 728.5 hectares. This is well below our 20 year average in Nova Scotia which is 291 fires that burn 775 hectares. We maintained our normal preparedness right up until the end of the season on October 15th.

We were pleased to be able to assist BC this year with staff and equipment when they needed help. We are not a large agency but we sent what we could when asked.

Prince Edward Island

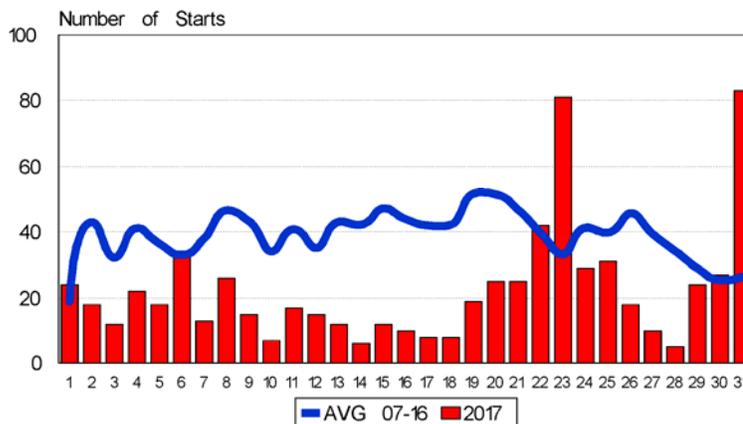
Although PEI experienced a long, cool spring, the season also featured a hot, dry summer as well as fall months with Drought Codes above 400 on many occasions. With fires out of control in Western Canada, Islanders were made more aware of the potential of such a threat locally. The Province of PEI responded to four fires which totaled a burn area of 7.12 ha.

In 2017, PEI exported 11 crew members and one agency representative, who teamed with six fire fighters from Newfoundland to fight the BC fires as a sustained action crew. In addition, our province exported a four person initial attack crew, one division supervisor, one safety officer trainee, and 1 technical specialist to BC fires. Experience gained was invaluable as PEI has little opportunity to participate in fires and organizations of this magnitude.

This past season was, also, a busy one for training as there were 14 crew members certified to Type 1 level - the most ever for the Island. As well, staff members attended training courses on a number of Command and General Staff positions.

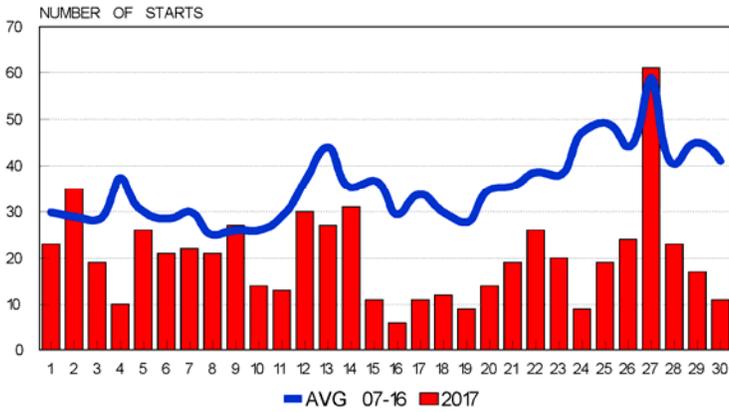


May Fire Starts



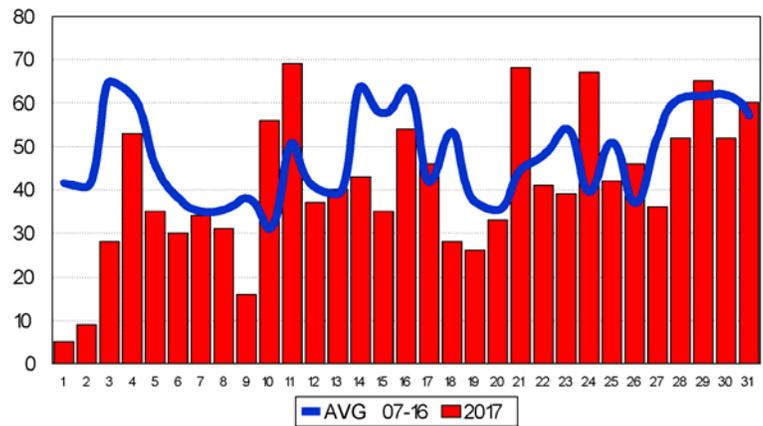
Current as of May 31, 2017

June Fire Starts



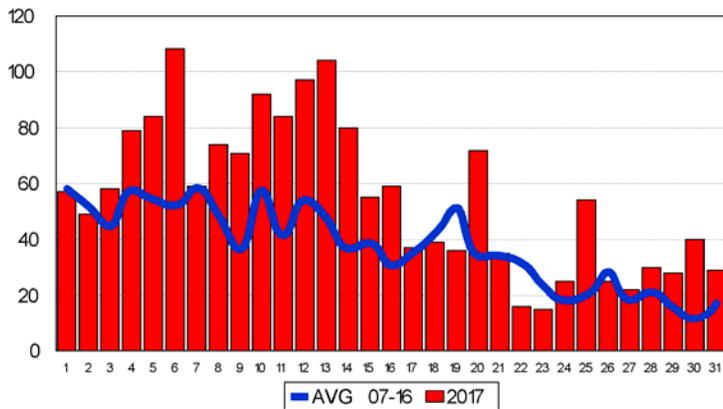
Current as of June 30, 2017

July Fire Starts



Current as of July 31, 2017

August Fire Starts



Current as of August 31, 2017

Fires by Month	May	June	July	August
	695	611	1276	1713

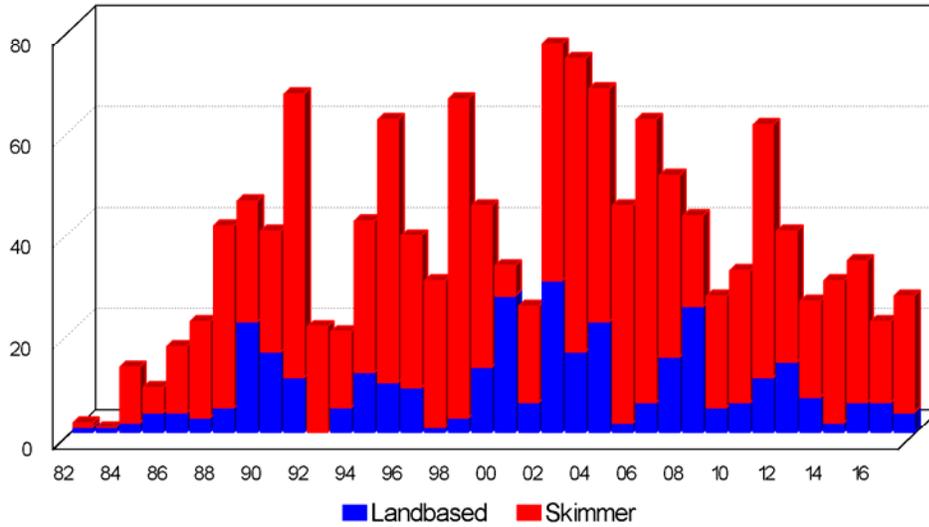
Statistics

As of December 31, 2017 Canadian Fire Management Agencies recorded 5597 fires with an area consumed of 3,371,509 hectares.

Wildland Fire Statistics - 2017												
As of December 31, 2017												
	Fires							Hectares			Prescribed Fire	
	Full		Modified		Total		Total	Full	Modified	Total	Fires	Ha
	Ltg	Human	Ltg	Human	Ltg	Human						
BC	655	530	126	41	781	571	1352	1129534.43	86317.25	1215851.68	0	0
YT	18	19	75	3	93	22	115	399266.64	13.51	399280.15	0	0
AB	414	803	0	0	414	803	1217	49118.88	0	49118.88	30	4406.86
NT	43	18	193	8	236	26	262	2823.12	858207.46	861030.58	0	0
SK	39	105	123	86	162	191	353	8,437.50	391,125.10	399,562.60	1	65
MB	236	125	172	12	408	137	545	10,719	165,958	176,677	0	0
ON	363	215	193	5	556	220	776	1240.7	111096.5	112337.2	5	480.9
QC	64	226	19	10	83	236	319	6630.1	31762.2	38392.3	0	0
NL	3	71	0	6	3	77	80	696.7	3.1	699.8	0	0
NB	29	216	0	0	29	216	245	567.9	0	567.9	0	0
NS	0	175	0	0	0	175	175	728.5	0	728.5	0	0
PE	0	4	0	0	0	4	4	7.12	0	7.12	0	0
PC	49	83	36	0	85	83	168	52901.52	64673.87	117575.4	13	1743.58
Tot.	1913	2590	937	171	2850	2761	5611	1662672.11	1709156.99	3371829.11	49	6696.34

NATIONAL PREPAREDNESS LEVEL DAYS MAY 1- SEPT 27					
Levels	1	2	3	4	5
No. of days	69	8	8	10	55

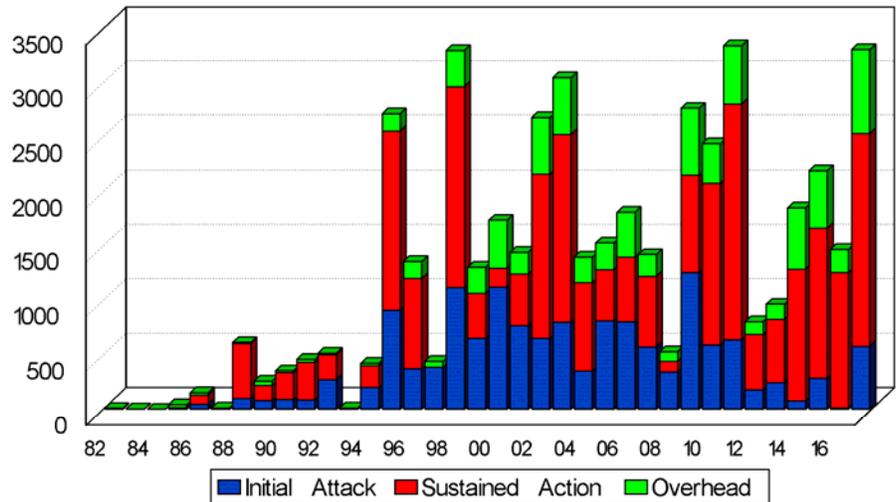
Airtankers 1982 - 2017



Current as of September 12, 2017



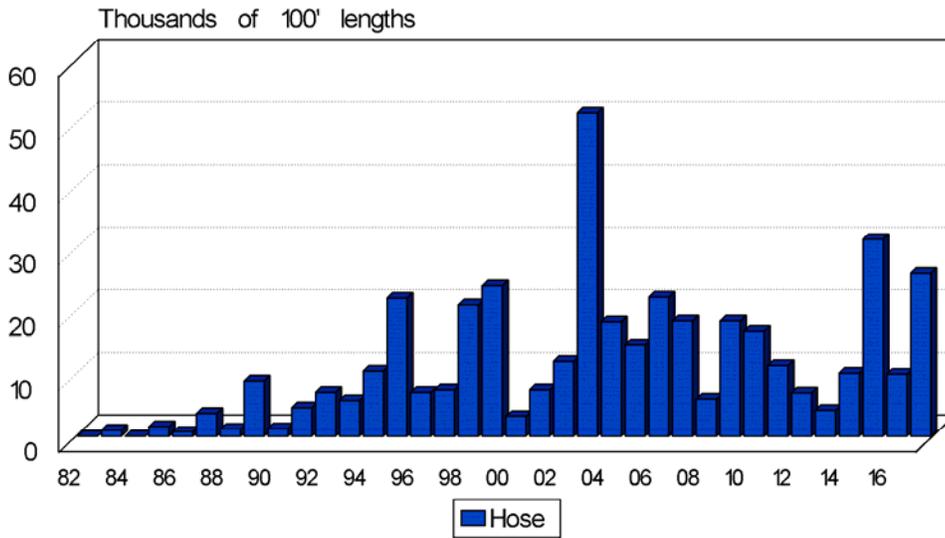
Personnel Mobilized 1982-2017



Current as of September 13, 2017



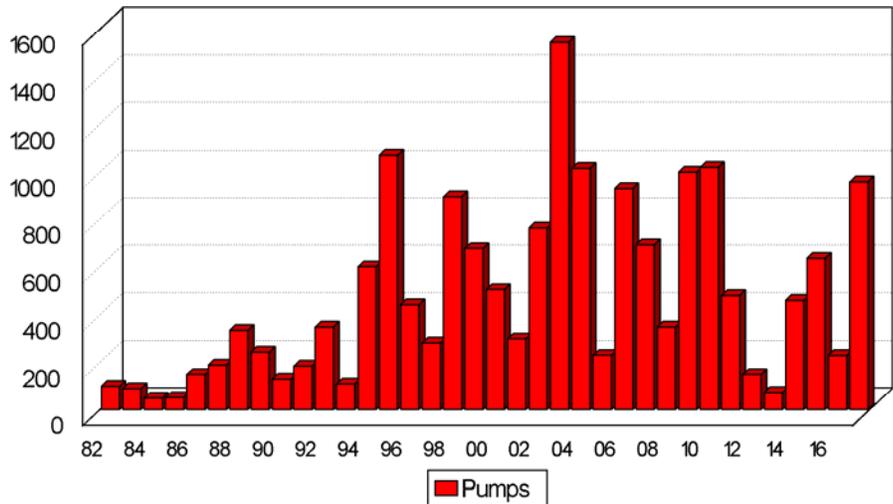
Hose



Current as of August 12, 2017



Pumps



Current as of August 12, 2017

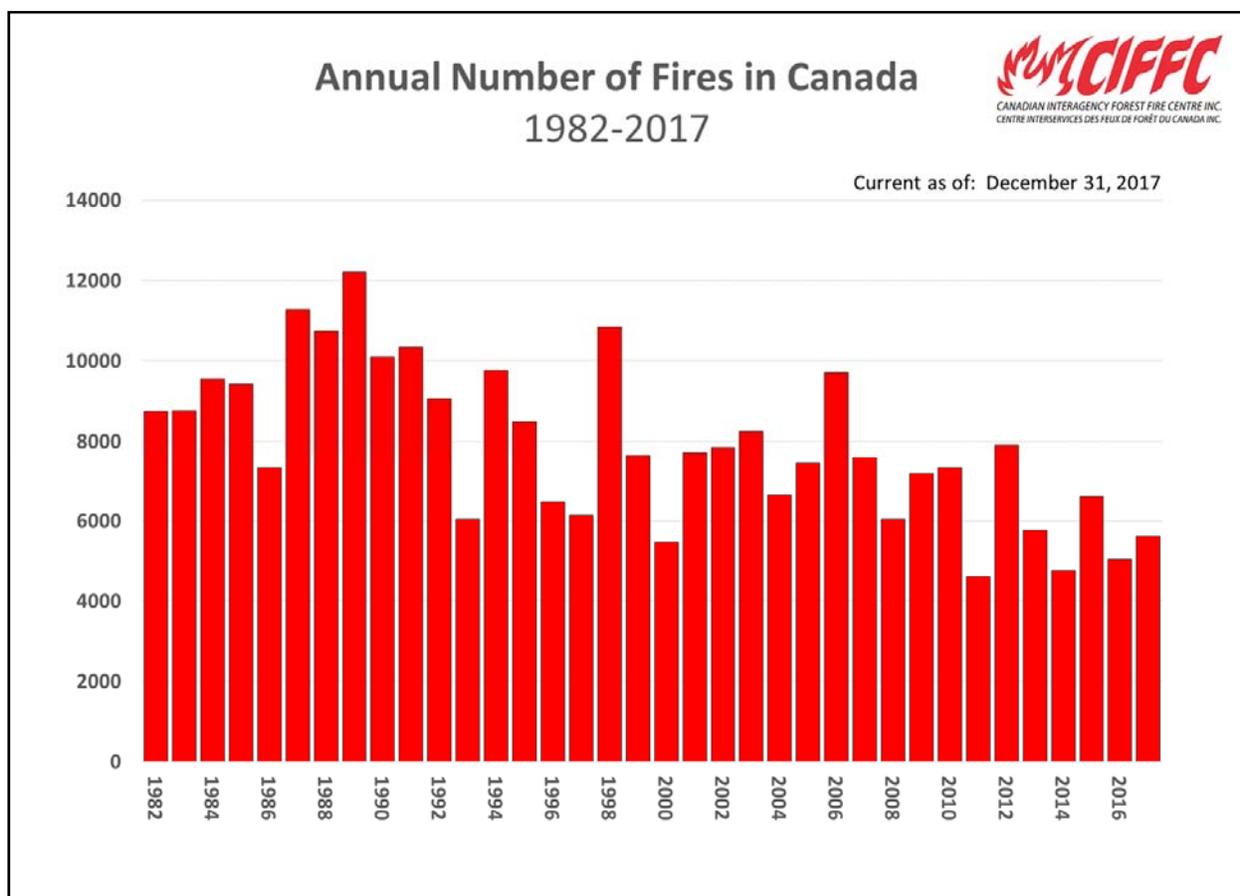


WILDFIRE RELATED FATALITIES

Year	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
Fatalities	6	3	3	0	3	4	2	0	2	4	0	0	0	0	0	2	0	3	2	0	3	3	2	1	5	4	0	1	0	2	1	0

**WILDLAND FIRE STARTS
TOTAL NUMBERS OF FIRES (LIGHTNING AND HUMAN CAUSED)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg.	2017
BC	1,437	1,817	3,084	1,678	646	1,642	1,854	1,455	1,836	1,049	1,650	1,352
YT	110	67	118	88	56	126	177	34	184	53	101	115
AB	1,164	1,695	1,655	1,837	1,097	1,555	1,214	1,451	1,850	1,366	1,488	1,217
NT	1,353	241	42	224	207	279	248	385	245	189	341	262
SK	370	599	511	571	303	409	429	403	723	364	468	353
MB	364	397	184	583	315	497	494	245	454	202	374	545
ON	1,015	338	385	931	1,334	1,615	582	303	668	648	782	776
QC	935	222	483	737	329	795	515	292	384	602	529	319
NL	87	139	176	61	53	198	101	124	128	91	116	80
NB	282	168	192	179	81	344	356	178	222	285	228	245
NS	392	247	193	313	116	352	171	171	247	274	248	175
PE	8	3	8	4	4	8	9	4	5	7	6	4
PC	64	103	136	113	67	87	96	81	122	43	91	168
TOTAL	7,581	6,036	7,167	7,319	4,608	7,907	6,246	5,126	7,068	5,173	6,423	5,611



**WILDLAND FIRE HECTARES
TOTAL AREA CONSUMED (HECTARES)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg.	2017
BC	28,704	11,939	229,566	331,508	12,357	102,042	17,990	368,785	280,445	100,366	148,370	1215851.68
YT	41,288	18,845	227,057	146,957	39,091	58,280	179,510	3,160	169,841	21,543	90,557	399280.15
AB	105,321	20,644	66,826	83,643	940,596	337,000	21,890	23,120	492,536	741,550.10	283,313	49118.88
NT	439,886	353,852	2,057	333,435	406,693	297,618	537,912	3,416,291	646,955	254,980.90	668,968	861030.58
SK	212,907	1,130,179	37,559	1,734,799	343,720	227,512	312,194	343,430	1,758,376	241,607.80	634,228	399,562.60
MB	206,924	150,673	2,872	187,494	126,844	216,888	1,115,412	40,333	47,358	38,408	213,321	176,677
ON	40,591	1,314	20,656	14,824	635,373	151,564	43,422	5,386	39,311	83,113.20	103,555	112337.2
QC	342,682	1,481	93,972	314,884	12,726	70,086	1,872,842	63,721	5,380	33,371	281,115	38392.3
NL	10,892	5,140	35,267	1,020	594	225,524	43,076	16,816	3,958	10,953.50	35,324	699.8
NB	446	143	249	156	45	362	886	112	262	264.8	293	567.9
NS	692	2,719	892	463	136	817	301	564	517	754.9	786	728.5
PE	20	8	3.09	5	6	12	55	4	2	19.7	13	7.12
PC	222,134	4,439	38,429	5,912	85,653	273,037	58,377	282,125	458,336	5,539.40	143	3371829.11
TOTAL	1,652,387	1,701,376	755,405	3,155,100	2,603,833	1,960,742	4,203,867	4,563,847	3,903,277	1,499,883	2,603,241	3,371,509.43

**Annual Number of Hectares Burned
in Canada
1982-2017**



Current as of: December 31, 2017

