CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Aviation Safety Summary

1 January to 31 March 2015

Summer 2015

Introduction to the Quarterly Safety Summary Report

Welcome to the CAA's quarterly safety summary report for the summer quarter of 2015. This report is designed to provide a summary of accidents, incidents and safety occurrences that were reported to the CAA for the period 1 January to 31 March 2015.

This safety summary report focuses on the accidents within the three month period with some basic industry activity information to give context. This summer's quarter saw 30 accidents. That's significantly less than the 51 accidents in the same quarter last year, and slightly less than the average of 33 accidents per quarter for the previous three summer quarters. The summer quarter is typically when most accidents occur as there is always more flying activity during the summer months.

Some of the increase in activity and accidents can be attributed to the recreational (non commercial) sector which is heavily seasonal. This summer 17 (slightly more than half) of this quarters accidents, and 7 of the fatalities, were in the 'Non Commercial' sector.

Nonetheless eight of this quarters accidents, and two of the fatalities, were in the 'Other Commercial' sector, underscoring that there are still significant safety risks that can affect the typically more experienced commercial pilots.

The other five of this quarters accidents (no fatalities) were in the 'Public Air Transport' sector. Four of those five accidents were in adventure aviation sector operations.

The number of private pilot licence holders with active medicals continues to decline. The decline is not being offset by the small increase in active recreational pilot licences. It is possible that the decline in PPL numbers is being offset by an increasing number of microlight certificates but that information is not readily available within the CAA. The CAA is considering ways to examine the recreational flying situation more closely. Encouragingly the reported number of private flying hours has increased slightly to the end of 2014 (standard category aeroplanes only, and not LSA, Special Experimental or Microlight aircraft).

Some of this increase may be due to the much greater number of flying hours returns the CAA has received from private aircraft operators in 2015. In response to falling number of returns, the ISRA unit has been contacting aircraft operators to remind them of the long standing requirement to report flying hours (rule 12.151 refers).

The increased response rate from aircraft operators is already improving the situation and providing a more accurate estimate of flying activity and accident rates which is evident in this quarterly report. Nonetheless the CAA acknowledges that the present paper and electronic versions of the CAA605b form are dated and unwieldy to use. Efforts are under way to update this to a less burdensome online system.

Safe flying,

J.D. Stanton
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Executive Summary - Aviation Safety to 31 March 2015

- There were a total of 30 accidents in the January to March quarter, the summer of 2015. There were 9 fatal, 5 serious and 20 minor injuries in these accidents and injury incidents. Social cost in this quarter has accrued from accidents and injury incidents in the following safety target groups:

o Airline Operations - Large Aeroplanes	5 minor injuries
o Sport Transport	1 serious injury and 5 minor injuries, and 1 aircraft destroyed
o Other Commercial Operations - Helicopters	2 fatal and 2 minor injuries, and 2 aircraft destroyed
o Agricultural Operations - Helicopters	1 minor injury, and 1 aircraft destroyed
o Private Operations - Aeroplanes	4 fatal injuries, and 1 aircraft destroyed
o Private Operations - Helicopters	1 fatal injury, and 1 aircraft destroyed
o Private Operations - Sport	2 fatal, 4 serious and 7 minor injuries, and 5 aircraft destroyed

  There were additional accidents in the groups above and other safety target groups that were not serious enough to contribute to the social cost outcome this quarter (no injuries or aircraft destroyed), but still represent safety risks, see page 3.

- The Annual Social Cost is now $64 million (three year average). The social cost has halted its upward trend and now shows a neutral trend. In the last four years the cost has decreased by 1% from $65M to $64M. See page 4.

- The overall accident rate over the period April 2010 to March 2015 has decreased to 4.2 accidents per 100,000 hours flown, which is below the average of approximately 5.3 accidents per 100,000 hours flown over the previous four years, see page 7.

- Aircraft incident rates are increasing for medium aeroplanes, small aeroplanes and agricultural aeroplanes, see page 11.

- Airspace incident rates are increasing for medium aeroplanes, small aeroplanes, agricultural aeroplanes and helicopters, see page 12.

- The total annual number of hours flown for the year ending December 2014 is 7% lower than the year ending December 2010. The number of agricultural hours flown has increased by 31% over this period (an increase of approximately 28,000 hours) while the number of other commercial hours has decreased by 29% (a decrease of approximately 88,000 hours). The reporting of adventure aviation hours as a separate category began in 2012, and is now at approximately 9,000 hours. See page 15.

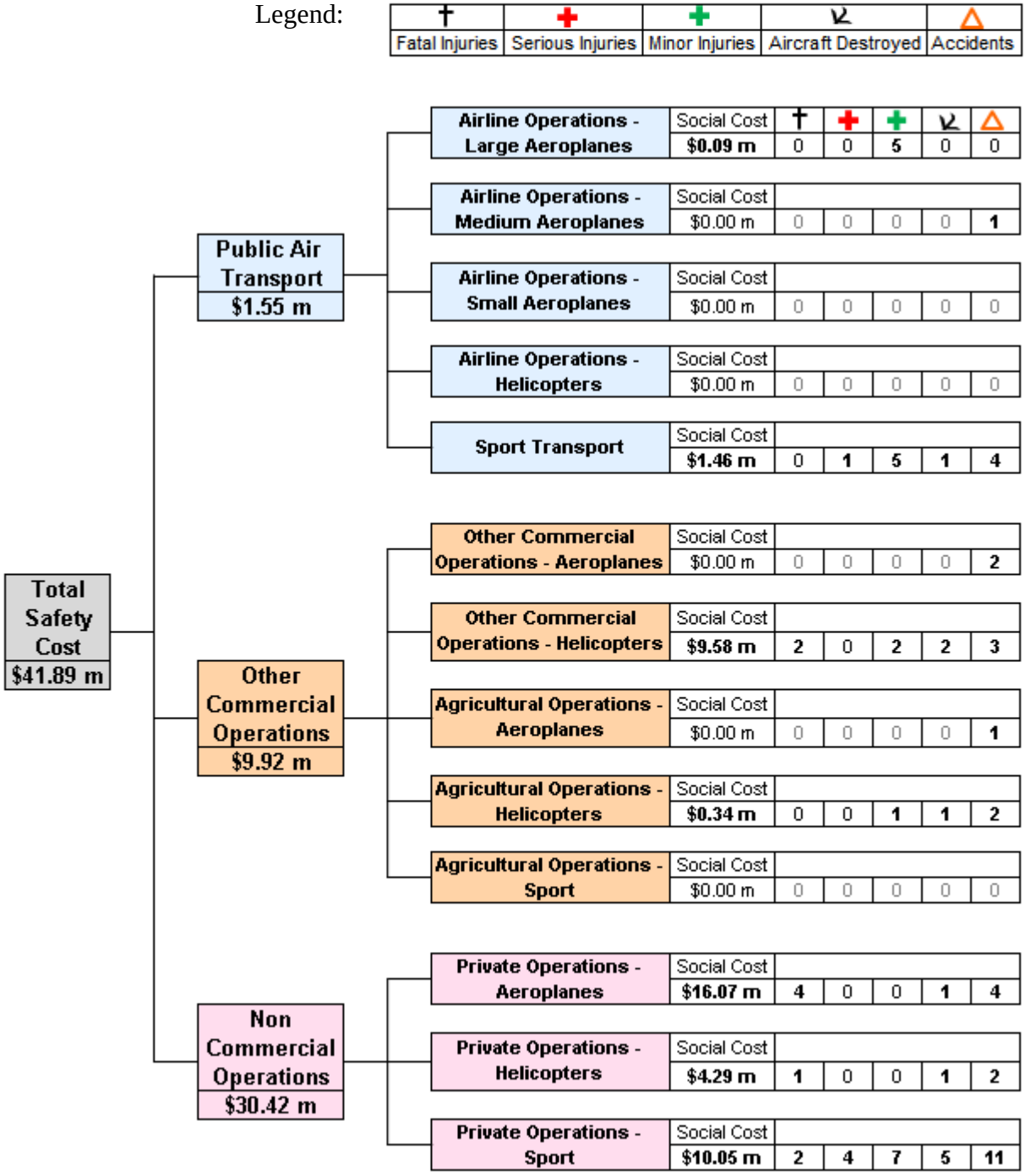
- The annual number of air transport flights for the year ending December 2014 is 8% lower than the year ending December 2010. The total annual number of aircraft movements from certificated aerodromes is continuing to decrease, by 9% from the year ending March 2011 to the year ending March 2015. See pages 16 and 17.

- The number of Recreational Pilot Licences (with a medical fitness certificate) increased from 289 at 31 March 2014 to 337 at 31 March 2015, an increase of 48 (17%). The number of Private Pilot Licences (with an active class 1 or active class 2 medical certificate) decreased from 2,948 to 2,587, a decrease of 361 (12%). Over the same period the number of Part 115 certificated Adventure Aviation Operators decreased from 32 to 27, a decrease of 5 (16%).

Section 1 - Social Cost and Accidents

Social Cost Quarterly Safety Outcome

The following table displays the social cost contribution from injuries and aircraft losses for each of the safety target groups for the quarter 1 January to 31 March 2015. The table also shows the number of accidents in this quarter.

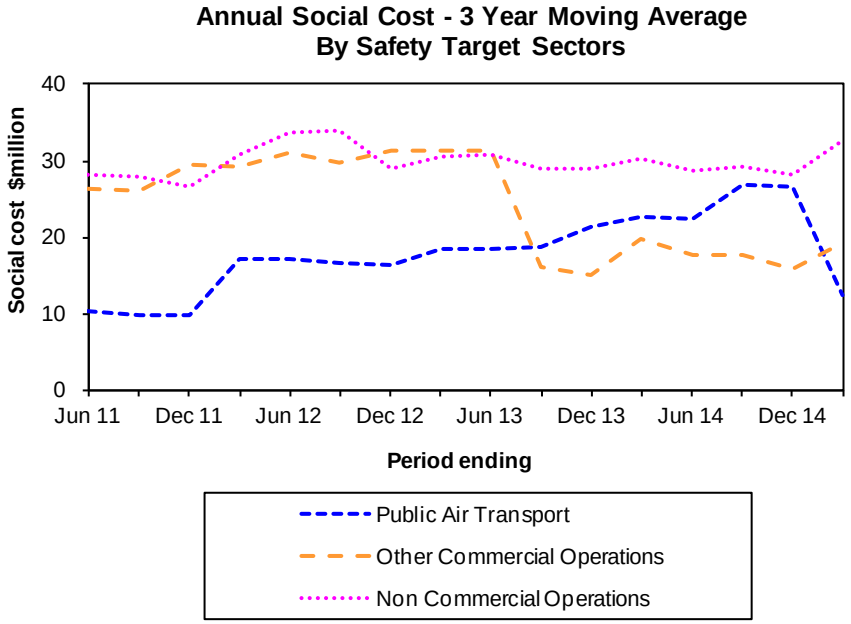


Notes:

1. Individual values in the table may not sum exactly to the subtotals or total shown due to rounding.
2. Sport groups include hang gliders and parachutes.
3. An explanation of the 2014 Safety Target Groups is provided by the diagram in the Definitions section.
4. Social cost is the cost of fatal, serious and minor injuries, and aircraft destroyed, expressed in 2014 dollars.

Social Cost Trends

To provide context to this quarter's social cost outcome, the following graph shows the annual social cost (three year moving average) for the four-year period 1 April 2011 to 31 March 2015, (including the Sport Safety Target Groups).



Social Cost Analysis

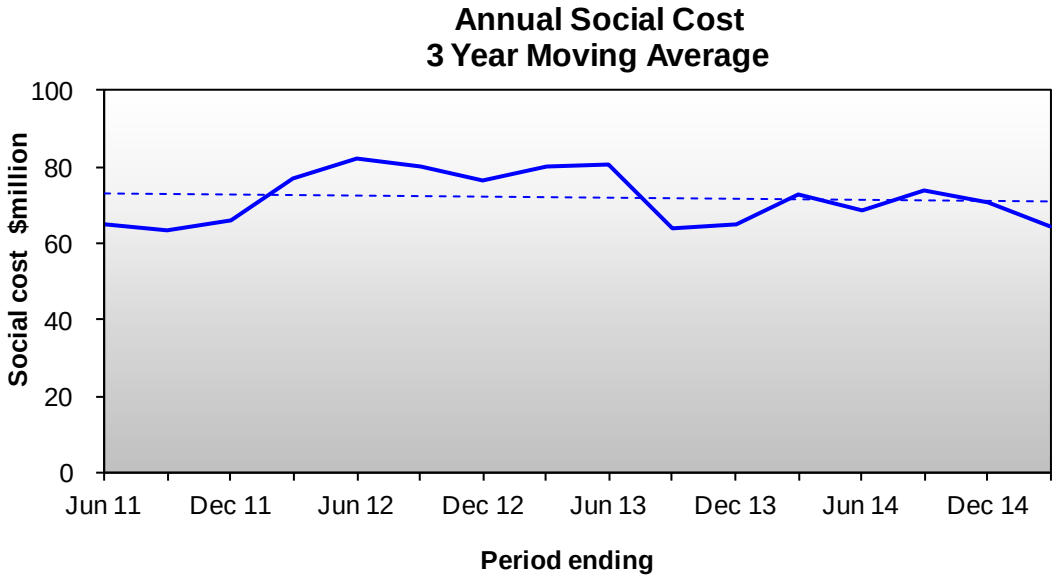
The graph above indicates the social cost contribution of each safety target sector averaged over the previous three years. A notable feature is the 'Public Air Transport' average annual social cost which has been steadily rising, until this quarter where it has decreased significantly, as it is a three year average and three years have passed since the fatal balloon accident in 2012.

The social cost of the 'Other Commercial' sector is showing a long-term decrease. Nonetheless in this quarter there was one fatal accident in the 'Other Commercial Operations - Helicopters' safety target group (2 fatal injuries and the aircraft destroyed). Details of accidents in this sector are shown on pages 7 and 9. The overall downwards trend is due to the past high social cost accrued from the Fox Glacier accident, but more recent accidents highlight the continuing safety threats in this sector.

Within the 'Non Commercial Operations' sector in the latest quarter the 'Private Operations - Aeroplanes' safety target group was the biggest contributor with 4 fatal injuries, and 1 aircraft destroyed. The next biggest contributor was 'Private Operations - Sport' with 2 fatal, 4 serious and 7 minor injuries and 5 aircraft destroyed. Details of accidents in this sector are shown on pages 7 to 9.

The combined annual social cost of all three sectors is shown in the graph on the next page and has decreased by 1% from $65M to $64M between 2011 and 2015.

Section 1



Accidents by Safety Target Group

Quarterly Comparison

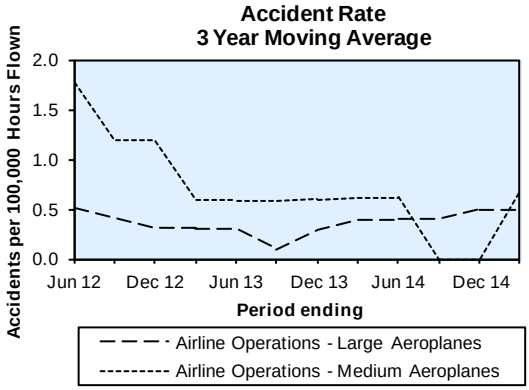
Safety Target Group	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Airline Operations - Large Aeroplanes	0	2	0.3
Airline Operations - Medium Aeroplanes	1	0	0.0
Airline Operations - Small Aeroplanes	0	0	0.7
Airline Operations - Helicopters	0	3	0.7
Sport Transport	4	4	2.3
Other Commercial Operations - Aeroplanes	2	3	1.7
Other Commercial Operations - Helicopters	3	1	0.7
Agricultural Operations - Aeroplanes	1	2	1.3
Agricultural Operations - Helicopters	2	1	1.0
Agricultural Operations - Sport Aircraft	0	0	0.0
Private Operations - Aeroplanes	4	5	3.7
Private Operations - Helicopters	2	0	1.7
Private Operations - Sport	11	29	18.7
Other	0	1	0.7
Total	**30**	51	33.3

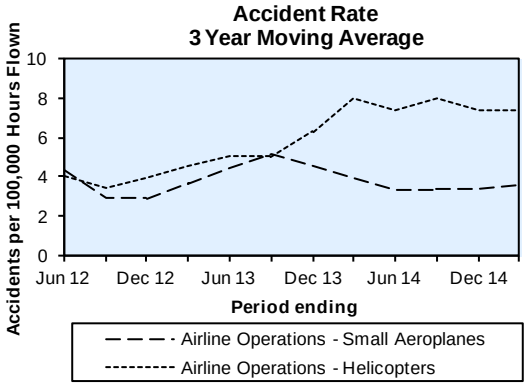
Comment

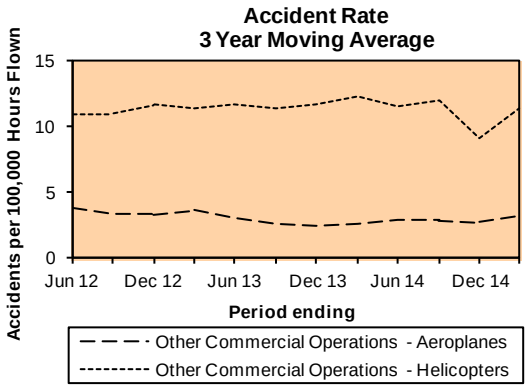
Overall accident numbers in the 2015 summer quarter have decreased by 21 (41%) in comparison to the 2014 summer quarter. The biggest decrease is within the Private Operations - Sport group.

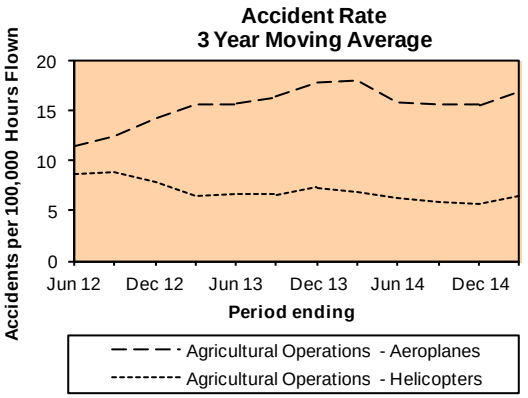
Trends

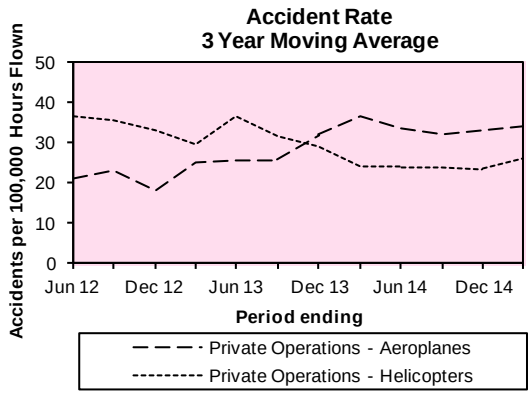
The following graphs show the aircraft accident rates (three year moving average) for the three-year period 1 April 2012 to 31 March 2015 (excluding the Sport Safety Target Groups, for which no accurate activity information is available).











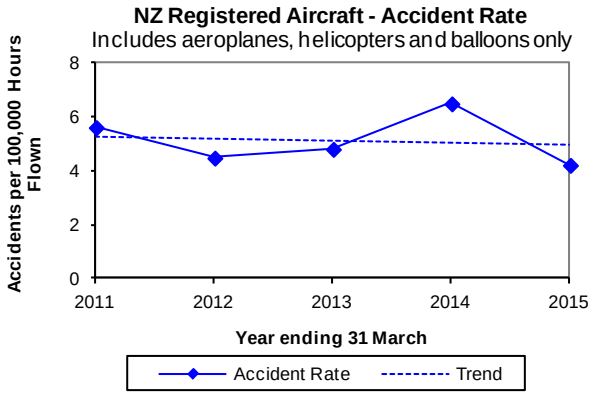
No accident rate information available for Sport Transport or Private Operations - Sport.

Sport Transport (Part 115) data not available for this period but may be provided from a future period.

Activity data is not provided by all aircraft classes in the Private Operations - Sport group (private amateur built aircraft, microlights, gliders, hang gliders and parachutes do not provide activity reports).

Overall Accident Rate

The following graph shows the overall accident rate per 100,000 hours flown. This data includes the aircraft classes aeroplane, helicopter and balloon only. Other aircraft classes such as amateur built aircraft, microlights, gliders, hang gliders and parachutes are excluded from this rate information. Data shown is for the five-year period 1 April 2010 to 31 March 2015. The accident rate has decreased to 4.2 accidents per 100,000 hours flown, which is below the average of approximately 5.3 accidents per 100,000 hours flown over the previous four years.



Note that this graph shows an annual rate and not a 3 year moving average.

Summary of Injury Accidents

This section describes injury accidents that occurred during the period 1 January to 31 March 2015. These descriptions are classified according to the highest level of injury sustained and the safety target group. Not all of these accidents were investigated by the CAA, and some of the CAA investigations have not been completed, so the text may be condensed from the original accident notification.

Fatal Accidents

Other Commercial Operations - Helicopter

- A Robinson R44 II went missing during a dual training flight. The helicopter was found later with the instructor and student deceased. The helicopter was destroyed.

Private Operations - Aeroplane

- A Cessna 185B (small aeroplane) crashed. The pilot and three passengers were found deceased. The aeroplane was destroyed.

Private Operations - Helicopter

- A Robinson R44 II struck power lines and impacted the sea. The pilot was killed. The helicopter was destroyed.

Private Operations - Sport

- A class 2 microlight had an accident during a dual training flight. The instructor and student were killed. The microlight was destroyed.

Serious Injury Accidents

Private Operations - Sport

- An amateur built helicopter experienced an engine overspeed during climb out, and made a heavy landing in a paddock. The pilot and passenger received serious injuries. The aircraft was destroyed.
- A solo hang glider made a hard landing, seriously injuring the pilot, who has little recall of the flight or landing.
- A hang glider experienced a rough landing resulting in a serious injury (small fracture of a vertebra).

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Minor Injury Accidents

Sport Transport

- A Pacific Aerospace 750XL (small aeroplane) on a parachuting operation suffered engine failure in the climb shortly after takeoff. All the skydivers and the pilot vacated the aircraft via parachute. The aeroplane was ditched into a lake. The pilot received minor injuries, the passengers were not injured. The aeroplane was destroyed.
- A paraglider on a passenger transport A to B flight collapsed on takeoff causing the pilot and passenger to slide for some distance. The passenger received minor injuries.
- The left wing of a hang glider on a passenger transport A to B flight went down on the takeoff run. The pilot failed to correct with weight shift to the right to get wings level. The hang glider veered and went through some tussock grass. The hang glider ground looped on the wheels and came to rest upright on the slope. The pilot and passenger received minor injuries.

Other Commercial Operations - Helicopter

- A Hughes 369D crashed during fire fighting operations. During refilling the monsoon bucket in a river one of the four strops attached from the helicopter hook to the bucket got caught around the left rear skid (also fitted with a snow shoe). The pilot descended to release tension and the current carried the bucket down stream pulling the aircraft out of C of G and causing tail rotor strike. The pilot received minor injuries. The helicopter was destroyed.
- During landing after a test flight, the Robinson R44's skid got hooked onto a boat part and it rolled into the water. The engineer sustained minor injuries, the pilot was not injured.

Agricultural Operations - Helicopter

- The engine of a Robinson R22 Beta stopped and the helicopter crashed into the ground. The pilot received minor injuries. The aircraft was destroyed.

Private Operations - Sport

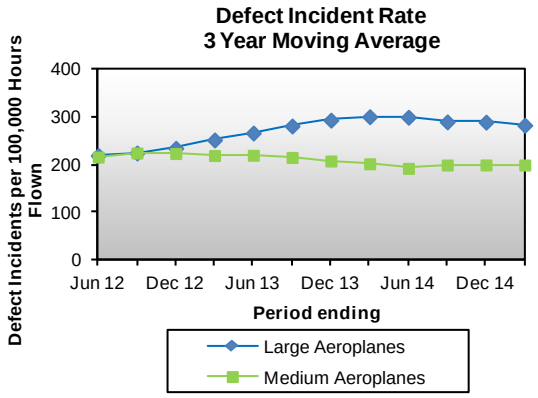
- A pilot experienced restricted aileron control movement during a glider flight. The pilot subsequently bailed out. The pilot received minor injuries. The glider was destroyed.
- A paraglider pilot hit a strong sink a few metres from the ground and flared. The pilot's feet touched the ground first, but slid out from the pilot and the harness. The airbag took the brunt of the impact and the pilot received minor injuries.

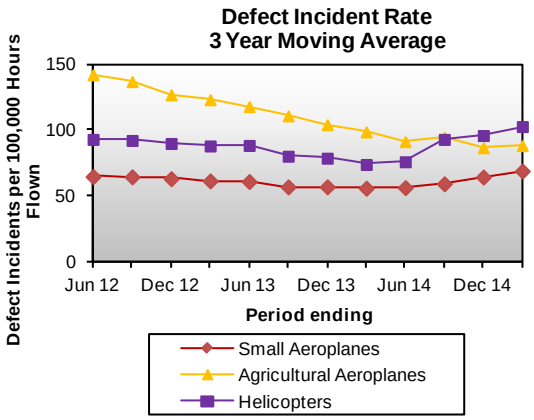
Section 2 - Incidents

Defect Incidents by Aircraft Statistics Category

Trends

The following graphs show the reported defect incident rates (three year moving average) for the three-year period 1 April 2012 to 31 March 2015 (excluding the Sport Aircraft statistics category).





Quarterly Comparison

Number of Reported Defect Incidents

Aircraft Statistics Category	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	142	259	231.7
Medium Aeroplanes	16	25	29.7
Small Aeroplanes	80	41	56.0
Agricultural Aeroplanes	16	6	13.7
Helicopters	60	28	44.7
Sport Aircraft	11	8	8.7
Unknown Aircraft	9	17	11.3
Total	**334**	**384**	**395.7**

Severity of Reported Defect Incidents

Severity	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Critical	0	1	1.0
Major	22	44	78.3
Minor	312	339	316.3

No critical defect incidents were reported in the 1 January to 31 March 2015 quarter.

Rate Monitoring

Defect incident rate monitoring of individual types of large and medium air transport aircraft has been carried out for the period ended 31 March 2015, using estimated data for some of the aircraft types due to a shortage of returned Aircraft Operations Statistics for these aircraft. Analysis shows that 3 of the 15 monitored aircraft types have defect rates above the “trigger level” for CAA action (2 of the 12 types of large aeroplane and 1 of the 3 types of medium aeroplane).

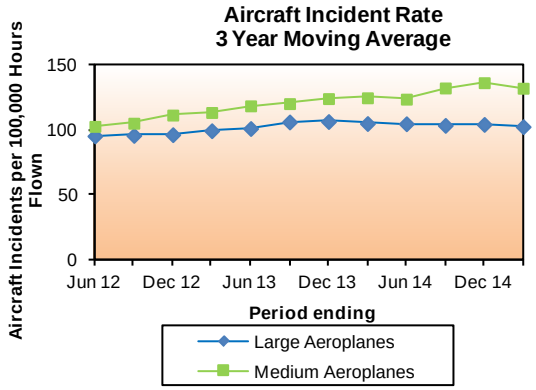
Medium and large aeroplane categories include all aircraft with more than 10 passenger seats operated under CAR Part 125 or 121.

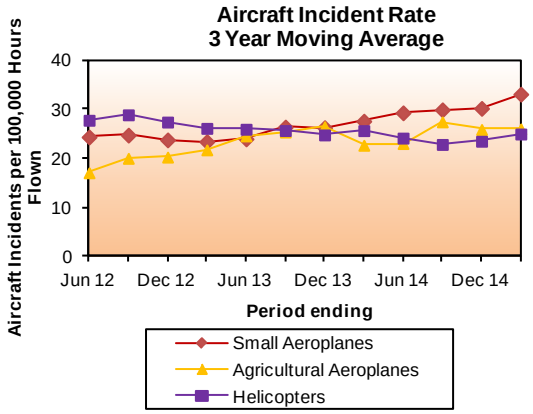
Section 2

Aircraft Incidents by Aircraft Statistics Category

Trends

The following graphs show the reported aircraft incident rates (three year moving average) for the three-year period 1 April 2012 to 31 March 2015 (excluding the Sport Aircraft statistics category). An aircraft incident is any safety occurrence related to the operation of an aircraft that does not result in an accident and is not classified as one of the other nine incident types. Examples of aircraft incidents include hard landings, lightning strikes, icing encounters, turn backs, diversions and go-arounds.





Quarterly Comparison

Number of Reported Aircraft Incidents

Aircraft Statistics Category	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	58	77	90.7
Medium Aeroplanes	5	5	16.7
Small Aeroplanes	37	25	16.7
Agricultural Aeroplanes	2	1	4.0
Helicopters	16	13	8.0
Sport Aircraft	12	9	7.3
Unknown Aircraft	55	45	46.7
Total	**185**	**175**	**190.0**

Severity of Reported Aircraft Incidents

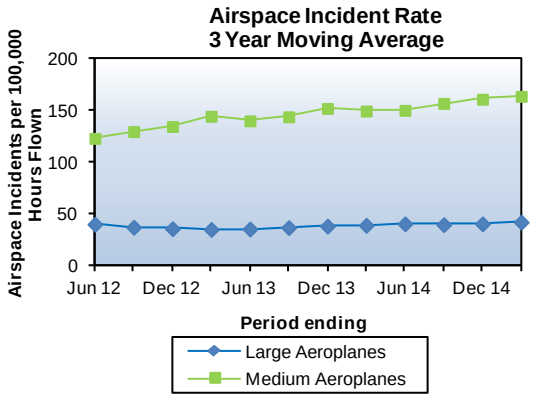
Severity	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Critical	2	1	1.7
Major	22	22	25.0
Minor	161	152	163.3

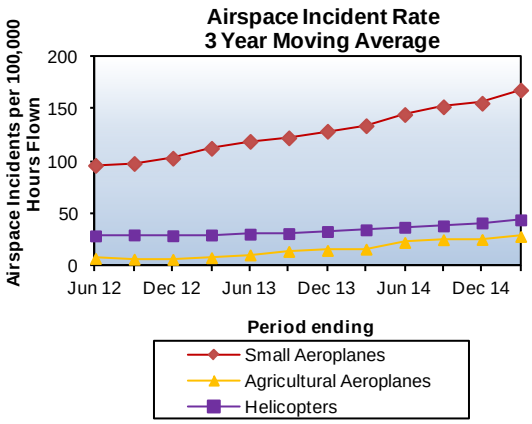
Of the 2 critical aircraft incidents reported in the 1 January to 31 March 2015 quarter, 1 was in the 'Sport Aircraft' statistics category and 1 was in the 'Unknown Aircraft' statistics category.

Airspace Incidents by Aircraft Statistics Category

Trends

The following graphs show the reported airspace incident rates (three year moving average) for the three-year period 1 April 2012 to 31 March 2015 (excluding the Sport Aircraft statistics category).





Quarterly Comparison

Number of Reported Airspace Incidents

Aircraft Statistics Category	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	47	38	31.7
Medium Aeroplanes	18	14	28.0
Small Aeroplanes	167	132	120.3
Agricultural Aeroplanes	2	2	1.3
Helicopters	28	21	19.0
Sport Aircraft	23	28	29.0
Unknown Aircraft	166	123	118.7
Total	**451**	**358**	**348.0**

Severity of Reported Airspace Incidents

Severity	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Critical	0	2	2.7
Major	31	44	54.0
Minor	420	312	291.3

No critical airspace incidents were reported in the 1 January to 31 March 2015 quarter. Analysis of reported airspace incidents continues on next page.

Attributability

Of the 451 reported airspace incidents in the 1 January to 31 March 2015 quarter, 15% are Air Traffic Service (ATS) attributable, 78% are pilot attributable, 2% are ATS and pilot attributable, and 5% are unknown attributable.
(Note that the percentages may not sum exactly to 100% due to rounding.)

Since April 2012 the long-term trend of the ATS attributable airspace occurrence rate is upward and the long-term trend of the pilot attributable rate is upward.

Bird Incident Rates

Bird hazard monitoring has been carried out for the period ended 31 March 2015.

There were 6 aerodromes with strike rates in the high risk category of the CAA standard (10.0 and above bird strikes per 10,000 aircraft movements), 4 having long-term upward trends and 2 having long-term downward trends.

There were 7 aerodromes with strike rates in the medium risk category (5.0 to 10.0 per 10,000 movements), 5 having long-term upward trends, 1 having a long-term constant trend and 1 having a long-term downward trend.

15 aerodromes had strike rates in the low risk category (below 5.0 per 10,000 aircraft movements), 4 having long-term upward trends, 5 having long-term constant trends and 6 having long-term downward trends.

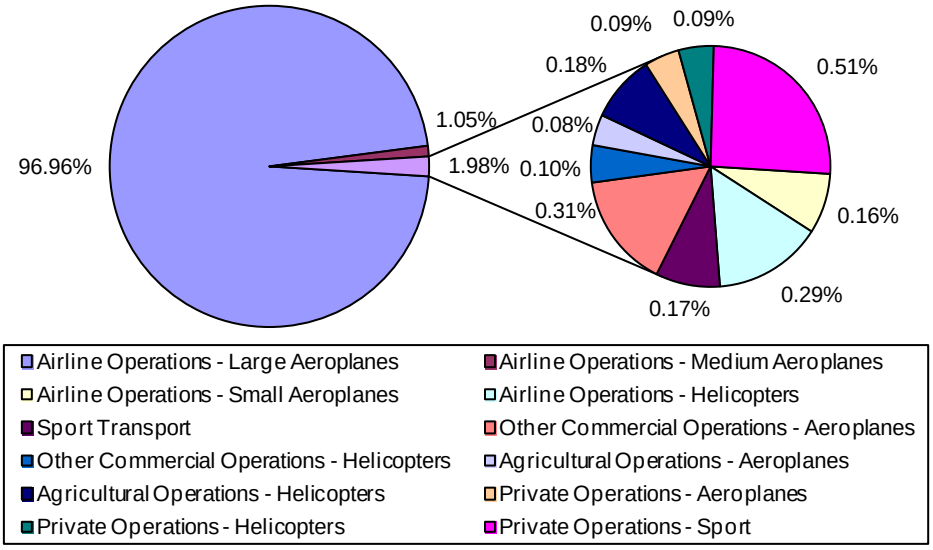
For more information visit the ‘Bird Hazard Reports’ section of the CAA web site http://www.caa.govt.nz/safety_info/safety_reports.htm

Section 3 - Activity

Industry Size and Shape by Safety Target Group

The following graph and table show the size and shape of the aviation industry as determined from Aircraft Operating Statistics in the relevant Safety Target Group categories for the period 1 October to 31 December 2014 (the most recent quarter for which adequate data are available) with an allowance for aircraft for which reports were not received. Adequate flying hours data for the 1st quarter of 2015 are not available yet due to later returns from operators. For each Safety Target Group the total number of hours flown is multiplied by the average number of seats and the appropriate load factor, to give the number of seat hours utilised by the group (person exposure). For Safety Target Groups that are not predominantly passenger carrying a surrogate of 500 kg of aircraft weight is used instead of person exposure. For the Sport Safety Target Groups a standard estimate of seat hours offered is used as well as reported data for such aircraft in these groups, as most sport aircraft do not report hours or seats.

Percentage Sector Seat Hours



Safety Target Group	Percentage Sector Seat Hours
Airline Operations - Large Aeroplanes	96.96
Airline Operations - Medium Aeroplanes	1.05
Airline Operations - Small Aeroplanes	0.16
Airline Operations - Helicopters	0.29
Sport Transport	0.17
Other Commercial Operations - Aeroplanes	0.31
Other Commercial Operations - Helicopters	0.10
Agricultural Operations - Aeroplanes	0.08
Agricultural Operations - Helicopters	0.18
Agricultural Operations - Sport	-
Private Operations - Aeroplanes	0.09
Private Operations - Helicopters	0.09
Private Operations - Sport	0.51

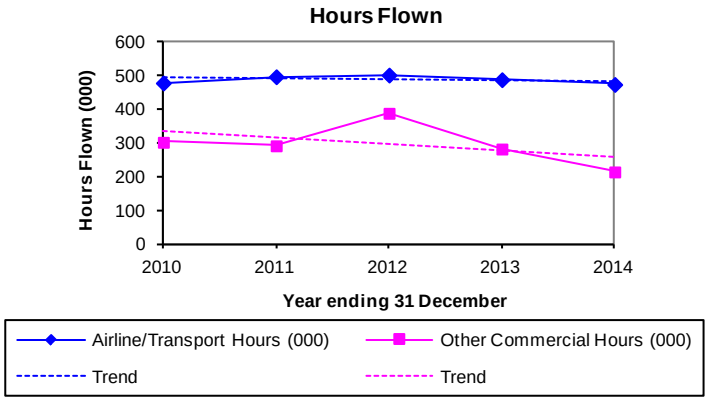
Note that the percentages may not sum exactly to 100.00% due to rounding.

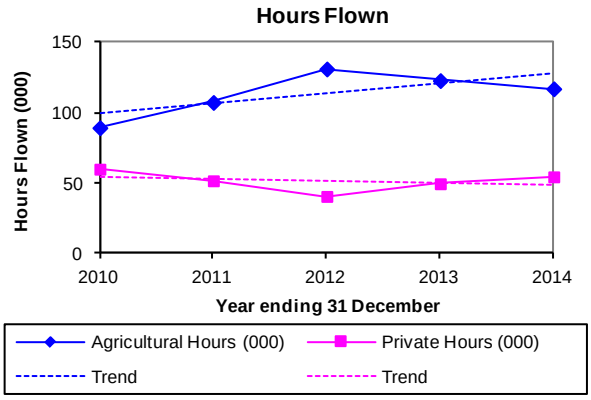
Section 3

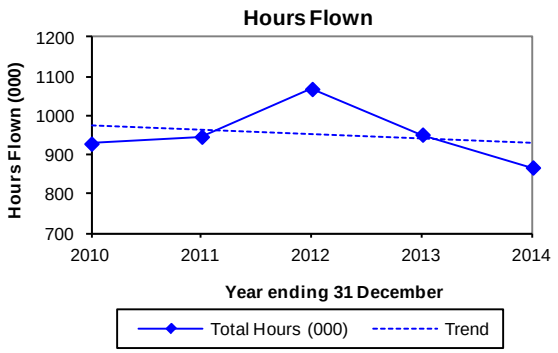
Hours by Operation Type

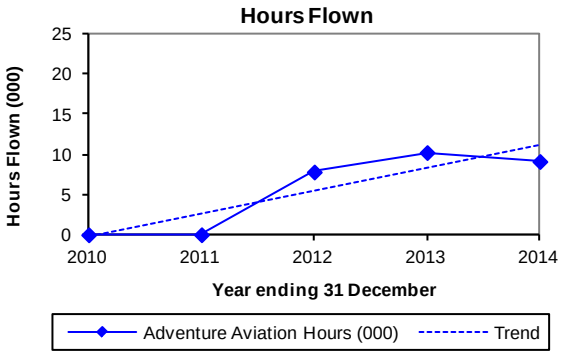
Trends

The following graphs show the number of hours flown (annual data) for the five-year period 1 January 2010 to 31 December 2014 (for the aircraft classes aeroplane, helicopter and balloon only). Adequate flying hours data for the 1st quarter of 2015 are not available yet due to later returns from operators.









Note that the scales on some of these graphs do not start at zero.

Note that the reporting of adventure aviation hours as a separate category began in 2012.

Quarterly Comparison

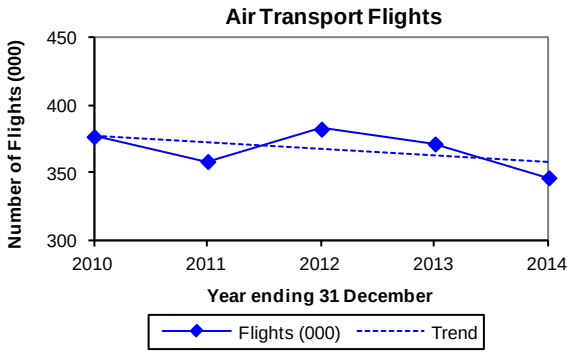
Activity	1 Oct to 31 Dec 2014	1 Oct to 31 Dec 2013	Average Of Same Quarter In Previous 3 Years
Airline/Transport Hours	124,932	121,504	132,451
Adventure Aviation Hours	2,532	2,595	1,218
Other Commercial Hours	48,444	67,798	82,374
Agricultural Hours	31,384	32,719	28,475
Private Hours	14,361	12,853	12,741
Total Hours	**221,652**	**237,470**	**257,259**

Note that these assessments include the aircraft classes aeroplane, helicopter and balloon only and exclude other aircraft classes such as hang gliders and parachutes, and foreign registered aircraft that are operated in New Zealand. These assessments are based on the reported Aircraft Operating Statistics for periods up to the quarter ended 31 December 2014 (the most recent quarter for which adequate data are available) with an allowance for aircraft for which reports were not received.

Air Transport Flights

Trends

The following graph shows the number of air transport flights (annual data) for the five-year period 1 January 2010 to 31 December 2014 (for the aircraft classes aeroplane, helicopter and balloon only).



Note that the scale on this graph does not start at zero.

Quarterly Comparison

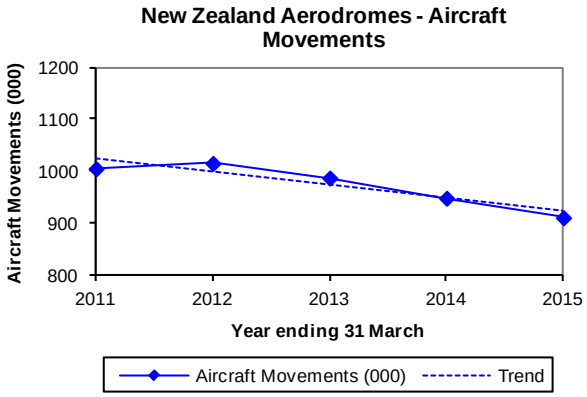
Activity	1 Oct to 31 Dec 2014	1 Oct to 31 Dec 2013	Average Of Same Quarter In Previous 3 Years
Air Transport Flights	92,999	94,630	100,430

Note that these assessments include the aircraft classes aeroplane, helicopter and balloon only and exclude other aircraft classes such as hang gliders and parachutes, and foreign registered aircraft that are operated in New Zealand. These assessments are based on the reported Aircraft Operating Statistics for periods up to the quarter ended 31 December 2014 (the most recent quarter for which adequate data are available) with an allowance for aircraft for which reports were not received.

Aircraft Movements

Trends

The following graph shows the number of aircraft movements at certificated aerodromes (annual data) for the five-year period 1 April 2010 to 31 March 2015.



Note that the scale on this graph does not start at zero.

Quarterly Comparison

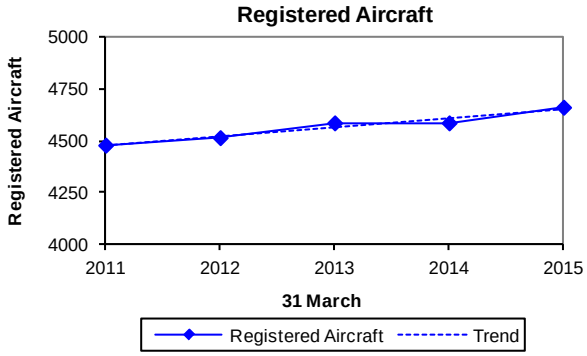
Activity	1 Jan to 31 Mar 2015	1 Jan to 31 Mar 2014	Average Of Same Quarter In Previous 3 Years
Aircraft Movements	237,404	247,546	258,184

Note that this covers certificated aerodromes only. These figures are as reported to CAA by Airways Corporation and Taupo Airport. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Paraparaumu (certificated from April 2009, included in the graph from late July 2011), Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika (certificated from Apr 2010), Kerikeri/Bay of Islands, Mount Cook (certificated from Nov 2012), Te Anau/Manapouri, Timaru, Wanganui, Westport and Whangarei.

Registered Aircraft by Aircraft Statistics Category

Trends

The following graph shows the number of registered aircraft at 31 March for each of the five-years 2011 to 2015.



Note that the scale on this graph does not start at zero.

Quarterly Comparison

Aircraft Statistics Category	31 March 2015	31 March 2014	Average Of 31 March In Previous 3 Years
Large Aeroplanes	120	128	127
Medium Aeroplanes	78	80	79
Small Aeroplanes	1,510	1,516	1,524
Agricultural Aeroplanes	96	103	109
Helicopters	840	803	777
Sport Aircraft	2,018	1,957	1,912
Total	**4,662**	4,587	4,528

Note that these figures include the sport aircraft statistics category but exclude hang gliders, paragliders and parachutes.

Licences and Organisations

The number of Recreational Pilot Licences (with a medical fitness certificate) increased from 289 at 31 March 2014 to 337 at 31 March 2015, an increase of 48 (17%). The number of Private Pilot Licences (with an active class 1 or active class 2 medical certificate) decreased from 2,948 to 2,587, a decrease of 361 (12%).

Over the same period the number of Part 115 certificated Adventure Aviation Operators decreased from 32 to 27, a decrease of 5 (16%).

Section 4 - Quarterly Statistics

Quarter	2012/2	2012/3	2012/4	2013/1	2013/2	2013/3
Social Cost $ million[1]	16.36	1.12	15.68	27.02	3.09	2.54
Number of Fatal Accidents[2]	2	0	3	3	0	0
Number of Fatal Injuries[2]	3	0	3	5	0	0
Number of Serious + Minor Injuries[2]	7	4	7	12	10	6
Number of Aircraft Accidents[2]						
Large Aeroplanes	0	0	0	0	0	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	3	3	2	11	6	4
Agricultural Aeroplanes	2	2	4	2	3	1
Helicopters	5	3	5	5	8	1
Sport Aircraft	9	5	7	11	8	6
Unknown Aircraft	0	0	0	1	0	0
Hang Gliders	1	2	3	4	4	2
Parachutes	3	2	3	3	1	0
Number of Incidents[3]	1,184	1,271	1,324	1,515	1,460	1,376
Number of Aviation Related Concerns[4]	194	220	156	206	181	219
Number of Hours Flown[5]	238,082	252,953	285,327	266,874	224,138	223,956
Number of Air Transport Flights[5]	83,230	88,599	109,342	103,438	87,424	86,283
Number of Aircraft Movements[6]	243,135	239,410	248,728	256,386	227,657	232,694
Number of Aircraft on the Register[7]	4,532	4,558	4,581	4,587	4,579	4,577
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	9	9	9	9	9	9
Air Operator – Medium Aeroplanes	15	14	15	16	16	16
Air Operator – Helicopters and Small Aeroplanes	171	166	168	174	173	168
Number of Part 115 Adventure Aviation Operators	20	28	33	33	33	34
Number of Part 137 Agricultural Aircraft Operators	99	99	104	103	103	98
Number of Part 141 Training Organisations	57	58	59	59	57	57
Number of Part 149 Recreation Organisations	9	7	7	7	7	8
Number of Licences (Type of Medical Certificate)[8]						
Recreational Pilot Licence (RPL Medical)	221	224	240	248	247	267
Private Pilot Licence (Class 1 & 2)	3,458	3,451	3,361	3,298	3,193	3,108
Commercial Pilot Licence (Class 2 only)	2,379	2,428	2,420	2,561	2,554	2,578
Commercial Pilot Licence (Class 1)	2,337	2,316	2,366	2,225	2,217	2,167
Airline Transport Pilot Licence (Class 2 only)	915	953	993	1,053	993	1,060
Airline Transport Pilot Licence (Class 1)	1,175	1,140	1,119	1,078	1,163	1,121
Air Traffic Controller Licence (Class 3)	374	374	363	363	367	375
Aircraft Maintenance Engineer Licence (N/A)	2,575	2,595	2,611	2,626	2,639	2,647

[1] All aircraft statistics categories. Includes hang gliders and parachutes. Cost of fatal, serious and minor injuries, and aircraft destroyed, in June 2014 dollars.
[2] All accidents. All aircraft statistics categories. Includes hang gliders and parachutes.
[3] Number of reported incidents. All incident sub-types.
[4] Number of reported Aviation Related Concerns.
[5] New Zealand registered aircraft. Includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes. Based on reported Aircraft Operating Statistics for periods up to the quarter ended 31 December 2014 (the most recent quarter for which adequate data are available) with an allowance for aircraft for which reports were not received. Estimated for 2015/1.

Quarter	2013/4	2014/1	2014/2	2014/3	2014/4	2015/1
Social Cost $ million[1]	14.59	36.77	10.79	16.52	14.67	41.89
Number of Fatal Accidents[2]	2	5	1	2	2	4
Number of Fatal Injuries[2]	2	6	2	2	2	9
Number of Serious + Minor Injuries[2]	21	19	6	16	23	13
Number of Aircraft Accidents[2]						
Large Aeroplanes	2	2	0	0	1	0
Medium Aeroplanes	0	0	0	0	0	1
Small Aeroplanes	7	8	3	2	4	7
Agricultural Aeroplanes	3	2	0	0	1	1
Helicopters	6	5	2	4	3	7
Sport Aircraft	10	22	5	2	13	8
Unknown Aircraft	1	2	0	0	0	0
Hang Gliders	4	6	0	5	7	5
Parachutes	1	4	3	2	3	1
Number of Incidents[3]	1,377	1,280	1,242	1,375	1,277	1,411
Number of Aviation Related Concerns[4]	208	270	171	215	224	238
Number of Hours Flown[5]	237,470	240,895	197,540	208,378	221,652	229,457
Number of Air Transport Flights[5]	94,630	97,311	77,433	79,003	92,999	92,325
Number of Aircraft Movements[6]	240,943	247,546	221,072	232,016	220,846	237,404
Number of Aircraft on the Register[7]	4,562	4,587	4,552	4,570	4,615	4,662
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	9	9	9	9	8	8
Air Operator – Medium Aeroplanes	15	15	14	13	12	13
Air Operator – Helicopters and Small Aeroplanes	166	167	168	167	165	163
Number of Part 115 Adventure Aviation Operators	34	32	28	27	27	27
Number of Part 137 Agricultural Aircraft Operators	99	99	99	98	97	101
Number of Part 141 Training Organisations	56	52	53	55	55	56
Number of Part 149 Recreation Organisations	8	8	8	8	8	8
Number of Licences (Type of Medical Certificate)[8]						
Recreational Pilot Licence (RPL Medical)	281	289	293	311	320	337
Private Pilot Licence (Class 1 & 2)	3,017	2,948	2,816	2,763	2,617	2,587
Commercial Pilot Licence (Class 2 only)	2,571	2,527	2,544	2,515	2,442	2,390
Commercial Pilot Licence (Class 1)	2,150	2,147	2,098	2,107	2,125	2,141
Airline Transport Pilot Licence (Class 2 only)	1,052	990	994	986	998	987
Airline Transport Pilot Licence (Class 1)	1,120	1,204	1,223	1,232	1,226	1,232
Air Traffic Controller Licence (Class 3)	380	381	381	384	379	379
Aircraft Maintenance Engineer Licence (N/A)	2,660	2,678	2,699	2,708	2,726	2,737

[6] Certificated aerodromes. Reported to CAA by Airways Corporation and Taupo Airport. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Paraparaumu, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika, Kerikeri/Bay of Islands, Mount Cook (certificated from Nov 2012), Te Anau/Manapouri, Timaru, Wanganui, Westport and Whangarei.

[7] As at the last day of the quarter. Includes the sport aircraft statistics category, excluding hang gliders, paragliders and parachutes.

[8] As at the last day of the quarter. For RPL holders, a medical fitness certificate, in accordance with the NZTA medical fitness standards that are applicable for a Class 2, 3, 4 or 5 driver licence with a passenger endorsement. For PPL, CPL & ATPL holders, an active class 1 or active class 2 medical certificate; this means that for CPL and ATPL licences, the number with a class 2 medical only, must only be exercising PPL privileges (or not flying at all). For ATCL holders, an active class 3 medical certificate. This does not show the number of licence holders as each client may hold more than one licence.

Definitions

Accident

An occurrence that is associated with the operation of an aircraft and takes place between the time any person boards the aircraft with the intention of flight and such time as all such persons have disembarked and the engine or any propellers or rotors come to rest, being an occurrence in which–

(1) a person is fatally or seriously injured as a result of–

(i) being in the aircraft; or

(ii) direct contact with any part of the aircraft, including any part that has become detached from the aircraft; or

(iii) direct exposure to jet blast–

except when the injuries are self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to passengers and crew; or

(2) the aircraft sustains damage or structural failure that–

(i) adversely affects the structural strength, performance, or flight characteristics of the aircraft; and

(ii) would normally require major repair or replacement of the affected component–

except engine failure or damage that is limited to the engine, its cowlings, or accessories, or damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents, or puncture holes in the aircraft skin; or

(3) the aircraft is missing or is completely inaccessible.

Aircraft Incident

Any incident, not otherwise classified, associated with the operation of an aircraft which did not immediately affect the safety of an aircraft operation but which,

(1) if allowed to continue uncorrected, or

(2) if repeated in different but likely circumstances,

could affect the safety of an aircraft operation.

Note about Social Cost

Social cost is a way of measuring safety performance by accounting for the number and severity of casualties, and aircraft damage. The values used to estimate cost to the nation of fatal, serious and minor injuries are obtained from the annual report of the 'Social Cost of Road Crashes and Injuries' published by the Ministry of Transport. The Ministry of Transport has directed its agencies to use social cost to permit comparisons between transport modes. The current value of statistical life is $3.95 million. Estimates of the values of aircraft destroyed or written off are made by the CAA on the basis of market prices in a number of developed aviation nations.

Aircraft Statistics Category

The following table shows the definition of each aircraft statistics category and the aircraft classes included.

Aircraft Statistics Category	Definition	Aircraft Class
Large Aeroplanes	Aeroplanes that must be operated under Part 121 when used for air transport	Aeroplane
Medium Aeroplanes	Aeroplanes that must be operated under Part 125 when used for air transport, except for those required to operate under Part 125 solely due to operating SEIFR	Aeroplane
Small Aeroplanes	Other Aeroplanes with Standard Category Certificates of Airworthiness	Aeroplane
Agricultural Aeroplanes	Aeroplanes with Restricted Category Certificates of Airworthiness limited to agricultural operations	Aeroplane
Helicopters	Helicopters with Standard or Restricted Category Certificates of Airworthiness	Helicopter
Sport Aircraft	All aircraft not included in the groups above	Aeroplane, Amateur Built Aeroplane, Amateur Built Glider, Amateur Built Helicopter, Balloon, Glider, Gyroplane, Helicopter, Microlight Class 1, Microlight Class 2, Power Glider

Other Aircraft Types (not included on the NZ Aircraft Register)

Hang Glider
A glider, including a powered glider, that is capable of being launched and landed solely by the use of the pilot's legs, and includes paragliders. **Paraglider** means a hang glider with no rigid primary structure.

Parachute
Any device, without a motor in operation, comprising a flexible drag, or lift/drag, surface from which a load is suspended by shroud lines capable of controlled deployment from a packed condition.

Airspace Incident

An incident involving deviation from, or shortcomings of, the procedures or rules for–

(1) avoiding a collision between aircraft; or

(2) avoiding a collision between aircraft and other obstacles when an aircraft is being provided with an Air Traffic Service.

Bird Incident

Means an incident where–

(1) there is a collision between an aircraft and one or more birds; or

(2) when one or more birds pass sufficiently close to an aircraft in flight to cause alarm to the pilot.

Defect Incident

An incident that involves failure or malfunction of an aircraft or aircraft component, whether found in flight or on the ground.

Fatal Injury

An injury which results in death within 30 days of the accident.

Incident

Any occurrence, other than an accident, that is associated with the operation of an aircraft and affects or could affect the safety of operation.

Incident Sub-Types	
Aerodrome Incident	Dangerous Goods Incident
Aircraft Incident	Defect Incident
Airspace Incident	Facility Malfunction Incident
Bird Incident	Promulgated Information Incident
Cargo Security Incident	Security Incident

Occurrence

Means an accident or incident.

Serious Injury

Means any injury that is sustained by a person in an accident and that–

(1) requires hospitalisation for more than 48 hours, commencing within 7 days from the date the injury was received; or

(2) results in a fracture of any bone, except simple fractures of fingers, toes, or nose; or

(3) involves lacerations which cause severe haemorrhage, nerve, muscle, or tendon damage; or

(4) involves injury to an internal organ; or

(5) involves second or third degree burns, or any burns affecting more than 5% of the body surface; or

(6) involves verified exposure to infectious substances or injurious radiation.

Severity

The following definitions apply to the severity accorded to accidents and incidents as the result of investigation of occurrences:

Severity	Definition
Critical	An occurrence or deficiency that caused, or on its own had the potential to cause, loss of life or limb;
Major	An occurrence or deficiency involving a major system that caused, or had the potential to cause, significant problems to the function or effectiveness of that system;
Minor	An isolated occurrence or deficiency not indicative of a significant system problem.

Safety Target Structure