
CIFFC
Canada Report
2022

Canada Report
2022

Preamble

Established in 1982, the Canadian Interagency Forest Fire Centre (CIFFC) celebrated its 40th year providing operational support to its member agencies. Although there were periods of significant fire activity in various areas of the country in 2022, the overall fire season was relatively quiet for CIFFC. Nationally, the number of fire starts was on par with the 10-year average, however, the total area burned was down by 40% from the 10-year average. During the period from May through September, nine of the 13 CIFFC member agencies required assistance in one form or another. The first mobilization of resources occurred on May 11th and the last resources of the season were demobilized on October 4th.

Fire Season

The first two weekly National Situation Reports were published on April 21st and 27th; subsequently, daily reports were issued beginning May 1st. Initially, the fire season started relatively slowly across most of the country with a National Preparedness Level (NPL) of 1 until July 2nd. Except for Nova Scotia moving up to an Agency Preparedness Level (APL) of 3 on May 10th and then escalating to APL 4 on May 13th, no other agencies were above APL 2 at any point during the month of May. With said heightened level of fire activity, Nova Scotia submitted the first resource request of the season to CIFFC on May 11th. This request for airtanker support was fulfilled by their neighboring Atlantic province, Newfoundland and Labrador, with the latter deploying one of their CL415 airtankers to Yarmouth County.

By early June, warm, dry conditions were beginning to settle over Yukon, Northwest Territories, and the prairies. With this drier weather, fire activity began to increase substantially requiring Yukon and Northwest Territories to reach out for mutual aid assistance from their CIFFC partners by the third week of June. Over the next two and a half weeks, Yukon would import a large number of resources from BC including 32 Initial Attack (IA) crews, 7 Sustained Action (SA) crews, an Incident Management Team (IMT), 9 overhead (OH) personnel, 5 airtankers, a birddog aircraft, 1 portable camp, 1,000 lengths of hose, 25 medium pumps, and 500 sprinkler heads. A number of OH resources were also deployed from Ontario and Alberta. Yukon was at an APL of 5 from July 4th to July 9th and they were the only agency to reach an APL of 5 during the entire 2022 fire season. Concurrently, Northwest Territories imported 5 IA crews and 4 OH from Saskatchewan and Alberta, respectively. Additionally, a Fire Behaviour Analyst, Safety Officer, and a medium helicopter from Parks Canada were requisitioned. BC also assisted by providing 2 Mixmasters to bolster fire suppression efforts across the territory, particularly in the Great Slave Lake Region. Fire activity in Canada's two most western territories would not begin to subside until mid-July when weather began to moderate. Most of the imported resources to Yukon and Northwest Territories were demobilized by the third week of July.

As July proceeded, Manitoba and Alberta began to see upticks in fire occurrence and fire behaviour in their jurisdictions, requiring both agencies to order resources. From July 15th through 22nd, Manitoba received assistance from Ontario in the form of 25 IA crews and 7 OH personnel, and imported 4 airtankers and a birddog aircraft from the Northwest Territories. During this same period, Alberta imported 4 SA crews and 4 Task Force Leaders from BC along with 3 SA crews from Quebec. Ontario also assisted Alberta by sending an airtanker group to support the fire suppression efforts.

As the calendar rolled to August, focus shifted back to the East coast as Newfoundland and Labrador had several large forest fires requiring attention. This was the first time ever that the province of Newfoundland and Labrador submitted a resource request through CIFFC. From August 4th to August 16th, they received support from four CIFFC partner agencies: Quebec providing 4 CL 415 water bombers and a birddog aircraft, Parks Canada sending an IA crew along with a Fire Behaviour Analyst, Nova Scotia supplying a 20-person SA crew, and Prince Edward Island assisted with a Safety Officer. Canada's mostly easterly province would remain busy throughout the entire month of August. British Columbia also saw their busiest part of the fire season in August when a series of storms rolled through the province generating an APL of 3 for the entire month. During this period, BC received 2 SA crews and an airtanker group from neighbouring Alberta, who further assisted by lending them a high-level scanner aircraft from September 8th to 16th.

September and October saw the spotlight on Western Canada where Parks Canada was experiencing escalated fire activity in Alberta's Jasper and Banff National Parks. Alberta and BC were the primary sources of assistance at this time. Alberta provided expertise in the form of three personnel: an Ignition Specialist, a Helibase Manager, and a Helitorch Mixmaster as well as aerial ignition device to aid Parks Canada. The first of two SA crews from BC to Jasper National Park mobilized on September 8th and the last demobilized on October 4th.

Agency Seasonal Summaries

British Columbia

The BC Wildfire Service faced a tremendously challenging wildfire season in 2021 which carried into the 2022 Fire Season. Those challenges included the ongoing Covid-19 pandemic and the Atmospheric River events of November 2021 which resulted in a large portion of the staff working in operational or coordination roles throughout the winter. Fatigue was at an all time high.

A wet and cooler spring allowed for BC to export over 450 personnel across western Canada and the USA. These favorable conditions not only reduced the number of incidents but lowered the area burnt throughout the province. By August, fire season was above average due to a series of storms resulting in a high number of fire starts. In total, BC experienced an above average number of fires, but overall the area burned was one of the lowest on record.

Yukon

In 2022, Yukon Wildland Fire Management responded to 295 wildfires with approximately 171,154 hectares burned. Yukon also responded to other emergencies such as flood and search and rescue incidents. Between June 29th and July 6th, an unprecedented storm led to over 21,000 lightning strikes

across the Yukon that started 136 new fires. Comparatively, the Yukon's 25-year wildfire average has seen approximately 102 fires over the entire fire season. Staff in every fire management region were challenged by up to six weeks of flood response, wildfires of note, evacuation alerts and critical infrastructure disruptions. In order to protect communities and infrastructure threatened by some of these fires, Yukon imported staff and airtankers from B.C., Alberta, and Ontario through mutual-aid resource sharing agreements.

In response to changing conditions and the impacts of climate change, over the past year the Yukon has continued its plans to modernize and shift from primarily a response agency to an agency that leads a whole-of-government approach to wildfire management and the creation of wildfire-resilient Yukon communities. Yukon continues to make significant progress on the construction of the Whitehorse South Fuel Break – a landscaped-level fire risk project being constructed in partnership with the City of Whitehorse. Partially funded by the federal government, this 395-hectare fire guard located 14 kilometers south of Whitehorse will reduce the city's wildfire risk and provide an important piece of fire risk reduction infrastructure for the city.

Alberta

The Alberta wildfire season started out fairly quiet but saw increased wildfire activity in June and July, which also extended into the late fall. The majority of the larger wildfires occurred in the northeast portion of the province, but Alberta also had some activity in the Eastern slopes. Extended hot and dry conditions in August and September resulted in more wildfire later into the season. 801 of Alberta's wildfires were caused by human activity and 480 wildfires were lightning caused.

Alberta imported 161 personnel and one CL-415 airtanker group to assist within the province. Alberta also provided support to Parks Canada on the Chetamon wildfire in Jasper National Park.

Northwest Territories

The fire season in Northwest Territories started slowly due to a high water table from previous years. Good overwinter precipitation contributed to a normal start to the fire season in the Southern half of the territory, and the fire season in the Northern half of the territory started on the dry side of normal due to less overwinter precipitation. The busy spot in the Northwest Territories this season was the North Slave region. This region experienced very little precipitation throughout the summer, which

resulted in very dry fuels and high drought codes. Fires in that region were persistent and required extensive mop-up. At the end of June and early July, the Northwest Territories requested outside assistance, which Alberta answered by sending 20 firefighters to help out.

Northwest Territories also had firefighters from Saskatchewan, and brought in an Ignition Specialist to assist with a fire near Wrigley. The Western and Southern portions of the territory didn't receive much significant precipitation for the last half of the fire season which led to very high to extreme drought codes in many areas. Fires persisted well into the fall, with some continuing to smoulder into January.

The major challenge for the Northwest Territories during the 2022 fire season was the hiring of casual aircraft. It was very difficult to hire both rotary-wing and fixed-wing aircraft for almost the entirety of the season.

Ontario

The 2022 fire season in Ontario was not the slowest season on record but would make the top five with only 275 fires reported. Total area burned for the summer was 2,560 hectares and half of that was from the only fire of note (Timmins 1) in the Northeast Region, during the month of May. This was well below the 10-year average of 826 fires and 177,775 hectares burned. Extreme spring flooding on the West side of the province kept fire crews in the Northwest Region busy with mitigation efforts.

Ontario deployed a total of 122 fire management personnel out of province to support fire response efforts in the Yukon, Manitoba, and Alberta. Additionally in August, Ontario deployed an airtanker package to Northwest Territories with a total of 9 staff to support wildland fire suppression activities, and in the fall supplied one Air Attack Officer to Minnesota through the Great Lakes Forest Fire Compact.

In addition, Fire Rangers and Fire Management Staff were also deployed to assist with other non-fire related incidents. The first incident involved over 90 personnel to support debris management efforts for the City of Ottawa after experiencing a severe wind event. The second incident was Ontario's first non-fire deployment outside of the province to assist Prince Edward Island with debris clean-up from hurricane Fiona. This incident involved a total of 52 Fire staff in two separate deployments in October.

Quebec

Quebec's forests were largely spared from fire this year. During the 2022 season, only 300.1 ha of forest were affected, which represents one of the smallest areas burned since statistically comparable data is available. Since 1984, only the 2004 (258.4 ha) and 2008 (132.7 ha) seasons can be compared to the 2022 season.

The beginning of the season proved to be particularly busy for SOPFEU's teams. From April 30th to May 14th, no less than 212 fires were started, which corresponds to 49% of all fires recorded during the entire season. Abnormally dry weather from the beginning of the day and particularly high temperatures caused the fire danger to vary from high to extreme during this period. To prevent further fire outbreaks, a 9-day fire ban in or near the forest was put into effect. This drought sequence ended in the middle of the month due to favourable weather conditions, characterized by the passage of several low-pressure systems that persisted, on a regular basis, throughout the summer.

The months of June and July were marked by regular and significant amounts of rainfall, above seasonal normal, and as a result, there was no drying trend of the vegetation. In June, Quebec even recorded a sequence of 15 days without a lightning strike or active fire, which is particularly rare for this time of year. In total, only ten fires were recorded in June, setting a record for the lowest number of fires in 40 years for the month of June. July also saw a lower amount of fire compared to the 10-year average, with a total of 44 fires.

The end of the season, however, saw a return to more average fire activity in August (49 fires vs. an average of 58), September (22 fires vs. an average of 21) and October (17 fires vs. an average of 12). In November, unseasonably warm and dry temperatures caused a surprising final flare-up, with the outbreak of 33 fires for a burned area of 45.7 ha. The average for this time period over the last ten years is 4 fires for a total of 1.5 ha. This is a rather rare occurrence, as the fire season in Quebec officially ends on November 15.

Due to the relatively calm season, SOPFEU was able to assist other organizations outside of Quebec during the season by lending human and/or material resources to Alberta, Newfoundland and Labrador, Nova Scotia, as well as New York State.

New Brunswick

The 2022 fire season in New Brunswick was fairly tame, except for 1 week in May that saw the highest numbers of fires actioned than any other period during the season. New Brunswick extinguished 214 fires totaling 176 ha, well below the ten-year average of 274 fires and 476 ha. This was due to high humidity and regular rain fall. 100 of the fires that burned in 2022 happened in the month of May and burned 90 ha. Interestingly enough, New Brunswick also saw 20 fires burning 23 ha in the month of November.

New Brunswick did not mobilize any personnel to assist with fires in any of the other CIFFC agencies in 2021, however, New Brunswick did send sawyer crews to assist Nova Scotia and Prince Edward Island with emergency clean-up after hurricane Fiona blew down trees and heavily damaged power distribution lines and blocked roadways. A total of 66 personnel and 35 vehicles were mobilized.

Nova Scotia

This season, the number of wildfires in Nova Scotia was average at 152, however the area burned was well above the average at 3,389 hectares, mostly from one large fire. The remaining 151 fires in the province only accounted for 126 hectares of the total area burned. May and September were the busiest months in Nova Scotia for 2022, and the majority of the province's fires were noted to be smaller than previous years.

The most common fire causes this season were land clearing, debris, brush and grass burning, intentionally set fires, and campfires. It was primarily private land burned this season, and this could be attributed to an influx in new residents from out of province not familiar with burning regulations.

This season, Nova Scotia assisted Newfoundland and Labrador by sending a Sustained Action Team to assist. Hurricane Fiona extended Nova Scotia's use of forestry staff and fire crews in assisting the province in hurricane cleanup, and there is a growing concern for this season with access and fire behaviour.

Newfoundland and Labrador

The 2022 forest fire season in Newfoundland and Labrador (NL) saw mixed climatic patterns and conditions, varying by region. Labrador was frequented by precipitation, keeping fire weather indices at manageable levels for most of the summer. In contrast, the island of Newfoundland experienced hot and dry conditions, creating dangerous fire weather indices for extended periods throughout the summer. During this extended dry period, the province increased its prevention messaging using public advisories and social media posts on various social media channel.

Despite an active prevention messaging campaign, Newfoundland and Labrador experienced high levels of fire activity, with a total of 103 fires, burning a total of 23,886 hectares. These totals were higher than the previous five-year average of 98 fires burning an average of 1,186 hectares per year. The majority of area burned is contributed to the Central Fire Complex, a series of large fires that burned in central Newfoundland during mid-summer months. The Central Fire Complex was a Type I incident that was managed by an Incident Management Team and actioned by many internal and imported resources. Specifically, there were 120 internal resources, 29 imported resources, 4 internal air tankers, 4 imported air tankers and crews, 2 imported birddogs and crews, as well as 5 helicopters assigned to this incident over a course of 2 months. Further, local Search and Rescue teams volunteered to help in varying capacities. Due to the high level of local fire activity, Newfoundland and Labrador did not export any resources in 2022, other than three air tanker exports (two quickstrikes and one resource order) missions early in the summer.

Newfoundland and Labrador's forest fire management program was boosted this past year with the continuation of the Student Wildland Firefighter Program, which saw 18 post-secondary students hired, fitness tested and trained to work in forest fire suppression. This initiative was highly successful with regards to achieving immediate relief, as well as from a recruitment and retention perspective. Student Wildland Firefighters gained tremendous experience aiding with suppression efforts on the Central Fire Complex. Newfoundland and Labrador is looking to continue to build the Student Wildland Firefighter Program in 2023 to further increase wildland firefighting capacity in the province.

Prince Edward Island

The 2022 fire season in Prince Edward Island experienced a cool, wet spring followed by a warm, dry summer. Average rainfall amounts for 2022 were higher in the spring months, subsequently, average rainfall amounts were far less for the remainder of the fire season when compared to last years data. This resulted in the month of September having more days where PEI's fire risk was either very high or extreme when compared to previous years.

The province of PEI responded to four fires which totaled a burn area of 1 hectare. Three of the fires occurred later in the fire season while one fire occurred in the middle of the summer. The number of

fires in 2022 were below the 20-year average of 9, as well as below the 20-year average of hectares burnt which is 20 hectares.

Summary

It is worth noting that the 708,916 hectares burned in Northwest Territories represented 42% of the total area burned in Canada in 2022. From May 11th until September 18th, CIFFC processed 65 Resource Orders and deployed 414 Sustained Action firefighters, 259 Initial Attack firefighters, as well as 107 Overhead personnel. Moreover, 35 aircraft, 1,060 lengths of fire hose, 29 medium pumps, and 500 sprinkler heads were mobilized. The CIFFC contract passenger jet flew 2 missions moving 220 total personnel over the course of the season. The initial flight delivered personnel from Ontario and Quebec to Manitoba and Alberta, respectively; the second returned these crew members to their home provinces.

As there were sufficient resources available domestically in 2022, no assistance from CIFFC's international partners was required. This was only the 3rd time the Canada/United States Reciprocal Forest Fire Fighting Arrangement was not used to exchange resources since the agreement was signed in 1982.

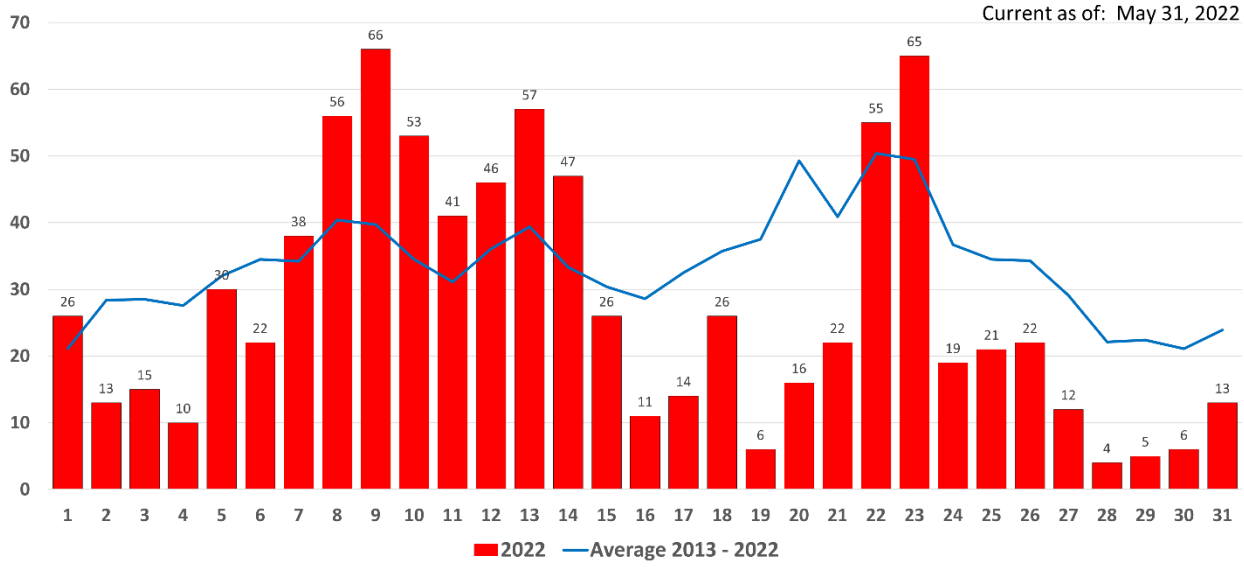
Despite external assistance for this season being unnecessary, CIFFC continues to build relationships with its international partners as the needs anticipated will undoubtedly increase with climate change.

May 2022 Fire Starts

2022 vs. 10 Year Average

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

Current as of: May 31, 2022

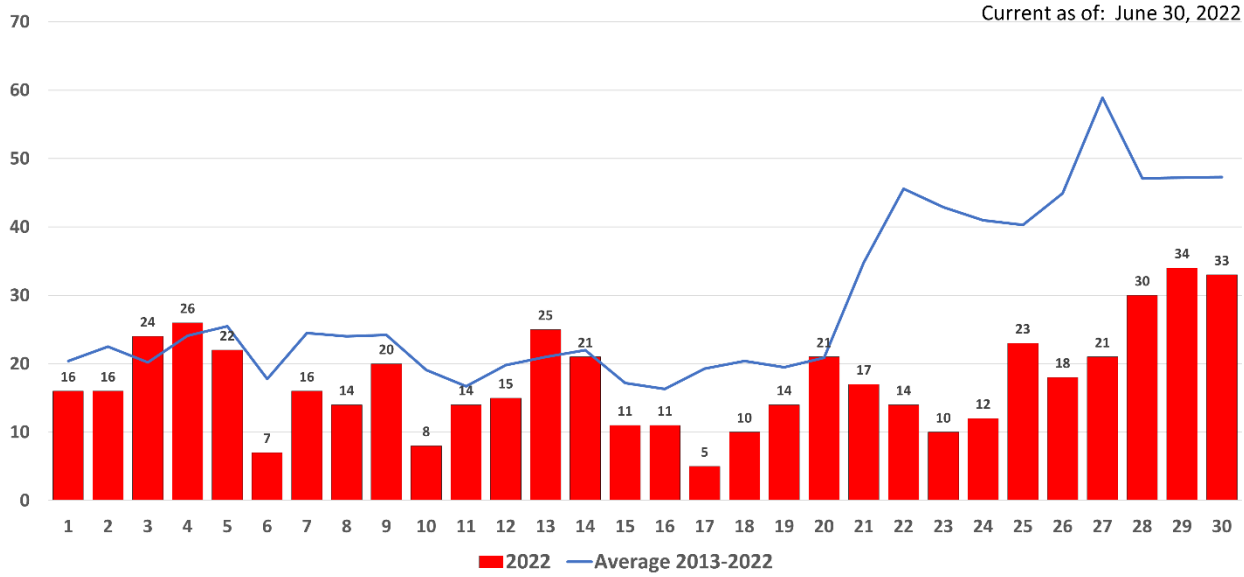


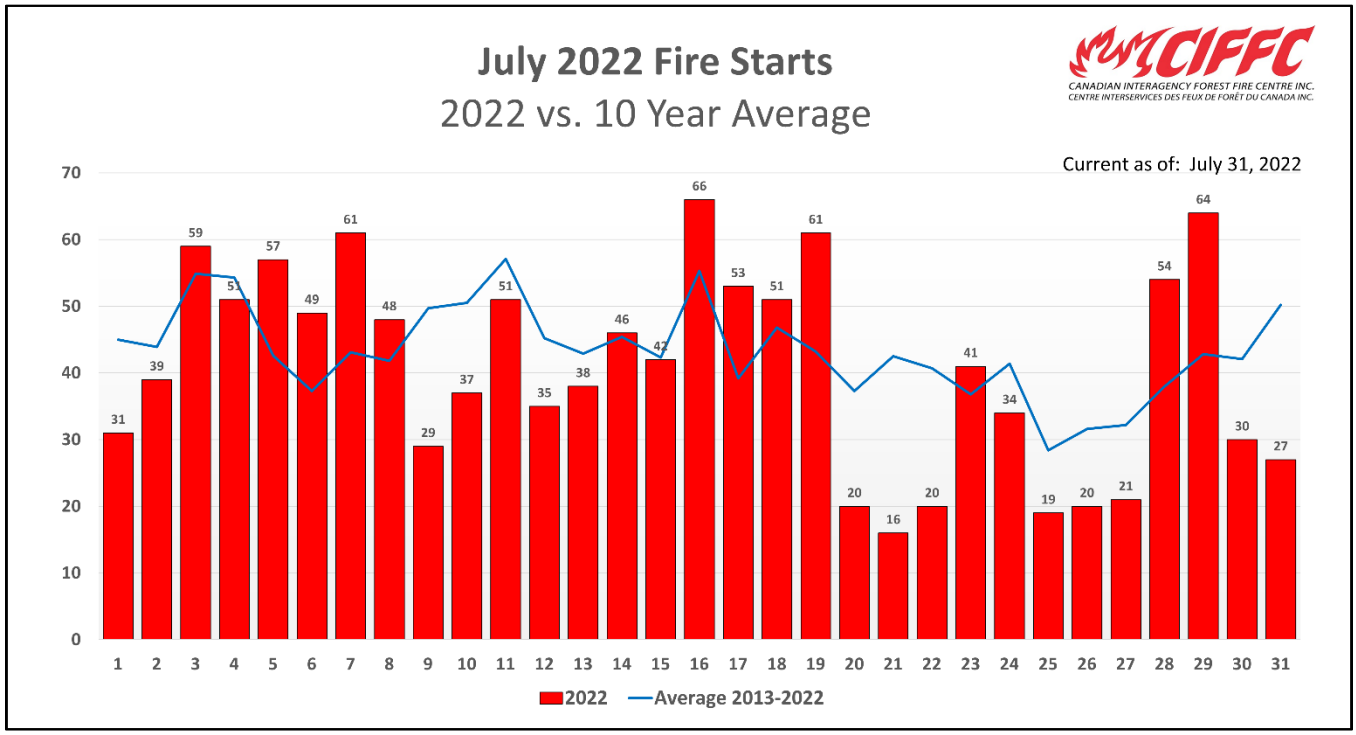
June 2022 Fire Starts

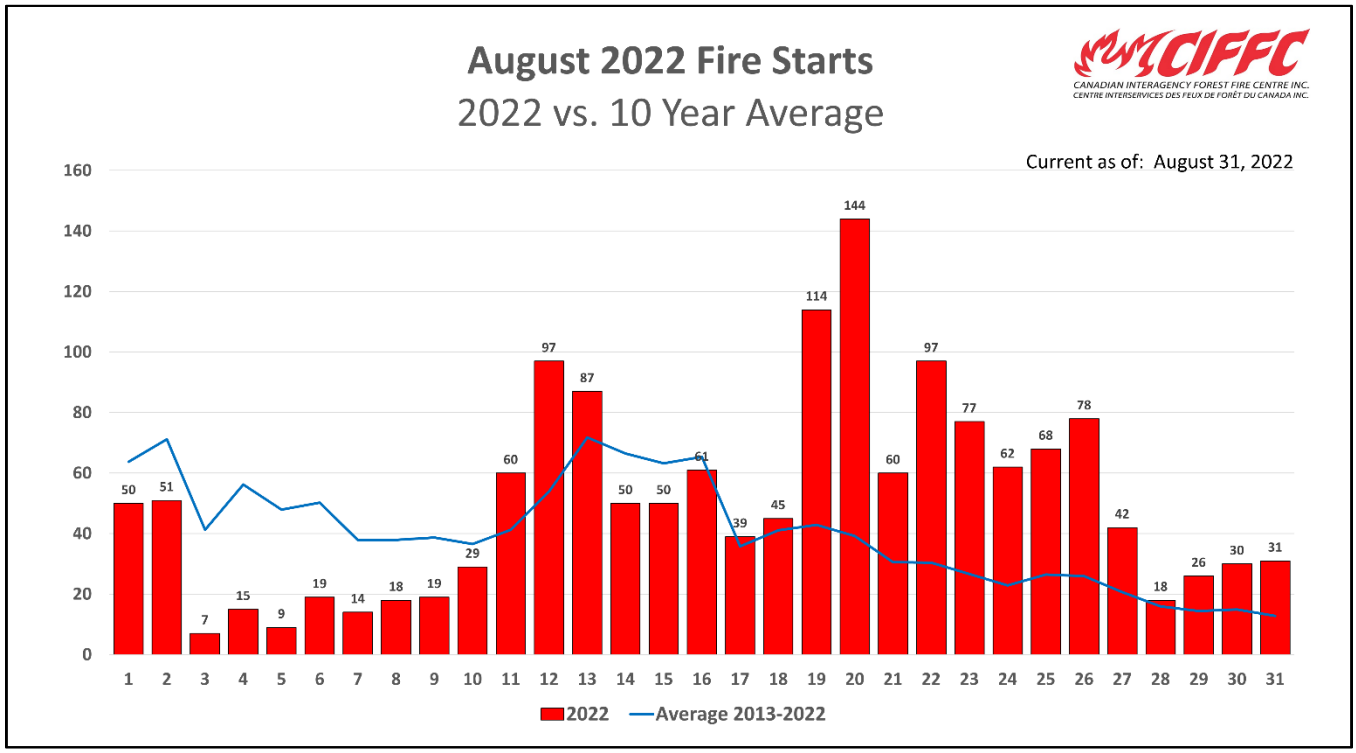
2022 vs. 10 Year Average

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

Current as of: June 30, 2022







Fires by Month	May	June	July	August
	863	528	1270	1567

Statistics

As of December 31st, 2022, Canadian Fire Management Agencies recorded 5,726 fires with an area consumed of 1,656,504 hectares.

Agency	Fires as of December 31, 2022								
	Full		Modified		Monitored		Total		Total
	Natural	Human	Natural	Human	Natural	Human	Natural	Human	
BC	1,200	575	0	0	0	0	1,200	575	1,778
YT	45	9	63	0	112	0	240	55	295
AB	480	801	0	0	0	0	480	801	1,281
NT	58	28	16	2	153	5	227	35	262
SK	38	160	48	70	120	8	206	239	445
MB	102	42	15	3	55	7	172	52	224
ON	83	184	0	2	5	1	88	187	275
QC	26	405	3	0	10	5	39	410	449
NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	103
NB	5	209	0	0	0	0	5	209	214
NS	3	149	0	0	0	0	3	149	152
PE	0	2	0	0	0	0	0	2	2
PC	28	75	6	0	29	4	63	96	159
DND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87
Tot.	2,068	2,639	151	77	484	30	2,723	2,810	5,726

Agency	Hectares as of December 31, 2022			
	Full	Modified	Monitored	Total
BC	135,032	0	0	135,032
YT	361	32,904	137,889	171,154
AB	137,301	0	0	137,310
NT	46,820	247,549	414,547	708,916
SK	5,254	28,162	210,859	244,275
MB	14,147	109,148	41,782	165,078
ON	2,442	11	108	2,561
QC	4,509	3,575	21,554	29,638
NL	N/A	N/A	N/A	23,886
NB	176	0	0	176
NS	3,389	0	0	3,389
PE	0	0	0	0.0
PC	7,171	1	25,669	32,840
DND	N/A	N/A	N/A	2,249
Tot.	356,602	421,349	852,408	1,656,504

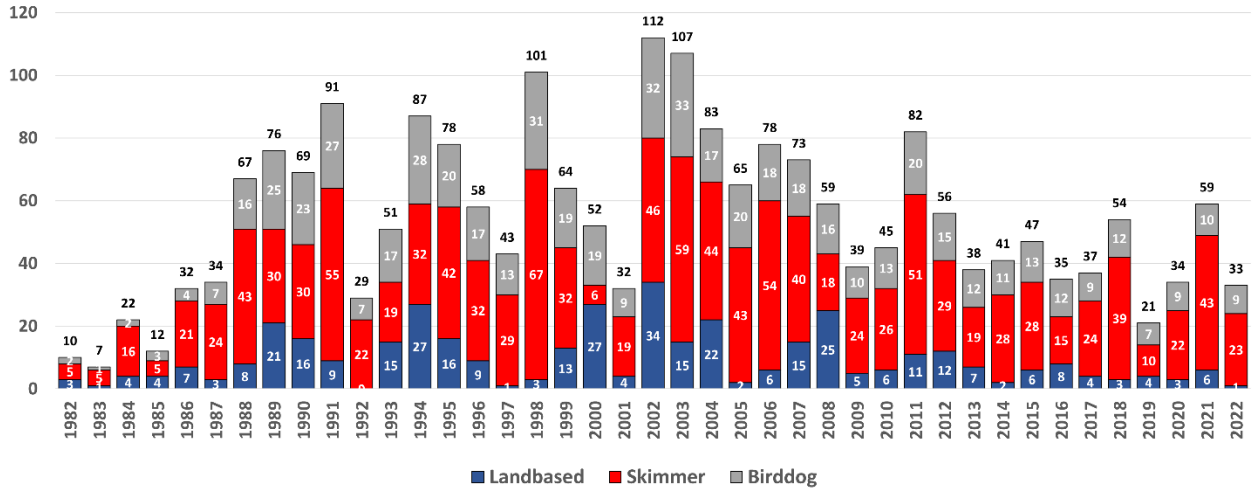
Prescribed Fires as of December 31, 2022		
Agency	Fires	Ha
BC	0	0
YT	11	39
AB	16	938
NT	0	0
SK	0	0
MB	0	0
ON	1	65
QC	0	0
NL	0	0
NB	0	0
NS	0	0
PE	0	0
PC	17	6,839
DND	0	0
Tot.	45	7,880

National Preparedness Level Days May 4 - Aug31					
Levels	1	2	3	4	5
No. of Days	66	40	17	0	0

Aircraft Mobilized
1982-2022

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

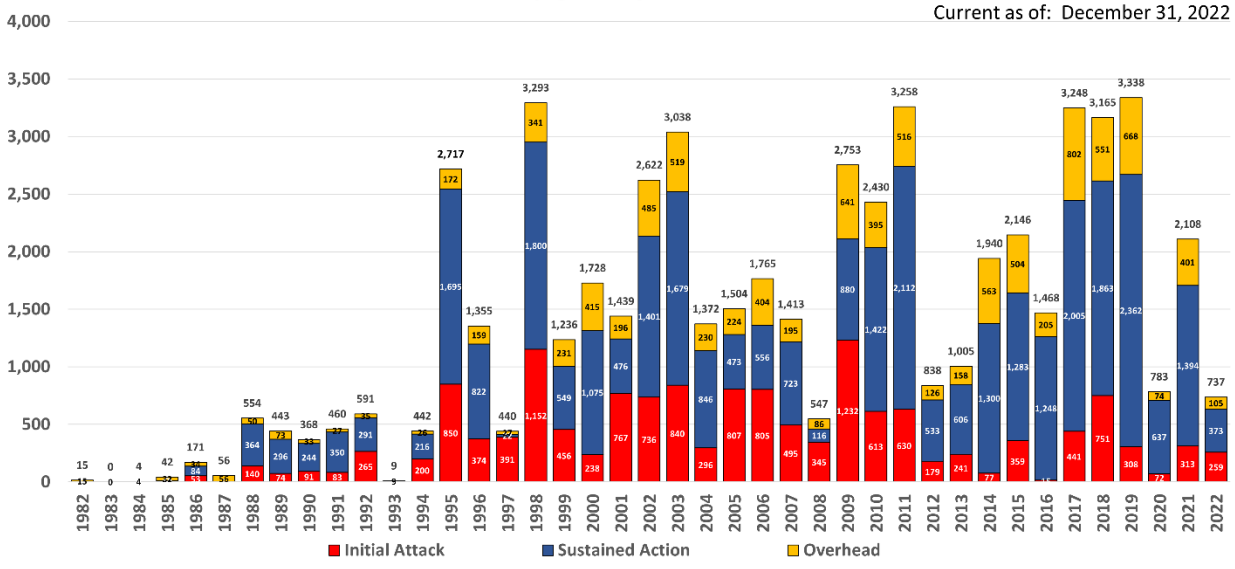
Current as of: December 31, 2022



Personnel Mobilized
1982-2022

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

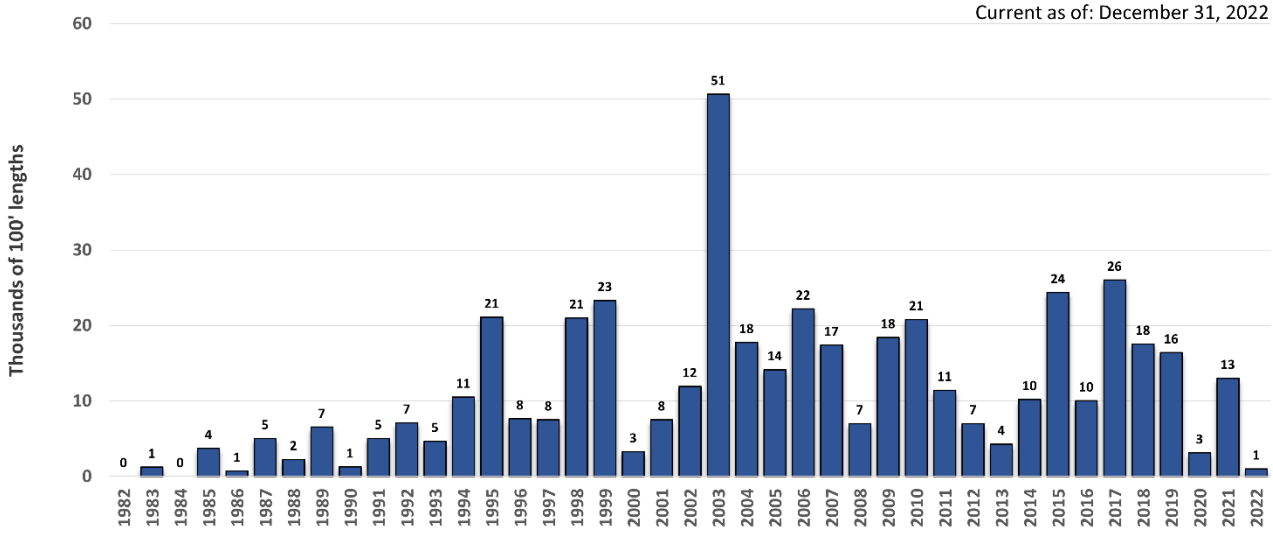
Current as of: December 31, 2022



Hose Mobilized
1982-2022

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

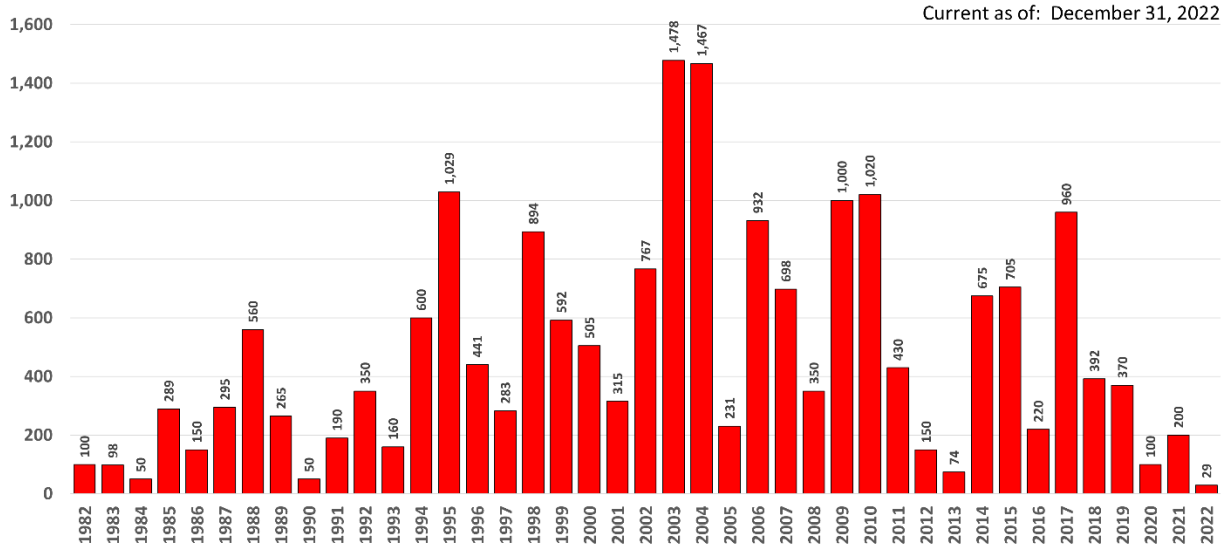
Current as of: December 31, 2022



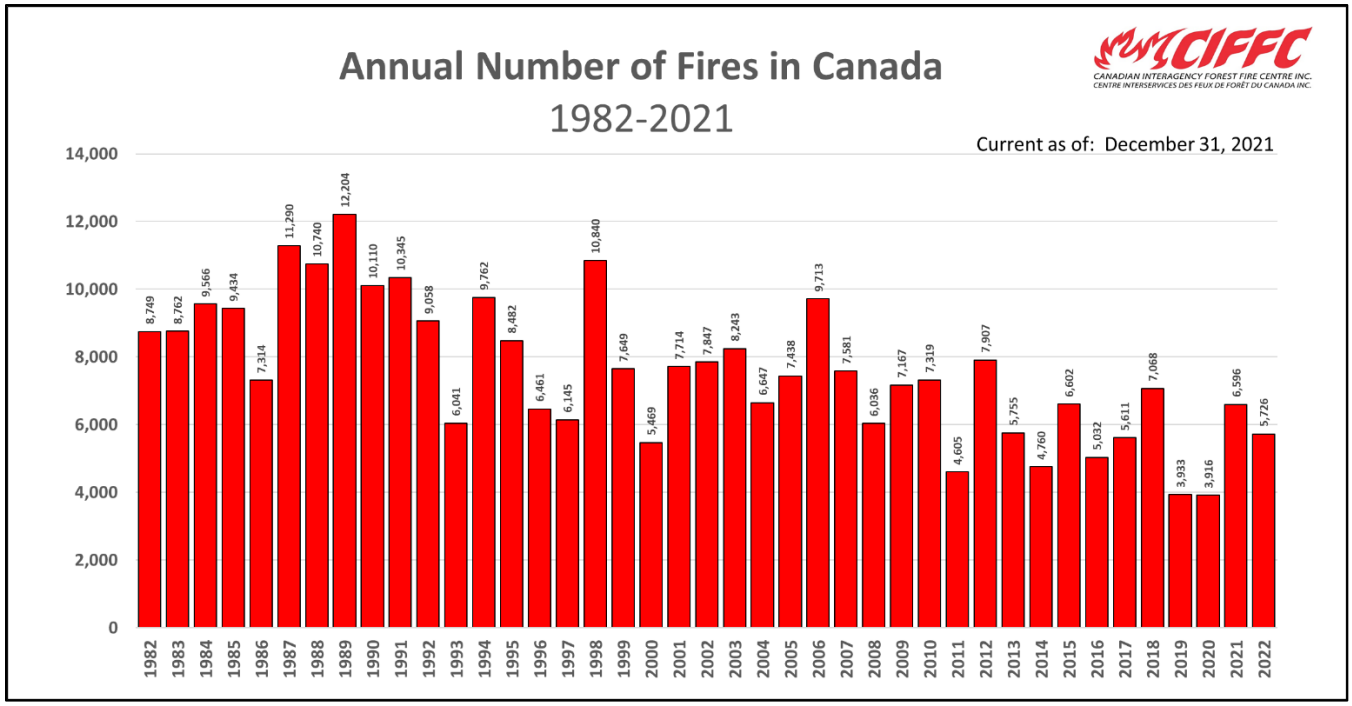
Pumps Mobilized
1982-2022

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

Current as of: December 31, 2022



Wildland Fire Starts Total Numbers of Fires (Natural and Human Caused)												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Avg.	2022
BC	1,642	1,854	1,455	1,836	1,049	1,352	2,087	792	649	1,635	1,435	1,778
YT	126	177	34	184	53	115	67	117	24	112	101	295
AB	1,565	1,214	1,451	1,850	1,366	1,217	1,288	1,004	723	1,342	1,302	1,281
NT	279	248	385	245	189	262	59	149	71	140	203	262
SK	409	429	403	723	364	353	416	243	145	635	412	445
MB	497	494	245	454	202	545	477	254	149	460	378	224
ON	1,615	582	303	668	648	776	1,327	537	608	1,198	826	275
QC	795	515	292	384	602	319	593	357	707	625	519	449
NL	198	101	124	128	91	80	132	99	94	82	113	103
NB	344	356	178	222	285	245	282	182	462	180	274	214
NS	352	171	171	247	274	175	190	143	176	113	201	152
PE	8	9	4	5	7	4	10	4	15	1	7	2
PC	87	96	81	122	43	168	140	52	93	73	96	159
DND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87	87
Total	7,917	6,246	5,126	7,068	5,173	5,611	7,068	3,933	3,916	6,596	5,952	5,726



Wildland Fire Hectares Total Area Consumed (Hectares)												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Avg.	2022
BC	102,042	17,990	368,785	280,445	100,336	1,215,851	1,353,861	20,966	14,446	869,255	434,398	135,032
YT	58,280	179,510	3,160	169,841	21,543	399,280	85,624	279,819	15,491	118,126	133,067	171,154
AB	337,000	21,890	23,120	492,536	741,550	49,118	59,809	883,414	3,275	54,088	266,580	137,310
NT	297,618	537,912	3,416,291	646,955	254,980	861,030	15,736	111,108	19,073	156,630	631,733	708,916
SK	227,512	312,194	343,430	1,758,376	241,607	399,562	118,984	47,738	42,160	956,084	444,765	244,275
MB	216,888	1,115,412	40,333	47,358	38,408	176,677	234,334	64,153	49,527	1,266,777	324,987	165,078
ON	151,564	43,422	5,386	39,311	83,113	112,337	265,587	269,635	15,480	793,326	177,916	2,561
QC	70,086	1,872,842	63,721	5,380	33,371	38,392	62,529	9,604	59,985	49,748	226,566	29,638
NL	225,524	43,076	16,816	3,958	10,953	700	396	316	4,178	324	30,624	23,886
NB	362	886	112	262	265	568	304	228	1,388	427	480	176
NS	817	301	564	517	755	728	253	155	709	197	500	3,389
PE	12	55	4	2	20	7	12	15	13	0.1	14	0.0
PC	273,037	58,377	282,125	458,336	5,539	117,575	74,840	100,642	1,664	42,538	141,467	32,840
DND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,249	2,249
Total	1,960,742	4,203,867	4,563,847	3,903,277	1,532,440	3,371,825	2,272,269	1,787,793	227,389	4,307,520	2,815,346	1,656,504