Transportation Safety Board of Canada

Bureau de la sécurité des transports du Canada

STATISTICAL SUMMARY

Air transportation occurrences in 2024

Canada

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Statistical summary: air transportation occurrences in 2024

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Executive summary

The TSB received 1010 reports of air occurrences in 2024 (193 accidents and 817 incidents), including 46 fatalities.

A total of 193 accidents were reported in 2024. This number is 7% higher than the previous year but 9% below the yearly average of 211 accidents reported in the prior 10 years, 2014 to 2023. Most (178) of the accidents in 2024 took place in Canada and involved Canadian-registered aircraft. Despite an upturn in 2023 and 2024, the number of air transportation accidents has decreased in the last decade.

The TSB recorded 27 fatal air transportation accidents involving 46 fatalities in 2024. This is an increase over 2023 and is 19% above the average of 23 fatal accidents involving 37 fatalities over the 10 years between 2014 and 2023. Twenty-two of the 46 air transportation fatalities in 2024 involved commercial operations. There were 6 fatalities involving commuter operations (CARs 704), 10 involving air taxi operations (CARs 703), and 6 involving aerial work (CARs 702). There were no fatalities involving airliner operations (CARs 705), or flight training units (CARs 406) in 2024. The remaining 24 (of 46) fatalities in 2024 were linked to privately registered aircraft and involved recreational or other operators. None of these fatalities involved an operator holding a Private Operator Registration Document (PORD) (CARs 604). Four accidents in 2024 involved a release of dangerous goods.

The 2024 overall air transportation accident rate of 3.0 per 100 000 aircraft movements is based on the 168 accidents (8% more than in 2023) in Canada involving Canadian-registered and foreign airplanes and helicopters (ultralights and other aircraft types are excluded), and the estimated 5 650 000 aircraft movements at Canadian airports (3% more than in 2023).

Statistical summary
Air transportation occurrences in 2024

Please note that the tables and figures in the HTML version are fully accessible.

The Transportation Safety Board of Canada (TSB) gathers and uses transportation occurrence[1] data as part of its investigations to analyze safety deficiencies and identify risks in the Canadian air transportation system.

This statistical summary serves to describe the accident, incident, and injury counts that are presented in the included Tables. It provides limited discussion and some context but is not intended to be an in-depth analysis of the data.

It should be noted that certain characteristics of the data constrain statistical analysis and the identification of emerging trends. These include the small totals of accidents and incidents, the large variability in the data from year to year, and changes to regulations and definitions. The reader is cautioned to keep these limitations in mind when reading this summary to avoid drawing conclusions that cannot be supported by statistical analysis.

Throughout this document, there are instances where categories of occurrences sum to more than the total number of occurrences. For example, if a single occurrence involves an airplane[2] and a glider, the occurrence count will increase by one in each aircraft category but the occurrence itself will be counted only once in the total of occurrences.

The 2024 data were collected according to the reporting requirements described in the *Transportation Safety Board Regulations* in force during that calendar year.

The statistics presented here reflect the TSB Aviation Safety Information System (ASIS) database at 10 March 2025. Since the occurrence data are constantly being updated in the live database, the statistics may change slightly over time.

Also, as many occurrences are limited to data gathering, information recorded on some occurrences may not have been verified.

The following discussion refers to data tables contained in this document.

1 See Definitions section.

2 The term "airplane" is synonymous with Transport Canada's term "aeroplane" and will be used throughout the document for simplicity.

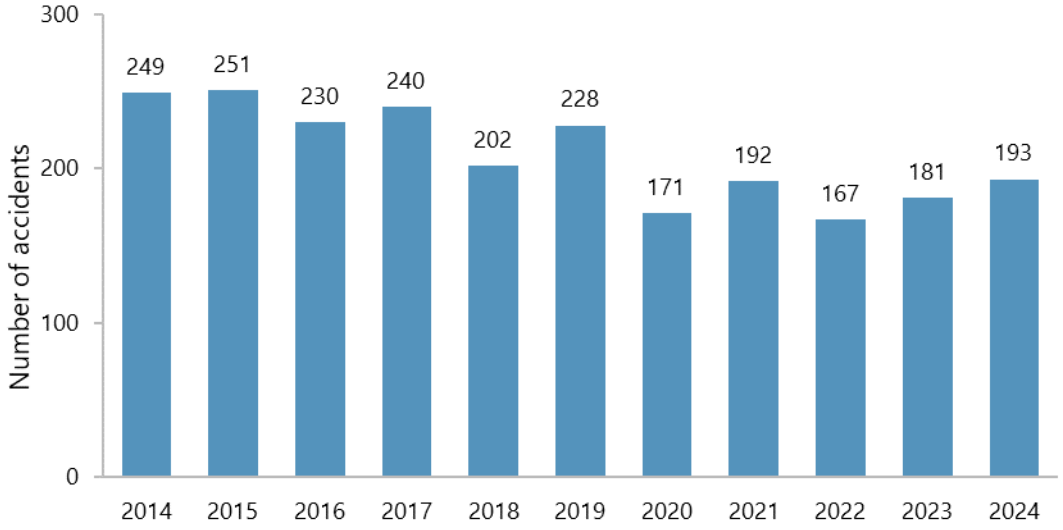
Overview of accidents and fatalities

Accident counts

Air transportation occurrences (both accidents and incidents)[3] are reportable to the TSB if they occur in Canada. Occurrences that take place outside of Canada are also reportable if they involve Canadian-registered aircraft, and meet the criteria laid out in the TSB Regulations.[4]

In 2024, a total of 193 air transportation accidents were reported to the TSB (Table 1 and Figure 1). This number is 7% higher than the previous year's total of 181 accidents but 9% below the yearly average of 211 accidents reported in the prior 10 years, 2014 to 2023. Most (178) of the accidents in 2024 took place in Canada and involved Canadian-registered aircraft. Six accidents involving Canadian-registered aircraft took place outside Canada, and 9 accidents in Canada involved a foreign-registered aircraft. In general, the number of air transportation accidents has been decreasing in the last decade.

Figure 1. Reported air transportation accidents, 2014 to 2024.



There were 173 accidents involving Canadian-registered aircraft (excluding ultralights) in 2024 (Table 2). This is 9% above the 2023 count of 158 accidents, but 6% below the average of 185 accidents in the preceding 10 years (2014 to 2023). If the 11 accidents involving ultralights are included in the count, there were 184 accidents involving Canadian-registered aircraft in 2024.

3 See Definitions section.

4 *Transportation Safety Board Regulations*, at https://laws-lois.justice.gc.ca/eng/regulations/SOR-2014-37/index.html (last accessed on 28 May 2025).

Aircraft type

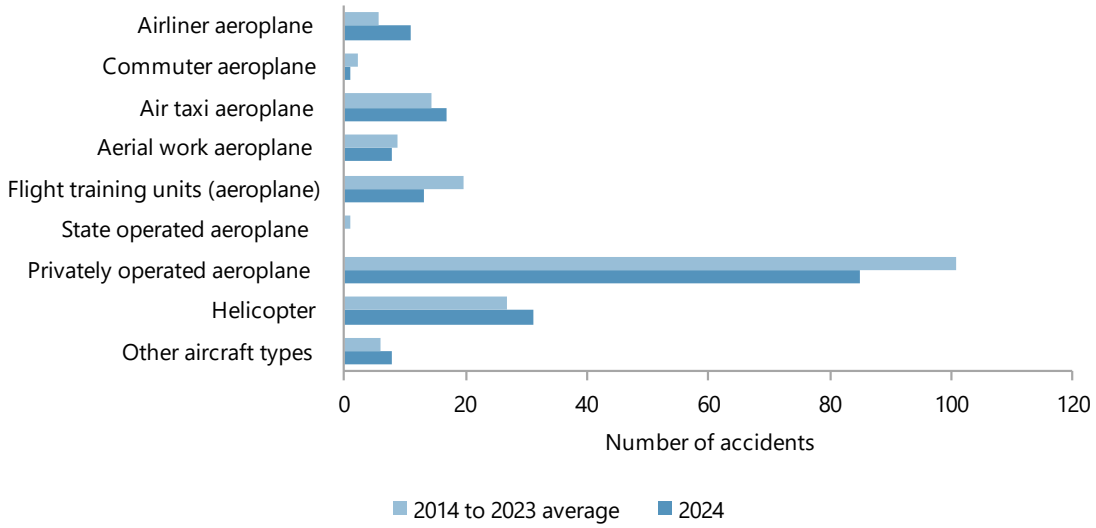
Of the 193 total air transportation accidents reported to the TSB in 2024, 142 (74%) involved fixed-wing, powered airplanes (other than ultralights) (Table 1), 33 (17%) involved helicopters, 11 (6%) involved ultralights, and 8 accidents (4%) involved all other types of aircraft, such as balloons, gyroplanes, gliders, airships, hang gliders, or unmanned aerial vehicles (UAVs). In the 10 years from 2014 to 2023, the average proportion of accidents involving each of these four categories of aircraft has remained constant: in each year, airplanes have been involved in roughly 75% of reportable accidents, helicopters in about 13%, ultralights in about 9%, and other aircraft in about 3%.

Operator type

There were 78 accidents that involved commercially operated aircraft of all types in 2024 (Table 1). This is 3% more than the 76 such accidents recorded in 2023, and 9% above the average of 72 accidents recorded in the 10 years from 2014 to 2023.

Commercially operated Canadian-registered airplanes were involved in 50 accidents in 2024 (Table 2 and Figure 2). Of those, 11 involved operations under *Canadian Aviation Regulations* (CARs) Subpart 705 (airliners). This is greater than the 6 accidents involving Canadian-registered airliners in 2023, and almost double the average of 6 accidents per year recorded from 2014 to 2023.

Figure 2. Accidents involving Canadian-registered aircraft, excluding ultralights, by aircraft type and operation type in 2024, compared with the 2014 to 2023 average.



In 2024, there was 1 accident involving a Canadian-registered commuter airplane operating under CARs Subpart 704 (Table 2), as well as 28 accidents involving air taxi operations (CARs Subpart 703)—17 involving airplanes and 11 involving helicopters. The 28 air taxi accidents are 4 more than those reported in 2023 (24) and are more than the average of 23 accidents per year occurring between 2014 and 2023. Flight training units operating under CARs Subpart 406 were involved in 15 accidents in 2024, of which 13 involved airplanes and 2 involved a helicopter. On average for the period 2014 to 2023, flight training units were involved in about 19 airplane and 2 helicopter accidents per year.

Overall, in 2024, 114 air transportation accidents involved non-commercial (i.e., private aircraft) operations (Table 1), compared to 103 in the preceding year. The 2024 total is 17% below the annual average of 137 accidents from 2014 to 2023. Of the 114 total accidents in the non-commercial (private aircraft) operations category, 85 involved Canadian-registered airplanes (Table 2). No accidents were reported to involve any airplane operating under CARs Subpart 604 having a Private Operator Registration Document (PORD).

Most operators of non-commercial (private) Canadian-registered aircraft are classified as recreational. Recreational operators are responsible for a significant amount of flying activity and tend to be involved in many accidents each year. In 2024, 103 accidents involved recreational operators of Canadian-registered aircraft—82 of them in fixed-wing airplanes (Table 2), 4 in helicopters, and 17 in other aircraft types (not shown in Tables). These 103 accidents are 8% more than in the preceding year, but 19% fewer than the 10-year average number of accidents involving recreational Canadian-registered aircraft (127).

In 2024 there was 1 reported accident involving state operation of a Canadian-registered helicopter (Table 2). An additional 8 accidents (Table 1) involved other aircraft types: 1 balloon, 3 gliders, 2 gyroplanes, and 2 UAVs.

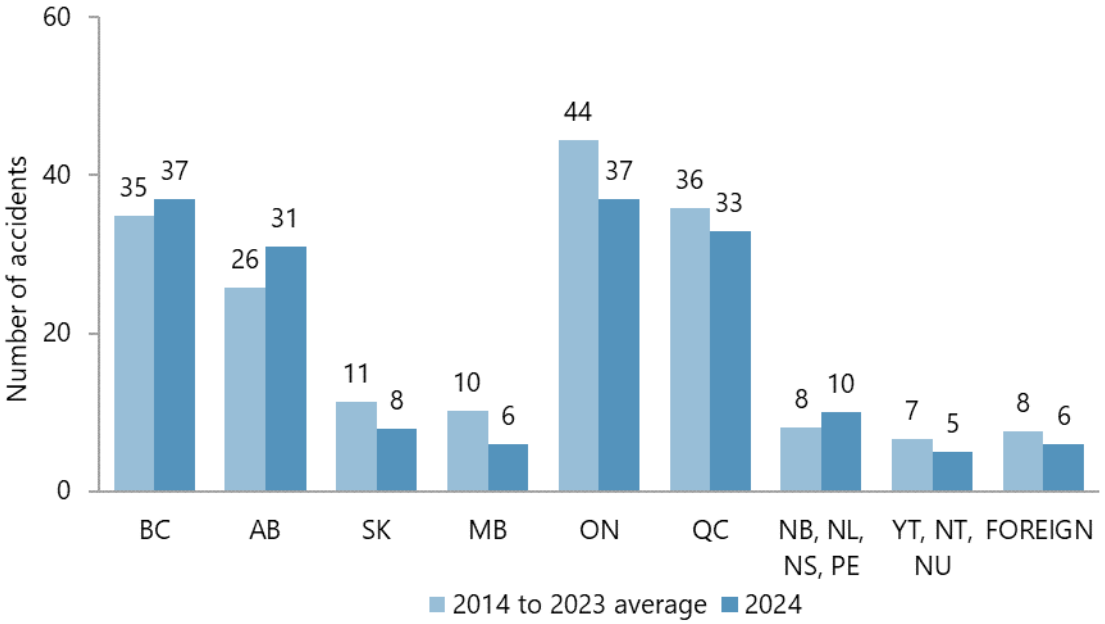
Province or territory

Ontario and British Columbia had the largest number of reported accidents in 2024, with 40 accidents reported in each province (all aircraft types, including ultralights), surpassing Quebec with 38 accidents (Table 7). Ontario averaged more accidents per year (53) in the 2014–2023 period than any other province or territory, with Quebec having the second-largest average accident count (42).

Altogether, 6 accidents that were reportable under TSB Regulations occurred outside Canada in 2024. These all involved fixed-wing airplanes: 3 were operating commercially and 3 privately (data not presented). These 6 accidents are fewer than the 7 reported in 2023 and are fewer than the average of 8 per year seen over the previous 10 years.

When ultralights are excluded from the counts, many provinces and territories saw fewer accidents reported in 2024 than the average of the previous 10 years (Table 8 and Figure 4).

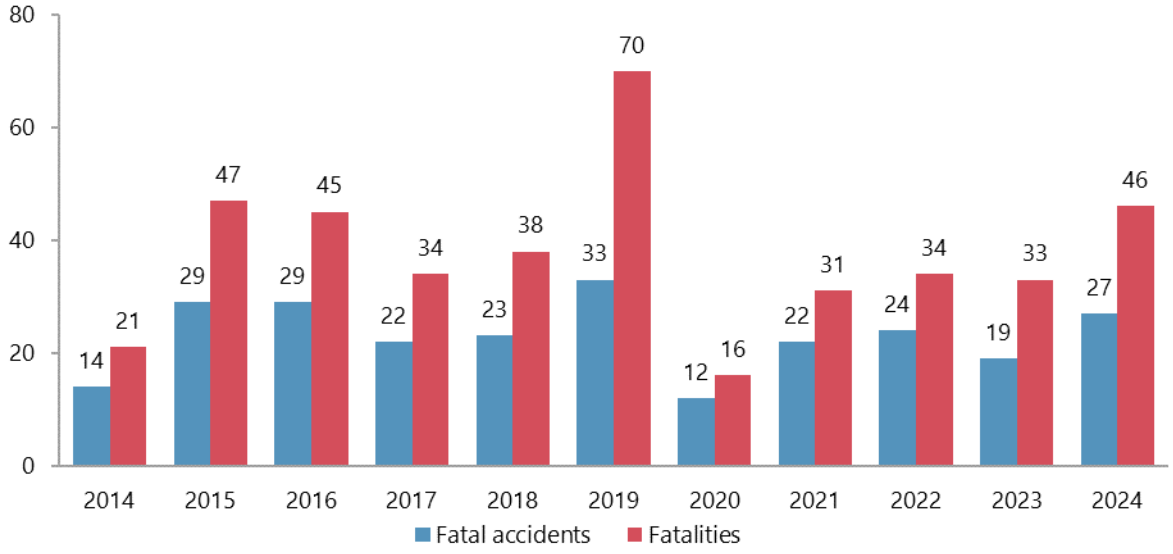
Figure 3. Air transportation accidents involving Canadian-registered aircraft, excluding ultralights, in 2024 compared with the 2014–2023 average, by province or territory.



Fatal accidents, fatalities, and serious injuries

The TSB recorded 27 fatal air transportation accidents resulting in 46 fatalities in 2024 (tables 1 and 4, and Figure 4). This is more than the 19 fatal accidents in 2023 and is 17% above the average of 23 fatal accidents over the 10 years from 2014 to 2023. Of the 27 fatal accidents in 2024, 17 involved fixed-wing, powered airplanes, 8 involved helicopters, 1 involved ultralight aircraft and 1 involved a glider. Three of these accidents involved aircraft registered in the United States.

Figure 4. Fatal accidents and fatalities involving Canadian-registered aircraft, 2014 to 2024.



Twenty-two of the 46 air transportation fatalities in 2024 involved commercial operations (Table 4): 6 of them under commuter operations (CARs 704), 10 under air taxi regulations (CARs 703), and 6 under aerial work regulations (CARs 702). There were no fatalities involving airliner operations (CARs 705), or Flight Training Units (CARs 406). The remaining 24 fatalities were linked to privately registered aircraft and involved recreational operators (21 fatalities) or other private operations (3 fatalities). None of these deaths involved an operator holding a Private Operator Registration Document (PORD) (CARs 604).

Overall, 30 people were seriously injured in aircraft accidents in 2024 (Table 5), which is 36% more than in 2023 (22), and 1% above the average for the period 2014 to 2023. Seventeen people were seriously injured in accidents involving commercial operations in 2024: 1 in a commercial airliner (CARs 705), 2 in commuter aircraft (CARs 704), 11 in the air taxi sector (CARs 703), 2 in aerial work operations (CARs 702), and 1 with a flight-training unit (CARs 406). Also, during 2024, 13 people incurred serious injuries in private operations, 12 of them in recreational operations. There were no reported serious injuries in State or other operation types.

Accident rate

Accident rate as a key safety indicator

A key indicator of air transportation safety is the aircraft accident rate, which is calculated as the number of accidents per hours flown or per number of aircraft movements (a movement can be a takeoff or a landing). Analyzing trends of accident rates for different types of operators can signal emerging safety issues associated with specific operator types and activities.

Activity data (e.g., flight hours or aircraft movements) broken out by operator type[5] are required to calculate accident rates that enable trend analysis of specific operator types over time, or support comparisons across operator types or geographical regions.

Since 2021, Transport Canada is unable to provide data about hours flown by Canadian-registered aircraft. As such, the TSB cannot calculate an accident rate for Canadian-registered aircraft by hours flown, either for the whole fleet or any part of it.

In 2019, Statistics Canada changed the way it collected data about aircraft movements at airports in Canada. This report uses that information to provide a global accident rate for aircraft operating in Canada based on a survey of all major and selected minor airports in Canada. While this estimate includes the bulk of aircraft movements in Canada, there is a significant gap in our ability to measure activity that takes place at small airports or away from airports entirely.

Because movement data are currently not categorized by CARs subpart when tabulated by Statistics Canada, there is no differentiation between sectors (e.g., air-taxi operators, airline operators) or between different types of aircraft (e.g., airplane, helicopter, floatplane). Therefore, accident rates cannot be calculated for individual industry sectors.

[5] The operator types in the CARs are: airline operations (Subpart 705), commuter operations (Subpart 704), air-taxi operations (Subpart 703), aerial work (Subpart 702), foreign air operations (Subpart 701), and private operators (Subpart 604).

Without hours-flown or movement data that are categorized by CARs subpart and aircraft type, it will be more difficult for sector stakeholders to assess risks and determine if mitigation strategies being carried out to improve safety are working.

Therefore, in 2019 the Board issued a recommendation, which remains active: the Board recommended that

> the Department of Transport require all commercial operators to collect and report hours flown and movement data for their aircraft by *Canadian Aviation Regulations* subpart and aircraft type, and that the Department of Transport publish those data.
>
> **TSB Recommendation A19-05**

Accident rate per 100 000 aircraft movements in Canada, for Canadian and foreign-registered aircraft

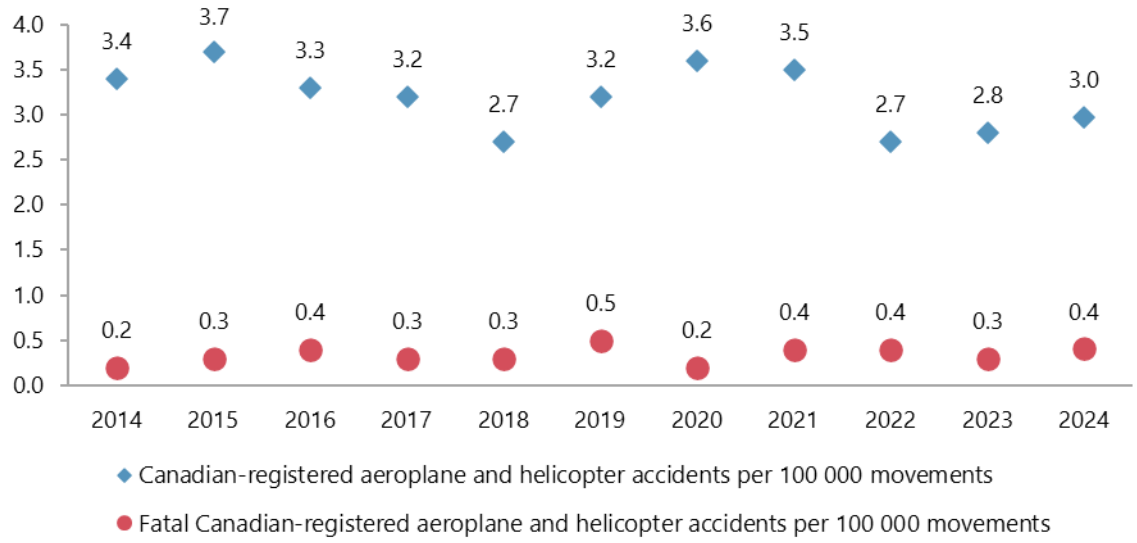
Although an accident rate by *hours flown* is not available, it is possible to measure an accident rate by other means. Statistics Canada collects information about the number of *aircraft movements* that take place at major and selected small airports in Canada. While these data do not include all activity—activity at many small airports is not captured, nor is off-airport activity—it can serve as an indicator of system safety for the bulk of aircraft movements in Canada.

Overall accident rate

The 2024 overall air transportation accident rate of 3.0 per 100 000 aircraft movements (Table 3 and Figure 5) is based on the 168 accidents (8% more than in 2023) in Canada involving Canadian-registered and foreign airplanes and helicopters (ultralights and other aircraft types are excluded), and the estimated 5 650 000 aircraft movements at Canadian airports (3% more than in 2023).

The accident rate has fallen from 3.7 accidents per 100 000 aircraft movements in 2015 to a low of 2.7 in both 2018 and 2022. To test whether the change in rate was statistically significant, Kendall's tau-b (τ_b) correlation was used to quantify the trend in accident rate. Kendall's τ_b correlation coefficient is a nonparametric measure of the strength and direction of association that exists between two variables. Kendall's τ_b was calculated on the 11-year series of accident rate values by year from 2014 to 2024. For the period represented in this Summary, any linear change in the accident rate was not statistically significant ($\tau_b = -0.3519$, $p = 0.1367$). However, it is worth noting that the accident rate had been consistently decreasing in the years leading up to the 2020 pandemic. Despite a small increase in 2024, the accident rate remains near historical lows.

Figure 5. Rate of accidents per 100 000 aircraft movements, by airplanes and helicopters in Canada



Fatal accident rate

As shown in Figure 5, the fatal accident rate in 2024 was 0.4 per 100 000 aircraft movements. This rate was calculated based on 23 fatal accidents in Canada involving Canadian- and foreign-registered airplanes and helicopters in 2024 (ultralights and other aircraft types are excluded). The 2024 rate is more than the 2023 rate and slightly above the 2014 to 2023 average. There is no statistically significant change in the fatal accident rate since 2014 (Kendall's τ_b = 0.3417, p = 0.1675).

Fatality rate

In 2024, the fatality rate was 0.7 per 100 000 aircraft movements (Table 3). This rate was calculated based on 38 fatalities that resulted from accidents in Canada involving Canadian- and foreign-registered airplanes and helicopters (excluding ultralights and other aircraft types). This fatality rate is higher than the previous year's rate (0.5) and above the average yearly rate of 0.5 between 2014 and 2023. There is no statistically significant trend in the fatality rate since 2014 (Kendall's τ_b = 0.1557, p = 0.5227).

Dangerous goods released

The TSB recorded 4 accidents in 2024 involving a release of dangerous goods (Table 1). This is below the average of 6 per year over the previous 10 years.

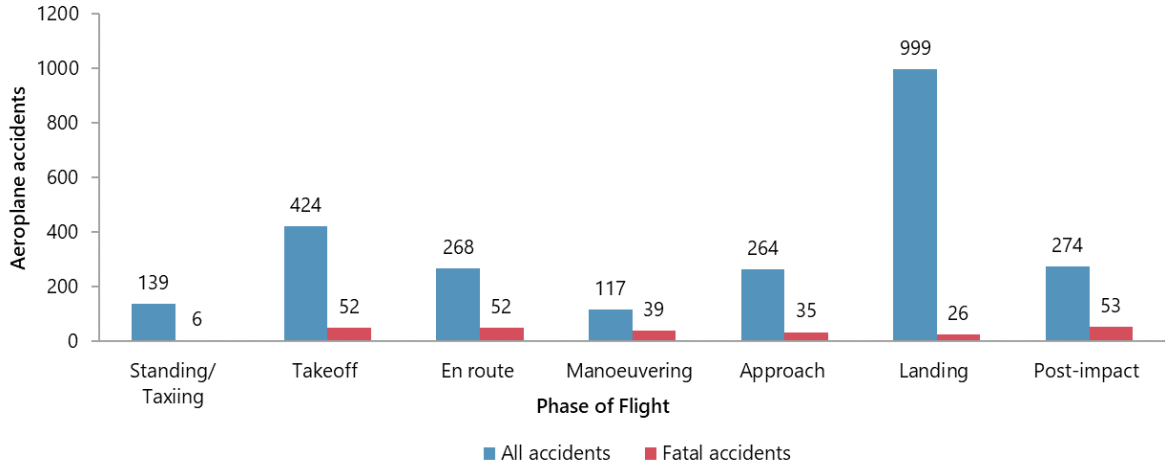
Accident events and phases

For each reported accident, the TSB records one or more safety-significant events that occurred, and the phase of flight for each of these events. For example, if an airplane suffers engine power loss during takeoff (safety-significant event 1), and then returns to land and has a runway excursion during landing (safety-significant event 2), both events and their phase of flight will be recorded for statistical purposes. Tables 11 through 14 show how many accidents occurred for each event category and for each phase of flight from 2014 to 2024. Note that if a single accident involves more than one event within a phase of flight, that accident is only counted once in the phase total. Therefore, the total number of accidents for each event within a phase will not necessarily sum to the total number of accidents for a phase. For

example, if an accident involves both "loss of control" and "power loss" events in the “takeoff” phase, then the accident is counted once in each event category within the phase, but only once in the overall phase total. Approximately 30% of accidents from 2014 to 2024 involved events in more than one phase of flight, so the number of accidents shown in the tables, and in Figures 6 and 7, sum to more than the total number of accidents.

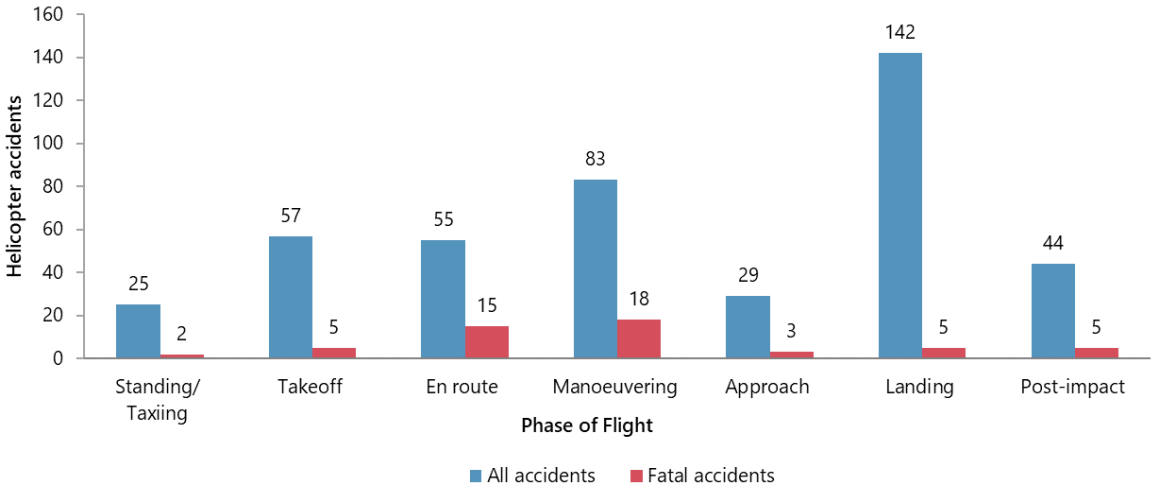
Figures 6 and 7 and Tables 11 and 12 show the number of airplane and helicopter accidents by phase of flight during the period 2014 to 2024. The largest number of airplane accidents involve events that happen during the landing (999) and takeoff (424) phases of flight (Table 11 and Figure 6). Similarly, helicopter accidents (Table 12 and Figure 7) have events that occur most often during the landing (142), manoeuvring[6] (83), and takeoff (57) phases of flight. Note that for airplanes, although the landing phase produces the largest outright number of accidents, fatal accidents happen most often during the en route (52) and takeoff (52) phases, not including post-impact events (Table 13 and Figure 6). For helicopters, the en route phase was associated with the largest *proportion* of fatal accidents (15 of 55, or 27%). Similarly, the manoeuvring (18) phase is linked to more fatal accidents in the 11-year period than are the takeoff (5), approach (3), and landing (5) phases of flight (Table 14 and Figure 7).

Figure 6. Airplane accidents having events in selected phases of flight, 2014 to 2024.



[6] Manoeuvring (i.e., low altitude/aerobatic flight operations) does not occur on all flights.

Figure 7. Helicopter accidents having events in selected phases of flight, 2014 to 2024.



Overview of incidents

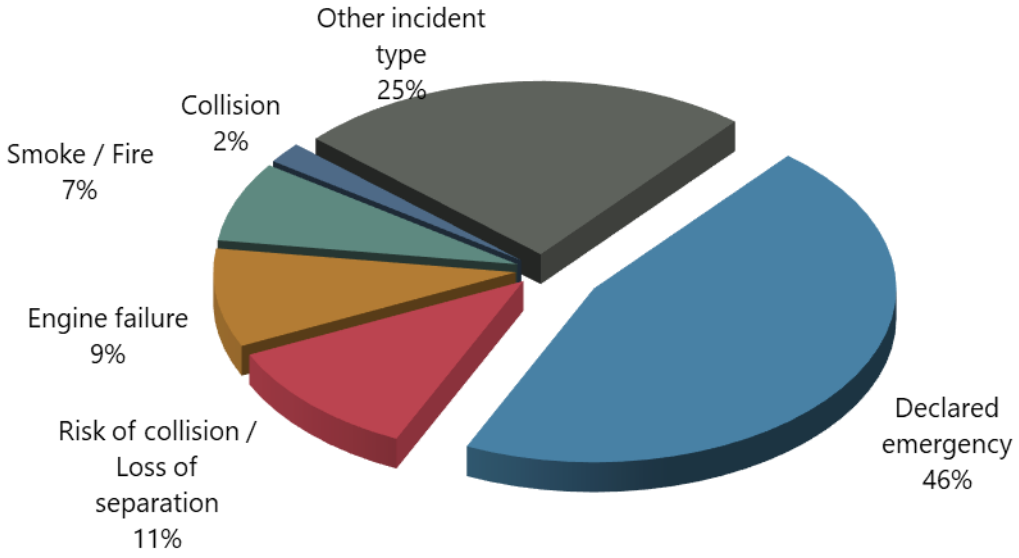
Incident counts

In 2024, a total of 817 air transportation incidents were reported in accordance with the TSB Regulations (Table 9). This represents a drop of 3% from the 839 that were reported in 2023 but is 8% above the average of 756 incidents recorded per year between 2014 and 2023. Prior to 2020, incident counts had been generally increasing, which reflected both an increase in commercial flying activity and the introduction of new TSB reporting regulations that became effective on 1 July 2014. Under these reporting requirements, air transportation incidents to be reported to the TSB were expanded to include aircraft with a maximum certificated takeoff weight greater than 2250 kg (formerly 5700 kg) and aircraft being operated with an air operator certificate issued under CARs Part VII—Commercial Air Services. At the onset of the COVID-19 pandemic in early 2020, both commercial flying activity and the number of reported incidents were greatly reduced.

Overall, 2024 saw a continued return toward pre-pandemic levels of commercial air traffic in Canada,[7] accompanied by an increase in reported air transportation incidents to pre-pandemic numbers. While declared emergency (374 incidents) is still the most frequently reported incident category in 2024 (Table 9 and Figure 8), it should be noted that this is something of a catch-all category for incidents where an emergency is declared and no other primary category (as set out in the TSB Regulations) applies. Risk of collision / loss of separation (ROC/LOS) incidents (91) decreased in frequency compared to 2023 and represented about 11% of all incidents in 2024. Incidents involving engine failure (75) rose in 2024 and represented about 9% of all incidents. Amongst the remaining incident types, crew—flight crew or cabin crew—were reported to have been unable to perform their duties 94 times, or in 12% of all reportable incidents in the year, up from a low of 16 incidents (3.2%) in 2021.

[7] Statistics Canada. Table 23-10-0269-01 Transportation activity indicators, Transport Canada DOI: https://doi.org/10.25318/2310026901-eng (Last accessed 28 May 2025).

Figure 8. Reported air transportation incidents, by type, 2024.



The majority (71%) of reported air transportation incidents in 2024 occurred in Canada and involved Canadian-registered aircraft (Table 1). However, 156 incidents involving Canadian-registered aircraft occurred outside Canada. After a peak of 208 incidents abroad in 2023, this number is closer to (although still above) the average of 127 incidents per year outside Canada in the 10 years from 2014 to 2023.

The long-term overall increase in reportable incidents is at least partially linked to improvements in reporting culture in the airline industry, the adoption of safety management systems by many smaller commercial operators (in addition to all of the major Canadian airlines), and the increased use of electronic flight bags and portable devices, both of which make it easier for pilots to report incidents.

In part due to reporting requirements laid out in the TSB Regulations, commercial operations were the source of the vast majority (96%) of the incidents reported to the TSB in 2024 (Table 9). Almost two thirds of incidents (527 of 817) involved Canadian-registered airliners operating under CARs Subpart 705 (airline operations) (tables 9 and 10). This is down from a peak of 614 in 2017, but 17% greater than the average of 452 incidents per year from 2014 to 2023 that involved Canadian-registered airliners.

Foreign air operators (CARs 701) were involved in 77 incidents in 2024, or about 9% of all commercial incidents (Table 9). This is returning to levels recorded before the pandemic, in line with increased levels of transborder and international passenger traffic.[8]

[8] Statistics Canada. Table 23-10-0269-01 Transportation activity indicators, Transport Canada DOI: https://doi.org/10.25318/2310026901-eng (Last accessed 28 May 2025).

Data tables

Table 1. Reportable air transportation occurrences, by type of occurrence, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidents	**249**	**251**	**230**	**240**	**202**	**228**	**171**	**192**	**167**	**181**	**193**
Accidents in Canada involving Canadian-registered aircraft	238	232	214	222	180	211	165	185	153	168	178
Accidents outside Canada involving Canadian-registered aircraft	4	10	8	11	11	8	6	6	7	7	6
Accidents in Canada involving foreign-registered aircraft	7	9	8	7	12	10	0	1	7	6	9
Accidents[1]	**249**	**251**	**230**	**240**	**202**	**228**	**171**	**192**	**167**	**181**	**193**
Commercial	82	74	63	97	66	83	55	64	56	76	78
Airliner (CARs 705)	4	9	1	9	8	7	4	4	4	6	11
Commuter (CARs 704)	2	3	3	5	1	4	3	1	1	3	3
Air taxi (CARs 703)	34	23	26	28	23	26	13	18	12	24	28
Aerial work (CARs 702)	17	18	16	18	17	21	14	22	19	17	19
Foreign air operator (CARs 701)	0	0	0	4	3	1	0	0	1	0	2
Flight training units (CARs 406)	25	20	17	32	13	25	20	19	17	25	15
Other commercial	1	1	1	2	1	0	1	0	2	2	2
Private	159	172	164	142	135	144	114	127	109	103	114
Private operators (CARs 604)	3	0	5	0	3	1	2	0	0	2	0
Recreational	156	165	152	135	127	137	109	124	104	99	107
Other private	0	7	8	7	7	6	3	3	5	2	7
State	4	1	0	0	2	1	1	1	0	2	1
Other/Unknown	5	5	3	2	0	0	1	1	2	1	0
Accidents[1]	**249**	**251**	**230**	**240**	**202**	**228**	**171**	**192**	**167**	**181**	**193**
Airplane	176	197	174	178	154	176	133	138	126	130	142
Helicopter	34	33	28	27	26	28	17	29	20	32	33
Ultralight	32	17	22	25	18	19	17	20	15	17	11
Other[2]	8	7	6	10	4	6	4	6	7	2	8
Aircraft involved in accidents[1,3]	**253**	**259**	**234**	**247**	**208**	**231**	**173**	**196**	**168**	**185**	**195**
Airplane	179	202	178	184	160	178	135	141	126	134	143
Helicopters	34	33	28	27	26	28	17	29	20	32	33
Ultralights	32	17	22	25	18	19	17	20	15	17	11
Other[2]	8	7	6	11	4	6	4	6	7	2	8
Fatal accidents[1]	**14**	**29**	**29**	**22**	**23**	**33**	**12**	**22**	**24**	**19**	**27**
Airplane	12	20	22	18	17	27	7	14	16	11	17
Helicopter	0	5	2	2	4	3	2	5	3	4	8
Ultralight	2	4	4	1	2	3	3	3	4	4	1
Other[2]	0	0	1	1	0	1	0	0	1	0	1
Persons fatally injured in reportable accidents	**21**	**47**	**45**	**34**	**38**	**70**	**16**	**31**	**34**	**33**	**46**
Persons seriously injured in reportable accidents	**35**	**31**	**18**	**33**	**28**	**31**	**18**	**44**	**36**	**22**	**30**
Accidents in Canada involving foreign-registered aircraft	**7**	**9**	**8**	**7**	**12**	**10**	**0**	**1**	**7**	**6**	**9**
Fatal accidents	2	3	1	0	0	4	0	0	2	0	3
Persons fatally injured	4	4	7	0	0	11	0	0	2	0	4
Persons seriously injured	1	0	0	0	4	1	0	0	3	2	2
Occurrences with a dangerous good release	**4**	**6**	**7**	**8**	**7**	**8**	**1**	**8**	**7**	**2**	**4**
Incidents[4]	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Incidents in Canada involving Canadian-registered aircraft	599	653	620	685	608	654	319	402	493	568	583
Incidents outside Canada involving Canadian-registered aircraft	55	58	117	181	161	181	66	72	173	208	156
Incidents in Canada involving foreign-registered aircraft	102	106	117	106	115	113	43	30	70	77	94
Incidents[4]	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Risk of collision / Loss of separation	94	111	139	172	141	138	49	62	124	139	91
Declared emergency	313	333	311	348	340	366	190	205	311	345	374
Engine failure	104	110	110	98	91	103	50	83	65	83	75
Smoke/Fire	89	87	85	100	99	91	25	44	53	56	61
Collision	16	8	18	24	26	31	8	7	18	19	16
Other	125	140	170	197	163	186	99	99	156	197	200

Data extracted 10 March 2025

[1] Breakdowns may not add up to totals. For example, when an occurrence involves an airplane and a helicopter, the occurrence is counted in each type, but only once in the total.
[2] Includes balloons, gyroplanes, gliders, airships, hang gliders, remotely piloted aircraft systems (RPAS), and similar aircraft types.
[3] "Aircraft involved in accidents" are aircraft counts, all other data are accident counts.
[4] Under the 2014 TSB Regulations, reportable aviation incidents include a) aircraft having a maximum certificated take-off weight greater than 2250 kg (formerly 5700 kg); b) aircraft being operated under an air operator certificate issued under the *Canadian Aviation Regulations*, Part VII.

Table 2. Air transportation occurrences involving Canadian-registered aircraft, by aircraft and operator type, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidents[1,2]	**212**	**227**	**200**	**208**	**173**	**200**	**154**	**171**	**146**	**158**	**173**
Airplane accidents	170	190	167	171	143	168	133	137	120	126	135
Commercial	55	51	42	71	46	66	45	44	39	49	50
Airliner (CARs 705)	4	9	1	9	8	7	4	4	4	6	11
Commuter (CARs 704)	1	3	3	5	1	4	3	1	1	2	1
Air taxi (CARs 703)	19	12	16	18	18	21	10	11	8	12	17
Aerial work (CARs 702)	8	10	7	12	6	11	8	9	10	6	8
Flight training units (CARs 406)	23	16	16	27	12	23	20	19	16	23	13
Other commercial	0	1	0	0	1	0	0	0	0	0	0
Private	111	138	122	101	96	101	88	93	80	76	85
Private operators (CARs 604)	1	0	5	0	3	1	2	0	0	2	0
Recreational	110	132	114	98	92	97	83	91	79	72	82
Other private	0	6	4	3	2	3	3	2	1	2	3
State	3	1	0	0	2	1	0	0	0	2	0
Other/Unknown	2	1	3	0	0	0	0	0	1	0	0
Helicopter accidents	34	32	27	27	26	27	17	29	20	30	31
Commercial	26	23	18	22	17	16	10	20	14	26	26
Private	7	9	9	5	9	11	6	9	6	4	4
State	1	0	0	0	0	0	1	0	0	0	1
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0
Other aircraft accidents[3]	8	7	6	10	4	6	4	6	6	2	8
Fatal accidents[1,2]	**10**	**23**	**24**	**21**	**21**	**26**	**9**	**19**	**18**	**15**	**23**
Airplane accidents	10	18	21	18	17	23	7	14	14	11	16
Commercial	2	6	3	7	4	8	1	2	5	4	8
Airliner (CARs 705)	0	0	0	1	0	0	0	0	0	0	0
Commuter (CARs 704)	0	0	0	0	0	0	0	0	0	0	1
Air taxi (CARs 703)	1	3	1	1	2	6	1	0	1	1	4
Aerial work (CARs 702)	1	2	1	2	2	1	0	2	3	1	3
Flight training units (CARs 406)	0	1	1	3	0	1	0	0	1	2	0
Other commercial	0	0	0	0	0	0	0	0	0	0	0
Private	8	13	18	11	13	15	6	12	9	7	8
Private operators (CARs 604)	0	0	1	0	1	0	0	0	0	0	0
Recreational	8	13	16	10	13	15	6	12	9	7	7
Other private	0	0	1	1	0	0	0	0	0	0	1
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0
Helicopter accidents	0	5	2	2	4	3	2	5	3	4	6
Commercial	0	4	1	2	1	1	1	4	2	4	5
Private	0	1	1	0	3	2	1	1	1	0	1
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0
Other aircraft accidents[3]	0	0	1	1	0	1	0	0	1	0	1
Persons fatally injured[2]	**15**	**40**	**34**	**33**	**36**	**54**	**13**	**28**	**27**	**29**	**41**
Persons seriously injured[2]	**28**	**28**	**17**	**27**	**21**	**26**	**14**	**36**	**30**	**15**	**26**
Incidents[2,4]	**654**	**711**	**737**	**866**	**769**	**835**	**385**	**473**	**666**	**776**	**738**
Risk of collision / Loss of separation	84	101	127	159	134	128	48	61	122	137	88
Declared emergency	277	290	263	316	298	318	170	192	268	313	325
Engine failure	94	102	102	88	79	96	44	78	62	81	70
Smoke/Fire	76	79	75	95	85	83	21	41	48	48	53
Collision	15	7	16	23	21	27	8	7	18	18	15
Other	108	132	154	185	152	183	94	94	148	179	187
Accidents involving ultralight aircraft	**31**	**16**	**22**	**25**	**18**	**19**	**17**	**20**	**15**	**17**	**11**
Fatal accidents	2	3	4	1	2	3	3	3	4	4	1
Fatalities	2	3	4	1	2	5	3	3	5	4	1
Serious injuries	6	3	1	6	3	4	4	8	3	5	2

Data extracted 10 March 2025

[1] Breakdowns may not add up to totals. For example, when an occurrence involves an airplane and a helicopter, the occurrence is counted in each type, but only once in the total.
[2] Excludes ultralight aircraft.
[3] Includes balloons, gyroplanes, gliders, airships, hang gliders, remotely piloted aircraft systems (RPAS), and similar aircraft types.
[4] Under the 2014 TSB Regulations, reportable aviation incidents include a) aircraft having a maximum certificated take-off weight greater than 2250 kg (formerly 5700 kg); b) aircraft being operated under an air operator certificate issued under the *Canadian Aviation Regulations*, Part VII.

Table 3. Rate of accidents per 100 000 aircraft[1] movements, by airplanes and helicopters in Canada, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidents	206	220	196	195	168	196	145	161	139	155	168
Fatal accidents	11	21	23	18	17	29	9	17	19	14	23
Fatalities	17	39	37	30	26	63	13	26	28	27	38
Aircraft movements[2] (thousands)	6 010	6 016	6 023	6 136	6 295	6 135	4 069	4 566	5 211	5 499	5 650
Accidents per 100 000 aircraft movements	3.4	3.7	3.3	3.2	2.7	3.2	3.6	3.5	2.7	2.8	3.0
Fatal accidents per 100 000 aircraft movements	0.2	0.3	0.4	0.3	0.3	0.5	0.2	0.4	0.4	0.3	0.4
Fatalities per 100 000 aircraft movements	0.3	0.6	0.6	0.5	0.4	1.0	0.3	0.6	0.5	0.5	0.7

Data extracted 10 March 2025

[1] Excluding ultralights, balloons, gyroplanes, gliders, airships, hang gliders and similar aircraft types.

[2] Statistics Canada. Table 23-10-0296-01 Aircraft movements, by class of operation, airports with NAV CANADA services and other selected airports, monthly. DOI: https://doi.org/10.25318/2310029601-eng; Table 23-10-0003-01 Aircraft movements, by civil and military movements, airports with NAV CANADA towers, monthly. DOI: https://doi.org/10.25318/2310000301-eng; Table 23-10-0010-01 Aircraft movements, by civil and military movements, airports with NAV CANADA flight service stations, monthly. DOI: https://doi.org/10.25318/2310001001-eng; Table 23-10-0016-01 Aircraft movements, by class of operation and type of operation, airports without air traffic control towers, monthly. DOI: https://doi.org/10.25318/2310001601-eng.

Table 4. Persons fatally injured in air transportation accidents, by type of operation, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Persons fatally injured	**21**	**47**	**45**	**34**	**38**	**70**	**16**	**31**	**34**	**33**	**46**
In Canada, involving Canadian-registered aircraft	15	39	35	32	28	57	16	29	32	31	36
Outside Canada, involving Canadian-registered aircraft	2	4	3	2	10	2	0	2	0	2	6
In Canada, involving foreign-registered aircraft	4	4	7	0	0	11	0	0	2	0	4
Persons fatally injured, by operator type	**21**	**47**	**45**	**34**	**38**	**70**	**16**	**31**	**34**	**33**	**46**
Commercial	4	20	6	15	9	25	2	8	10	13	22
Airliner (CARs 705)	0	0	0	1	0	0	0	0	0	0	0
Commuter (CARs 704)	0	0	0	0	0	0	0	0	0	0	6
Air taxi (CARs 703)	2	12	1	1	5	21	1	1	3	4	10
Aerial work (CARs 702)	2	6	2	7	4	3	1	7	6	4	6
Foreign air operator (CARs 701)	0	0	0	0	0	0	0	0	0	0	0
Flight training units (CARs 406)	0	2	3	5	0	1	0	0	1	5	0
Other commercial	0	0	0	1	0	0	0	0	0	0	0
Private	17	28	39	19	29	45	14	23	24	20	24
Private operators (CARs 604)	0	0	4	0	1	0	0	0	0	0	0
Recreational	17	28	27	17	29	43	14	23	24	20	21
Other private	0	0	8	2	0	2	0	0	0	0	3
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	1	0	0	0	0	0	0	0	0	0
Crew members fatally injured, by operator type	**15**	**29**	**25**	**26**	**20**	**34**	**11**	**18**	**24**	**19**	**23**
Commercial	3	10	3	11	3	10	2	4	7	8	9
Airliner (CARs 705)	0	0	0	0	0	0	0	0	0	0	0
Commuter (CARs 704)	0	0	0	0	0	0	0	0	0	0	2
Air taxi (CARs 703)	1	4	1	1	0	8	1	0	1	2	3
Aerial work (CARs 702)	2	4	1	4	3	1	1	4	5	2	4
Foreign air operator (CARs 701)	0	0	0	0	0	0	0	0	0	0	0
Flight training units (CARs 406)	0	2	1	5	0	1	0	0	1	4	0
Other commercial	0	0	0	1	0	0	0	0	0	0	0
Private	12	20	22	15	17	24	9	14	17	11	14
Private operators (CARs 604)	0	0	1	0	1	0	0	0	0	0	0
Recreational	12	20	18	14	17	22	9	14	17	11	11
Other private	0	0	3	1	0	2	0	0	0	0	3
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	1	0	0	0	0	0	0	0	0	0
Passengers fatally injured, by operator type	**6**	**18**	**20**	**8**	**18**	**36**	**5**	**11**	**10**	**12**	**22**
Commercial	1	10	3	4	6	15	0	3	3	3	12
Airliner (CARs 705)	0	0	0	1	0	0	0	0	0	0	0
Commuter (CARs 704)	0	0	0	0	0	0	0	0	0	0	4
Air taxi (CARs 703)	1	8	0	0	5	13	0	0	2	2	6
Aerial work (CARs 702)	0	2	1	3	1	2	0	3	1	0	2
Foreign air operator (CARs 701)	0	0	0	0	0	0	0	0	0	0	0
Flight training units (CARs 406)	0	0	2	0	0	0	0	0	0	1	0
Other commercial	0	0	0	0	0	0	0	0	0	0	0
Private	5	8	17	4	12	21	5	8	7	9	10
Private operators (CARs 604)	0	0	3	0	0	0	0	0	0	0	0
Recreational	5	8	9	3	12	21	5	8	7	9	10
Other private	0	0	5	1	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0
Persons on the ground fatally injured	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**1**
Persons fatally injured	**21**	**47**	**45**	**34**	**38**	**70**	**16**	**31**	**34**	**33**	**46**
Airplane	19	35	37	27	30	60	11	18	25	24	31
Helicopter	0	8	3	5	6	5	2	10	3	5	13
Ultralight	2	4	4	1	2	5	3	3	5	4	1
Other aircraft type	0	0	1	1	0	2	0	0	1	0	1

Table 5. Persons seriously injured in air transportation accidents, by type of operation, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Persons seriously injured	**35**	**31**	**18**	**33**	**28**	**31**	**18**	**44**	**36**	**22**	**30**
In Canada, involving Canadian-registered aircraft	34	28	17	31	23	27	15	42	30	20	28
Outside Canada, involving Canadian-registered Aircraft	0	3	1	2	1	3	3	2	3	0	0
In Canada, involving foreign-registered aircraft	1	0	0	0	4	1	0	0	3	2	2
Persons seriously injured, by operator type	**35**	**31**	**18**	**33**	**28**	**31**	**18**	**44**	**36**	**22**	**30**
Commercial	10	15	8	13	17	13	4	13	11	7	17
Airliner (CARs 705)	0	3	2	8	4	1	1	3	3	0	1
Commuter (CARs 704)	0	0	0	0	0	0	1	0	0	1	2
Air taxi (CARs 703)	5	8	4	0	9	8	0	1	4	3	11
Aerial work (CARs 702)	3	3	2	2	2	2	1	8	4	2	2
Foreign air operator (CARs 701)	0	0	0	0	1	0	0	0	0	0	0
Flight training units (CARs 406)	2	1	0	2	1	2	1	1	0	1	1
Other commercial	0	0	0	1	0	0	0	0	0	0	0
Private	23	16	10	20	11	18	13	31	25	13	13
Private operators (CARs 604)	0	0	0	0	0	0	0	0	0	0	0
Recreational	23	14	9	19	8	18	13	31	24	13	12
Other private	0	2	1	1	3	0	0	0	1	0	1
State	0	0	0	0	0	0	1	0	0	1	0
Other/Unknown	2	0	0	0	0	0	0	0	0	1	0
Persons seriously injured, by operator type	**23**	**17**	**8**	**22**	**19**	**16**	**13**	**31**	**21**	**14**	**12**
Commercial	5	6	3	8	10	2	3	12	5	3	4
Airliner (CARs 705)	0	1	0	3	3	0	1	3	2	0	0
Commuter (CARs 704)	0	0	0	0	0	0	0	0	0	0	1
Air taxi (CARs 703)	2	2	2	0	3	0	0	0	2	1	1
Aerial work (CARs 702)	1	3	1	2	2	1	1	8	1	1	1
Foreign air operator (CARs 701)	0	0	0	0	1	0	0	0	0	0	0
Flight training units (CARs 406)	2	0	0	2	1	1	1	1	0	1	1
Other commercial	0	0	0	1	0	0	0	0	0	0	0
Private	17	11	5	14	9	14	9	19	16	10	8
Private operators (CARs 604)	0	0	0	0	0	0	0	0	0	0	0
Recreational	17	9	5	14	7	14	9	19	16	10	7
Other private	0	2	0	0	2	0	0	0	0	0	1
State	0	0	0	0	0	0	1	0	0	1	0
Other/Unknown	1	0	0	0	0	0	0	0	0	0	0
Passengers seriously injured, by operator type	**11**	**14**	**8**	**11**	**9**	**13**	**4**	**13**	**13**	**7**	**14**
Commercial	5	9	4	5	7	9	1	1	6	3	9
Airliner (CARs 705)	0	2	2	5	1	0	0	0	1	0	0
Commuter (CARs 704)	0	0	0	0	0	0	1	0	0	1	0
Air taxi (CARs 703)	3	6	2	0	6	7	0	1	2	2	8
Aerial work (CARs 702)	2	0	0	0	0	1	0	0	3	0	1
Foreign air operator (CARs 701)	0	0	0	0	0	0	0	0	0	0	0
Flight training units (CARs 406)	0	1	0	0	0	1	0	0	0	0	0
Other commercial	0	0	0	0	0	0	0	0	0	0	0
Private	5	5	4	6	2	4	3	12	7	3	5
Private operators (CARs 604)	0	0	0	0	0	0	0	0	0	0	0
Recreational	5	5	4	5	1	4	3	12	7	3	5
Other private	0	0	0	1	1	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	1	0	0	0	0	0	0	0	0	1	0
Persons on the ground seriously injured	**1**	**0**	**2**	**0**	**0**	**2**	**1**	**0**	**2**	**1**	**4**
Persons seriously injured	**35**	**31**	**18**	**33**	**28**	**31**	**18**	**44**	**36**	**22**	**30**
Airplane	21	23	10	23	23	26	10	25	25	14	21
Helicopter	6	5	6	3	2	1	3	8	6	3	5
Ultralight	7	3	1	6	3	4	4	8	3	5	2
Other aircraft type	1	0	1	1	0	0	1	3	2	0	2

Data extracted 10 March 2025

Table 6. Accidents involving Canadian-registered airplanes and helicopters, by type of operation,[1,2] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Aeroplane accidents by operation type2	**170**	**190**	**167**	**171**	**143**	**168**	**133**	**137**	**120**	**126**	**135**
Training	27	16	20	31	14	28	23	19	22	31	16
Pleasure/Travel	96	125	112	92	83	83	74	85	66	59	73
Business	9	1	3	1	7	5	4	3	2	3	2
Forest fire management	2	2	1	0	1	2	1	4	2	2	2
Test/Demonstration/Ferry	5	2	2	4	1	3	2	3	1	4	2
Aerial application	4	5	6	6	5	6	8	1	6	2	5
Inspection	0	1	0	1	0	0	0	0	2	0	0
Air transport	22	22	16	27	26	29	15	14	14	18	26
Air ambulance	1	0	3	1	1	1	1	2	0	3	2
Sightseeing	1	1	0	1	1	2	0	1	0	0	1
Other/Unknown	4	16	5	8	6	9	5	5	5	5	6
Fatal aeroplane accidents by operation type2	**10**	**18**	**21**	**18**	**17**	**23**	**7**	**14**	**14**	**11**	**16**
Training	1	1	1	3	0	1	1	1	2	3	0
Pleasure/Travel	7	12	15	9	12	12	5	10	7	6	7
Business	1	0	1	0	1	1	0	0	0	0	0
Forest fire management	0	1	0	0	0	0	0	1	0	0	0
Test/Demonstration/Ferry	0	0	1	0	0	1	0	0	0	0	0
Aerial application	0	0	2	1	1	0	0	0	2	0	2
Inspection	0	0	0	0	0	0	0	0	1	0	0
Air transport	1	2	1	2	2	6	1	0	1	1	5
Air ambulance	0	0	0	0	0	0	0	0	0	0	0
Sightseeing	0	1	0	0	0	0	0	0	0	0	1
Other/Unknown	0	2	0	3	2	2	0	2	1	1	1
Helicopter accidents by operation type2	**34**	**32**	**27**	**27**	**26**	**27**	**17**	**29**	**20**	**30**	**31**
Training	2	5	1	7	1	2	0	1	2	3	5
Pleasure/Travel	7	8	9	4	6	9	6	6	3	4	4
Business	0	1	0	0	2	1	0	1	1	0	0
Forest fire management	0	2	0	2	2	1	1	3	1	3	3
Test/Demonstration/Ferry	0	0	0	0	1	0	0	2	1	0	0
Aerial application	1	2	1	3	1	3	2	1	4	1	1
Inspection	3	0	1	0	1	0	0	0	0	0	0
Air transport	18	9	7	3	3	9	2	6	3	14	10
Air ambulance	0	1	0	1	0	0	0	0	0	0	2
Sightseeing	1	0	0	1	1	0	0	0	0	0	0
Other/Unknown	2	4	8	6	8	2	6	9	5	5	6
Fatal helicopter accidents by operation type2	**0**	**5**	**2**	**2**	**4**	**3**	**2**	**5**	**3**	**4**	**6**
Training	0	0	0	1	0	0	0	0	0	0	0
Pleasure/Travel	0	0	1	0	2	2	1	1	1	0	1
Business	0	1	0	0	0	0	0	0	0	0	0
Forest fire management	0	0	0	0	0	0	0	1	0	0	1
Test/Demonstration/Ferry	0	0	0	0	1	0	0	0	0	0	0
Aerial application	0	1	0	0	0	0	0	0	0	0	0
Inspection	0	0	0	0	0	0	0	0	0	0	0
Air transport	0	3	0	0	0	1	0	1	0	2	2
Air ambulance	0	0	0	0	0	0	0	0	0	0	0
Sightseeing	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	0	0	1	1	1	0	1	2	2	2	2

Data extracted 10 March 2025

[1] Canadian-registered aircraft, excluding ultralights, balloons, gyroplanes, gliders, airships, hang gliders and similar aircraft types.
[2] Breakdowns may not add up to totals. For example, when an occurrence involves a business airplane and a training airplane, the occurrence is counted in each type, but only once in the total.

Table 7. Fatal air transportation accidents and fatalities in Canada and outside Canada, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidents by province / territory	**249**	**251**	**230**	**240**	**202**	**228**	**171**	**192**	**167**	**181**	**193**
Newfoundland and Labrador	5	6	5	4	4	3	2	4	4	1	4
Prince Edward Island	0	0	0	2	0	0	0	0	1	0	1
Nova Scotia	3	6	2	3	2	1	1	2	0	3	3
New Brunswick	6	2	5	7	1	8	2	2	0	2	3
Quebec	69	51	34	44	31	50	33	45	33	32	38
Ontario	67	74	50	62	54	53	39	36	49	44	40
Manitoba	12	14	17	10	7	17	9	6	9	10	7
Saskatchewan	12	13	10	13	13	12	17	8	14	7	9
Alberta	33	23	38	35	32	29	25	29	18	22	35
British Columbia	30	42	53	39	36	39	34	46	29	43	40
Yukon	4	6	2	4	4	3	0	3	2	2	4
Northwest Territories	3	2	3	2	5	4	1	2	1	5	3
Nunavut	1	2	3	3	1	1	2	3	0	3	0
Other airspace under Canadian air traffic control	0	0	0	1	1	0	0	0	0	0	0
Outside Canada	4	10	8	11	11	8	6	6	7	7	6
Fatal accidents by province / territory	**14**	**29**	**29**	**22**	**23**	**33**	**12**	**22**	**24**	**19**	**27**
Newfoundland and Labrador	0	1	0	0	0	2	1	1	1	0	1
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0
Nova Scotia	1	1	0	0	0	0	0	0	0	0	0
New Brunswick	1	0	1	0	0	1	0	0	0	0	1
Quebec	2	7	7	4	2	9	4	6	5	4	2
Ontario	5	6	5	4	6	6	1	5	10	3	2
Manitoba	0	1	1	3	0	1	0	0	1	0	1
Saskatchewan	1	2	2	2	1	0	0	0	1	0	1
Alberta	1	3	4	3	5	5	3	4	3	4	6
British Columbia	2	4	8	3	4	5	3	2	3	7	8
Yukon	0	0	0	1	0	2	0	0	0	0	1
Northwest Territories	0	0	0	0	1	1	0	0	0	0	2
Nunavut	0	0	0	0	0	0	0	2	0	0	0
Other airspace under Canadian air traffic control	0	0	0	0	0	0	0	0	0	0	0
Outside Canada	1	4	1	2	4	1	0	2	0	1	2
Fatalities by province / territory	**21**	**47**	**45**	**34**	**38**	**70**	**16**	**31**	**34**	**33**	**46**
Newfoundland and Labrador	0	1	0	0	0	8	1	2	1	0	1
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0
Nova Scotia	1	1	0	0	0	0	0	0	0	0	0
New Brunswick	2	0	2	0	0	1	0	0	0	0	1
Quebec	2	16	15	6	4	14	5	7	6	5	4
Ontario	8	10	5	9	8	16	1	6	15	4	2
Manitoba	0	1	2	4	0	3	0	0	1	0	1
Saskatchewan	2	3	2	3	1	0	0	0	2	0	1
Alberta	1	4	4	5	6	8	6	7	4	10	8
British Columbia	3	7	12	4	6	12	3	3	5	12	14
Yukon	0	0	0	1	0	4	0	0	0	0	1
Northwest Territories	0	0	0	0	3	2	0	0	0	0	7
Nunavut	0	0	0	0	0	0	0	4	0	0	0
Other airspace under Canadian air traffic control	0	0	0	0	0	0	0	0	0	0	0
Outside Canada	2	4	3	2	10	2	0	2	0	2	6

Data extracted 10 March 2025

Table 8. Accidents and fatal accidents in Canada and outside Canada involving Canadian-registered aircraft,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidents by province / territory	**212**	**227**	**200**	**208**	**173**	**200**	**154**	**171**	**146**	**158**	**173**
Newfoundland and Labrador	4	6	4	3	2	2	2	3	1	1	4
Prince Edward Island	0	0	0	1	0	0	0	0	1	0	1
Nova Scotia	2	5	2	2	1	1	1	2	0	2	3
New Brunswick	6	2	5	5	1	8	2	2	0	2	2
Quebec	57	44	28	39	28	41	29	40	30	23	33
Ontario	53	66	43	51	44	46	32	28	40	41	37
Manitoba	11	13	17	10	7	12	9	6	8	9	6
Saskatchewan	10	12	10	12	13	12	16	8	14	7	8
Alberta	31	21	36	30	27	27	23	27	16	20	31
British Columbia	27	39	43	35	30	36	32	42	27	37	37
Yukon	4	6	1	4	2	2	0	2	1	2	2
Northwest Territories	2	2	3	2	5	4	1	2	1	5	3
Nunavut	1	1	2	3	1	1	2	3	0	2	0
Other airspace under Canadian air traffic control	0	0	0	0	1	0	0	0	0	0	0
Outside Canada	4	10	6	11	11	8	5	6	7	7	6
Accidents by province / territory	**10**	**23**	**24**	**21**	**21**	**26**	**9**	**19**	**18**	**15**	**23**
Newfoundland and Labrador	0	1	0	0	0	1	1	1	0	0	1
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0
New Brunswick	1	0	1	0	0	1	0	0	0	0	0
Quebec	1	6	5	4	2	5	3	5	3	1	2
Ontario	3	5	3	4	5	5	0	3	8	3	2
Manitoba	0	0	1	3	0	1	0	0	1	0	1
Saskatchewan	1	2	2	2	1	0	0	0	1	0	1
Alberta	1	3	4	3	4	5	2	4	2	4	6
British Columbia	2	2	7	2	4	5	3	2	3	6	5
Yukon	0	0	0	1	0	1	0	0	0	0	1
Northwest Territories	0	0	0	0	1	1	0	0	0	0	2
Nunavut	0	0	0	0	0	0	0	2	0	0	0
Other airspace under Canadian air traffic control	0	0	0	0	0	0	0	0	0	0	0
Outside Canada	1	4	1	2	4	1	0	2	0	1	2
Accidents by province / territory	**15**	**40**	**34**	**33**	**36**	**54**	**13**	**28**	**27**	**29**	**41**
Newfoundland and Labrador	0	1	0	0	0	7	1	2	0	0	1
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0
New Brunswick	2	0	2	0	0	1	0	0	0	0	0
Quebec	1	15	7	6	4	8	4	6	4	2	4
Ontario	4	9	3	9	7	9	0	4	13	4	2
Manitoba	0	0	2	4	0	3	0	0	1	0	1
Saskatchewan	2	3	2	3	1	0	0	0	2	0	1
Alberta	1	4	4	5	5	8	5	7	2	10	8
British Columbia	3	4	11	3	6	12	3	3	5	11	10
Yukon	0	0	0	1	0	2	0	0	0	0	1
Northwest Territories	0	0	0	0	3	2	0	0	0	0	7
Nunavut	0	0	0	0	0	0	0	4	0	0	0
Other airspace under Canadian air traffic control	0	0	0	0	0	0	0	0	0	0	0
Outside Canada	2	4	3	2	10	2	0	2	0	2	6

Data extracted 10 March 2025

[1] Canadian-registered aircraft, excluding ultralights, balloons, gyroplanes, gliders, airships, hang gliders and similar aircraft types.

Table 9. Reportable aircraft incidents, by type of operation,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Incidents by category1	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Risk of collision / Loss of separation	94	111	139	172	141	138	49	62	124	139	91
Declared emergency	313	333	311	348	340	366	190	205	311	345	374
Engine failure	104	110	110	98	91	103	50	83	65	83	75
Smoke/Fire	89	87	85	100	99	91	25	44	53	56	61
Collision	16	8	18	24	26	31	8	7	18	19	16
Control difficulties	40	29	35	34	41	25	25	24	40	38	24
Crew unable to perform duties	37	46	66	78	57	87	34	16	47	86	94
Dangerous goods-related	4	0	2	0	2	0	0	3	0	0	1
Depressurization	12	16	14	21	13	23	5	16	14	16	29
Fuel shortage	6	17	15	17	10	5	3	3	5	13	12
Failure to remain in landing area	20	17	19	22	11	9	10	10	17	11	19
Incorrect fuel	0	0	1	3	0	3	4	3	1	1	2
Slung load released	5	14	15	21	23	28	11	17	22	21	12
Transmission or gearbox failure	1	1	3	1	0	1	0	0	0	1	0
Incidents by operator type1,2	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Commercial	699	741	785	888	815	869	393	461	674	793	781
Airliner (CARs 705)	429	437	490	614	547	572	220	246	416	546	527
Commuter (CARs 704)	106	87	79	73	60	67	50	51	56	50	52
Air taxi (CARs 703)	79	114	104	102	90	104	59	83	95	84	86
Aerial work (CARs 702)	34	48	43	55	55	59	35	56	56	64	54
Foreign air operator (CARs 701)	82	75	94	80	91	86	32	27	55	63	77
Flight training units (CARs 406)	5	6	12	11	7	13	7	8	7	7	10
Other commercial	0	2	5	1	2	4	2	2	5	3	5
Private	37	52	45	56	51	56	27	38	51	51	36
Private operators (CARs 604)	22	19	19	32	19	25	12	18	27	25	13
Recreational	14	15	14	11	9	10	6	15	14	15	10
Other private	1	18	12	13	23	22	10	6	10	12	13
State	13	15	8	15	11	8	5	7	9	8	6
Other/Unknown	12	15	22	13	12	12	2	3	5	3	1
Incidents by aircraft type1,2	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Airplane	715	749	795	892	819	842	400	458	687	798	785
Helicopter	30	47	38	52	43	77	21	41	41	45	31
Ultralight/Other aircraft type[3]	3	8	7	4	4	6	0	1	1	2	2
Number of aircraft involved in incidents1,4	**830**	**887**	**957**	**1063**	**970**	**1016**	**452**	**533**	**775**	**899**	**881**
Airplanes	797	832	912	1006	921	931	431	491	733	851	848
Helicopters	30	47	38	53	45	79	21	41	41	46	31
Ultralight / Other aircraft type[3]	3	8	7	4	4	6	0	1	1	2	2
Incidents by province / territory1	**741**	**789**	**833**	**939**	**860**	**915**	**421**	**500**	**727**	**839**	**817**
Newfoundland and Labrador	22	30	31	27	35	29	11	16	23	29	26
Prince Edward Island	0	1	4	1	2	1	1	1	3	0	0
Nova Scotia	22	19	17	22	28	28	13	6	11	24	19
New Brunswick	8	9	9	4	7	11	3	6	6	7	11
Quebec	89	116	109	139	141	147	75	76	108	120	125
Ontario	157	152	166	230	144	166	89	115	134	139	156
Manitoba	51	54	47	49	43	44	26	42	34	29	47
Saskatchewan	32	21	25	19	16	24	15	19	20	26	24
Alberta	98	117	110	107	104	106	43	40	62	91	87
British Columbia	132	154	137	101	123	129	56	75	88	105	100
Yukon	6	6	5	5	2	8	1	6	2	8	2
Northwest Territories	25	17	9	20	22	9	11	12	16	20	20
Nunavut	20	15	15	15	19	15	4	11	21	15	20
Other airspace under Canadian air traffic control	24	20	32	19	14	17	7	3	25	18	24
Outside Canada	55	58	117	181	161	181	66	72	173	208	156

Data extracted 10 March 2025

[1] Under the 2014 TSB Regulations, reportable aviation incidents include a) aircraft having a maximum certificated take-off weight greater than 2250 kg (formerly 5700 kg); b) aircraft being operated under an air operator certificate issued under the *Canadian Aviation Regulations*, Part VII.
[2] Breakdowns may not add up to totals. For example, when an occurrence involves an airplane and a helicopter, the occurrence is counted in each type, but only once in the total.
[3] Includes balloons, gyroplanes, gliders, airships, hang gliders, remotely piloted aircraft systems (RPAS), and similar aircraft types.
[4] "Aircraft involved in accidents" are aircraft counts; all other data are accident counts.

Table 10. Reportable incidents[1] in Canada and outside Canada involving Canadian-registered aircraft, 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Incidents by category1	**654**	**711**	**737**	**866**	**769**	**835**	**385**	**473**	**666**	**776**	**738**
Risk of collision / Loss of separation	84	101	127	159	134	128	48	61	122	137	88
Declared emergency	277	290	263	316	298	318	170	192	268	313	325
Engine failure	94	102	102	88	79	96	44	78	62	81	70
Smoke/Fire	76	79	75	95	85	83	21	41	48	48	53
Collision	15	7	16	23	21	27	8	7	18	18	15
Control difficulties	36	28	30	33	40	25	24	24	38	34	21
Crew unable to perform duties	35	44	65	74	55	86	30	15	46	81	90
Dangerous goods-related	3	0	2	0	2	0	0	2	0	0	1
Depressurization	10	14	13	19	11	23	5	15	11	15	27
Fuel shortage	3	15	11	16	5	4	3	3	5	8	10
Failure to remain in landing area	17	17	14	18	10	8	10	10	16	10	18
Incorrect fuel	0	0	1	3	0	3	4	3	1	1	2
Slung load released	4	13	15	21	23	28	11	17	22	21	12
Transmission or gearbox failure	0	1	3	1	0	1	0	0	0	1	0
Incidents by operator type[1,2]	**654**	**711**	**737**	**866**	**769**	**835**	**385**	**473**	**666**	**776**	**738**
Commercial	622	674	705	825	741	799	363	437	623	735	712
Airliner (CARs 705)	427	436	489	613	546	571	218	246	415	545	522
Commuter (CARs 704)	106	87	79	73	60	67	50	51	56	50	52
Air taxi (CARs 703)	79	114	104	102	90	104	58	83	95	84	86
Aerial work (CARs 702)	31	47	43	55	55	59	35	56	56	64	54
Flight training units (CARs 406)	5	6	12	11	7	13	7	8	7	7	10
Other commercial	0	1	2	0	1	3	1	2	5	3	4
Private	29	40	37	48	33	45	22	35	45	47	27
Private operators (CARs 604)	17	16	19	32	19	24	12	18	27	25	13
Recreational	11	14	12	11	8	10	6	14	14	15	9
Other private	1	10	6	5	6	12	5	4	4	8	5
State	11	15	6	13	10	8	5	7	8	8	5
Other/Unknown	9	14	14	10	12	10	1	3	1	2	1
Incidents by aircraft type1,2	**654**	**711**	**737**	**866**	**769**	**835**	**385**	**473**	**666**	**776**	**738**
Airplane	631	672	699	819	728	762	364	432	626	736	707
Helicopter	27	46	38	52	43	77	21	41	41	44	31
Ultralight / Other aircraft type[3]	3	8	6	4	4	6	0	0	1	2	1
Number of aircraft involved in incidents1,4	**730**	**800**	**843**	**981**	**874**	**927**	**415**	**505**	**712**	**834**	**799**
Airplanes	700	746	799	924	825	842	394	464	670	787	767
Helicopters	27	46	38	53	45	79	21	41	41	45	31
Ultralight / Other aircraft type[3]	3	8	6	4	4	6	0	0	1	2	1
Incidents by province/territory[1]	**654**	**711**	**737**	**866**	**769**	**835**	**385**	**473**	**666**	**776**	**738**
Newfoundland and Labrador	13	20	22	22	22	15	8	14	21	22	12
Prince Edward Island	0	1	4	1	2	1	1	1	3	0	0
Nova Scotia	19	17	12	17	20	26	11	5	8	17	11
New Brunswick	6	9	9	3	6	8	2	6	6	7	7
Quebec	81	103	99	127	122	125	68	73	103	104	115
Ontario	139	141	148	202	129	146	85	109	118	124	138
Manitoba	45	51	44	47	38	44	25	40	32	29	45
Saskatchewan	27	19	25	18	14	24	13	19	19	24	23
Alberta	93	110	103	102	97	100	38	35	55	88	81
British Columbia	125	137	118	100	114	124	52	71	83	99	95
Yukon	5	6	5	3	2	8	1	5	1	7	2
Northwest Territories	25	17	8	20	21	8	10	12	16	19	19
Nunavut	16	14	15	14	16	14	3	10	19	15	18
Other airspace under Canadian air traffic control	5	8	8	9	5	11	2	1	9	13	16
Outside Canada	55	58	117	181	161	181	66	72	173	208	156

Data extracted 10 March 2025

[1] Under the 2014 TSB Regulations, reportable aviation incidents include a) aircraft having a maximum certificated take-off weight greater than 2250 kg (formerly 5700 kg); b) aircraft being operated under an air operator certificate issued under the *Canadian Aviation Regulations*, Part VII.
[2] Breakdowns may not add up to totals. For example, when an occurrence involves an airplane and a helicopter, the occurrence is counted in each type, but only once in the total.
[3] Includes balloons, gyroplanes, gliders, airships, hang gliders, remotely piloted aircraft systems (RPAS), and similar aircraft types.
[4] "Aircraft involved in accidents" are aircraft counts; all other data are accident counts.

Table 11. Airplane accidents by phase of flight and selected event category,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Standing/Taxiing	**16**	**19**	**16**	**20**	**13**	**14**	**4**	**6**	**11**	**11**	**9**	**139**
Collision with object	6	3	5	9	6	5	1	5	6	6	2	54
Collision with moving aircraft	3	5	4	3	3	2	1	3	0	2	1	27
Nose down/Overturned	1	3	2	2	0	1	0	0	6	1	1	17
Landing gear collapse/retracted	1	2	1	3	1	2	0	0	0	1	0	11
Loss of control	1	0	0	0	0	0	0	0	0	0	0	1
Other events	9	12	13	14	10	10	3	4	7	7	7	96
Takeoff	**48**	**53**	**47**	**45**	**35**	**48**	**30**	**40**	**24**	**25**	**29**	**424**
Collision with terrain	10	18	13	15	7	14	4	12	4	6	8	111
Loss of control	18	9	11	7	5	11	3	11	1	2	3	81
Collision with object	11	18	12	8	11	17	12	10	7	4	8	118
Takeoff/landing event	11	11	14	16	11	11	8	13	7	1	7	110
Power loss	16	12	10	11	5	12	6	2	4	6	3	87
Other events	34	50	30	35	31	38	28	36	22	19	27	350
En route	**23**	**29**	**19**	**34**	**27**	**28**	**24**	**20**	**20**	**22**	**22**	**268**
Power loss	14	8	12	15	11	12	8	5	8	10	7	110
Precautionary/forced landing / Ditching	7	5	4	5	6	8	4	6	3	4	7	59
Collision with terrain	5	4	5	5	5	6	3	3	5	4	4	49
Component/system related	2	3	0	3	1	2	3	1	1	1	1	18
Other events	14	26	8	24	22	21	19	15	14	19	21	203
Manoeuvring	**4**	**11**	**13**	**11**	**12**	**16**	**14**	**4**	**12**	**10**	**10**	**117**
Collision with terrain	1	7	6	7	4	5	6	1	8	4	8	57
Loss of control	1	2	4	5	4	1	3	1	3	4	4	32
Collision with object	1	2	3	1	2	5	3	0	4	2	0	23
Power loss	0	1	2	1	1	1	2	1	3	1	0	13
Other events	3	4	6	2	8	12	7	3	9	7	5	66
Approach	**29**	**25**	**17**	**21**	**25**	**27**	**24**	**20**	**26**	**27**	**23**	**264**
Collision with terrain	7	10	4	7	5	8	1	3	13	10	4	72
Power loss	6	2	3	6	6	5	6	3	6	5	4	52
Collision with object	9	7	6	7	3	2	5	0	7	4	4	54
Component/system related	4	2	0	2	3	3	2	1	0	0	2	19
Precautionary/forced landing / Ditching	7	1	1	4	5	7	4	2	2	2	5	40
Loss of control	2	4	1	0	1	5	0	2	6	3	2	26
Other events	9	18	12	13	18	21	18	16	14	20	17	176
Landing	**99**	**118**	**113**	**95**	**93**	**93**	**80**	**84**	**58**	**80**	**86**	**999**
Missed or went off runway	14	30	30	21	18	23	20	18	16	23	28	241
Collision with object	20	29	24	23	30	25	18	19	14	13	16	231
Landing gear collapsed/retracted	17	27	27	23	19	17	18	18	7	10	18	201
Nose down/Overturned	17	27	33	29	23	21	19	25	14	17	15	240
Loss of control	22	2	3	6	3	4	0	3	4	2	1	50
Hard landing	14	10	17	19	16	17	7	11	4	11	19	145
Collision with terrain	21	20	12	7	11	10	8	4	6	10	5	114
Wheels-up landing	7	10	9	4	5	7	1	3	2	0	3	51
Precautionary/forced landing / Ditching	5	12	18	18	7	7	9	7	8	10	5	106
Other events	28	77	77	50	59	53	53	51	31	58	60	597
Post-impact	**16**	**37**	**57**	**41**	**44**	**31**	**9**	**6**	**9**	**10**	**14**	**274**
Fire/Explosion/Fumes	6	13	9	5	7	5	4	0	2	5	6	62
Other events	12	24	49	37	38	26	5	6	7	5	9	218

Data extracted 10 March 2025

[1] Breakdowns do not add up to totals. For example, in the take-off phase, if an occurrence involves both "Loss of control" and "Power loss" events, the occurrence is counted in each event category, but only once in the phase total.

Table 12. Helicopter accidents, by selected event category and phase of flight,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Standing/Taxiing	**4**	**2**	**0**	**1**	**4**	**3**	**0**	**2**	**1**	**4**	**4**	**25**
Collision with terrain	0	1	0	0	0	0	0	0	1	0	1	3
Loss of control	2	1	0	0	0	2	0	1	0	1	1	8
Collision with object	2	1	0	1	1	1	0	0	0	3	1	10
Other events	4	0	0	0	4	2	0	2	1	3	4	20
Takeoff	**9**	**4**	**6**	**5**	**5**	**6**	**1**	**8**	**5**	**4**	**4**	**57**
Loss of control	5	1	4	4	1	3	0	4	1	1	1	25
Collision with terrain	1	2	1	1	2	2	0	1	1	3	1	15
Collision with object	2	1	0	1	2	3	0	2	1	2	0	14
Power loss	1	0	1	0	0	0	0	1	1	0	1	5
Other events	4	1	3	2	2	4	1	6	2	3	2	30
En route	**7**	**4**	**5**	**3**	**6**	**4**	**5**	**7**	**2**	**5**	**7**	**55**
Collision with terrain	3	1	1	1	2	2	1	2	0	1	2	16
Power loss	1	1	3	0	1	1	1	2	0	0	1	11
Precautionary/forced landing / Ditching	0	1	0	0	0	0	0	1	0	0	1	3
Component/system related	0	1	0	0	0	1	0	2	0	1	0	5
Other events	5	3	4	3	5	1	5	6	2	5	5	44
Manoeuvring	**4**	**8**	**8**	**7**	**4**	**9**	**6**	**10**	**8**	**8**	**11**	**83**
Collision with terrain	2	3	5	3	2	2	2	3	4	4	6	36
Loss of control	2	2	3	4	0	2	2	4	2	0	3	24
Collision with object	1	1	3	3	1	4	2	2	1	2	4	24
Operations related event	0	2	5	3	1	6	1	1	0	3	6	28
Power loss	0	2	1	1	0	1	0	0	0	0	0	5
Other events	2	5	5	5	2	7	5	4	6	5	7	53
Approach	**3**	**3**	**5**	**2**	**2**	**2**	**1**	**3**	**2**	**4**	**2**	**29**
Collision with terrain	0	0	1	0	0	0	0	2	0	1	0	4
Power loss	1	1	3	0	0	0	0	1	0	1	0	7
Loss of control	1	1	2	1	1	0	0	0	0	2	2	10
Collision with object	1	0	1	1	0	0	0	0	0	0	0	3
Other events	2	2	4	1	1	2	1	2	2	3	2	22
Landing	**12**	**18**	**16**	**13**	**12**	**12**	**9**	**13**	**12**	**15**	**10**	**142**
Hard landing	3	1	0	1	2	0	0	0	2	1	0	10
Collision with terrain	3	6	0	0	2	1	1	0	3	4	2	22
Loss of control	4	6	2	1	2	3	6	2	4	5	1	36
Collision with object	5	1	4	3	6	2	5	2	0	2	4	34
Other events	5	10	4	5	5	7	5	3	4	6	5	59
Post-impact	**2**	**5**	**11**	**1**	**6**	**5**	**2**	**5**	**3**	**2**	**2**	**44**
Fire/Explosion/Fumes	0	1	0	0	0	3	2	2	0	0	1	9
Other events	2	4	11	1	6	4	0	4	3	2	1	38

Data extracted 10 March 2025

[1] Breakdowns do not add up to totals. For example, in the take-off phase, if an occurrence involves both "Loss of control" and "Power loss" events, the occurrence is counted in each event category, but only once in the phase total.

Table 13. Fatal airplane accidents, by phase of flight and selected event category,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Standing/Taxiing	**0**	**1**	**2**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**6**
Collision with object	0	0	0	0	0	0	0	0	0	0	0	0
Collision with moving aircraft	0	0	0	0	0	0	0	0	0	0	0	0
Nose down/Overturned	0	0	0	0	0	0	0	0	0	0	0	0
Landing gear collapsed/retracted	0	0	0	0	0	0	0	0	0	0	0	0
Loss of control	0	0	0	0	0	0	0	0	0	0	0	0
Other events	0	1	2	1	0	1	1	0	0	0	0	6
Takeoff	**2**	**9**	**5**	**6**	**5**	**7**	**1**	**7**	**2**	**4**	**4**	**52**
Collision with terrain	0	4	4	5	2	5	0	6	1	4	1	32
Loss of control	1	4	4	2	2	2	0	3	0	0	1	19
Collision with object	0	1	0	1	1	1	0	0	1	0	2	7
Takeoff/landing event	1	0	0	1	0	0	1	1	0	0	0	4
Power loss	1	1	1	1	0	1	0	0	0	1	0	6
Other events	0	7	1	4	4	3	1	5	2	0	3	30
En route	**3**	**7**	**5**	**5**	**6**	**10**	**2**	**4**	**4**	**3**	**3**	**52**
Power loss	0	0	2	0	1	2	0	0	0	1	0	6
Precautionary/forced landing / Ditching	0	0	1	0	0	1	0	1	0	0	0	3
Collision with terrain	3	4	4	3	5	6	1	3	2	3	3	37
Component/system related	0	1	0	0	0	0	0	0	0	0	0	1
Other events	1	6	2	4	5	7	1	3	3	3	2	37
Manoeuvring	**2**	**4**	**5**	**4**	**5**	**5**	**4**	**0**	**4**	**2**	**4**	**39**
Collision with terrain	1	4	4	4	3	4	3	0	4	1	4	32
Loss of control	1	0	2	2	4	1	1	0	2	1	1	15
Collision with object	0	1	1	1	0	0	1	0	1	0	0	5
Power loss	0	0	0	0	0	0	0	0	0	0	0	0
Other events	1	0	1	1	3	2	1	0	3	1	2	15
Approach	**1**	**5**	**4**	**4**	**4**	**4**	**0**	**1**	**6**	**2**	**4**	**35**
Collision with terrain	0	3	3	3	2	2	0	1	4	2	2	22
Power loss	0	0	0	0	0	0	0	0	0	0	1	1
Collision with object	0	1	1	1	0	0	0	0	3	0	1	7
Component/system related	0	0	0	1	0	2	0	0	0	0	0	3
Precautionary/forced landing / Ditching	0	0	0	0	0	0	0	0	0	0	0	0
Loss of control	0	0	1	0	0	1	0	0	3	1	1	7
Other events	1	2	2	2	2	3	0	0	1	1	3	17
Landing	**4**	**4**	**5**	**0**	**1**	**4**	**0**	**3**	**0**	**2**	**3**	**26**
Missed or went off runway	1	0	1	0	0	0	0	0	0	0	0	2
Collision with object	0	1	1	0	1	2	0	2	0	0	0	7
Landing gear collapsed/retracted	0	0	0	0	0	0	0	0	0	0	0	0
Nose down/Overturned	1	0	0	0	1	2	0	0	0	0	2	6
Loss of control	0	0	0	0	0	0	0	0	0	0	0	0
Hard landing	0	0	0	0	0	0	0	0	0	0	2	2
Collision with terrain	2	2	4	0	0	1	0	0	0	1	0	10
Wheels-up landing	0	0	0	0	0	0	0	0	0	0	0	0
Precautionary/forced landing / Ditching	0	1	0	0	0	0	0	0	0	0	0	1
Other events	2	1	3	0	1	2	0	2	0	2	2	15
Post-impact	**4**	**10**	**9**	**5**	**8**	**4**	**1**	**0**	**3**	**4**	**5**	**53**
Fire/Explosion/Fumes	3	10	7	4	6	3	1	0	2	4	5	45
Other events	2	0	2	1	2	1	0	0	1	0	1	10

Data extracted 10 March 2025

[1] Breakdowns do not add up to totals. For example, in the takeoff phase, if an occurrence involves both "Loss of control" and "Power loss" events, the occurrence is counted in each event category, but only once in the phase total.

Table 14. Fatal helicopter accidents, by phase of flight and selected event category,[1] 2014 to 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Standing/Taxiing	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
Collision with terrain	0	0	0	0	0	0	0	0	0	0	0	0
Loss of control	0	0	0	0	0	0	0	0	0	1	0	1
Collision with object	0	0	0	0	0	0	0	0	0	1	1	2
Other events	0	0	0	0	0	0	0	0	0	1	1	2
Takeoff	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**1**	**5**
Loss of control	0	0	0	0	0	0	0	0	0	0	0	0
Collision with terrain	0	1	0	0	0	0	0	0	0	1	1	3
Collision with object	0	1	0	0	0	0	0	0	0	1	0	2
Power loss	0	0	0	0	0	0	0	0	1	0	0	1
Other events	0	0	0	0	0	0	1	0	1	0	1	3
En route	**0**	**2**	**1**	**1**	**4**	**3**	**0**	**2**	**1**	**0**	**1**	**15**
Collision with terrain	0	1	1	0	2	2	0	1	0	0	1	8
Power loss	0	0	0	0	0	1	0	0	0	0	0	1
Precautionary/forced landing/Ditching	0	0	0	0	0	0	0	0	0	0	0	0
Component/system related	0	0	0	0	0	1	0	0	0	0	0	1
Other events	0	1	1	1	3	0	0	2	1	0	1	10
Manoeuvring	**0**	**1**	**1**	**1**	**1**	**1**	**2**	**3**	**2**	**2**	**4**	**18**
Collision with terrain	0	1	0	1	1	0	1	2	1	1	4	12
Loss of control	0	0	0	1	0	0	1	1	0	0	1	4
Collision with object	0	0	1	1	0	0	0	0	0	0	1	3
Operations related event	0	0	0	1	0	1	1	0	0	1	4	8
Power loss	0	1	0	0	0	0	0	0	0	0	0	1
Other events	0	0	1	1	0	1	1	1	2	1	1	9
Approach	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**	**3**
Collision with terrain	0	0	0	0	0	0	0	1	0	0	0	1
Power loss	0	0	0	0	0	0	0	0	0	0	0	0
Loss of control	0	0	0	0	0	0	0	0	0	0	0	0
Collision with object	0	0	0	0	0	0	0	0	0	0	0	0
Other events	0	0	0	0	0	1	0	1	1	0	0	3
Landing	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**5**
Hard landing	0	0	0	0	0	0	0	0	0	0	0	0
Collision with terrain	0	1	0	0	0	0	0	0	0	0	0	1
Loss of control	0	1	0	0	0	0	0	0	0	0	0	1
Collision with object	0	0	1	0	2	0	0	0	0	0	0	3
Other events	0	0	0	0	0	1	0	0	0	0	0	1
Post-impact	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**1**	**5**
Fire/Explosion/Fumes	0	1	0	0	0	0	1	1	0	0	1	4
Other events	0	0	0	0	0	0	0	0	1	0	0	1

Data extracted 10 March 2025

[1] Breakdowns do not add up to totals. For example, in the take-off phase, if an occurrence involves both "Loss of control" and "Power loss" events, the occurrence is counted in each event category, but only once in the phase total.

Definitions

The following definitions apply to air transportation occurrences that are required to be reported pursuant to the *Canadian Transportation Accident Investigation and Safety Board Act* and the *Transportation Safety Board Regulations*.

Aviation occurrence

- any accident or incident associated with the operation of an aircraft, and
- any situation or condition that the Board has reasonable grounds to believe could, if left unattended, induce an accident or incident described below.

Reportable aviation accident

An aviation accident is an occurrence resulting directly from the operation of an aircraft in which

a. a person is killed or sustains a serious injury as a result of
    i. being on board the aircraft,
    ii. coming into direct contact with any part of the aircraft, including parts that have become detached from the aircraft, or
    iii. being directly exposed to jet blast, rotor down wash or propeller wash;
b. the aircraft sustains structural failure or damage that adversely affects the aircraft's structural strength, performance or flight characteristics and would normally require major repair or replacement of any affected component, except for
    i. engine failure or damage, when the damage is limited to the engine, its cowlings or accessories, or
    ii. damage limited to propellers, wing tips, antennae, tires, brakes, fairings or small dents or puncture holes in the aircraft's skin; or
c. the aircraft is missing or inaccessible.

Reportable aviation incident

An aviation incident is an occurrence resulting directly from the operation of an aircraft having a maximum certificated take-off weight greater than 2250 kg or of an aircraft being operated under an air operator certificate issued under Part VII of the *Canadian Aviation Regulations* in which,

a. an engine fails or is shut down as a precautionary measure;
b. a power train transmission gearbox malfunction occurs;
c. smoke is detected or a fire occurs on board;
d. difficulties in controlling the aircraft are encountered owing to any aircraft system malfunction, weather phenomena, wake turbulence, uncontrolled vibrations or operations outside the flight envelope;
e. the aircraft fails to remain within the intended landing or take-off area, lands with all or part of the landing gear retracted or drags a wing tip, an engine pod or any other part of the aircraft;

f. a crew member whose duties are directly related to the safe operation of the aircraft is unable to perform their duties as a result of a physical incapacitation which poses a threat to the safety of persons, property or the environment;

g. depressurization of the aircraft occurs that requires an emergency descent;

h. a fuel shortage occurs that requires a diversion or requires approach and landing priority at the destination of the aircraft;

i. the aircraft is refuelled with the incorrect type of fuel or contaminated fuel;

j. a minor collision, a risk of collision or a loss of separation occurs;

k. a crew member declares an emergency or indicates an emergency that requires priority handling by air traffic services or the standing by of emergency response services;

l. a slung load is released unintentionally or as a precautionary or emergency measure from the aircraft; or

m. any dangerous goods are released in or from the aircraft.

Collision

Collision means an impact, other than an impact associated with normal operating circumstances, between aircraft or between an aircraft and another object or terrain.

Risk of collision

Risk of collision means a situation in which an aircraft comes so close to being involved in a collision that a threat to the safety of any person, property or the environment exists.

Loss of separation

Loss of separation means a situation in which the distance separating two aircraft is less than the minimum established in the *Canadian Domestic Air Traffic Control Separation Standards*, published by the Department of Transport, as amended from time to time.

Serious injury

- a fracture of any bone, except simple fractures of fingers, toes or the nose;
- lacerations that cause severe hemorrhage or nerve, muscle or tendon damage,
- an injury to an internal organ;
- second or third degree burns, or any burns affecting more than 5% of the body surface;
- a verified exposure to infectious substances or injurious radiation; or
- an injury that is likely to require hospitalization.

Operation

Operation means the activities for which an aircraft is used from the time any person boards the aircraft with the intention of flight until they disembark.

Operator

Operator has the same meaning as in subsection 101.01(1) of the *Canadian Aviation Regulations*.

Commercial operators

Commercial operators include carriers that offer a "for-hire" service to transport people or goods, or to undertake specific tasks such as aerial photography, flight training, or crop spraying.

Airliner

An airplane used by a Canadian air operator in an air transport service or in aerial work involving sightseeing operations, that has a MCTOW of more than 8 618 kg (19 000 pounds) or for which a Canadian type certificate has been issued authorizing the transport of 20 or more passengers.

Commuter aircraft

An airplane used by a Canadian air operator, in an air transport service or in aerial work involving sightseeing operations, in which the aircraft is

- a multi-engined aircraft that has a MCTOW of 8 618 kg (19 000 pounds) or less and a seating configuration, excluding pilot seats, of 10 to 19, inclusive; or
- a turbo jet powered airplane that has a maximum zero fuel weight of 22 680 kg (50 000 pounds) or less and for which a Canadian type certificate has been issued authorizing the transport of not more than 19 passengers.

Aerial work aircraft

A commercially operated airplane or helicopter used in aerial work involving

- the carriage on board of persons other than flight crew members;
- the carriage of helicopter external loads;
- the towing of objects; or
- the dispersal of products.

Air taxi aircraft

A commercially operated aircraft used in an air transport service or in aerial work involving sightseeing operations, in which the aircraft is

- a single engined aircraft;
- a multi engined aircraft, other than a turbo jet powered airplane, that has a MCTOW of 8 618 kg (19 000 pounds) or less and a seating configuration, excluding pilot seats, of nine or less; or
- any aircraft that is authorized by the Minister of Transport to be operated under Part VII, Subpart 3, Division 1 of the CARs.

State operators

State operators include the federal and provincial governments.

Private operators

Private operator means the holder of a private operator registration document issued under subsection 604.04(2) of the CARs.

Recreational operators

Recreational operators cannot operate under Part VII of the CARs, or transport people or cargo on a “for-hire” basis.