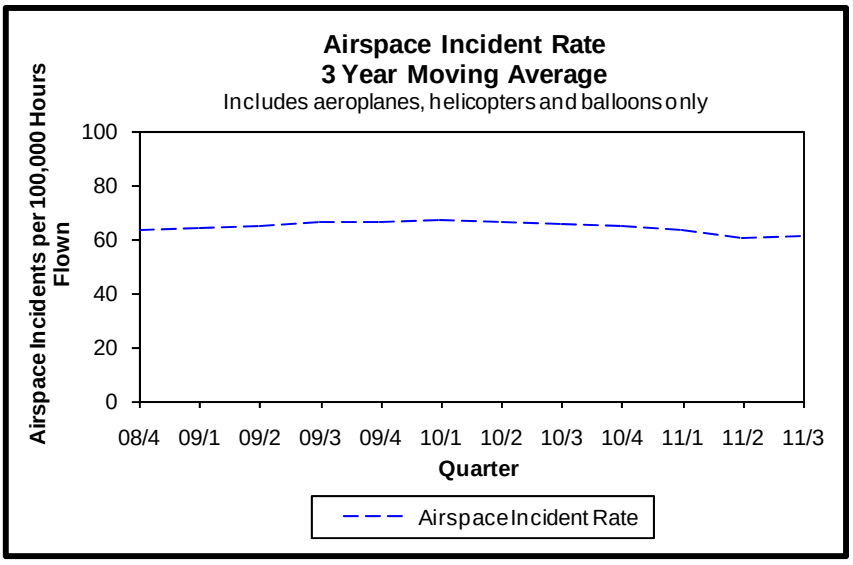
CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Aviation Safety Summary Report

1 July to 30 September 2011



Introduction

The purpose of this report is to provide readers with a quarterly snapshot of the aviation industry in terms of its size, shape, activity and safety performance. This complements the more detailed six-monthly "Aviation Industry Safety Update", which is available only on the CAA website.

This report uses calendar years; the first quarter is 1 January to 31 March.

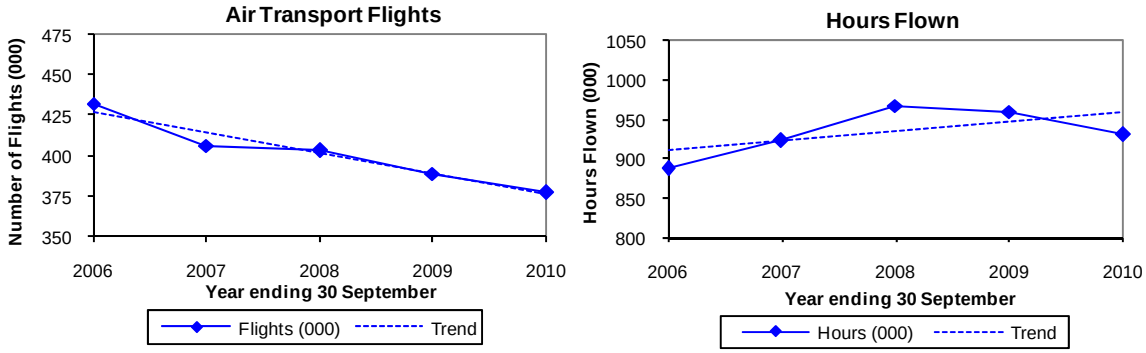
Overview

Activity

Air Transport Flights, Total Hours

Trends

The following graphs show the number of air transport flights and the total number of hours flown (annual data) for the five-year period 1 October 2005 to 30 September 2010 (includes the aircraft classes aeroplane, helicopter and balloon only).



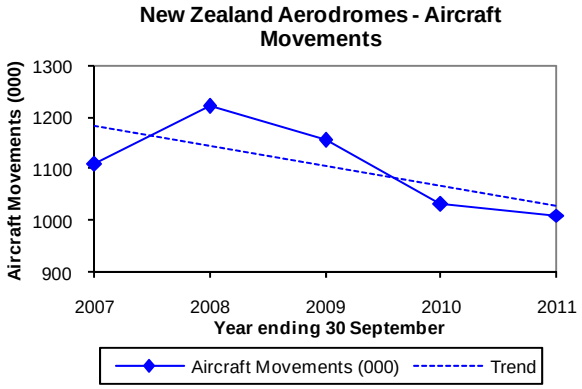
Note that the scales on these graphs do not start at zero.

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 Aircraft Operating Statistics for periods up to the quarter ended 30 September 2010 (the most recent quarter for which these data are available).

Aircraft Movements

Trends

The following graph shows the number of aircraft movements at certificated aerodromes (annual data) for the five-year period 1 October 2006 to 30 September 2011.



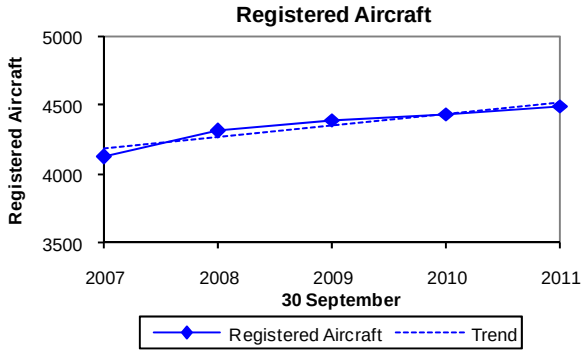
Note that the scale on this graph does not start at zero.

Note that this covers certificated aerodromes only. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika (certificated from Apr 2010), Kerikeri/Bay of Islands, Mount Cook (certificated until Sep 2009), Paraparaumu (certificated from Apr 2009), Te Anau/Manapouri, Timaru, Wanganui, Westport and Whangarei.

Registered Aircraft

Trends

The following graph shows the number of registered aircraft at 30 September for each of the five-years 2007 to 2011.



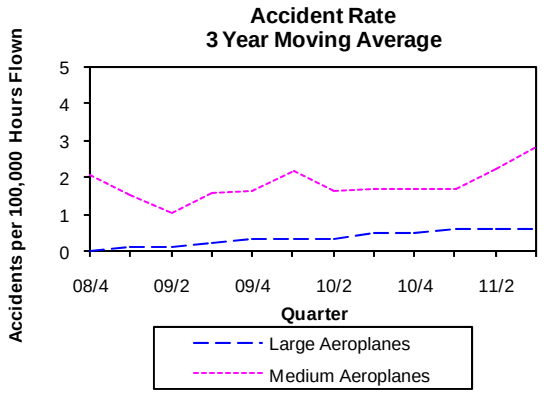
Note that the scale on this graph does not start at zero.

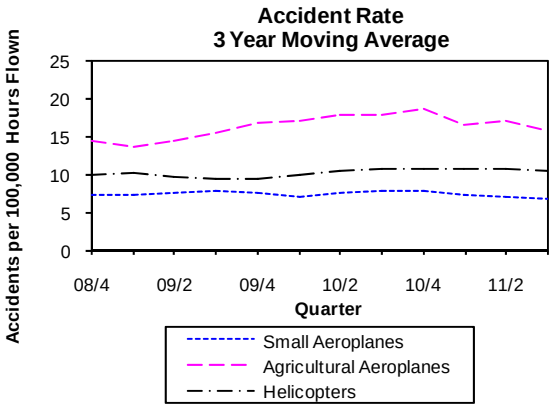
Note that these figures include the sport aircraft statistics category and exclude hang gliders and parachutes.

Accidents

Trends

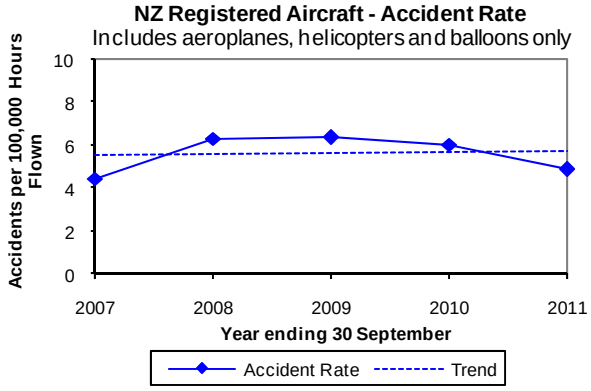
The following graphs show the aircraft accident rates (3 year moving average) for the three-year period 1 October 2008 to 30 September 2011 (excluding the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes).





Overall Accident Rate

The following graph shows the overall accident rate per 100,000 hours flown (includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes) for the five-year period 1 October 2006 to 30 September 2011.



Note that this graph does not show a moving average.

Safety Outcome Targets for 2014

Safety Target Structure

The 2014 Safety Targets have all New Zealand aviation classified under three broad group headings: Public Air Transport, Other Commercial Operations, and Non-Commercial Operations.

Thirteen further sub-groups enable differentiation between aeroplanes, helicopters, and sport aircraft, and also allow for different weight groups. A diagram of the grouping is shown in the Definitions section.

The following table displays the social cost for each Safety Target Group for the quarters 1 July to 30 September 2010 and 2011. Social cost is the cost of fatal, serious and minor injuries, and aircraft destroyed, expressed in 2010 dollars.

Safety Target Group	1 Jul to 30 Sep 2010 $m	1 Jul to 30 Sep 2011 $m	Change $m
Airline Operations - Large Aeroplanes	0.00	0.02	+ 0.02
Airline Operations - Medium Aeroplanes	0.00	0.00	0.00
Airline Operations - Small Aeroplanes	0.00	0.00	0.00
Airline Operations - Helicopters	0.00	0.00	0.00
Sport Transport	0.00	0.37	+ 0.37
Other Commercial Operations - Aeroplanes	41.12	0.00	- 41.12
Other Commercial Operations - Helicopters	0.00	0.02	+ 0.02
Agricultural Operations - Aeroplanes	0.00	0.00	0.00
Agricultural Operations - Helicopters	0.00	0.29	+ 0.29
Agricultural Operations - Sport	0.00	0.00	0.00
Private Operations - Aeroplanes	0.00	0.00	0.00
Private Operations - Helicopters	2.14	0.00	- 2.14
Private Operations - Sport	4.09	0.81	- 3.28
Total	**47.35**	**1.51**	**- 45.84**

Note that the individual values in the table may not sum exactly to the total shown due to rounding.

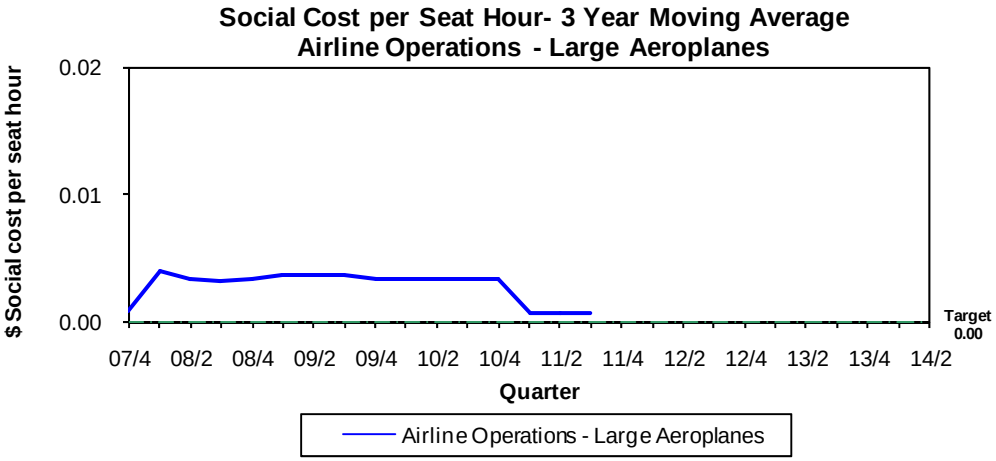
Note that the Sport groups include hang gliders and parachutes.

Safety Target Graphs

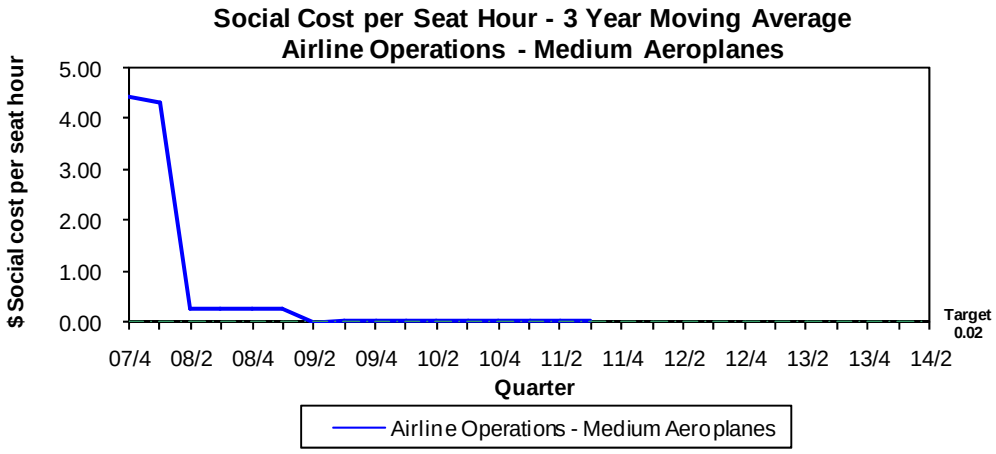
Each Safety Target Group has its own target level expressed as social cost per unit of person exposure, the unit being “one seat hour”. For Safety Target Groups that are not predominantly passenger carrying a surrogate of 500 kg of aircraft weight is used instead of person exposure. These outcomes represent the maximum level of social cost considered acceptable for each group.

The results for all groups are derived using 3 year averages.

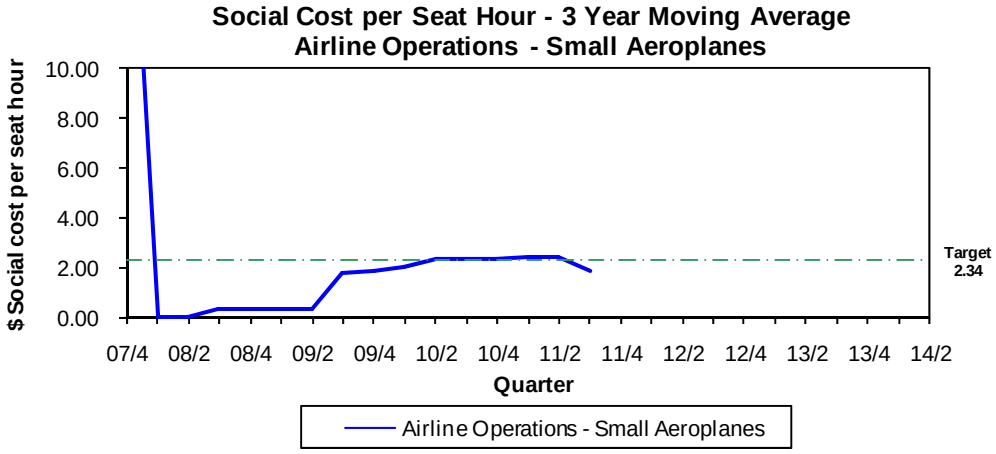
Graphs displaying the Safety Outcome Targets and the progress over each quarter are shown on the following pages.



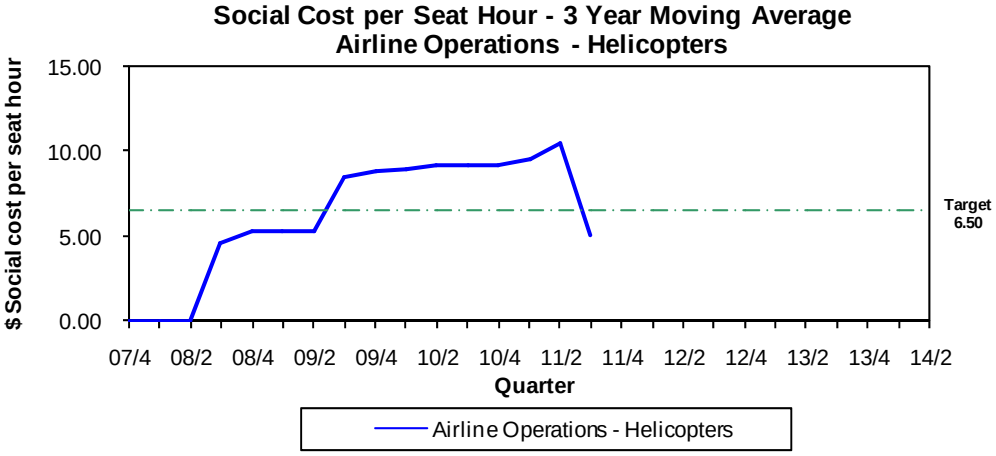
The outcome for Airline Operations – Large Aeroplanes (96.6% of total seat hours) has been just above the target level of $0.00 per hour of exposure since the quarter Jan to Mar 11. There have been 7 minor injuries in this group in the three years Oct 08 to Sep 11.



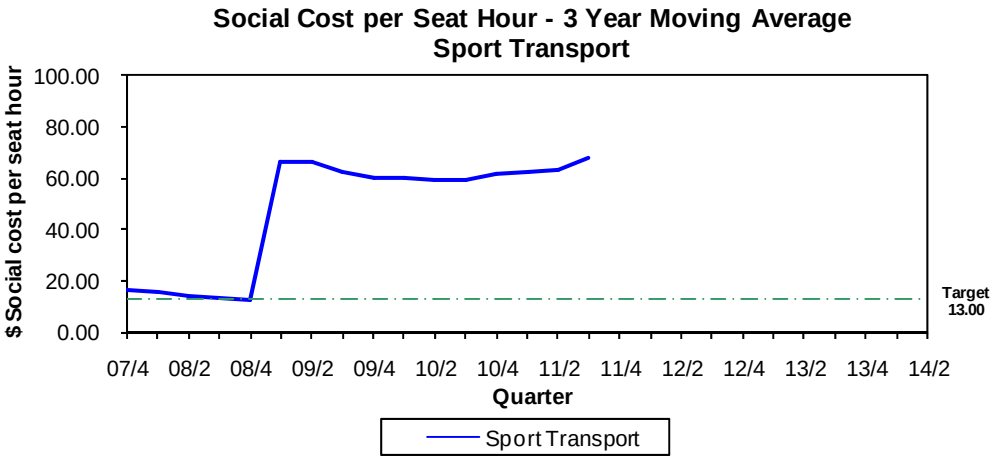
The outcome for Airline Operations – Medium Aeroplanes is trending down and has been at or below the target level since the quarter Apr to Jun 09 (the data point at 11/3 is $0.02 per hour of exposure). The exposure (1.4% of total seat hours) associated with this sector is relatively small. There have been 3 minor injuries in this group during the period Oct 08 to Sep 11.



The outcome for Airline Operations – Small Aeroplanes (0.1% of total seat hours) shows a downward trend. There have been 1 serious and 2 minor injuries during the period Oct 08 to Sep 11. The safety outcome for this group is now just below the target level.



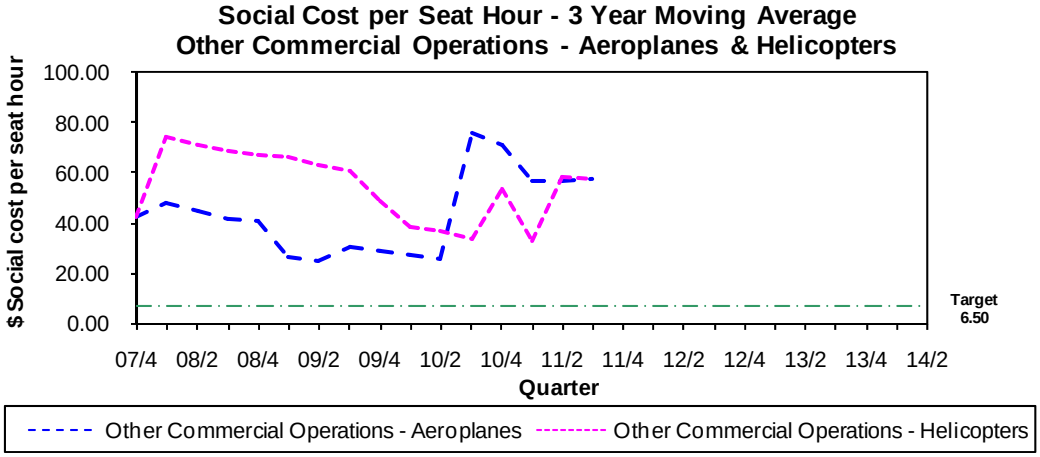
The outcome for Airline Operations – Helicopters is now below the target level. There have been 4 minor injuries in this group in the three years Oct 08 to Sep 11.



The outcome for Sport Transport is above the target level. There have been 5 fatal, 14 serious and 14 minor injuries in the three years Oct 08 to Sep 11.

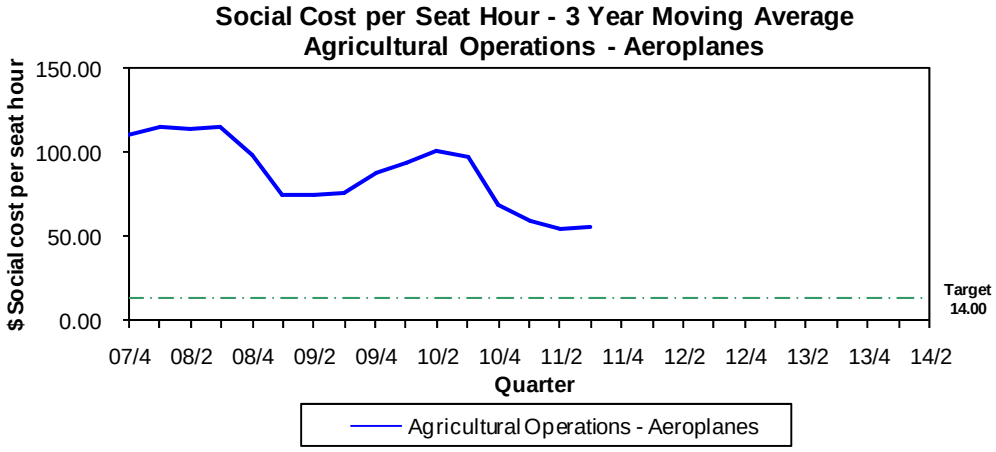
Note that this group includes hang gliders and parachutes used on transport operations.

For quarters from Jul to Sep 11 the method for calculating the seat hours for this group has been amended, hence reducing the number of seat hours used in the calculation of social cost per seat hour. This means that if the social cost for this group remains the same in future quarters, the social cost per seat hour will gradually increase.

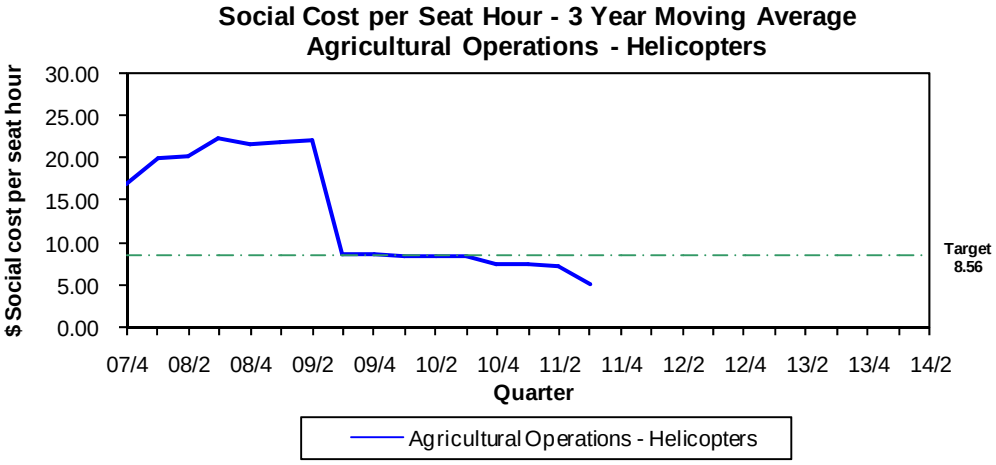


The outcome for Other Commercial Operations – Aeroplanes is well above the target of $6.50. During the three years Oct 08 to Sep 11 there have been 12 fatal and 3 serious injuries and 1 minor injury in this group.

The outcome for Other Commercial Operations – Helicopters is also well above the target level. There have been 4 fatal, 2 serious and 4 minor injuries in this group in the three years Oct 08 to Sep 11.

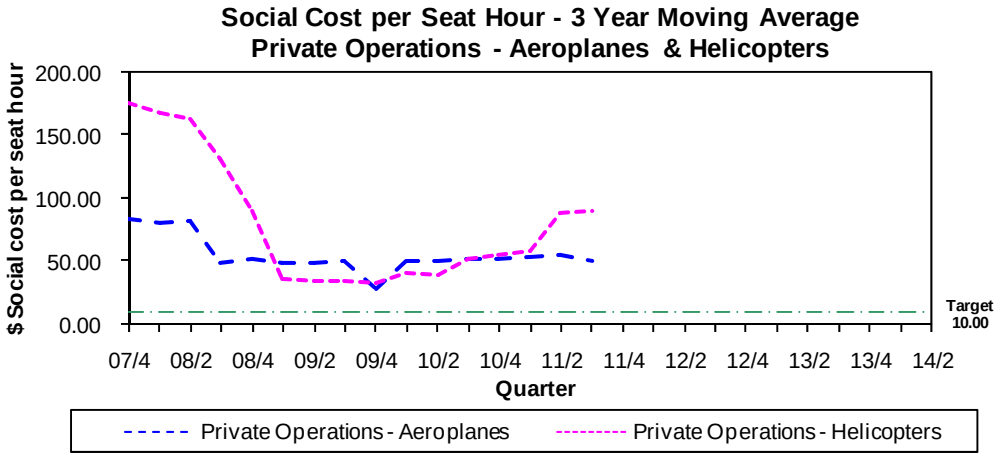


The outcome for Agricultural Operations – Aeroplanes is well above the target level of $14.00. During the three years Oct 08 to Sep 11 there have been 1 fatal, 1 serious and 2 minor injuries in this group.



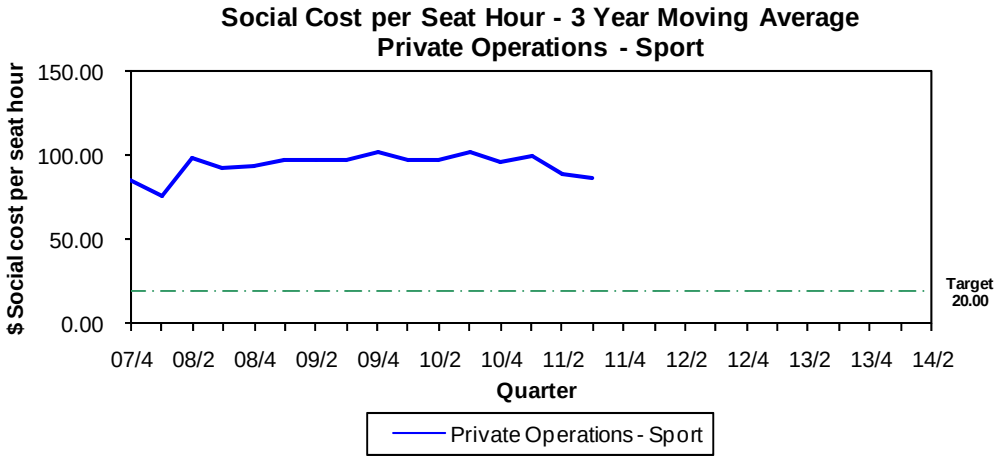
The outcome for Agricultural Operations – Helicopters has been below the target level since the quarter Jul to Sep 10. There have been 3 minor injuries in the three years Oct 08 to Sep 11.

For quarters from Jul to Sep 11 the value for the 'load factor' used in the calculation of seat hours for this group has been reduced, hence reducing the number of seat hours used in the calculation of social cost per seat hour (seat hours are calculated using hours flown multiplied by the average number of seats multiplied by the load factor). This means that if the social cost for this group remains the same in future quarters, the social cost per seat hour will gradually increase.



The outcome for Private Operations – Aeroplanes is well above the target level of $10.00. There have been 2 fatal injuries, 1 serious injury and 1 minor injury in the three years Oct 08 to Sep 11.

The outcome for Private Operations – Helicopters is also well above the target level. There have been 2 fatal, 3 serious and 5 minor injuries in the three years Oct 08 to Sep 11.



The outcome for Private Operations – Sport is well above the target of $20.00. There have been 12 fatal, 27 serious and 25 minor injuries in the three years Oct 08 to Sep 11.

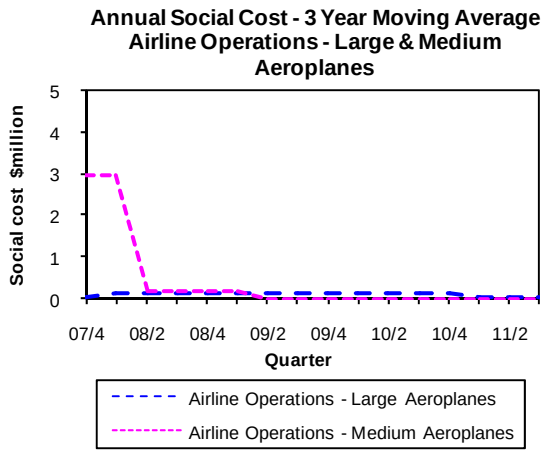
Note that this group includes hang gliders and parachutes used on private operations.

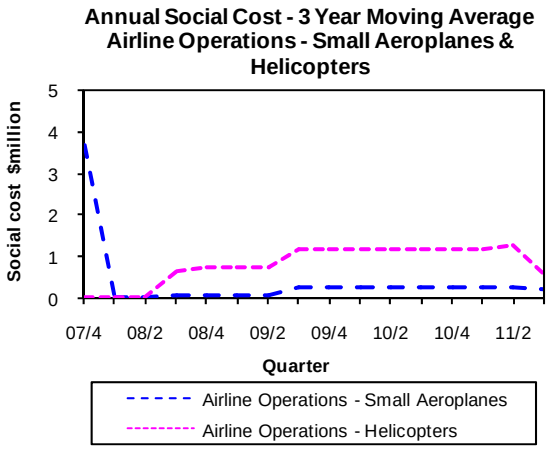
For quarters from Jul to Sep 11 the method for calculating the seat hours for this group has been amended, hence increasing the number of seat hours used in the calculation of social cost per seat hour. This means that if the social cost for this group remains the same in future quarters, the social cost per seat hour will gradually decrease.

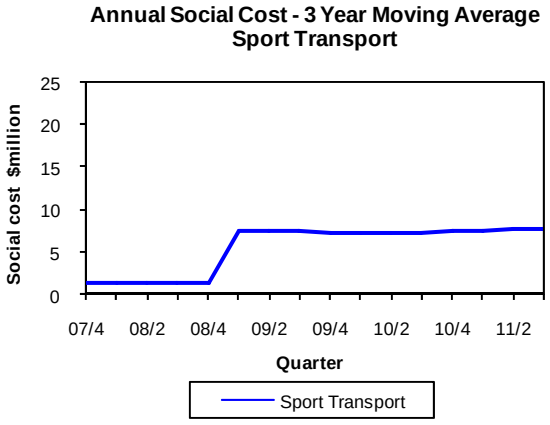
Social Cost

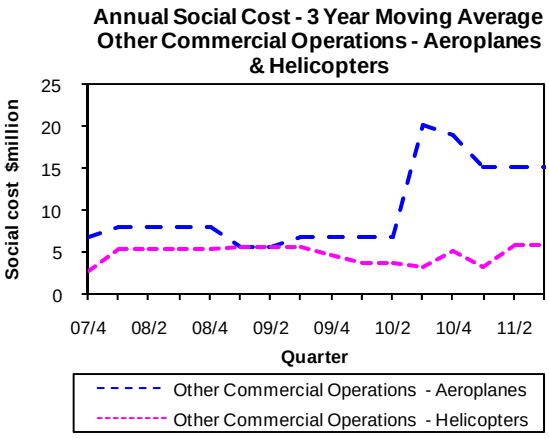
Trends

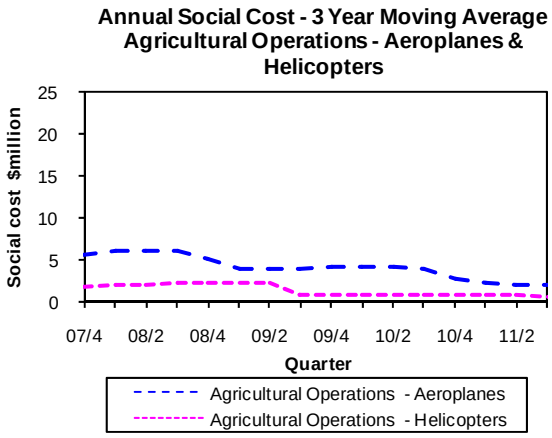
The following graphs show the annual social cost (3 year moving average) for each Safety Target Group for the four-year period 1 October 2007 to 30 September 2011. Social cost is the cost of fatal, serious and minor injuries, and aircraft destroyed, expressed in 2010 dollars. Note that the Sport groups include hang gliders and parachutes.

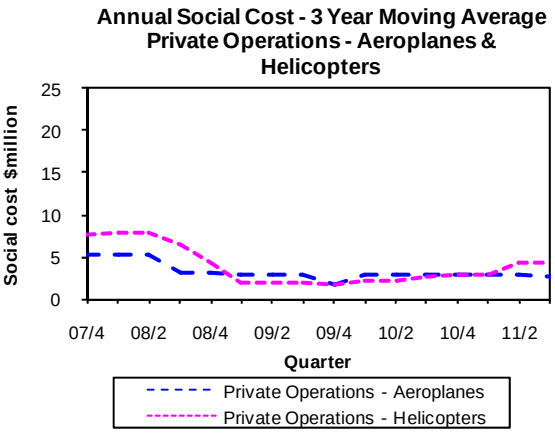


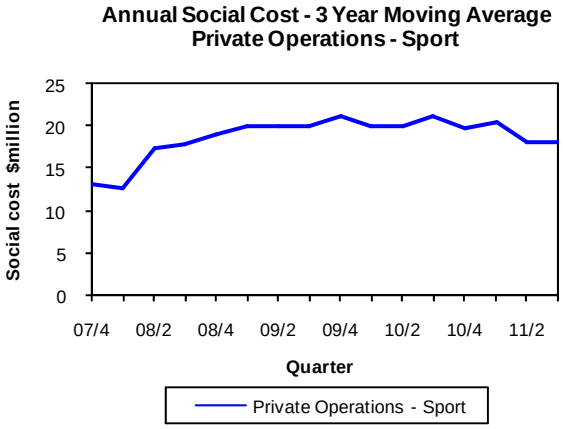


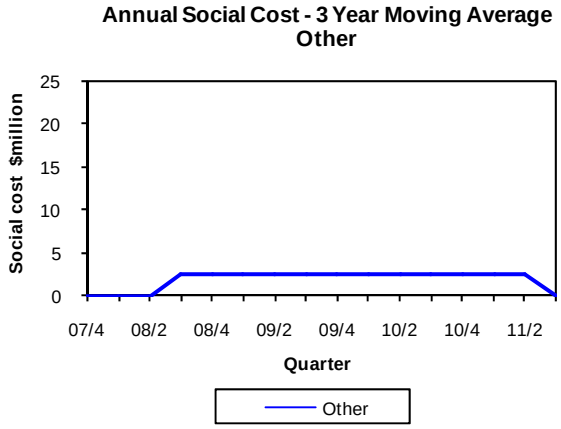


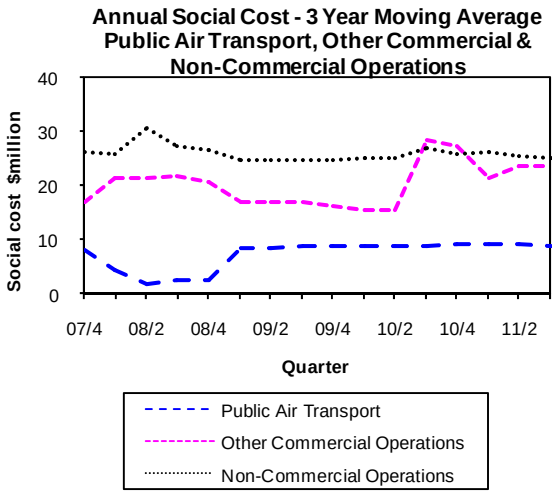


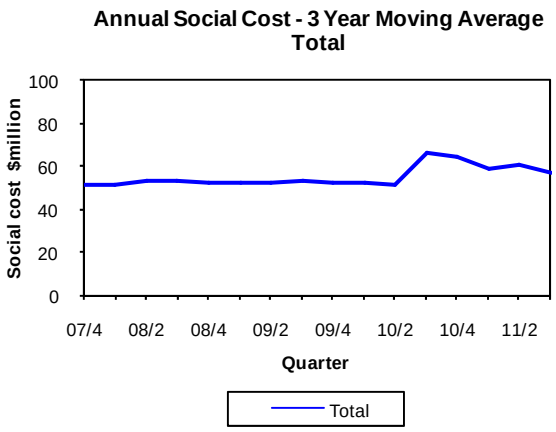





Annual Social Cost - 3 Year Moving Average
Private Operations - Sport
Social cost $million
25
20
15
10
5
0
07/4
08/2
08/4
09/2
09/4
10/2
10/4
11/2
Quarter
Private Operations - Sport


Annual Social Cost - 3 Year Moving Average
Other
Social cost $million
25
20
15
10
5
0
07/4
08/2
08/4
09/2
09/4
10/2
10/4
11/2
Quarter
Other


Annual Social Cost - 3 Year Moving Average
Public Air Transport, Other Commercial &
Non-Commercial Operations
Social cost $million
40
30
20
10
0
07/4
08/2
08/4
09/2
09/4
10/2
10/4
11/2
Quarter
Public Air Transport
Other Commercial Operations
Non-Commercial Operations


Annual Social Cost - 3 Year Moving Average
Total
Social cost $million
100
80
60
40
20
0
07/4
08/2
08/4
09/2
09/4
10/2
10/4
11/2
Quarter
Total

Activity

Air Transport Flights, Total Hours

Quarterly Comparison

Activity	1 Jul to 30 Sep 2009	1 Jul to 30 Sep 2010	Change	
			Number	Percentage
Air Transport Flights	83,353	85,216	+ 1,863	+ 2.2
Hours	229,894	212,124	- 17,770	- 7.7

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 Aircraft Operating Statistics for periods up to the quarter ended 30 September 2010 (the most recent quarter for which these data are available).

Aircraft Movements

Quarterly Comparison

Activity	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change	
			Number	Percentage
Aircraft Movements	240,033	256,117	+ 16,084	+ 6.7

Note that this covers certificated aerodromes only. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika, Kerikeri/Bay of Islands, Paraparaumu, Te Anau/Manapouri, Timaru, Wanganui, Westport and Whangarei.

Registered Aircraft

Quarterly Comparison

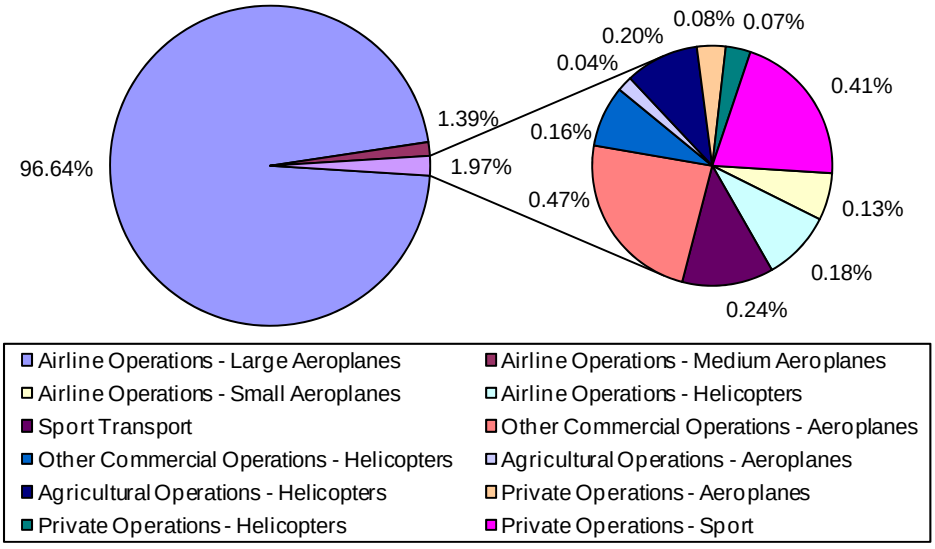
Aircraft Statistics Category	30 September 2010	30 September 2011	Change	
			Number	Percentage
Large Aeroplanes	119	127	+ 8	+ 6.7
Medium Aeroplanes	85	87	+ 2	+ 2.4
Small Aeroplanes	1,518	1,515	- 3	- 0.2
Agricultural Aeroplanes	110	109	- 1	- 0.9
Helicopters	767	767	0	0
Sport Aircraft	1,839	1,890	+ 51	+ 2.8
Total	**4,438**	**4,495**	**+ 57**	**+ 1.3**

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

Industry Size and Shape

The following graph and table show the size and shape of the aviation industry as determined from Aircraft Operating Statistics in the relevant 2014 Safety Target Group categories for the period 1 July to 30 September 2010 (the most recent quarter for which Aircraft Operating Statistics data are available). 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	96.64
Airline Operations - Medium Aeroplanes	1.39
Airline Operations - Small Aeroplanes	0.13
Airline Operations - Helicopters	0.18
Sport Transport	0.24
Other Commercial Operations - Aeroplanes	0.47
Other Commercial Operations - Helicopters	0.16
Agricultural Operations - Aeroplanes	0.04
Agricultural Operations - Helicopters	0.20
Agricultural Operations - Sport	-
Private Operations - Aeroplanes	0.08
Private Operations - Helicopters	0.07
Private Operations - Sport	0.41

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

Accidents

Quarterly Comparison

Number of Accidents

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	2	0	- 2
Medium Aeroplanes	0	1	+ 1
Small Aeroplanes	6	3	- 3
Agricultural Aeroplanes	0	0	0
Helicopters	4	4	0
Sport Aircraft	5	5	0
Unknown Aircraft	0	1	+ 1
Hang Gliders	2	0	- 2
Parachutes	1	2	+ 1
Total	**20**	**16**	**- 4**

The accident in the ‘Unknown Aircraft’ statistics category in the 1 July to 30 September 2011 quarter involved a taxiing foreign registered large aeroplane.

Severity of Accidents

Severity	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Critical	11	11	0
Major	6	4	- 2
Minor	3	1	- 2

No accidents in the ‘Large Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

No accidents in the ‘Medium Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

Significant Accidents and Other Injury Accidents

Significant Injury Accidents

There were no significant injury accidents during the period 1 July to 30 September 2011.

Significant Non-Injury Accidents

There were no significant non-injury accidents during the period 1 July to 30 September 2011.

Other Injury Accidents

This section describes other injury accidents that occurred during the period 1 July to 30 September 2011.

Sport Aircraft

Sport Transport

- A cameraman suffered serious injuries when the parachute opened.

Private Operations - Sport

- The pilot of a class 2 microlight began to practise a stall at 4,000 ft but the aircraft rapidly entered a fully developed stall and a spin. The aircraft was in a steep nose down spiral dive before it recovered into a shallow flat spin, until it struck the ground. The pilot suffered serious injuries and the aircraft was destroyed.
- A parachutist flared too early, landed heavily and suffered serious injuries.

Injuries

Number of Fatal Accidents and Number of Fatal Injuries

Aircraft Statistics Category	1 Jul to 30 Sep 2010		1 Jul to 30 Sep 2011		Change	
	Fatal Accidents	Fatal Injuries	Fatal Accidents	Fatal Injuries	Fatal Accidents	Fatal Injuries
Large Aeroplanes	0	0	0	0	0	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	2	11	0	0	- 2	- 11
Agricultural Aeroplanes	0	0	0	0	0	0
Helicopters	0	0	0	0	0	0
Sport Aircraft	1	1	0	0	- 1	- 1
Unknown Aircraft	0	0	0	0	0	0
Hang Gliders	0	0	0	0	0	0
Parachutes	0	0	0	0	0	0
Total	**3**	**12**	**0**	**0**	**- 3**	**- 12**

Number of Serious Injuries

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	3	0	- 3
Agricultural Aeroplanes	0	0	0
Helicopters	1	0	- 1
Sport Aircraft	0	1	+ 1
Unknown Aircraft	0	0	0
Hang Gliders	0	0	0
Parachutes	1	2	+ 1
Total	**5**	**3**	**- 2**

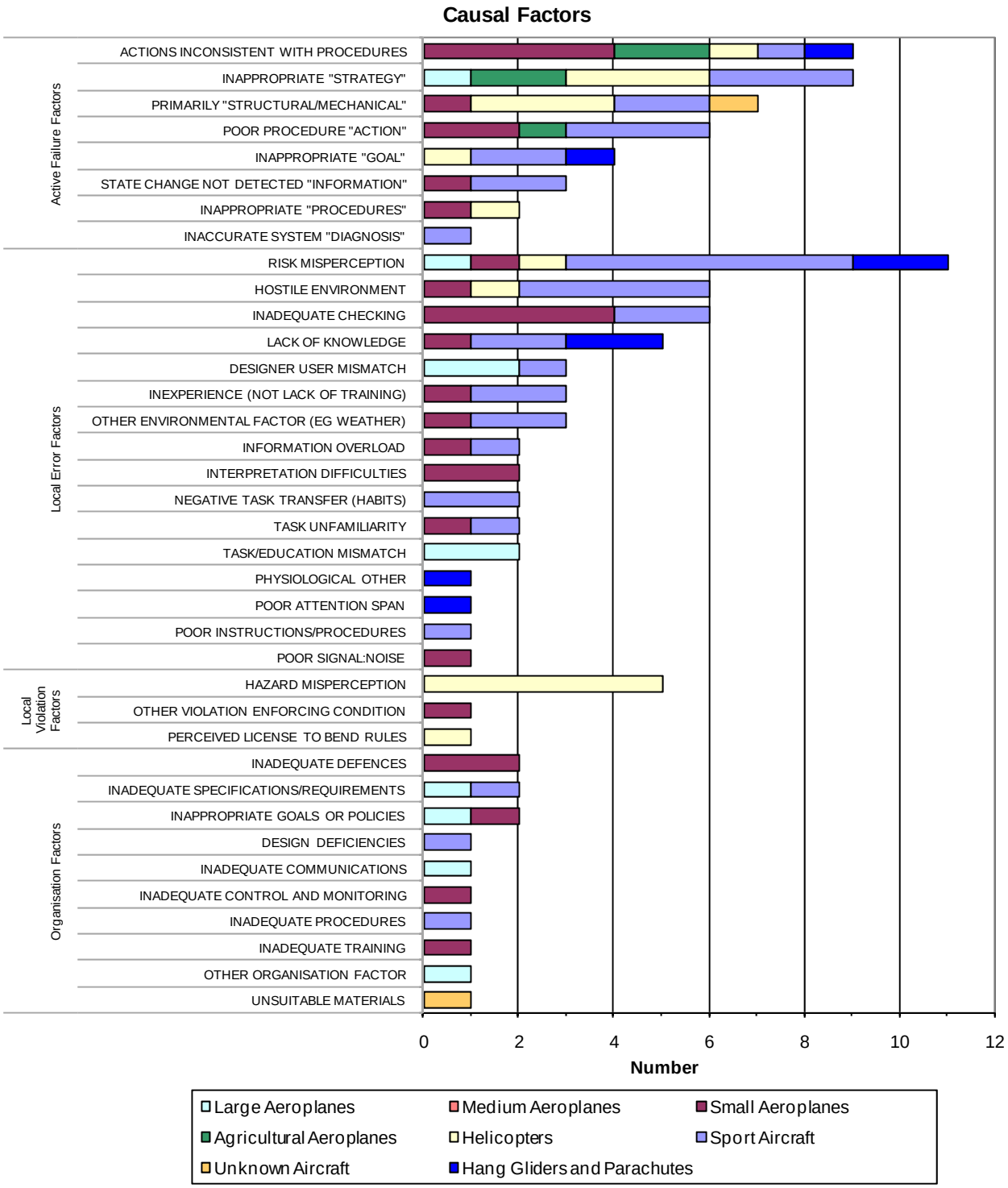
Number of Minor Injuries

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	0	0	0
Agricultural Aeroplanes	0	0	0
Helicopters	0	0	0
Sport Aircraft	1	0	- 1
Unknown Aircraft	0	0	0
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	**1**	**0**	**- 1**

Accident Causal Factors by Aircraft Statistics Category

The following graph shows the number of causal factors recorded for accidents that occurred during the 12-month period 1 July 2010 to 30 June 2011 for the various aircraft statistics categories.
Causal factors have been assigned to 59 (54%) of the 109 accidents.

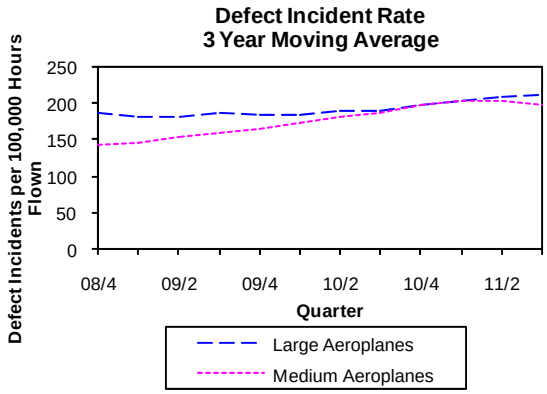
Note that causes are not yet available for all accidents that occurred in the 1 July to 30 September 2011 period.

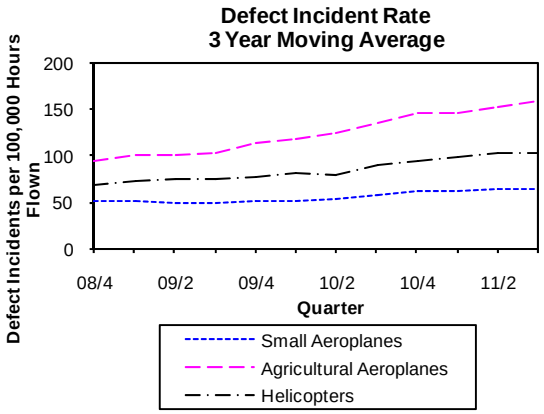


Defect Incidents

Trends

The following graphs show the defect incident rates (3 year moving average) for the three-year period 1 October 2008 to 30 September 2011 (excluding the Sport Aircraft statistics category).





Quarterly Comparison

Number of Defect Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	145	246	+ 101
Medium Aeroplanes	24	28	+ 4
Small Aeroplanes	88	40	- 48
Agricultural Aeroplanes	14	11	- 3
Helicopters	84	35	- 49
Sport Aircraft	7	3	- 4
Unknown Aircraft	21	3	- 18
Total	**383**	**366**	**- 17**

Severity of Defect Incidents

Severity	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Critical	0	0	0
Major	70	55	- 15
Minor	313	311	- 2

No defect incidents in the ‘Large Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

No defect incidents in the ‘Medium Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

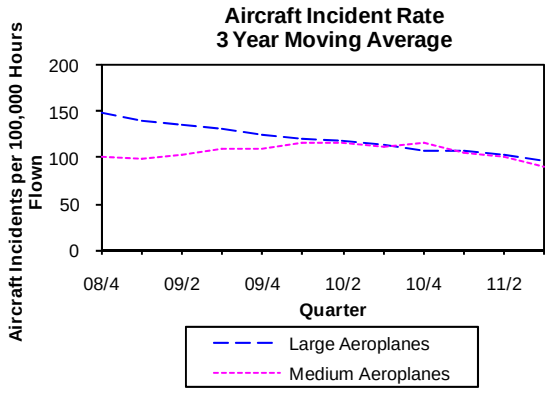
Rate Monitoring

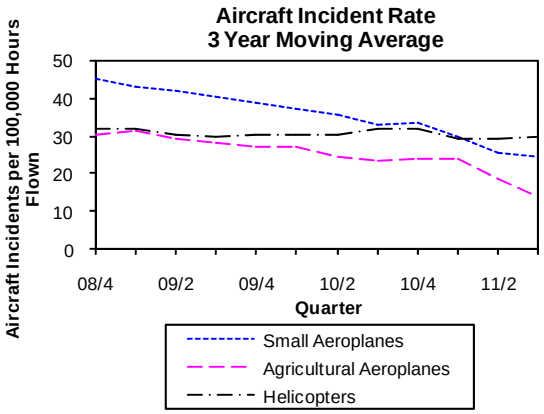
Defect incident rate monitoring of individual types of large and medium air transport aircraft has been carried out against the CAA standard for the period ended 30 June 2011. Analysis shows that five of the 15 monitored aircraft types have defect rates above the “trigger level” for CAA action.

Aircraft Incidents

Trends

The following graphs show the aircraft incident rates (3 year moving average) for the three-year period 1 October 2008 to 30 September 2011 (excluding the Sport Aircraft statistics category).





Quarterly Comparison

Number of Aircraft Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	56	93	+ 37
Medium Aeroplanes	12	10	- 2
Small Aeroplanes	12	23	+ 11
Agricultural Aeroplanes	1	0	- 1
Helicopters	18	17	- 1
Sport Aircraft	2	1	- 1
Unknown Aircraft	60	32	- 28
Total	**161**	**176**	**+ 15**

Severity of Aircraft Incidents

Severity	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Critical	0	1	+ 1
Major	19	21	+ 2
Minor	142	154	+ 12

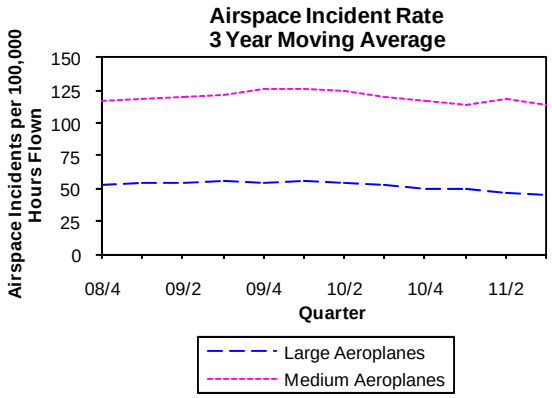
No aircraft incidents in the ‘Large Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

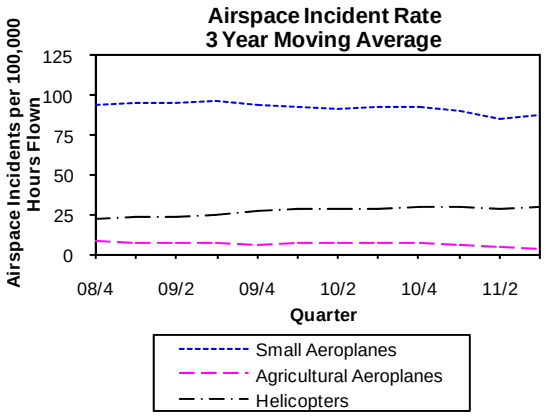
No aircraft incidents in the ‘Medium Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

Airspace Incidents

Trends

The following graphs show the airspace incident rates (3 year moving average) for the three-year period 1 October 2008 to 30 September 2011 (excluding the Sport Aircraft statistics category).





Quarterly Comparison

Number of Airspace Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Large Aeroplanes	23	38	+ 15
Medium Aeroplanes	11	14	+ 3
Small Aeroplanes	76	112	+ 36
Agricultural Aeroplanes	1	0	- 1
Helicopters	7	16	+ 9
Sport Aircraft	5	9	+ 4
Unknown Aircraft	79	78	- 1
Total	**202**	**267**	**+ 65**

Severity of Airspace Incidents

Severity	1 Jul to 30 Sep 2010	1 Jul to 30 Sep 2011	Change
Critical	3	5	+ 2
Major	32	34	+ 2
Minor	167	228	+ 61

No airspace incidents in the ‘Large Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

No airspace incidents in the ‘Medium Aeroplanes’ statistics category were classified as Critical in the 1 July to 30 September 2010 or 2011 quarters.

Attributability

Of the 267 airspace incidents in the 1 July to 30 September 2011 quarter, 14% are Air Traffic Service (ATS) attributable, 75% are pilot attributable, 0% are ATS and pilot attributable, and 11% are unknown attributable. (Note that the percentages may not sum exactly to 100% due to rounding.)

Since October 2008 the long-term trend of the ATS attributable airspace occurrence rate is constant (the slope of the trend line is zero) and the long-term trend of the pilot attributable rate is upward.

Bird Incident Rates

Bird hazard monitoring has been carried out against the CAA standard for the period ended 30 September 2011.

There were two aerodromes with strike rates in the high risk category of the CAA standard (10.0 and above bird strikes per 10,000 aircraft movements), one having a long-term upward trend and one having a long-term constant trend. Five aerodromes had strike rates in the medium risk category (5.0 to 10.0 per 10,000 movements), three having long-term upward trends and two having long-term downward trends.
20 aerodromes had strike rates in the low risk category (below 5.0 per 10,000 aircraft movements), seven having long-term upward trends, seven having long-term constant trends and six having long-term downward trends.

Quarterly Statistics

Quarter	2008/4	2009/1	2009/2	2009/3	2009/4	2010/1
Number of Air Transport Flights[1]	104,711	115,409	85,482	83,353	97,144	108,240
Number of Hours Flown[1]	232,412	271,270	226,574	229,894	240,179	255,874
Number of Aircraft Movements[2]	295,075	299,289	282,900	278,588	261,753	276,062
Number of Aircraft on the Register[3]	4,354	4,400	4,406	4,393	4,415	4,428
Number of Licences (Type of Medical Certificate)[4]						
Recreational Pilot Licence (RPL Medical)	68	80	103	120	133	141
Private Pilot Licence (Class 1 & 2)	3,733	3,787	3,799	3,850	3,829	3,795
Commercial Pilot Licence (Class 2 only)	1,761	1,794	1,909	1,919	1,969	1,990
Commercial Pilot Licence (Class 1)	2,295	2,322	2,300	2,344	2,359	2,403
Airline Transport Pilot Licence (Class 2 only)	991	903	893	975	976	922
Airline Transport Pilot Licence (Class 1)	1,048	1,130	1,152	1,069	1,068	1,135
Air Traffic Controller Licence (Class 3)	342	342	345	363	363	366
Aircraft Maintenance Engineer Licence (N/A)	2,342	2,352	2,378	2,402	2,424	2,445
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	9	10	10	10	10	10
Air Operator – Medium Aeroplanes	15	15	15	15	15	15
Air Operator – Helicopters and Small Aeroplanes	163	166	171	170	173	172
Air Operator – Pacific	2	2	1	1	1	1
Number of Aircraft Accidents[5]						
Large Aeroplanes	0	1	0	1	1	0
Medium Aeroplanes	1	0	0	1	0	1
Small Aeroplanes	9	8	5	8	7	2
Agricultural Aeroplanes	3	0	1	1	1	0
Helicopters	7	6	1	4	6	8
Sport Aircraft	14	11	6	5	16	9
Unknown Aircraft	1	0	0	0	0	0
Hang Gliders	2	12	2	4	6	10
Parachutes	1	1	3	1	2	2
Number of Fatal Accidents[5]	3	4	0	1	5	1
Number of Fatal Injuries[5]	3	6	0	1	6	1
Number of Serious + Minor Injuries[5]	11	10	7	12	11	16
Social Cost $ million[6]	14.42	24.83	1.56	6.27	24.06	6.97
Number of Incidents[7]	1,147	1,176	1,130	1,120	1,083	1,119
Number of Aviation Related Concerns	56	89	83	105	97	124

[1] New Zealand registered aircraft. Includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes. Estimated for 2010/4, 2011/1, 2011/2 and 2011/3.

[2] Certificated aerodromes. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika (certificated from Apr 2010), Kerikeri/Bay of Islands, Mount Cook (certificated until Sep 2009), Paraparaumu (certificated from Apr 2009), Te Anau/Manapouri, Timaru, Wanganui, Westport and Whangarei.

[3] As at the last day of the quarter. Includes the sport aircraft statistics category. Excludes hang gliders and parachutes.

Quarter	2010/2	2010/3	2010/4	2011/1	2011/2	2011/3
Number of Air Transport Flights[1]	86,320	85,216	102,254	107,354	88,410	87,194
Number of Hours Flown[1]	222,023	212,124	236,229	254,210	234,272	222,305
Number of Aircraft Movements[2]	252,639	240,033	256,474	255,467	242,338	256,117
Number of Aircraft on the Register[3]	4,440	4,438	4,442	4,480	4,490	4,495
Number of Licences (Type of Medical Certificate)[4]						
Recreational Pilot Licence (RPL Medical)	132	128	146	162	180	189
Private Pilot Licence (Class 1 & 2)	3,757	3,750	3,655	3,611	3,603	3,577
Commercial Pilot Licence (Class 2 only)	2,066	2,027	2,083	2,131	2,229	2,236
Commercial Pilot Licence (Class 1)	2,344	2,397	2,385	2,372	2,339	2,380
Airline Transport Pilot Licence (Class 2 only)	913	986	981	928	909	965
Airline Transport Pilot Licence (Class 1)	1,134	1,075	1,096	1,155	1,188	1,118
Air Traffic Controller Licence (Class 3)	363	358	362	363	361	361
Aircraft Maintenance Engineer Licence (N/A)	2,463	2,479	2,496	2,511	2,519	2,540
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	10	10	10	9	9	9
Air Operator – Medium Aeroplanes	15	15	16	15	15	15
Air Operator – Helicopters and Small Aeroplanes	174	175	175	173	174	174
Air Operator – Pacific	0	0	0	0	0	0
Number of Aircraft Accidents[5]						
Large Aeroplanes	0	2	0	1	0	0
Medium Aeroplanes	0	0	0	0	1	1
Small Aeroplanes	9	6	4	4	4	3
Agricultural Aeroplanes	3	0	1	3	3	0
Helicopters	3	4	3	5	6	4
Sport Aircraft	6	5	13	17	5	5
Unknown Aircraft	0	0	0	1	1	1
Hang Gliders	5	2	2	6	3	0
Parachutes	1	1	2	1	3	2
Number of Fatal Accidents[5]	0	3	1	2	4	0
Number of Fatal Injuries[5]	0	12	2	2	5	0
Number of Serious + Minor Injuries[5]	10	6	7	11	6	3
Social Cost $ million[6]	1.89	47.35	9.48	12.64	20.87	1.51
Number of Incidents[7]	1,154	1,165	1,173	1,231	1,239	1,215
Number of Aviation Related Concerns	153	153	203	243	155	270

[4] 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.

[5] All accidents. All aircraft statistics categories. Includes hang gliders and parachutes.

[6] All aircraft statistics categories. Includes hang gliders and parachutes. Cost of fatal, serious and minor injuries, and aircraft destroyed, in June 2010 dollars.

[7] All incident sub-types.

Definitions

Accident

Means 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

Means any incident, not otherwise classified, associated with the operation of an aircraft.

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
Means 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
Means 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

Means 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

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

Fatal Injury

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

Incident

Means 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