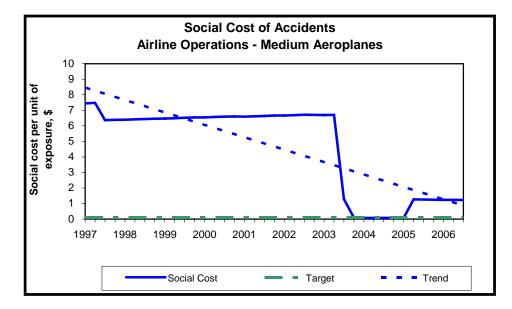


# **Aviation Safety Summary Report**

1 July to 30 September 2006



The graph above shows the social cost of accidents for the Airline Operations – Medium Aeroplanes Safety Outcome Target group.

### 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 versus targets. This complements the more detailed six-monthly "Aviation Industry Safety Update", which is available only on the CAA web site.

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

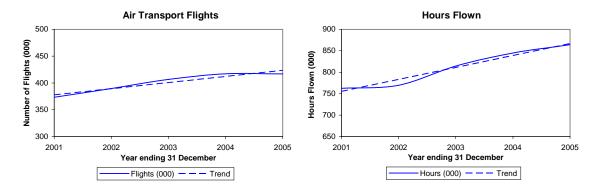
# Activity

#### General

# 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 January 2001 to 31 December 2005 (includes the aircraft classes aeroplane, helicopter and balloon only).



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

#### **Quarterly Comparison**

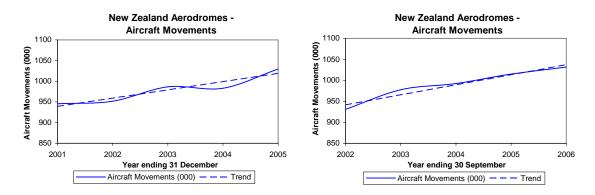
Activity	1 Oct to 31 Dec	1 Oct to 31 Dec	Change	
	2004	2005	Number	Percentage
Air Transport Flights	108,865	105,367	- 3,498	- 3.2
Total Hours	208,652	213,564	+ 4,912	+ 2.4

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 31 December 2005 - the most recent quarter for which these data are available.

#### Aircraft Movements

#### Trends

The following graphs show the number of aircraft movements at certificated aerodromes (annual data) for the five-year periods 1 January 2001 to 31 December 2005 (the same period as for Air Transport Flights and Total Hours) and 1 October 2001 to 30 September 2006 (the most recent data).



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

#### **Quarterly Comparison**

Activity	1 Jul to 30 Sep	1 Jul to 30 Sep	Change	
	2005	2006	Number	Percentage
Aircraft Movements	260,951	259,283	- 1,668	- 0.6

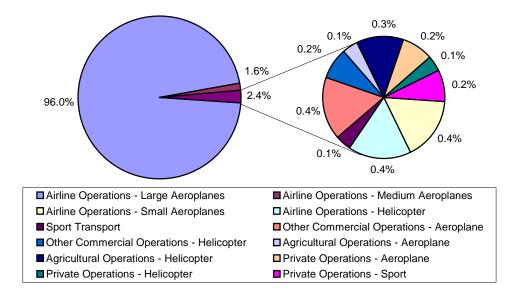
Note that this covers certificated aerodromes only. Includes Auckland, Christchurch, Dunedin, Gisborne (from December 2004), Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Inia William Tuuta Memorial Airport, Kerikeri/Bay of Islands, Manapouri, Mount Cook, Timaru, Wanganui, Westport, Whangarei and Wigram.

#### *Registered Aircraft* Quarterly Comparison

#### **Aircraft Statistics Category** 30 Sep 30 Sep Change 2005 2006 Number Percentage Aeroplanes that must be operated under Part 121 121 117 - 4 - 3.3 Aeroplanes that must be operated under at least Part 125 116 112 - 3.4 - 4 Other Aeroplanes with Standard Airworthiness Certificate 1,360 1,384 + 24 + 1.8 Aeroplanes used for agricultural operations 125 + 0.8 124 + 1 Helicopters with Standard Category Airworthiness Certificate 621 648 + 27 + 4.3 1,554 Sport Aircraft 1,609 + 3.5 + 55 Total 3,896 3,995 + 99 + 2.5

#### Industry Size and Shape

The following graph shows the size and shape of the aviation industry as determined from Aircraft Operating Statistics in the relevant 2010 safety target group categories for the period 1 October to 31 December 2005. The number of seats for aircraft with no seats recorded on the database was estimated using (maximum take off weight (lb) of the aircraft/1000). This does not take into account aircraft that are used for freight only, because the small number of aircraft in this category has a minimal effect on the overall outcome. For each safety target group the average number of seats is multiplied by the total hours flown and the appropriate load factor, to give the number of seat hours utilised by the group.



#### Percentage Sector Seat Hours

Safety Outcome Target Group	Percentage Sector Seat Hours
Airline Operations - Large Aeroplanes	96.0%
Airline Operations - Medium Aeroplanes	1.6%
Airline Operations - Small Aeroplanes	0.4%
Airline Operations - Helicopter	0.4%
Sport Transport	0.1%
Other Commercial Operations - Aeroplane	0.4%
Other Commercial Operations - Helicopter	0.2%
Agricultural Operations - Aeroplane	0.1%
Agricultural Operations - Helicopter	0.3%
Agricultural Operations - Sport Aircraft	-
Private Operations - Aeroplane	0.2%
Private Operations - Helicopter	0.1%
Private Operations - Sport	0.2%

#### Safety Outcome Targets for 2010

#### Safety Target Structure

The 2010 Safety Target Groups have all New Zealand aviation classified under three broad 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 quarter 1 July to 30 September 2006. Social cost per fatal, serious and minor injury, and aircraft destroyed, in 2006 dollars.

Note: During the early reporting phase for the 2005 – 2010 Safety Target regime (1 July to 30 September 2005, 1 October to 31 December 2005 and 1 January to 31 March 2006) Social Cost calculations were completed using 2004 dollars and the 2004 Value of a Statistical Life (VOSL).

Safety Outcome Target Group	Social Cost \$m
Airline Operations - Large Aeroplanes	-
Airline Operations - Medium Aeroplanes	-
Airline Operations - Small Aeroplanes	-
Airline Operations - Helicopter	-
Sport Transport	0.31
Other Commercial Operations - Aeroplane Other Commercial Operations - Helicopter	-
Agricultural Operations - Aeroplane	-
Agricultural Operations - Helicopter	-
Agricultural Operations - Sport Aircraft	-
Private Operations - Aeroplane Private Operations - Helicopter Private Operations - Sport	- 0.02 -
Total	0.33

#### Safety Outcome Targets for 2010

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

The table below shows the new Safety Outcome Targets for the period ending 30 September 2006. The target groups highlighted in yellow are groups where major safety improvements need to be achieved. Red highlighting has been used to draw attention to groups with significant recent safety failure.

Graphs displaying the new Safety Outcome Targets and the progress over each quarter are shown on pages 7, 8 and 9.

Safatu Outaama Tarrat Oraur	Tatal	Injuries	Tatal	Draviava	Guarant	
Safety Outcome Target Group	Total Fatal	Total Serious	Total Minor	Previous Estimate \$	Current Estimate \$	Target \$
Airline Operations - Large Aeroplanes*				0.02*	0.02*	0.10
Airline Operations - Medium Aeroplanes*				1.24*	1.22*	0.10
Airline Operations - Small Aeroplanes				-	-	6.50
Airline Operations - Helicopter				-	-	6.50
Sport Transport		1		32.43	40.45	13.00
Other Commercial Operations - Aeroplane				40.24	36.88	6.50
Other Commercial Operations - Helicopter				0.43	0.41	6.50
Agricultural Operations - Aeroplane				214.93	209.11	14.00
Agricultural Operations - Helicopter				0.12	0.11	14.00
Agricultural Operations - Sport Aircraft				-	-	28.00
Private Operations - Aeroplane				99.32	-	10.00
Private Operations - Helicopter			2	407.61	312.76	10.00
Private Operations - Sport				54.85	49.30	20.00

#### **Previous Estimate:**

This is the estimated social cost of injuries over exposure during the averaging period ending 30 June 2006.

- For large and medium aeroplane operations 10 years of injury data\*
- For all other operations 1 year of injury data
- Activity data is estimated as at 1 January 2004

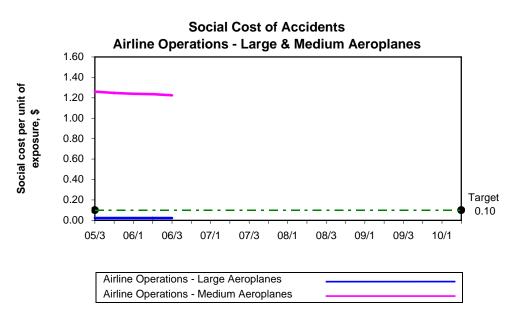
#### **Current Estimate:**

This is the estimated social cost of injuries over exposure during the averaging period ending 30 September 2006.

- For large and medium aeroplane operations 10 years of injury data\*
- For all other operations 1 year of injury data
- The 4 groups with no injuries recorded in the previous 12 months have been left blank.
- Activity data for Sport groups is assumed based on CAA expertise
- Activity data for all other groups is estimated using data gathered prior to October 2005 modulated by one quarter of data collected to match the 2005 2010 Safety Outcome Targets.

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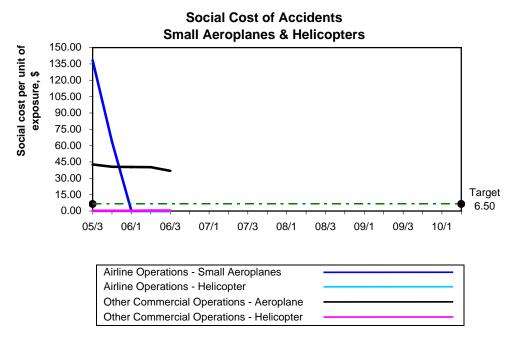
Page 7



The outcome for Airline Operations – Large Aeroplanes has remained well below the target level of 0.10 per hour of exposure since the target regime was established in 2005. There is no discernable trend either up or down.

The outcome for Airline Operations – Medium Aeroplanes exceeds the target by a considerable margin and although trending down, because of the relatively small exposure associated with this sector, it will not be possible for the target to be achieved until after 2010.

The results for both of these groups are derived using 10 year averages; all other groups use 12 month averages.

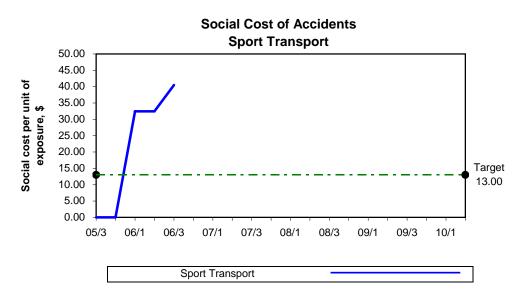


The outcome for Airline Operations – Small Aeroplanes shows a significant downward trend from the high starting point generated by 6 fatalities in late 2004 and early 2005. The safety outcome for this group has been below the target level since April 2006.

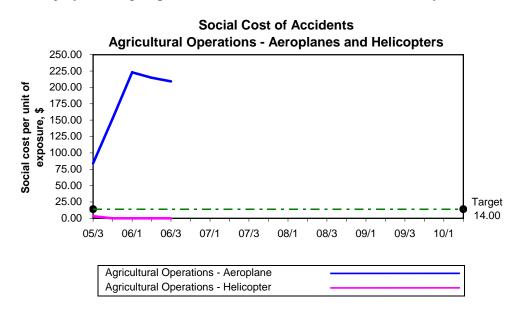
The outcome for Airline Operations – Helicopter and Other Commercial Operations – Helicopter remain level on zero as there have been no fatal or serious injuries in these groups since 2003.

The outcome for Other Commercial Operations – Aeroplane is well above the target of \$6.50 but is trending down. There have been no injuries in this group since April 2006 and if this performance continues the outcome will sit below the required target by April 2007.

Page 8

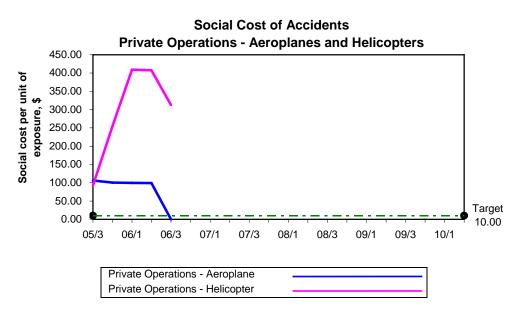


The outcome for Sport Transport is rapidly trending up. There have been 5 serious injuries and 1 minor injury in this group since the establishment of the 2010 Safety Outcome Targets.



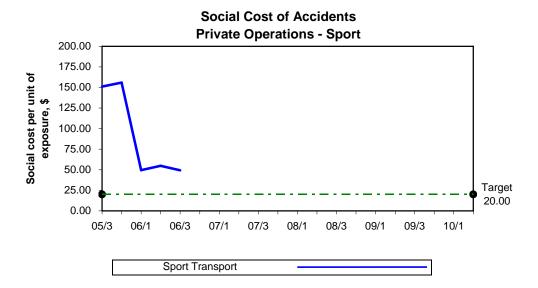
The outcome for Agricultural Operations – Aeroplanes has exceeded the target level since the target regime was established in 2005. A downward trend commenced early in 2006 and if there are no further injury accidents in this sector it is expected the required outcome target will be reached by April 2007.

The outcome for Agricultural Operations – Helicopter has remained near zero as there have been no fatal or serious injuries affecting this group since 2004.



The outcome for Private Operations – Aeroplane having remained around \$100.00 for the first 3 quarters of the new regime, and settled down below the required \$10.00 target by the end of the third quarter of 2006. There have been no injury accidents in this group since the third quarter of 2005.

The outcome for Private Operations – Helicopter having rapidly trended up in the initial stages is now established on the way down. This group has generated a significant number of injuries (5 fatal, 2 serious, and 8 minor) since the second quarter of 2005. However, provided there are no fatal or serious injuries before April 2007 the required target level can be achieved around that time.



The outcome for Private Operations – Sport has been trending down since late 2005. If the current safety level prevails the outcome for this group will sit below the required target by mid 2007.

#### Page 10

Number of Fa	tal Accidents	(and Numher	of Fatal Injuries)
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Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	0	0	0
Aeroplanes that must be operated under at least Part 125	0	0	0
Other Aeroplanes with Standard Airworthiness Certificate	1 (2)	0	- 1 (- 2)
Aeroplanes used for agricultural operations	0	0	0
Helicopters with Standard Category Airworthiness Certificate	1 (1)	0	- 1 (- 1)
Sport Aircraft	0	0	0
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	2 (3)	0	- 2 (- 3)

# Number of Serious Injuries

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	0	0	0
Aeroplanes that must be operated under at least Part 125	0	0	0
Other Aeroplanes with Standard Airworthiness Certificate	0	0	0
Aeroplanes used for agricultural operations	0	0	0
Helicopters with Standard Category Airworthiness Certificate	1	0	- 1
Sport Aircraft	0	0	0
Hang Gliders	1	1	0
Parachutes	0	0	0
Total	2	1	- 1

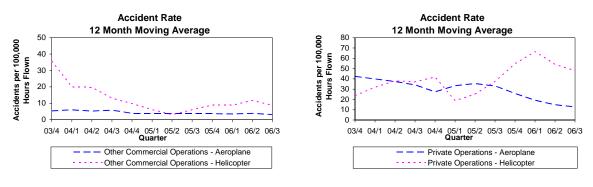
# Number of Minor Injuries

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	0	0	0
Aeroplanes that must be operated under at least Part 125	0	0	0
Other Aeroplanes with Standard Airworthiness Certificate	2	0	- 2
Aeroplanes used for agricultural operations	0	0	0
Helicopters with Standard Category Airworthiness Certificate	3	2	- 1
Sport Aircraft	1	0	- 1
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	6	2	- 4

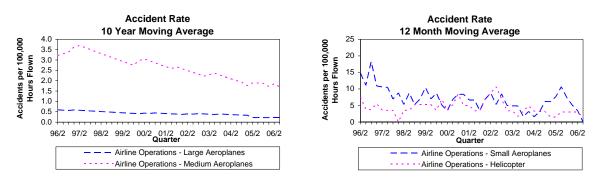
# Accidents

#### Trends

The following graphs show the aircraft accident rates for the three-year period 1 October 2003 to 30 September 2006 for the Other Commercial Operations and Non-Commercial Operations Safety Target Groups.



The following graphs show the aircraft accident rates for the period 1 April 1996 to 30 September 2006 for the Public Transport Operations Aeroplane and Helicopter Safety Target Groups.



# **Quarterly Comparison**

#### Number of Accidents

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	0	0	0
Aeroplanes that must be operated under at least Part 125	0	0	0
Other Aeroplanes with Standard Airworthiness Certificate	7	2	- 5
Aeroplanes used for agricultural operations	1	0	- 1
Helicopters with Standard Category Airworthiness Certificate	5	4	- 1
Sport Aircraft	3	3	0
Hang Gliders	1	3	+ 2
Parachutes	0	1	+ 1
Total	17	13	- 4

Page 12

Severity of Accidents

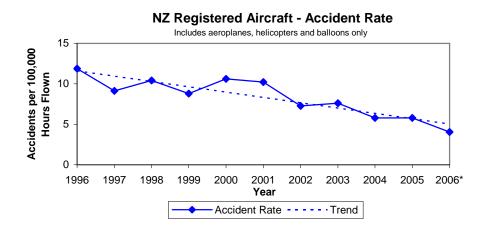
Severity	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Critical	7	1	- 6
Major	8	6	- 2
Minor	2	6	+ 4

No accidents in the 'Aeroplanes that must be operated under Part 121' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

No accidents in the 'Aeroplanes that must be operated under at least Part 125' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

#### **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 years 1996 to 2005. The data point for 2006\* is for 1 July to 30 September 2006 only.



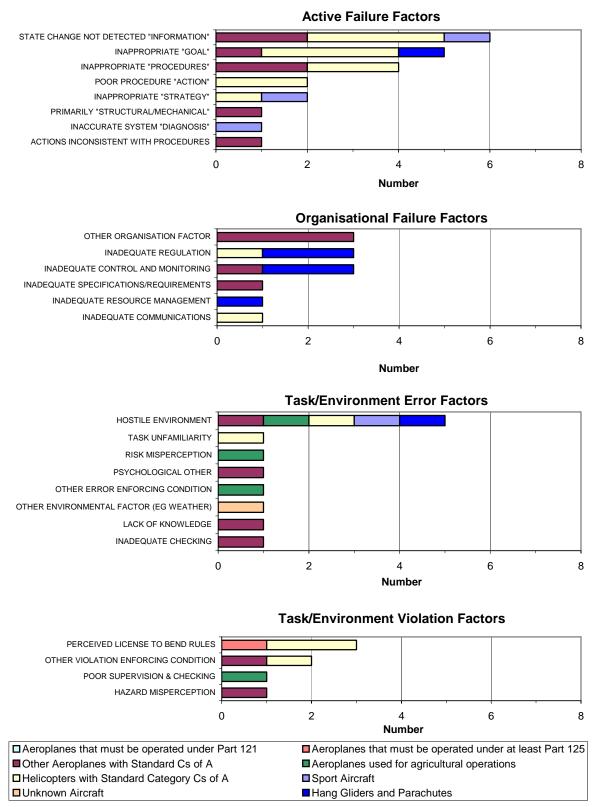
Note that this graph does not show a moving average.

#### Accident Causal Factors by Aircraft Statistics Category

The following graphs show the number of causal factors recorded for accidents that occurred during the 12-month period 1 July 2005 to 30 June 2006 for the various aircraft statistics categories.

Causal factors have been assigned to 33 (38%) of the 86 accidents.

Note that causes are not yet available for all accidents that occurred in the 1 July to 30 September 2006 period.



#### Significant Accidents and Other Injury Accidents

#### Significant Non-Injury Accidents

This section describes significant non-injury accidents that occurred during the period 1 July to 30 September 2006.

#### Helicopters with Standard Category Airworthiness Certificate

#### **Agricultural Operations - Helicopter**

• A helicopter on agricultural operations made a forced landing when a warning light came on.

#### Helicopters with Standard Category Airworthiness Certificate

#### **Private Operations - Helicopter**

• A helicopter on a private flight crashed when its skid caught in scrub while making an emergency landing after losing power.

#### **Other Injury Accidents**

This section describes other injury accidents that occurred during the period 1 July to 30 September 2006.

#### Helicopters with Standard Category Airworthiness Certificate

#### **Private Operations - Helicopter**

• A helicopter on a private flight crashed in bush, causing minor injuries to the pilot and passenger.

#### **Sport Aircraft**

#### **Sport Transport**

• A hang glider stalled soon after takeoff, resulting in serious injuries to the student pilot.

# **Bird Incident Rates**

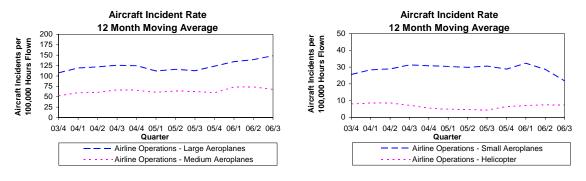
Bird hazard monitoring has been carried out against the CAA standard for the period ended 31 March 2006. Analysis shows that 12 of the 18 monitored aerodromes have bird strike rates above the "trigger level" for CAA action.

Three aerodromes exhibited a strike rate in the high risk category of the CAA standard (above 10.0 bird strikes per 10,000 aircraft movements). Three aerodromes exhibited a strike rate in the medium risk category (5.0 to 10.0 per 10,000 movements) and two of these aerodromes displayed a long-term upward trend. Twelve aerodromes exhibited a strike rate in the low risk category (below 5.0 per 10,000 movements) and seven of these aerodromes displayed a long-term upward trend.

# Aircraft Incidents

#### Trends

The following graphs show the aircraft incident rates for the three-year period 1 October 2003 to 30 September 2006 for the Public Transport Operations Aeroplane and Helicopter Safety Target Groups.



#### **Quarterly Comparison**

#### Number of Aircraft Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	105	107	+ 2
Aeroplanes that must be operated under at least Part 125	15	10	- 5
Other Aeroplanes with Standard Airworthiness Certificate	22	24	+ 2
Aeroplanes used for agricultural operations	0	2	+ 2
Helicopters with Standard Category Airworthiness Certificate	6	11	+ 5
Sport Aircraft	3	6	+ 3
Unknown Aircraft	12	24	+ 12
Total	163	184	+ 21

#### Severity of Aircraft Incidents

Severity	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Critical	0	1	+ 1
Major	19	11	- 8
Minor	144	172	+ 28

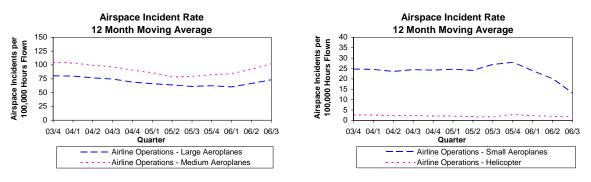
No aircraft incidents in the 'Aeroplanes that must be operated under Part 121' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

No aircraft incidents in the 'Aeroplanes that must be operated under at least Part 125' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

# **Airspace Incidents**

#### Trends

The following graphs show the airspace incident rates for the three-year period 1 October 2003 to 30 September 2006 for the Public Transport Operations Aeroplane and Helicopter Safety Target Groups.



#### Quarterly Comparison

#### Number of Airspace Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	20	41	+ 21
Aeroplanes that must be operated under at least Part 125	15	12	- 3
Other Aeroplanes with Standard Airworthiness Certificate	35	41	+ 6
Aeroplanes used for agricultural operations	0	1	+ 1
Helicopters with Standard Category Airworthiness Certificate	13	3	- 10
Sport Aircraft	3	5	+ 2
Unknown Aircraft	73	84	+ 11
Total	159	187	+ 28

#### Severity of Airspace Incidents

Severity	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Critical	0	2	+ 2
Major	13	6	- 7
Minor	146	179	+ 33

No airspace incidents in the 'Aeroplanes that must be operated under Part 121' statistics category were classified as Critical in the 1 July to 30 September 2005 quarter.

No airspace incidents in the 'Aeroplanes that must be operated under at least Part 125' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

One airspace incident in the 'Aeroplanes that must be operated under Part 121' statistics category was classified as Critical in the 1 July to 30 September 2006 quarter. The aircraft became airborne with transponder operating in Standby mode. The transponder had been set to "Standby" on the previous landing and the crew had not turned it back to "Auto" prior to takeoff.

#### Attributability

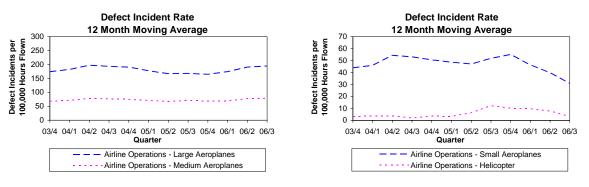
Of the 187 airspace incidents in the 1 July to 30 September 2006 quarter, 25% are Air Traffic Service (ATS) attributable, 56% are pilot attributable, 0% are ATS and pilot attributable, and 19% are unknown attributable.

Since April 2003 the long-term trend of the ATS attributable airspace occurrence rate is downward and the long-term trend of the pilot attributable rate is upward. However, the slope of the pilot attributable trend line is close to zero.

# **Defect Incidents**

#### Trends

The following graphs show the defect incident rates for the three-year period 1 October 2003 to 30 September 2006 for the Public Transport Operations Aeroplane and Helicopter Safety Target Groups.



### **Quarterly Comparison**

Number of Defect Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Aeroplanes that must be operated under Part 121	141	122	- 19
Aeroplanes that must be operated under at least Part 125	23	21	- 2
Other Aeroplanes with Standard Airworthiness Certificate	34	40	+ 6
Aeroplanes used for agricultural operations	9	12	+ 3
Helicopters with Standard Category Airworthiness Certificate	26	23	- 3
Sport Aircraft	3	5	+ 2
Unknown Aircraft	4	7	+ 3
Total	240	230	- 10

#### Severity of Defect Incidents

Severity	1 Jul to 30 Sep 2005	1 Jul to 30 Sep 2006	Change
Critical	0	0	0
Major	24	11	- 13
Minor	216	219	+ 3

No defect incidents in the 'Aeroplanes that must be operated under Part 121' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

No defect incidents in the 'Aeroplanes that must be operated under at least Part 125' statistics category were classified as Critical in the 1 July to 30 September 2005 or 2006 quarters.

#### **Rate Monitoring**

Activity data is not yet available for the period 1 April to 30 June 2006 so defect incident rate monitoring has not been carried out for this period.

# **Quarterly Statistics**

Quarter	2003/4	2004/1	2004/2	2004/3	2004/4	2005/1
Number of Air Transport Flights <sup>1</sup>	108,890	115,052	95,715	97,568	108,865	118,483
Number of Hours Flown <sup>1</sup>	213,246	228,439	203,332	204,513	208,652	234,454
Number of Aircraft Movements <sup>2</sup>	249,245	261,860	238,223	243,338	239,658	264,617
Number of Aircraft on the Register <sup>3</sup>	3,600	3,675	3,703	3,737	3,795	3,828
Number of Licences						
Private Pilot Licence	3,656	3,710	3,711	3,687	3,649	3,655
Commercial Pilot Licence	3,276	3,349	3,381	3,437	3,470	3,484
Airline Transport Pilot Licence	1,624	1,661	1,695	1,714	1,733	1,746
Aircraft Maintenance Engineer Licence	1,881	1,898	1,927	1,960	1,983	2,003
Air Traffic Controller Licence	286	304	314	304	299	302
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	12	13	12	12	12	11
Air Operator – Medium Aeroplanes	13	12	11	11	11	11
Air Operator – Helicopters and Small Aeroplanes	146	146	146	147	149	150
Air Operator – Pacific	0	2	1	1	1	1
Number of Aircraft Accidents <sup>4</sup>						
Aeroplanes that must be operated under Part 121	1	0	0	0	0	0
Aeroplanes that must be operated under at least Part 125	1	0	0	1	0	0
Other Aeroplanes with Standard Airworthiness Certificates	9	7	1	5	7	11
Aeroplanes used for agricultural operations	5	1	0	2	1	3
Helicopters with Standard Category Airworthiness Certificates	4	7	5	2	5	3
Sport Aircraft	8	8	3	3	12	11
Unknown Aircraft	1	2	0	0	0	0
Hang Gliders	2	4	0	1	2	6
Parachutes	0	1	0	0	0	0
Number of Fatal Accidents <sup>4</sup>	7	3	2	0	3	4
Number of Fatalities <sup>4</sup>	10	6	2	0	4	7
Number of Serious + Minor Injuries <sup>4</sup>	6	2	2	1	9	6
Injury Social Cost \$ million <sup>5</sup>	35.99	21.68	9.21	0.31	17.17	23.60
Number of Incidents <sup>6</sup>	902	1,022	962	838	885	962
Number of Aviation Related Concerns	76	85	62	75	79	110

<sup>1</sup> New Zealand registered aircraft. Includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes. Estimated for 2006/1, 2006/2 and 2006/3.

<sup>2</sup> Certificated aerodromes. Includes Auckland, Christchurch, Dunedin, Gisborne (from December 2004), Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Inia William Tuuta Memorial Airport, Kerikeri/Bay of Islands, Manapouri, Mount Cook, Timaru, Wanganui, Westport, Whangarei and Wigram.

<sup>3</sup> Includes the sport aircraft statistics category. Excludes hang gliders and parachutes.

<sup>4</sup> All aircraft statistics categories. Includes hang gliders and parachutes.

<sup>5</sup> All aircraft statistics categories. Includes hang gliders and parachutes. Cost per fatal and serious injury, and aircraft destroyed, in June 2006 dollars.

<sup>6</sup> All incident sub-types

Quarter	2005/2	2005/3	2005/4	2006/1	2006/2	2006/3
Number of Air Transport Flights <sup>1</sup>	98,333	94,778	105,367	114,063	95,397	92,318
Number of Hours Flown <sup>1</sup>	208,055	208,273	230,376	260,103	229,237	230,822
Number of Aircraft Movements <sup>2</sup>	249,893	260,951	254,085	263,245	255,214	259,283
Number of Aircraft on the Register <sup>3</sup>	3,872	3,896	3,937	3,991	3,991	3,995
Number of Licences						
Private Pilot Licence	3,683	3,683	3,580	3,643	3,483	3,616
Commercial Pilot Licence	3,524	3,540	3,530	3,589	3,593	3,645
Airline Transport Pilot Licence	1,791	1,802	1,814	1,803	1,789	1,810
Aircraft Maintenance Engineer Licence	2,019	2,055	2,075	2,090	2,114	2,135
Air Traffic Controller Licence	306	312	299	306	296	308
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	11	12	12	12	11	11
Air Operator – Medium Aeroplanes	11	12	13	12	13	13
Air Operator – Helicopters and Small Aeroplanes	150	152	156	154	158	160
Air Operator – Pacific	2	2	2	2	3	3
Number of Aircraft Accidents <sup>4</sup>						
Aeroplanes that must be operated under Part 121	0	0	0	0	0	0
Aeroplanes that must be operated under at least Part 125	1	0	0	1	1	0
Other Aeroplanes with Standard Airworthiness Certificates	3	7	2	6	1	2
Aeroplanes used for agricultural operations	2	1	2	2	0	0
Helicopters with Standard Category Airworthiness Certificates	3	5	7	4	5	4
Sport Aircraft	6	3	5	13	7	3
Unknown Aircraft	0	0	0	2	0	0
Hang Gliders	0	1	1	7	2	3
Parachutes	0	0	0	2	0	1
Number of Fatal Accidents <sup>4</sup>	1	2	2	4	0	0
Number of Fatalities <sup>4</sup>	2	3	4	5	0	0
Number of Serious + Minor Injuries <sup>4</sup>	6	8	6	16	6	3
Injury Social Cost \$ million⁵	7.92	10.65	16.40	19.55	0.70	0.33
Number of Incidents <sup>6</sup>	964	880	1,012	1,076	1,149	946
Number of Aviation Related Concerns	62	80	95	117	84	96

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Page 20
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# 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 the 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, rotors, 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 aircraft classes included in each aircraft statistics category.

Aircraft Statistics Category	Aircraft Class
Aeroplanes that must be operated under Part 121	Aeroplane
Aeroplanes that must be operated under at least Part 125	Aeroplane
Other Aeroplanes with Standard Airworthiness Certificates	Aeroplane
Aeroplanes used for agricultural operations	Aeroplane
Helicopters with Standard Category Airworthiness Certificates	Helicopter
Sport Aircraft	Aeroplane, Amateur Built Aeroplane, Amateur Built Glider, Amateur Built Helicopter, Balloon, Glider, Gyroplane, Helicopter, Microlight Class 1, Microlight Class 2, Power Glider

#### Airspace Incident

Means an incident involving deviation from, or shortcomings of, the procedures or rules for-

- (1) avoiding collisions between aircraft; or
- (2) avoiding collisions 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

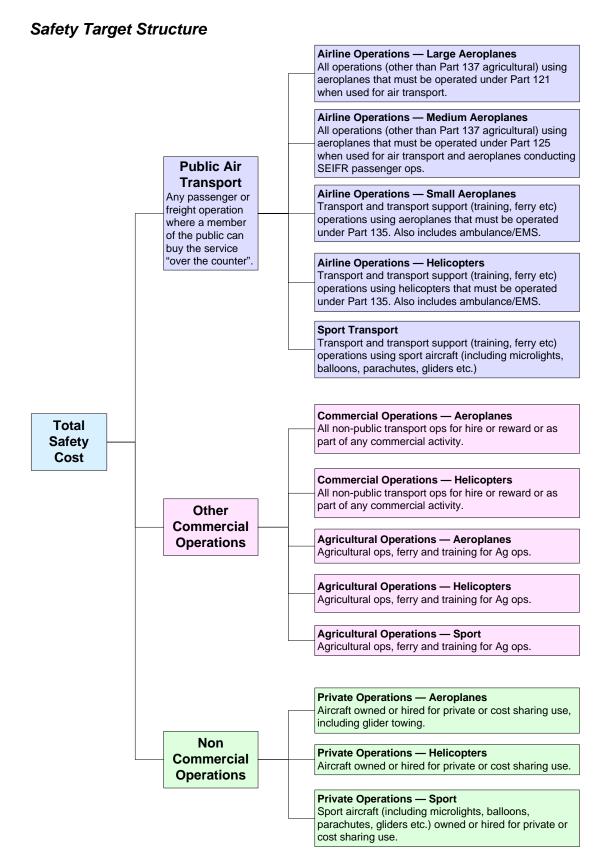
Means any injury which results in death within 30 days of the accident.

#### 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.

#### 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 seven days from the date the injury was received; or
- (2) results in a fracture of any bone, except simple fracture 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.