

# Aviation Industry Safety Update

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## Introduction

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

Data in tables may not sum exactly to the total shown due to rounding.

## Occurrence Statistics

The “Three Year Moving Average” graphs in the Occurrence Statistics sections give an indication of the levels of safety failure in New Zealand aviation during the period 1 July 2006 to 30 June 2009. They are constructed from data in the Civil Aviation Authority Management Information System, and use actual data reported to the CAA.

## Industry Activity Statistics

### Registered Aircraft

The following table summarises the number of aircraft on the register by Aircraft Category at 30 June 2009 and 6 months prior:

Aircraft Category	31 Dec 2008		30 Jun 2009		Change	
	Number	Percent	Number	Percent	Number	Percent
Large Aeroplanes	121	2.8	120	2.7	- 1	- 0.8
Medium Aeroplanes	81	1.9	80	1.8	- 1	- 1.2
Small Aeroplanes	1,491	34.2	1,510	34.3	19	1.3
Agricultural Aeroplanes	120	2.8	118	2.7	- 2	- 1.7
Helicopters	747	17.2	752	17.1	5	0.7
Sport Aircraft	1,794	41.2	1,826	41.4	32	1.8
<b>Total</b>	<b>4,354</b>		<b>4,406</b>		<b>52</b>	<b>1.2</b>

### Licences

The following table summarises the number of recreational pilot, private pilot, commercial pilot, airline transport pilot, air traffic controller, and aircraft maintenance engineer licences on the register at 30 June 2009 and 6 months prior:

Licence Type (Medical Certificate)	31 Dec 2008	30 Jun 2009	Change	
			Number	Percent
RPL (RPL Medical)	68	103	35	51.5
PPL (Class 1 & 2)	3,733	3,799	66	1.8
CPL (Class 2 only)	1,761	1,909	148	8.4
CPL (Class 1)	2,295	2,300	5	0.2
ATPL (Class 2 only)	991	893	- 98	- 9.9
ATPL (Class 1)	1,048	1,152	104	9.9
ATCL (Class 3)	342	345	3	0.9
LAME (N/A)	2,342	2,378	36	1.5
<b>Total Licences</b>	<b>12,580</b>	<b>12,879</b>	<b>299</b>	<b>2.4</b>

**Note** — the statistics above for pilot licences count only those with active class 1 or active class 2 medical certificates or, for RPL holders, a certificate, issued in accordance with the NZTA medical fitness standards that are applicable for a Class 2, 3, 4 or 5 driver licence with passenger endorsement. 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). The statistics for ATCL holders count only those with an active class 3 medical certificate. These statistics do not show the number of licence holders as each client may hold more than one licence.

## Certificated Operators

The following tables show the number of Civil Aviation Rule Part certificate holders at 30 June 2009 and 6 months prior.

Rule part	31 Dec 2008	30 Jun 2009	Change	
			Number	Percent
Part 109 Regulated Air Cargo Agent	0	55	55	-
Part 119 Air Operator	174	182	8	4.6
Part 119 Air Operator - Pacific	2	1	-1	-50.0
Part 129 Foreign Air Operator	40	40	0	0
Part 137 Agricultural Aircraft Operator	109	108	-1	-0.9
Part 139 Aerodromes	25	26	1	4.0
Part 140 Aviation Security Service	1	1	0	0
Part 141 Aviation Training Organisation	49	53	4	8.2
Part 141 Restricted Training Organisation	0	0	0	-
Part 145 Aircraft Maintenance Organisation	55	55	0	0
Part 146 Aircraft Design Organisation	11	10	-1	-9.1
Part 148 Aircraft Manufacturing Organisation	22	21	-1	-4.5
Part 149 Aviation Recreation Organisation	9	9	0	0
Part 171 Aeronautical Telecommunication Service Organisation	2	2	0	0
Part 172 Air Traffic Service	2	1	-1	-50.0
Part 173 Instrument Flight Procedure Organisation	0	1	1	-
Part 174 Meteorological Service Organisation	2	2	0	0
Part 175 Aeronautical Information Service Organisation	2	2	0	0
Part 19 Supply Organisation Certificate of Approval	64	61	-3	-4.7
Part 92 Dangerous Goods Packaging Approval	44	46	2	4.5

Note: The figures show the total number of approvals held by organisations with Part 92 certificates.

119 Air Operator	31 Dec 2008	30 Jun 2009	Change	
			Number	Percent
Part 108 Security Programme	19	18	-1	-5.3
Part 121 Large Aeroplanes	9	10	1	11.1
Part 125 Medium Aeroplanes	15	15	0	0
Part 135 Helicopters and Small Aeroplanes	163	171	8	4.9

119 Air Operator Pacific	31 Dec 2008	30 Jun 2009	Change	
			Number	Percent
Part 108 Security Programme	2	1	-1	-50.0
Part 121 Large Aeroplanes	2	1	-1	-50.0
Part 125 Medium Aeroplanes	2	1	-1	-50.0
Part 135 Helicopters and Small Aeroplanes	2	1	-1	-50.0

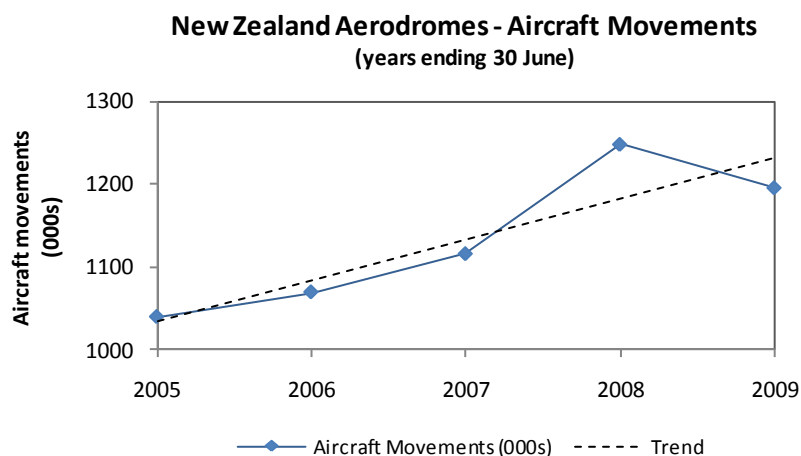
129 Foreign Air Operator	31 Dec 2008	30 Jun 2009	Change	
			Number	Percent
Part 108 Security Programme	30	30	0	0

## Aircraft Movements

The following graph and table show the number of aircraft movements at the following aerodromes: Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Milford Sound, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington, Whenuapai and Woodbourne.

### Long-Term Change in Aircraft Movements

The following graph shows the number of aircraft movements for the five-year period 1 July 2004 to 30 June 2009.



The average annual increase in the number of aircraft movements has been 3.6% from the year ended 30 June 2005 until the year ended 30 June 2009 during which 1,196,028 movements were recorded.

### Six-Monthly Comparison

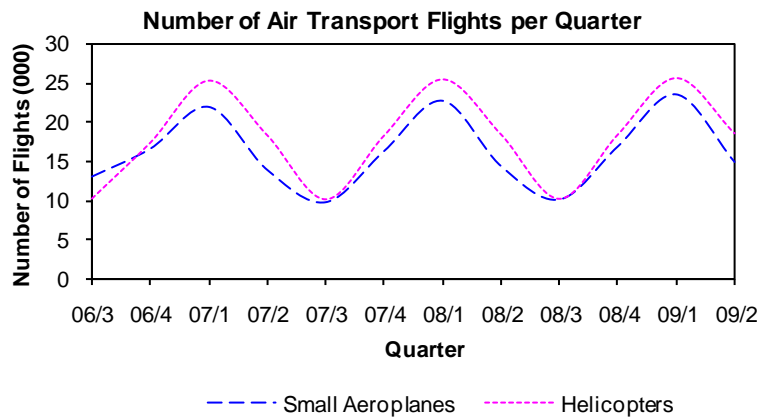
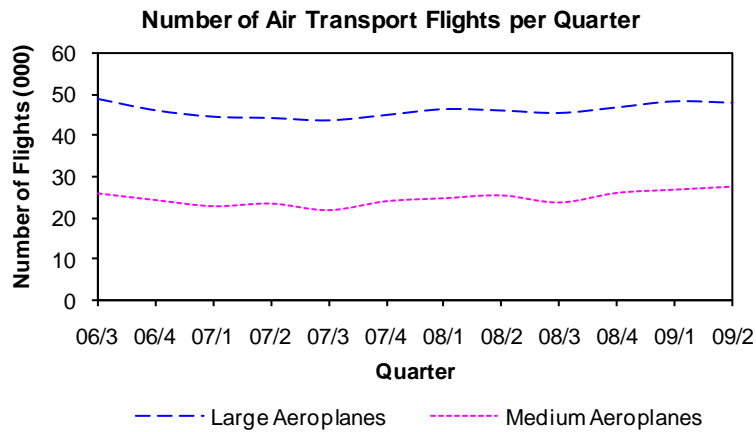
#### *Number of Aircraft Movements*

Activity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change	
			Number	Percent
Aircraft Movements	644,711	597,309	- 47,402	- 7.4

## Air Transport Flights

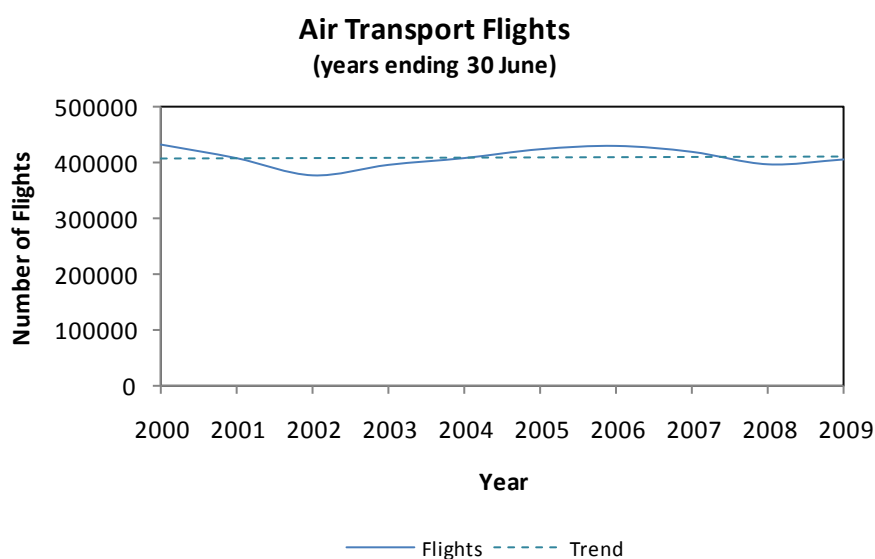
Note that these graphs exclude the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes, and foreign registered aircraft that are operated in New Zealand.

The following graphs show the number of air transport flights per quarter during the three year period 1 July 2006 to 30 June 2009.



## Long-Term Change in Air Transport Flights

The following graph shows the number of air transport flights (includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes) for the 10-year period 1 July 1999 to 30 June 2009.



The number of air transport flights decreased at an average of 1.1% each year from 423,249 in the year ended 30 June 2005 to 405,567 in the year ended 30 June 2009.

## Six-Monthly Comparison

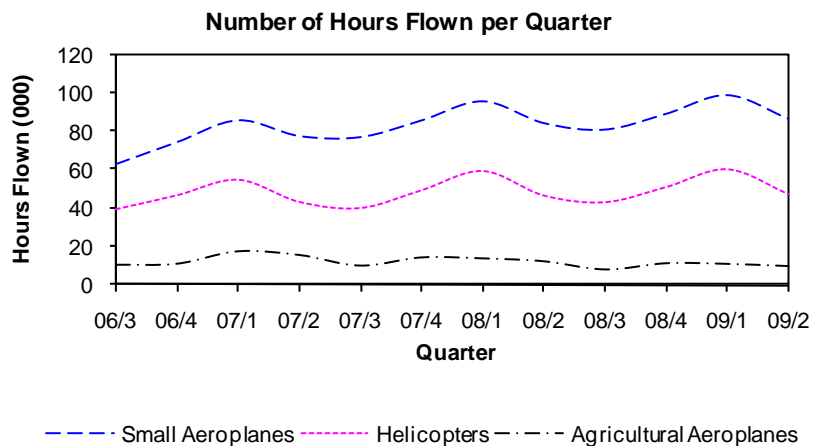
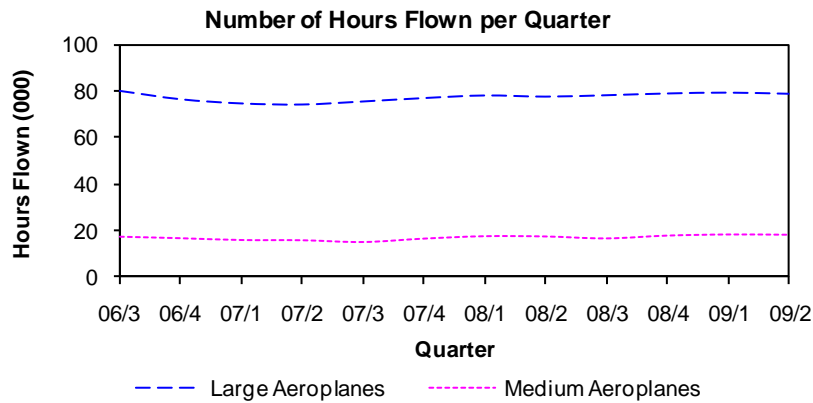
### *Number of Air Transport Flights*

Aircraft Category	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Large Aeroplanes	92,365	100,450	8,085	8.8
Medium Aeroplanes	46,252	45,771	- 481	- 1.0
Small Aeroplanes	32,879	32,517	- 362	- 1.1
Helicopters	35,334	29,967	- 5,367	- 15.2
Sport Aircraft (Aeropl, FB, Helo only)	350	210	- 140	- 40.1
<b>Total</b>	<b>207,180</b>	<b>208,914</b>	<b>1,734</b>	<b>0.8</b>

## Hours Flown

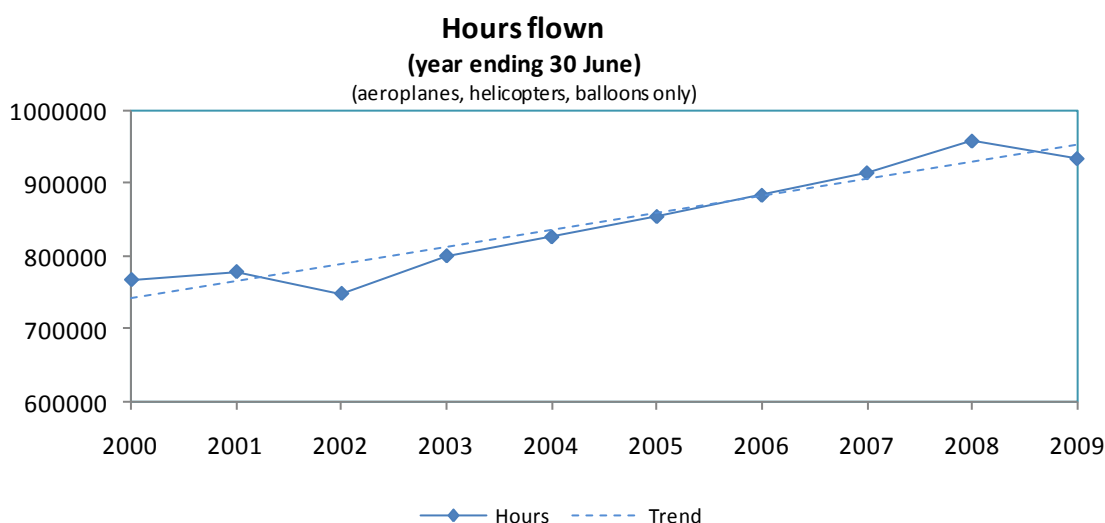
Note that these graphs exclude the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes, and foreign registered aircraft that are operated in New Zealand.

The following graphs show the number of hours flown by aircraft during the three-year period 1 July 2006 to 30 June 2009.



## Long-Term Change in Hours Flown

The following graph shows the number of hours flown (includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes) for the 10-year period 1 July 1999 to 30 June 2009.



The total number of hours flown increased at an average of 2.3% each year from 855,675 in the year ended 30 June 2005 to 935,496 in the year ended 30 June 2009.

## Six-Monthly Comparison

### *Number of Hours Flown by Safety Target Group*

Aircraft Category	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Airline Operations - Large Aeroplanes	154,799	165,033	10,235	6.6
Airline Operations - Medium Aeroplanes	32,251	31,645	- 606	- 1.9
Airline Operations - Small Aeroplanes	27,499	24,570	- 2,928	- 10.6
Airline Operations - Helicopter	36,774	36,748	- 25	- 0.1
Sport Transport (Aeropl, FB, Helo only)	808	576	- 231	- 28.6
Other Commercial Operations - Aeroplane	130,122	119,027	- 11,095	- 8.5
Other Commercial Operations - Helicopter	27,888	24,096	- 3,791	- 13.6
Agricultural Operations - Aeroplane	25,353	16,702	- 8,651	- 34.1
Agricultural Operations - Helicopter	24,084	24,923	839	3.5
Agricultural Operations - Sport	0	0	0	-
Private Operations - Aeroplane	23,720	19,907	- 3,813	- 16.1
Private Operations - Helicopter	12,023	11,772	- 251	- 2.1
Private Operations - Sport (Aeropl, FB, Helo only)	1,897	1,878	- 18	- 1.0
<b>Total</b>	<b>497,215</b>	<b>476,878</b>	<b>- 20,337</b>	<b>- 4.1</b>



## Industry Size and Shape

The following table 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 July 2008 to 30 June 2009. 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 seat hours.

Aircraft Category	Average No. Of seats	Seat Hours Offered (000's)	Percent seat hours
Airline Operations - Large Aeroplanes	199.00	47790	96.1
Airline Operations - Medium Aeroplanes	20.59	796	1.6
Airline Operations - Small Aeroplanes	3.89	100	0.2
Airline Operations - Helicopter	3.60	139	0.3
Sport Transport *		122	0.2
Other Commercial Operations - Aeroplane	2.00	243	0.5
Other Commercial Operations - Helicopter	3.60	85	0.2
Agricultural Operations - Aeroplane	2.00	34	0.1
Agricultural Operations - Helicopter	3.60	101	0.2
Agricultural Operations - Sport *			
Private Operations - Aeroplane	2.00	52	0.1
Private Operations - Helicopter	3.60	55	0.1
Private Operations - Sport *		206	0.4

\* most sport aircraft do not report hours or seats, so a standard estimate of seat hours offered is used as well as reported data for such aircraft in these groups.

Note that the percentages may not sum exactly to 100.0% due to rounding.

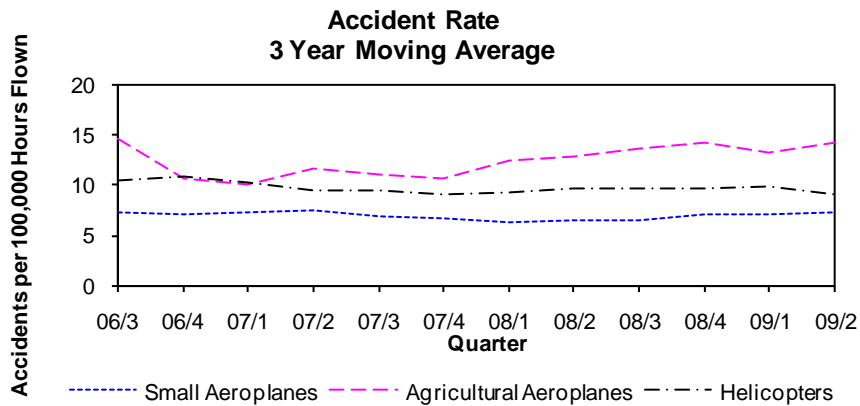
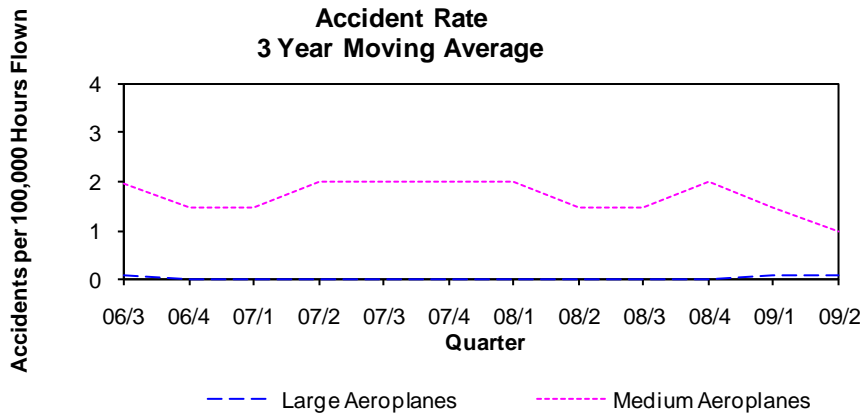
This table shows that around 96.1% of seat hours are offered by the Airline Operations – Large Aeroplanes group, around 1.6% by the Airline Operations – Medium Aeroplanes group, with the remaining 2.3% of seat hours offered being split between the other safety target groups.

## Occurrence Statistics

### Aircraft Accidents

#### Occurrence Trend

The following graphs show the aircraft accident rates (accidents per 100,000 hours flown) three year moving average for the three-year period 1 July 2006 to 30 June 2009 (excluding the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes).

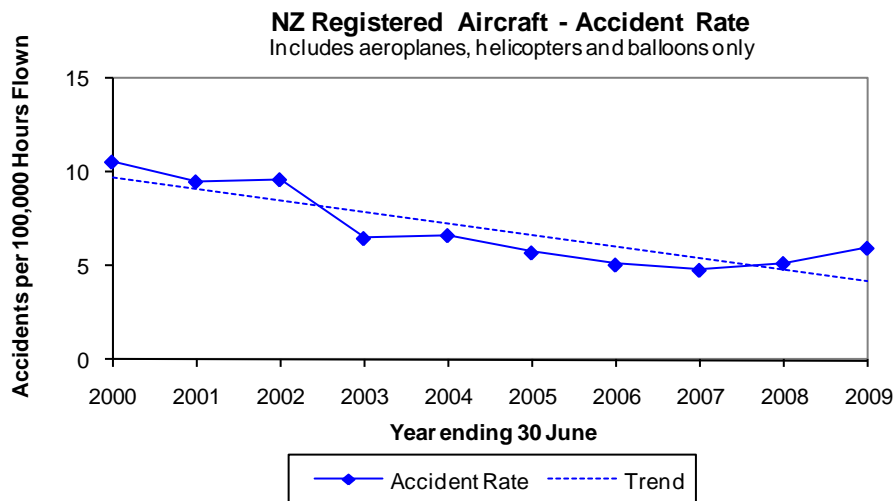


Aircraft Category	Straight Line Trend of 12 month moving Average
Large Aeroplanes	Constant
Medium Aeroplanes	Constant
Small Aeroplanes	Constant
Agricultural Aeroplanes	Trending up
Helicopters	Trending down

The slopes of the trend lines for Agricultural Aeroplanes and Helicopters are small.

## Long-Term 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 10-year period 1 July 1999 to 30 June 2009.



Note that this graph does not show a moving average.

## Six-Monthly Comparison

### *Number of Aircraft Accidents*

Activity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Large Aeroplanes	0	1	1
Medium Aeroplanes	0	0	0
Small Aeroplanes	14	11	- 3
Agricultural Aeroplanes	9	1	- 8
Helicopters	11	7	- 4
Sport Aircraft (excluding hang gliders and parachutes)	18	17	- 1
Hang Gliders	3	14	11
Parachutes	0	4	4
Unknown	0	0	0
<b>Total</b>	<b>55</b>	<b>55</b>	<b>0</b>

## Severity

Activity	Severity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Large Aeroplanes	Critical	0	0	0
	Major	0	0	0
	Minor	0	1	1
Medium Aeroplanes	Critical	0	0	0
	Major	0	0	0
	Minor	0	0	0
Small Aeroplanes	Critical	2	2	0
	Major	3	6	3
	Minor	9	3	-6
Ag Aeroplanes	Critical	1	0	-1
	Major	4	1	-3
	Minor	4	0	-4
Helicopters	Critical	1	2	1
	Major	9	5	-4
	Minor	1	0	-1
Sport Aircraft (excluding hang gliders and parachutes)	Critical	4	5	1
	Major	4	10	6
	Minor	10	2	-8
Hang Gliders	Critical	0	4	4
	Major	1	5	4
	Minor	2	5	3
Parachutes	Critical	0	0	0
	Major	0	3	3
	Minor	0	1	1
Unknown	Critical	0	0	0
	Major	0	0	0
	Minor	0	0	0
<b>Total</b>	<b>Critical</b>	<b>8</b>	<b>13</b>	<b>5</b>
	<b>Major</b>	<b>21</b>	<b>30</b>	<b>9</b>
	<b>Minor</b>	<b>26</b>	<b>12</b>	<b>-14</b>

## Safety Outcome Targets for 2010

### *Safety Target Structure*

The 2010 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.

Each target group has its own target level expressed as social cost per unit of passenger exposure, the unit being per 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 Safety Outcome Targets for the period ending 30 June 2009 (including the cost of aircraft destroyed). Target groups highlighted in yellow are groups where major safety improvements need to be achieved. Red outlining has been used to draw attention to groups with significant recent safety failure.

Safety Target Group	Current Estimate \$	Target \$
Airline Operations - Large Aeroplanes	0.00	0.1
Airline Operations - Medium Aeroplanes	0.00	0.1
Airline Operations - Small Aeroplanes	0.38	6.5
Airline Operations - Helicopter	5.10	6.5
Sport Transport	65.35	13.0
Other Commercial Operations - Aeroplane	25.75	6.5
Other Commercial Operations - Helicopter	64.91	6.5
Agricultural Operations - Aeroplane	74.04	14.0
Agricultural Operations - Helicopter	21.53	14.0
Agricultural Operations - Sport	0.00	28.0
Private Operations - Aeroplane	47.81	10.0
Private Operations - Helicopter	34.10	10.0
Private Operations - Sport	96.40	20.0

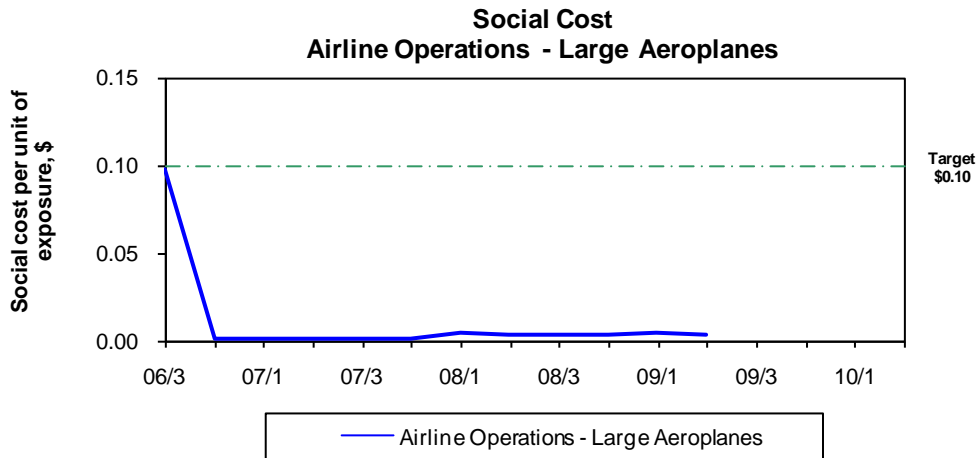
#### Current Estimate:

This is the estimated social cost of injuries and aircraft destroyed per seat hour for the three year period ending 30 June 2009. Note: Safety Summary reports prior to 2008 June to December used a 10 year averaging period for large and medium aeroplanes and a one year period for all others

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

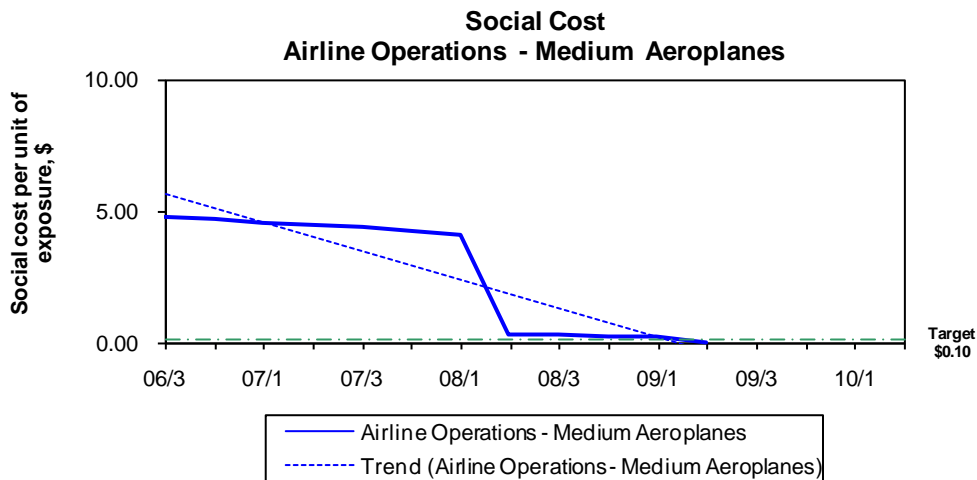
### Safety Target Graphs

Graphs displaying the Safety Outcome Targets derived using 3 year averages and the progress over each quarter are shown on this and the following pages.



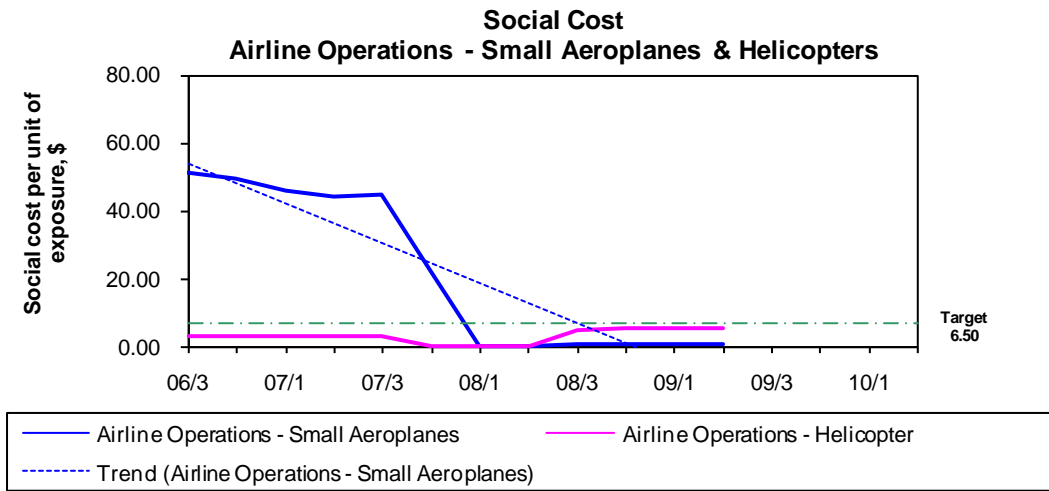
T

The outcome for Airline Operations – Large Aeroplanes has remained well below the target level of \$0.10 per seat hour of exposure since the target regime was established in late 2006 (changing to 2009 \$ values has moved the 2005 data to above the target line). There is no discernable trend either up or down. There were 1 serious and 7 minor injuries in this group during the period July 2006 to June 2009.



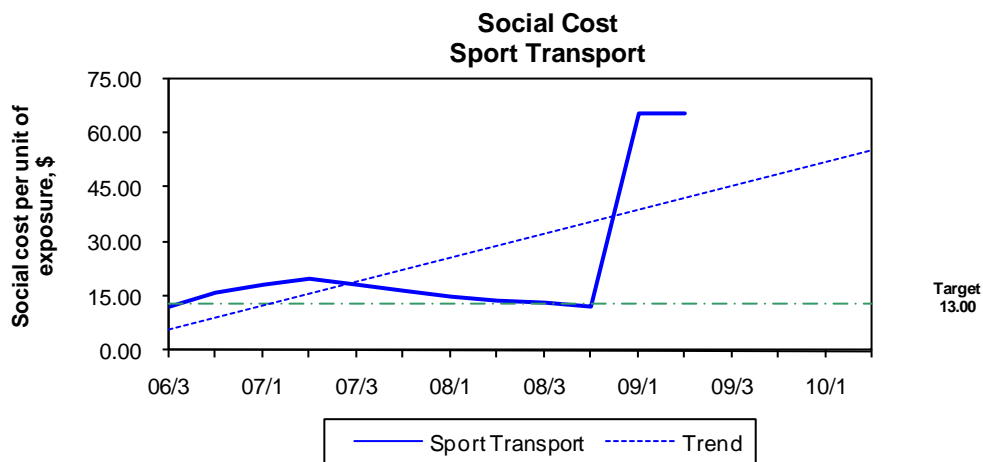
T

The outcome for Airline Operations – Medium Aeroplanes exceeds the target but is trending down and it is possible that the target may be achieved in 2010 (the data point at 09/2 is below the target). There have been no injuries in this group during the period July 2006 to June 2009.



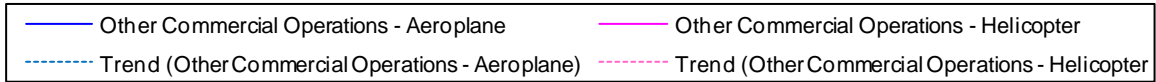
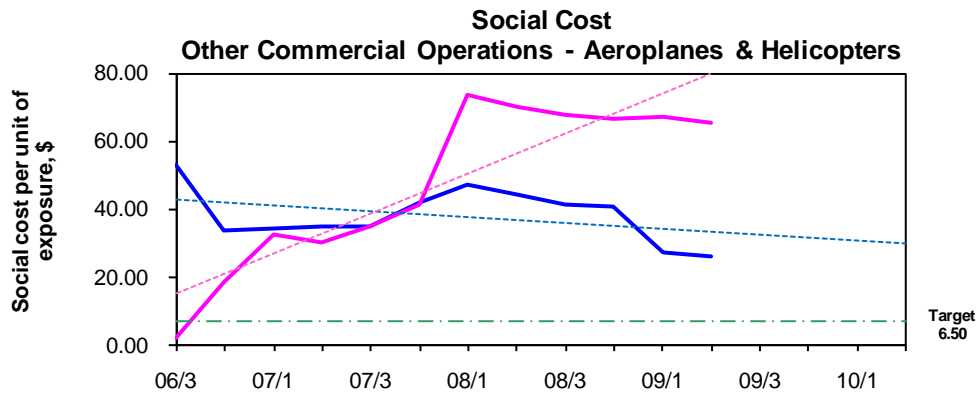
The outcome for Airline Operations – Small Aeroplanes shows a significant long term downward trend from the high starting point of \$51.10 per hour of exposure in the three years to Sep 06. The safety outcome for this group has been below the target level since the Jan to Mar 2008 quarter. There was 1 minor injury in this group during the period July 2006 to June 2009.

The outcome for Airline Operations – Helicopter remains below the target level where it has been since the second quarter of 2006. A small upward trend is evident. There were 2 serious and 2 minor injuries in this group during the period July 2006 to June 2009.



Two hang glider fatalities, two microlight fatalities and one glider fatality during the first quarter of 2009 have contributed to a significant increase in the upward trend displayed by this group. The probability of achieving the 2010 target is now low. There were 5 fatal, 12 serious and 5 minor injuries in this group during the period July 2006 to June 2009.

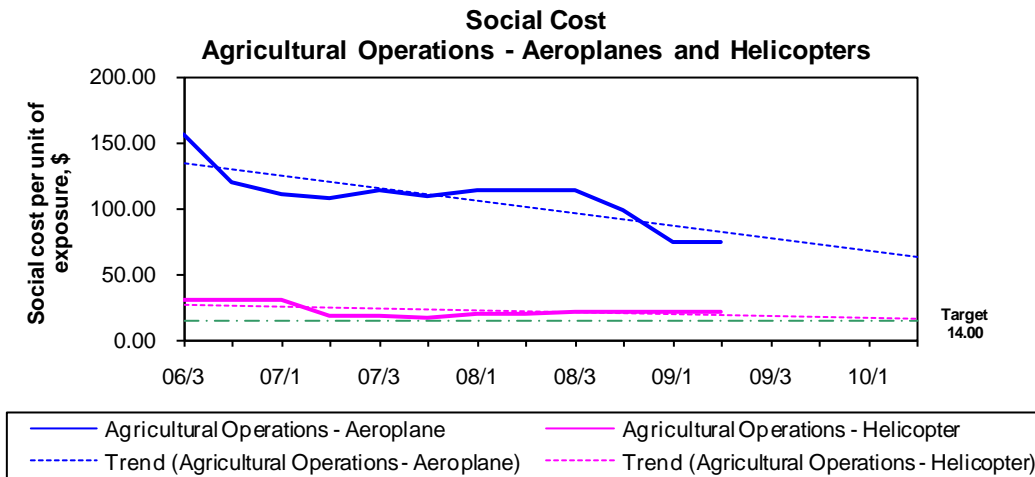
Note that this group includes hang gliders and parachutes used on transport operations.



The outcome for Other Commercial Operations – Aeroplane remains above the target of \$6.50. The steady downward trend is small and suggests that the target will not be met by 2010. There were 4 fatal, 3 serious and 4 minor injuries in this group during the period July 2006 to June 2009.

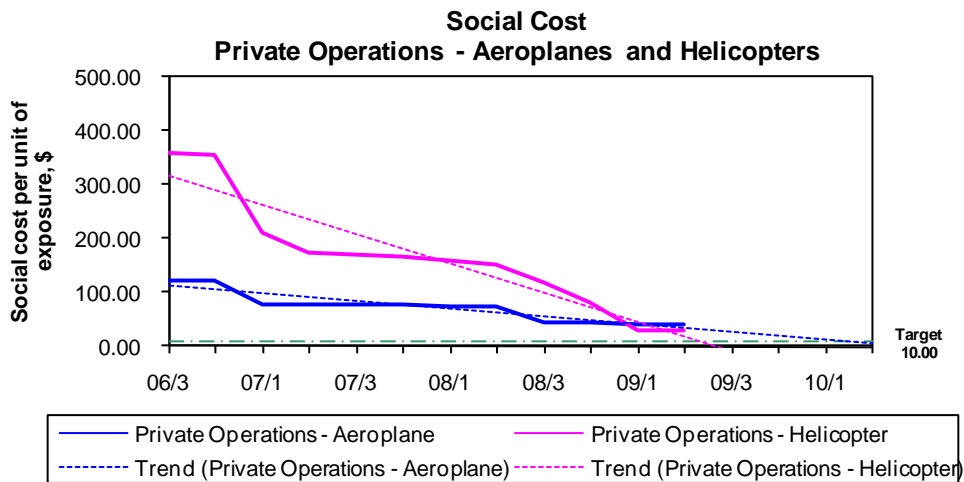
The outcome for Other Commercial Operations – Helicopter turned sharply upwards during the fourth quarter of 2006 and is well above the target level. Two fatal and two minor injuries in the four quarters Jan to Dec 08 contribute to the continuing upward trend. There were 2 fatal, 2 serious and 8 minor injuries in this group during the period July 2006 to June 2009.





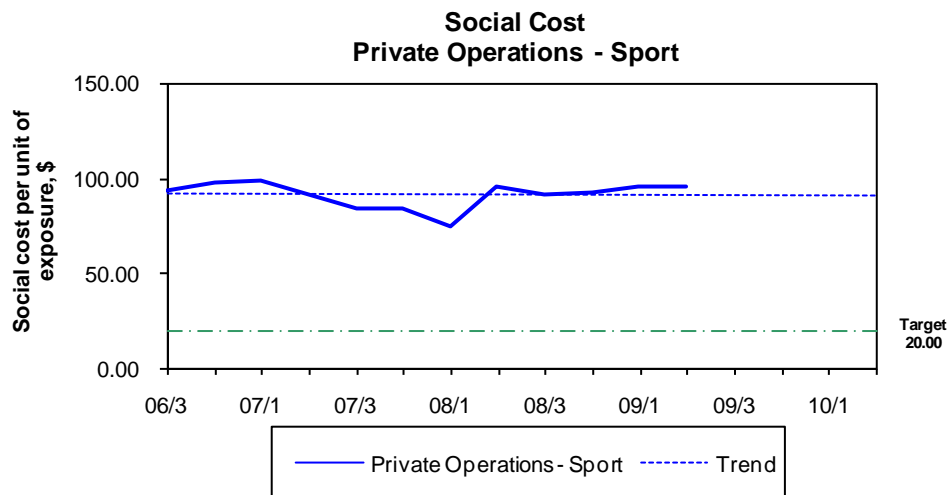
The outcome for Agricultural Operations – Aeroplanes is well above the target level of \$14.00. There were 2 fatal and 1 serious injuries in this group during the period July 2006 to June 2009.

The outcome for Agricultural Operations – Helicopter is above the target level. There were 1 fatal, 1 serious and 2 minor injuries in this group during the period July 2006 to June 2009.



The outcome for Private Operations – Aeroplanes has been trending down since late 2005. There were 2 fatal, 3 serious and 3 minor injuries in this group during the period July 2006 to June 2009.

The outcome for Private Operations – Helicopters has been trending down since early 2006. There have been 1 fatal, and 8 minor injuries in this group during the period July 2006 to June 2009.

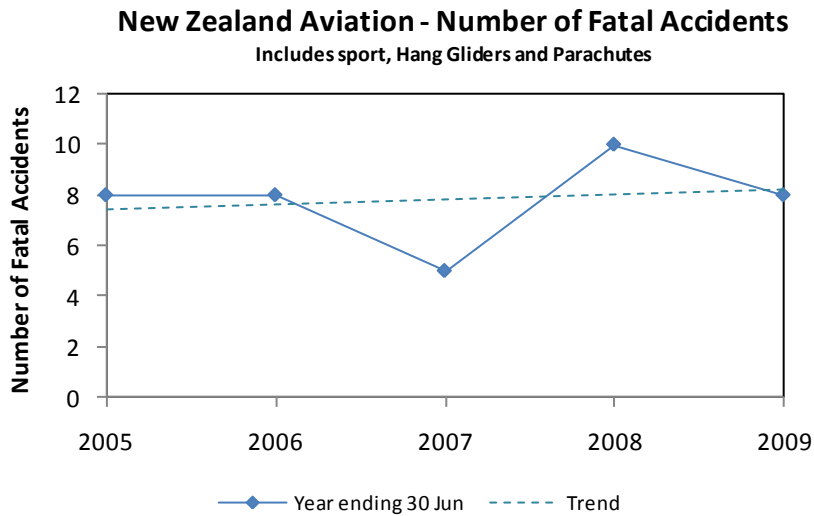


The outcome for Private Operations – Sport has been constant since the second half of 2006. There have been 14 fatal, 24 serious and 17 minor injuries in this group during the period July 2006 to June 2009.

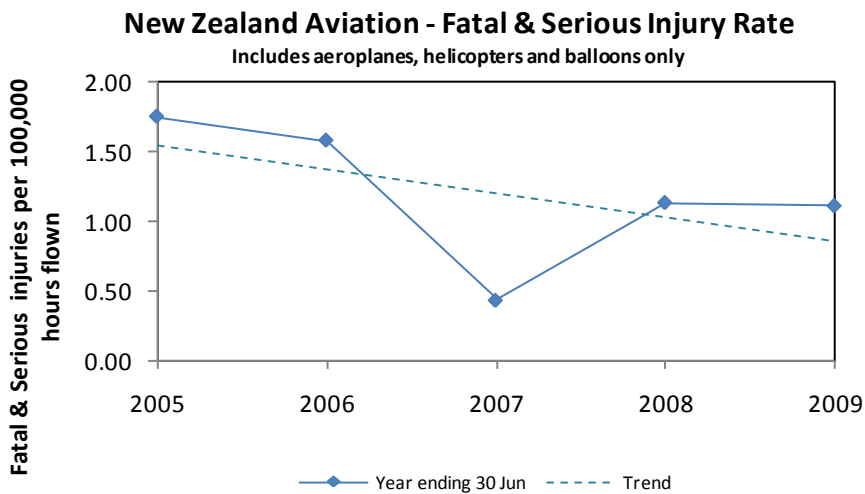
Note that this group includes hang gliders and parachutes used on private operations.

## Injury Accidents

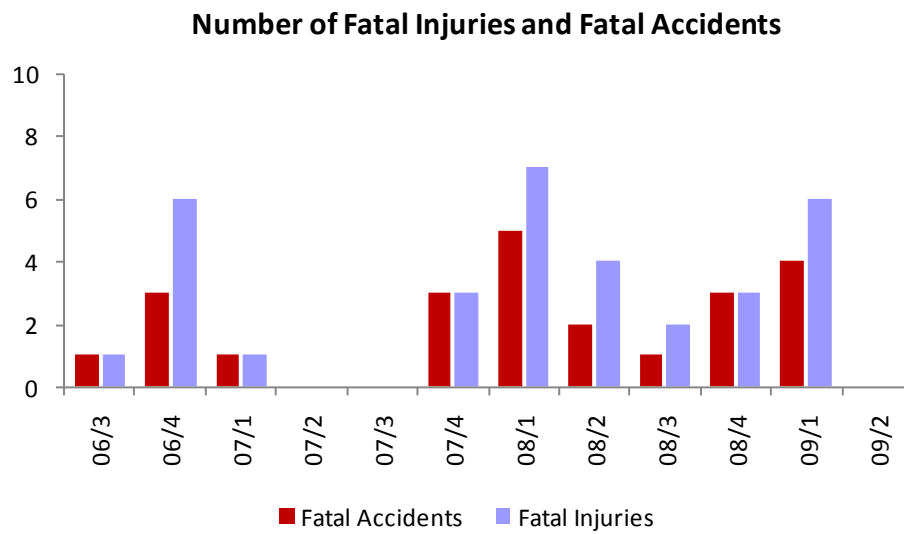
The following graph shows the number of fatal accidents in the 5-year period to 30 June 2009 (including the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes).



The following graph shows the overall fatal and serious injury 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 5-year period to 30 June 2009.



The following graph shows the number of fatal injuries and fatal accidents (including the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes) for the three-year period to 30 June 2009.



The long-term trends of the number of fatal accidents and the number of fatal injuries are both slightly downward but since 2007 these trends have flattened out to become approximately constant.

## Six-Monthly Comparison

### *Number of Fatal Accidents and Number of Fatal Injuries*

Activity	1 Jan to 30 Jun 2008		1 Jan to 30 Jun 2009		Change	
	Accidents	Fatalities	Accidents	Fatalities	Accidents	Fatalities
Large Aeroplanes	0	0	0	0	0	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	2	3	0	0	- 2	- 3
Agricultural Aeroplanes	0	0	0	0	0	0
Helicopters	1	2	0	0	- 1	- 2
Sport Aircraft	4	6	3	4	- 1	- 2
Hang Gliders	0	0	1	2	1	2
Parachutes	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
<b>Total</b>	<b>7</b>	<b>11</b>	<b>4</b>	<b>6</b>	<b>- 3</b>	<b>- 5</b>

### *Number of Serious Injuries*

Activity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	0	0	0
Agricultural Aeroplanes	1	0	- 1
Helicopters	0	1	1
Sport Aircraft	0	4	4
Hang Gliders	1	3	2
Parachutes	0	3	3
Unknown	0	0	0
<b>Total</b>	<b>2</b>	<b>11</b>	<b>9</b>

### *Number of Minor Injuries*

Activity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	0	0	0
Agricultural Aeroplanes	0	0	0
Helicopters	0	1	1
Sport Aircraft	1	3	2
Hang Gliders	3	2	- 1
Parachutes	0	0	0
Unknown	0	0	0
<b>Total</b>	<b>4</b>	<b>6</b>	<b>2</b>

## Flight Phase

The following table shows the flight phase recorded for accidents.

Flight Phase	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Agricultural Manoeuvres	1	1	0
Approach	1	2	1
Circuit	1		- 1
Climb	2	3	1
Cruise	8	4	- 4
Descent		2	2
Holding	1		- 1
Hover	2	1	- 1
Landing	19	17	- 2
Parked	2	1	- 1
Takeoff	14	13	- 1
Taxiing	4	4	0
Unknown		2	2
<b>Total</b>	<b>55</b>	<b>50</b>	<b>- 5</b>

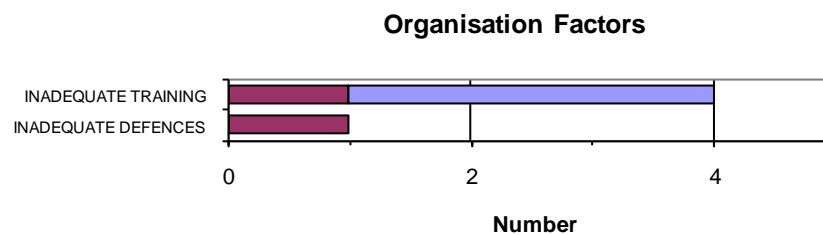
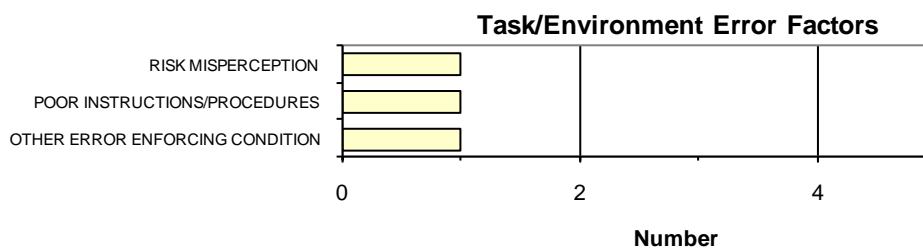
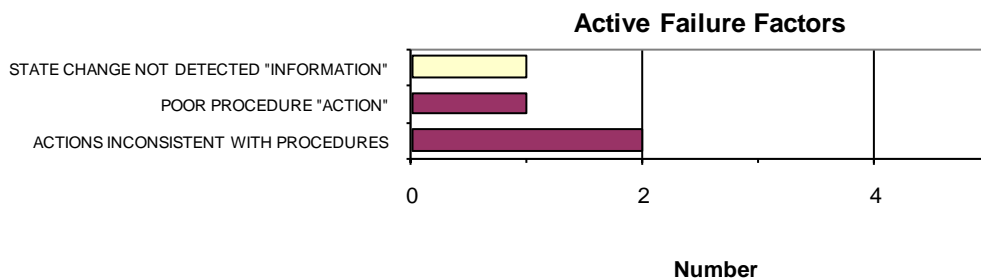
Accidents in the period 1 January to 30 June 2009 were most common during the Landing phase (34%).

The most common group of occurrence descriptors recorded for Landing phase accidents in the 1 January to 30 June 2009 period is 'Damage to Aircraft' (32%).

Analysis of recorded causes for Landing phase accidents shows that the most common cause is 'Inexperience (Not Lack Of Training)' (22%).

## Accident Causal Factors by Aircraft Category

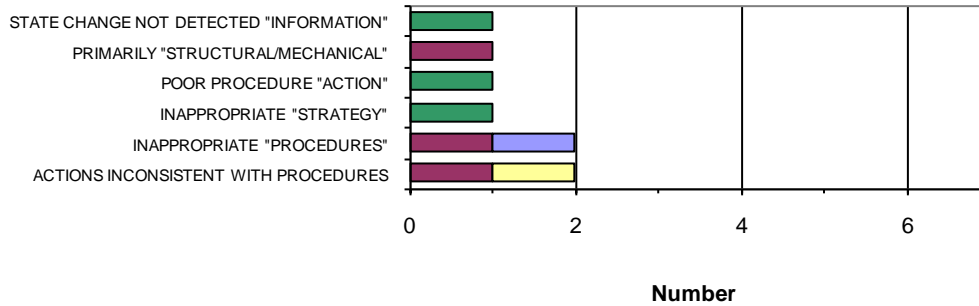
The following graphs show the number of causal factors recorded for accidents that occurred during the 6-month period 1 January to 30 June 2008 for the various aircraft statistics categories. Causal factors have been assigned to 7 (13%) of the 55 accidents.



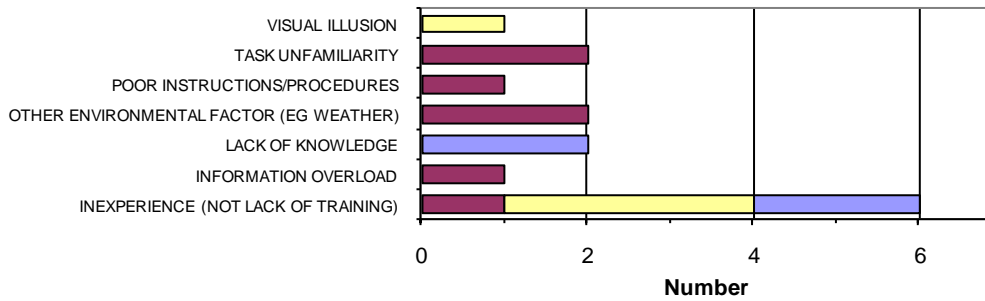
- Large Aeroplanes
- Agricultural Aeroplanes
- Hang Gliders and Parachutes
- Medium Aeroplanes
- Helicopters
- Small Aeroplanes
- Sport Aircraft

The following graphs show the number of causal factors recorded for accidents that occurred during the 6-month period 1 July to 31 December 2008 for the various aircraft statistics categories. Causal factors have been assigned to 16 (28%) of the 58 accidents.

### Active Failure Factors



### Task/Environment Error Factors

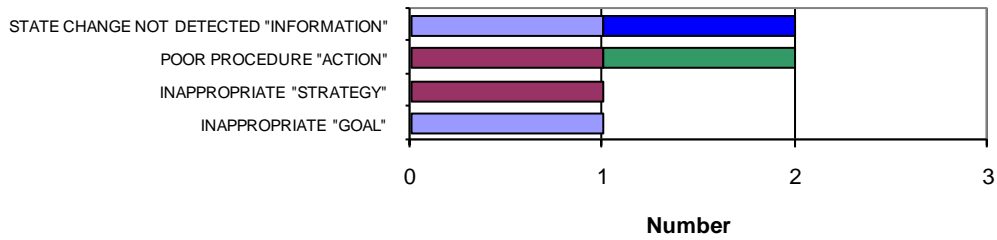


- Large Aeroplanes
- Agricultural Aeroplanes
- Hang Gliders and Parachutes
- Medium Aeroplanes
- Helicopters
- Small Aeroplanes
- Sport Aircraft

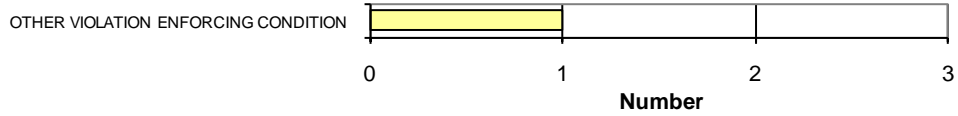


The following graphs show the number of causal factors recorded for accidents that occurred during the 6-month period 1 January to 30 June 2009 for the various aircraft statistics categories. Causal factors have been assigned to 14 (26%) of the 53 accidents.

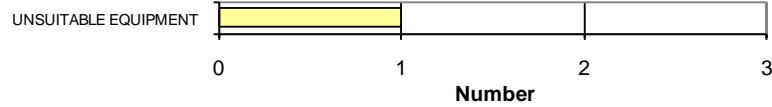
### Active Failure Factors



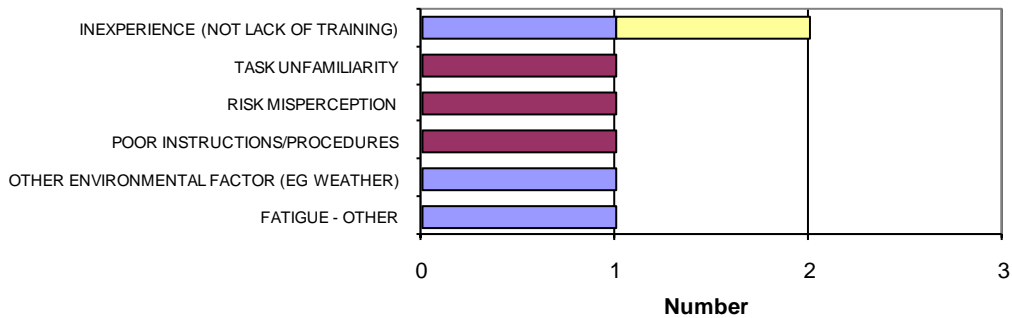
### Local Violation Factors



### Organisation Factors



### Task/Environment Error Factors

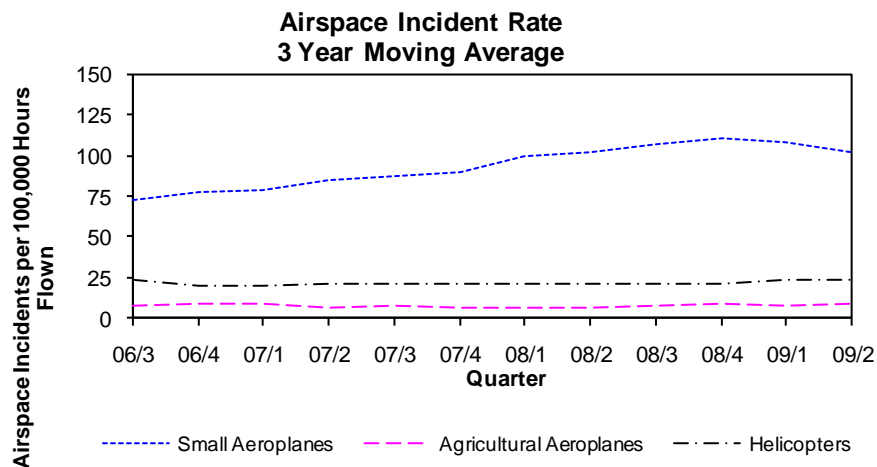
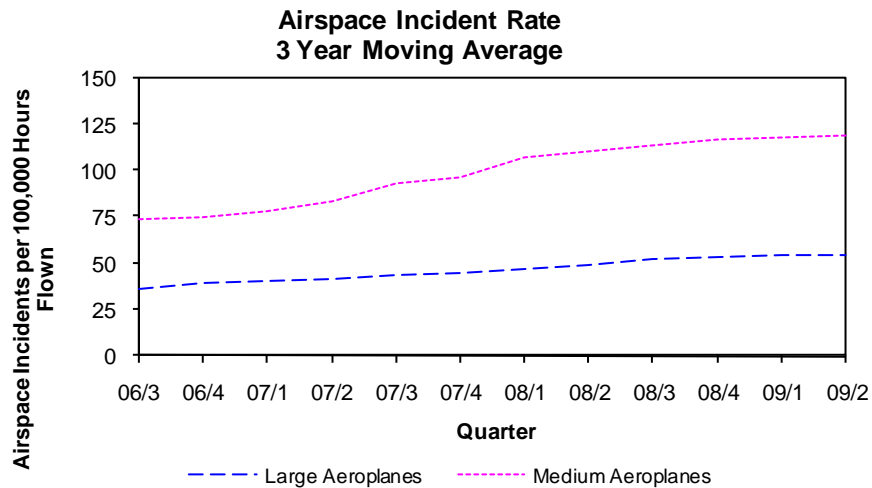


- Large Aeroplanes
- Small Aeroplanes
- Sport Aircraft
- Helicopters
- Medium Aeroplanes
- Agricultural Aeroplanes
- Hang Gliders and Parachutes

## Airspace Incidents

### Occurrence Trend

The following graphs show the airspace incident rates (incidents per 100,000 hours flown) three year moving average for the three-year period 1 July 2006 to 30 June 2009 (excluding Sport). The graphs do not differentiate between incidents that are pilot or ATS attributable.



Aircraft Category	Straight line trend of 3 Year moving average
Large aeroplanes	Trending up
Medium Aeroplanes	Trending up
Small Aeroplanes	Trending up
Helicopters	Constant
Agricultural Aeroplanes	Constant

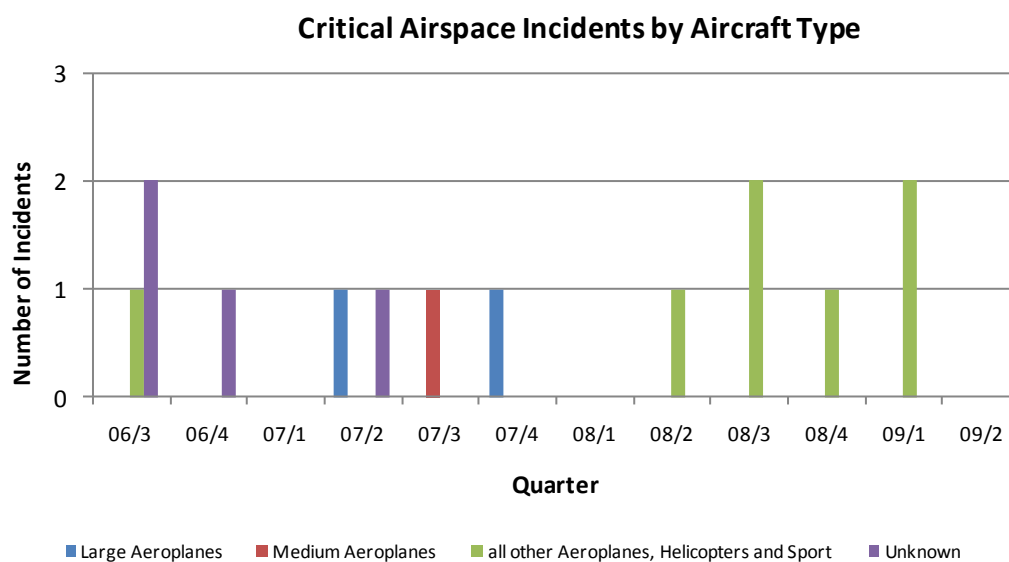
## Six-Monthly Comparison

### *Number of Airspace Incidents*

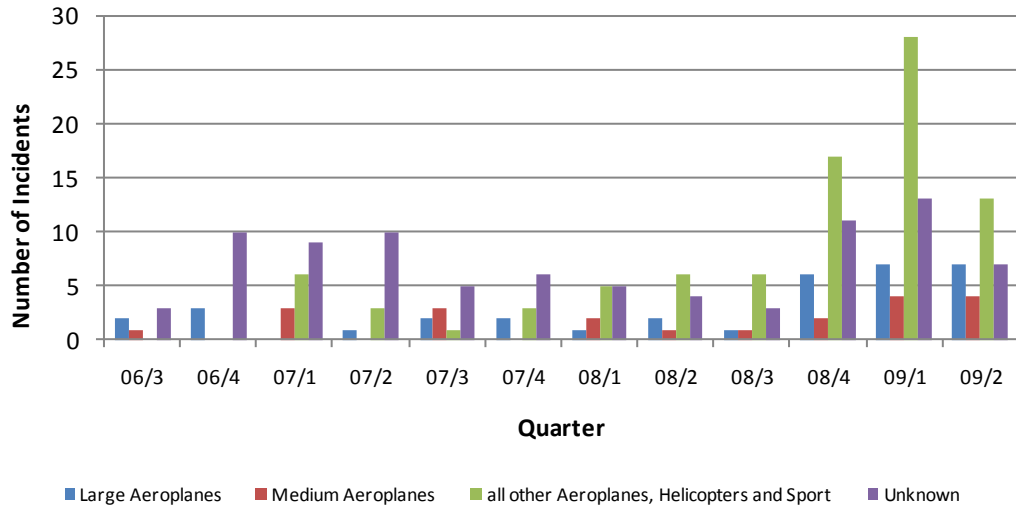
Aircraft Category	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Large Aeroplanes	85	93	8	9.4
Medium Aeroplanes	42	40	- 2	- 4.8
Small Aeroplanes	205	159	- 46	- 22.4
Agricultural Aeroplanes	4	1	- 3	- 75.0
Helicopters	29	27	- 2	- 6.9
Sport Aircraft	15	29	14	93.3
Unknown	141	124	- 17	- 12.1
<b>Total</b>	<b>521</b>	<b>473</b>	<b>- 48</b>	<b>- 9.2</b>

## Severity

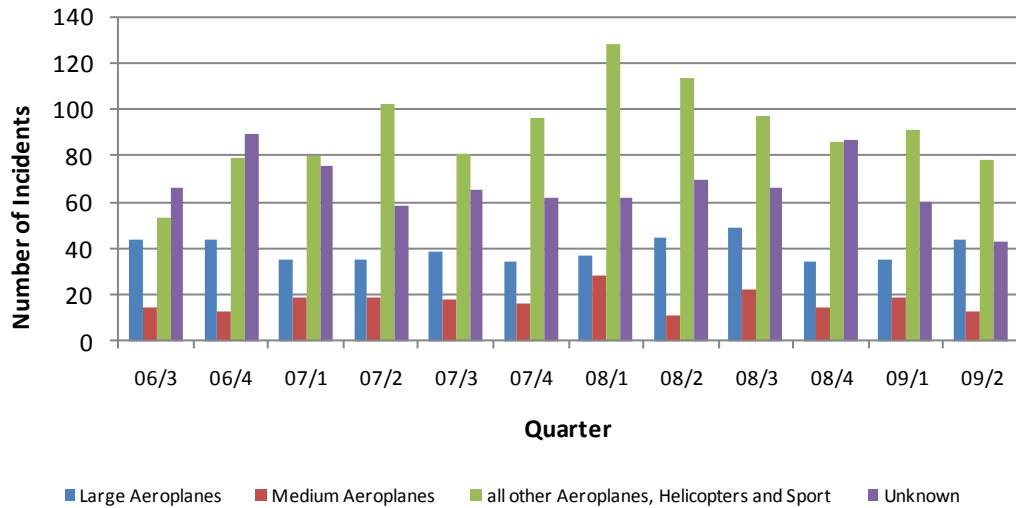
The following graphs show the severity of airspace incidents recorded over the period 1 July 2006 to 30 June 2009.



### Major Airspace Incidents by Aircraft Type



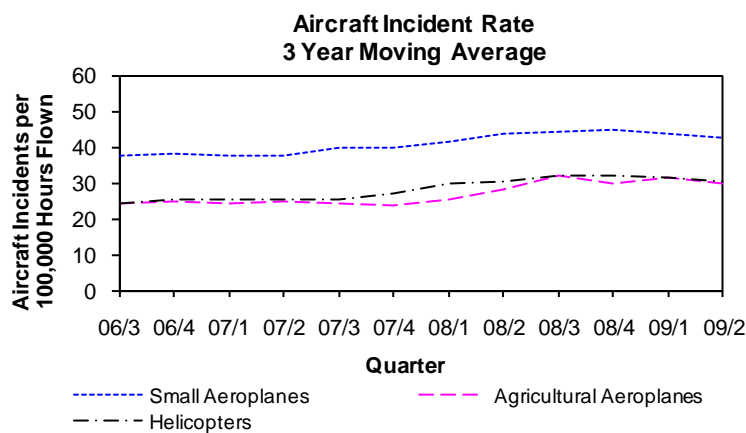
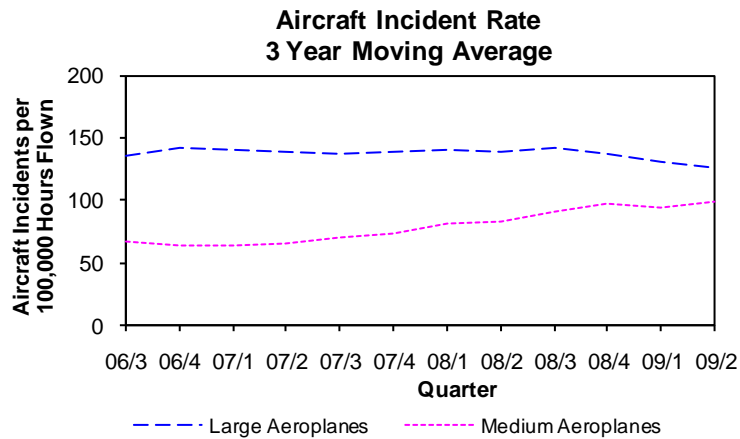
### Minor Airspace Incidents by Aircraft Type



## Aircraft Incidents

### Occurrence Trend

The following graphs show the aircraft incident rates (incidents per 100,000 hours flown) three year moving average for the three-year period 1 July 2006 to 30 June 2009 (excluding Sport).



Aircraft Category	Straight line trend of 12 month moving average
Large Aeroplanes	Trending down
Medium Aeroplanes	Trending up
Small Aeroplanes	Trending up
Helicopters	Trending up
Ag Aeroplanes	Trending up

The ratios of reported aircraft incidents to reported accidents continue to be much lower for the small, sport, agricultural and helicopter groups than for the large and medium aircraft groups.

## Six-Monthly Comparison

### Number of Aircraft Incidents

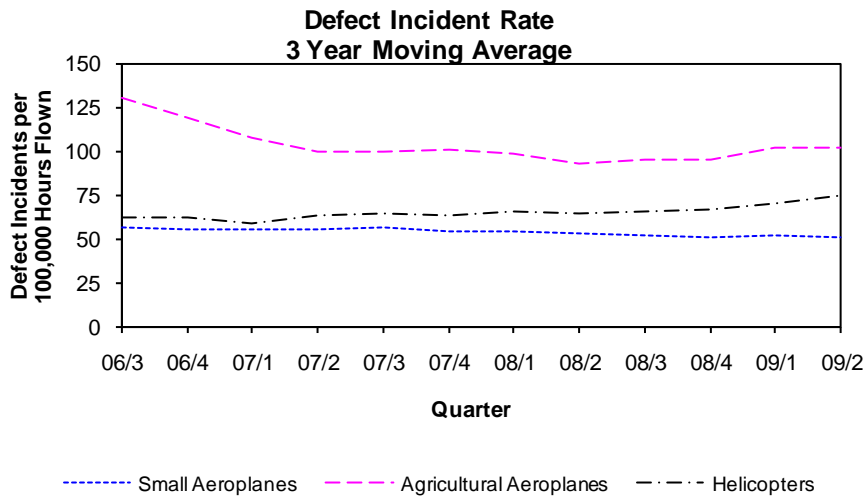
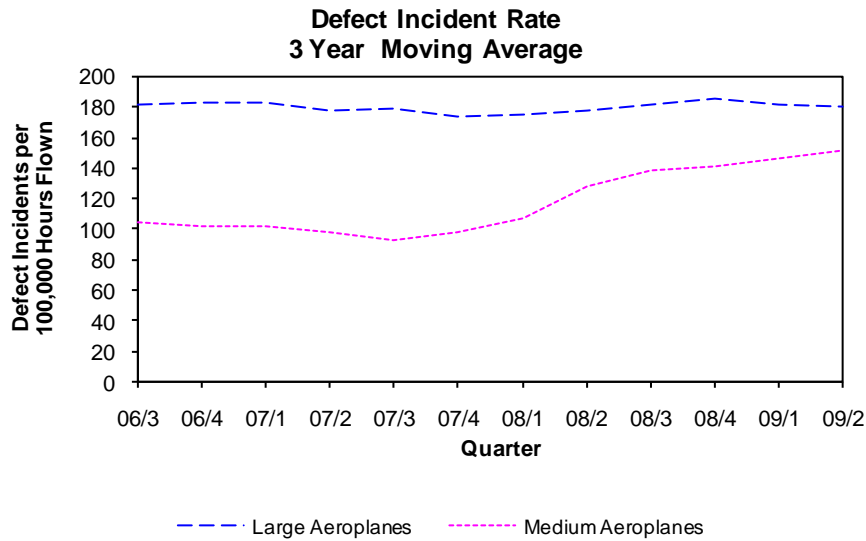
Aircraft Category	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change	
			Number	Percent
Large Aeroplanes	193	123	-70	- 36.3
Medium Aeroplanes	45	27	-18	- 40.0
Small Aeroplanes	108	53	-55	- 50.9
Agricultural Aeroplanes	14	3	-11	- 78.6
Helicopters	40	22	-18	- 45.0
Sport Aircraft	24	14	-10	- 41.7
Unknown	50	9	-41	- 82.0
<b>Total</b>	<b>474</b>	<b>251</b>	<b>-223</b>	<b>- 47.0</b>

### Severity

Activity	Severity	1 Jan to 30 Jun 2008	1 Jan to 30 Jun 2009	Change
Large Aeroplanes	Critical	2	0	-2
	Major	26	17	-9
	Minor	165	106	-59
Medium Aeroplanes	Critical	0	0	0
	Major	0	3	3
	Minor	45	24	-21
Small Aeroplanes	Critical	0	0	0
	Major	6	10	4
	Minor	102	43	-59
Helicopters	Critical	1	1	0
	Major	9	7	-2
	Minor	30	14	-16
Sport Aircraft	Critical	0	0	0
	Major	1	5	4
	Minor	23	9	-14
Agricultural Aeroplanes	Critical	0	0	0
	Major	3	2	-1
	Minor	11	1	-10
Unknown	Critical	0	0	0
	Major	2	1	-1
	Minor	48	8	-40
<b>Total</b>	<b>Critical</b>	<b>3</b>	<b>1</b>	<b>-2</b>
	<b>Major</b>	<b>47</b>	<b>45</b>	<b>-2</b>
	<b>Minor</b>	<b>424</b>	<b>205</b>	<b>-219</b>

## Defect Incidents

The following graphs show the aircraft defect incident rates (incidents per 100,000 hours flown) three year moving average for the three-year period 1 July 2006 to 30 June 2009 (excluding Sport).



Aircraft Category	Straight line trend of 3 year moving average
Large Aeroplanes	Constant
Medium Aeroplanes	Trending up
Small Aeroplanes	Constant
Agricultural Aeroplanes	Constant
Helicopters	Constant

## Six-Monthly Comparison

### *Number of Defect Incidents*

Aircraft Category	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Large Aeroplanes	271	309	38	14.0
Medium Aeroplanes	84	51	-33	- 39.3
Small Aeroplanes	88	103	15	17.0
Agricultural Aeroplanes	35	26	-9	- 25.7
Helicopters	65	98	33	50.8
Sport Aircraft	4	8	4	100.0
Unknown	17	18	1	5.9
<b>Total</b>	<b>564</b>	<b>613</b>	<b>49</b>	<b>8.7</b>

### *Severity*

Activity	Severity	1 Jan to	1 Jan to	Change
		30 Jun 2008	30 Jun 2009	
Large Aeroplanes	Critical	0	0	0
	Major	44	60	16
	Minor	227	249	22
Medium Aeroplanes	Critical	0	0	0
	Major	2	13	11
	Minor	82	38	-44
Small Aeroplanes	Critical	0	0	0
	Major	12	37	25
	Minor	76	66	-10
Helicopters	Critical	0	0	0
	Major	16	26	10
	Minor	49	72	23
Sport Aircraft	Critical	0	0	0
	Major	0	2	2
	Minor	4	6	2
Agricultural Aeroplanes	Critical	1	0	-1
	Major	9	13	4
	Minor	24	13	-11
Unknown	Critical	0	0	0
	Major	3	8	5
	Minor	14	10	-4
<b>Total</b>	<b>Critical</b>	<b>1</b>	<b>0</b>	<b>-1</b>
	<b>Major</b>	<b>86</b>	<b>159</b>	<b>73</b>
	<b>Minor</b>	<b>476</b>	<b>454</b>	<b>-22</b>



## Bird Incident Rates

The following table shows the 12-month moving average strike rates for identified aerodromes for each quarter of the three years ending 30 June 2009.

Aerodrome	06/3	06/4	07/1	07/2	07/3	07/4	08/1	08/2	08/3	08/4	09/1	09/2
Auckland	2.5	2.5	2.3	2.5	3.0	2.9	2.9	3.4	3.2	3.0	3.2	2.3
Christchurch	3.5	3.5	3.8	3.2	3.5	3.5	2.9	3.4	3.1	3.4	3.5	2.9
Dunedin	4.5	3.4	3.9	3.1	3.3	2.9	2.0	3.0	2.8	3.1	4.0	3.4
Gisborne	8.8	10.0	11.3	7.9	7.4	6.7	6.1	11.2	10.3	11.1	10.0	6.6
Hamilton	5.1	4.5	4.0	3.0	2.3	2.0	1.8	2.2	2.5	3.1	3.0	2.6
Invercargill	11.7	7.6	6.2	6.6	7.1	8.1	9.4	8.1	8.4	10.7	8.5	8.5
Napier	7.2	7.7	7.9	5.4	6.6	4.5	5.6	6.9	5.5	6.4	5.0	5.0
Nelson	2.5	3.5	3.4	2.9	2.7	1.9	1.6	2.2	2.5	2.1	2.5	2.1
New Plymouth	6.7	5.9	5.4	5.0	3.6	3.0	2.1	2.8	3.0	3.7	5.2	5.5
Ohakea	2.4	1.8	2.0	2.0	1.4	1.4	2.2	2.0	2.5	3.0	2.3	2.1
Palmerston North	4.6	4.7	4.2	4.0	3.5	3.0	3.1	3.1	3.0	3.0	3.7	5.0
Queenstown	3.0	2.7	2.4	3.5	3.3	3.9	3.7	3.8	3.6	2.2	2.9	2.2
Rotorua	8.7	8.0	7.4	7.7	7.9	7.1	6.1	5.2	4.7	4.0	4.4	5.4
Taupo	1.6	1.4	1.5	1.2	1.8	2.1	1.8	2.1	2.3	2.0	2.4	2.2
Tauranga	3.3	2.8	2.1	2.0	2.0	1.7	1.6	1.4	1.8	2.1	2.1	2.0
Wellington	1.6	1.7	1.6	1.5	1.7	1.2	1.2	1.5	1.7	2.0	2.1	1.9
Whenuapai	5.0	4.7	5.8	8.3	9.6	10.3	13.6	12.2	12.7	12.1	9.6	7.7
Woodbourne	5.3	5.4	6.6	6.6	6.4	6.6	4.1	4.1	3.5	3.1	3.3	3.3

*Bird occurrence rates are measured monthly, quarterly or annually by aerodrome. This is achieved by querying the database for the number of strikes at aerodromes over a period of time summarising by month, quarter or year. The results of this query are then divided by the aircraft movements at each aerodrome and multiplied by 10,000 to achieve strikes per 10,000 aircraft movements. Aircraft movements at aerodromes are obtained from the ACNZ, and, where available, from individual airport companies.*

## CAA Actions

The CAA uses the following criteria for assessing actions to be taken with regard to identified trends in bird strike rates.

Bird strikes per 10,000 aircraft movements	Risk Category	Trending Down	Constant	Trending Up
≥ 0.0 and < 5.0	Low	Monitor	Monitor	Advise Aerodrome Operator
≥ 5.0 and < 10.0	Medium	Monitor	Advise Aerodrome Operator	Advise Aerodrome Operator, Request Rectification Action
≥ 10.0	High	Advise Aerodrome Operator	Advise Aerodrome Operator, Request Rectification Action	Advise Aerodrome Operator, Request Rectification Action

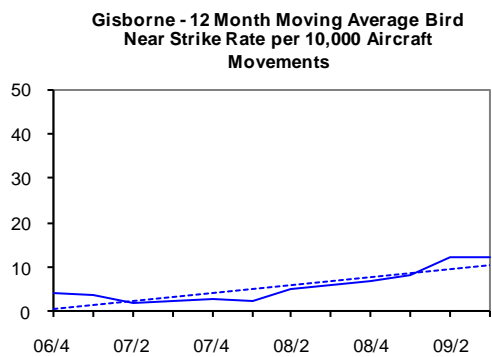
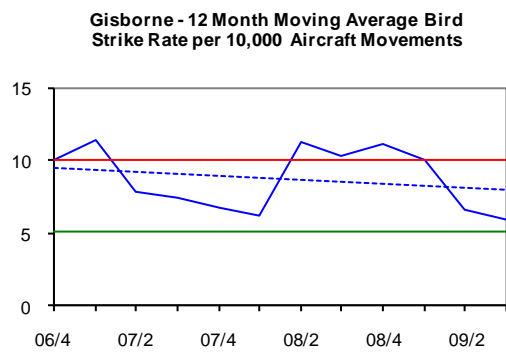
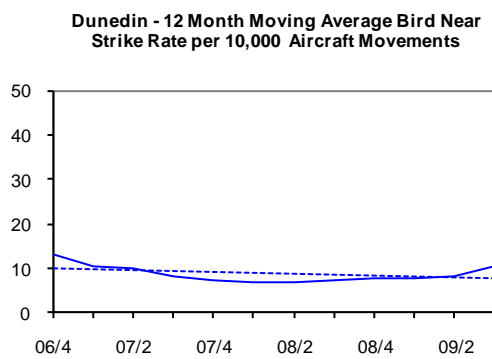
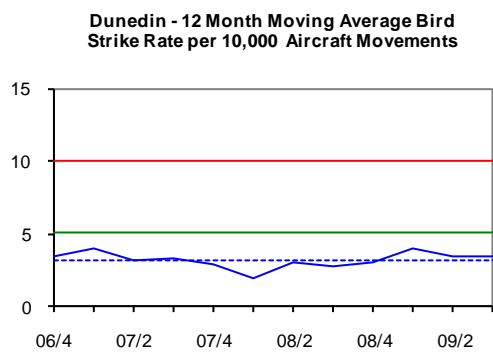
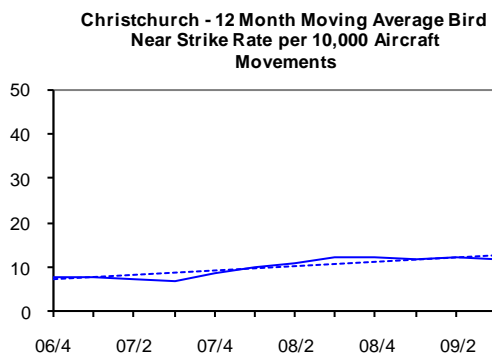
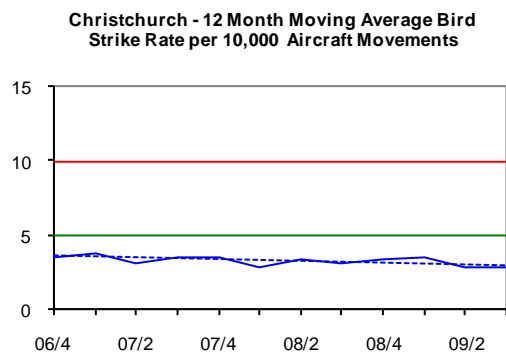
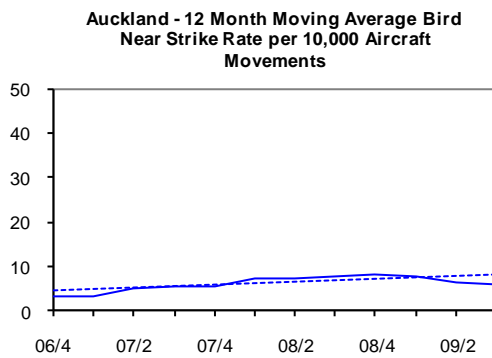
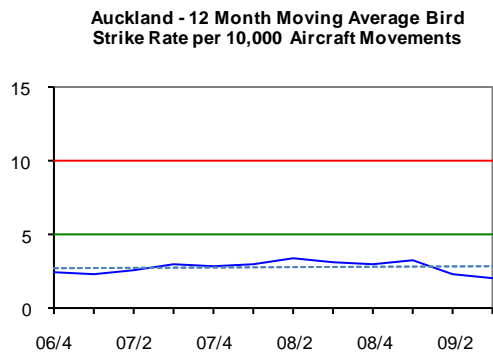
## ***Analysis***

Analysis shows that four aerodromes have bird strike rates above the “trigger level” for CAA Action. Details were forwarded to Manager Aeronautical Services on 24 July 09.

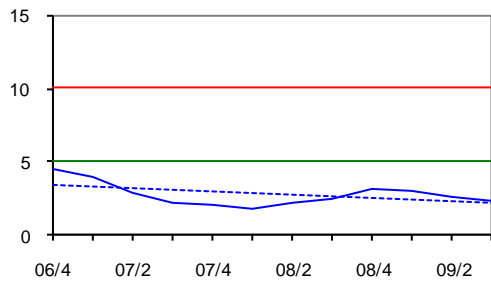
There were no aerodromes with strike rates in the high risk category of the CAA standard (above 10.0 bird strikes per 10,000 aircraft movements). Seven aerodromes had strike rates in the medium risk category (5.0 to 10.0 per 10,000 movements), two having a long-term upward trend, one having a long-term constant trend and four having long-term downward trends. Eleven aerodromes had strike rates in the low risk category (below 5.0 per 10,000 movements) one having a long-term upward trend, six a long-term constant trend and four a long-term downward trend.

<b>Aerodrome</b>	<b>Risk Category</b>	<b>Trend</b>	<b>CAA Action</b>
Auckland	Low	Constant	Monitor
Christchurch	Low	Constant	Monitor
Dunedin	Low	Constant	Monitor
Gisborne	Medium	Constant	Advise Aerodrome Operator
Hamilton	Low	Trending down	Monitor
Invercargill	Medium	Trending up	Advise Aerodrome Operator, Request Rectification Action
Napier	Medium	Trending down	Monitor
Nelson	Low	Trending down	Monitor
New Plymouth	Medium	Trending down	Monitor
Ohakea	Low	Constant	Monitor
Palmerston North	Medium	Trending down	Monitor
Queenstown	Low	Constant	Monitor
Rotorua	Medium	Trending down	Monitor
Taupo	Low	Trending up	Advise Aerodrome Operator
Tauranga	Low	Trending down	Monitor
Wellington	Low	Constant	Monitor
Whenuapai	Medium	Trending up	Advise Aerodrome Operator, Request Rectification Action
Woodbourne	Low	Trending down	Monitor

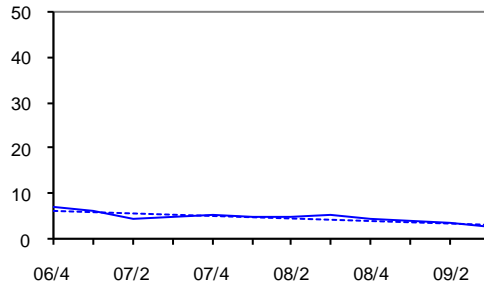
The top line on the strike rate graphs below shows the High risk category. The next line shows the Medium risk category.



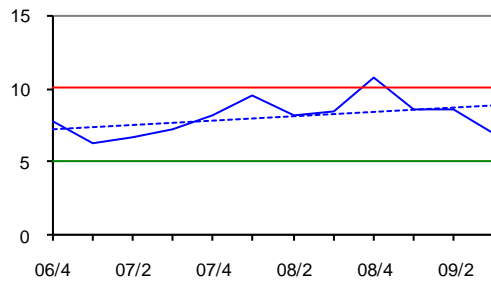
**Hamilton - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



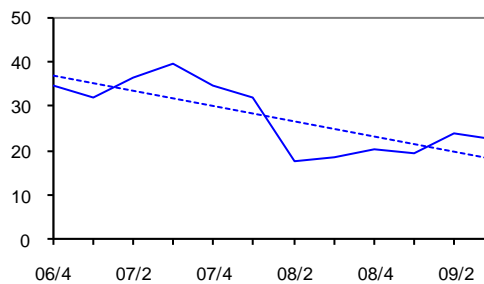
**Hamilton - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



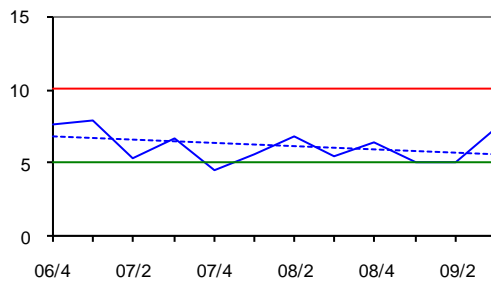
**Invercargill - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



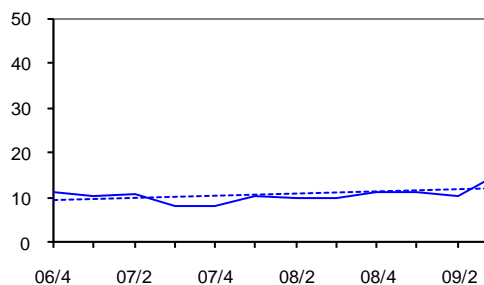
**Invercargill - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



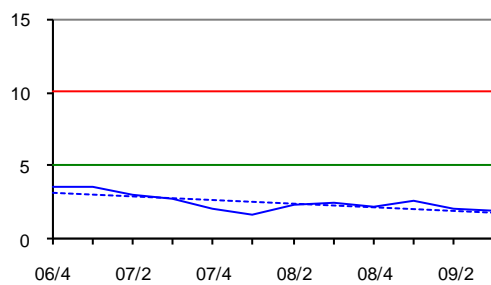
**Napier - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



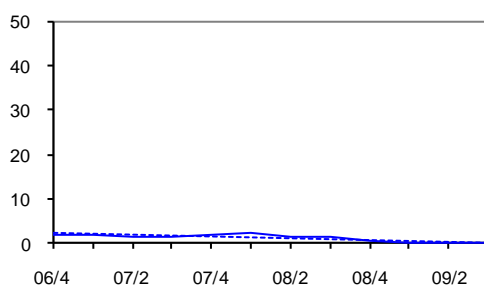
**Napier - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



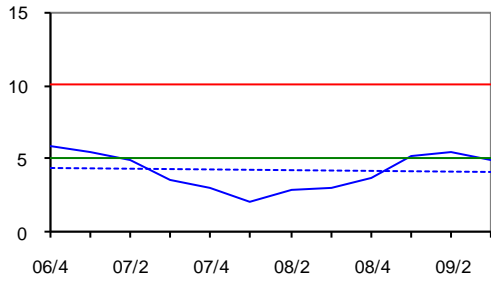
**Nelson - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



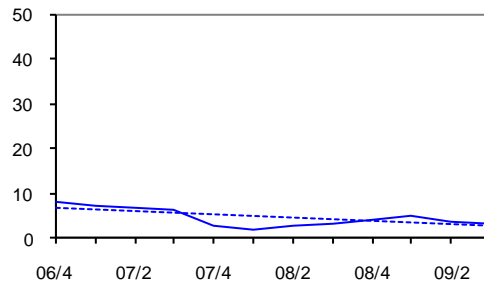
**Nelson - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



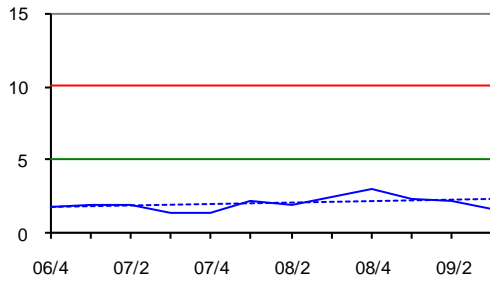
**New Plymouth - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



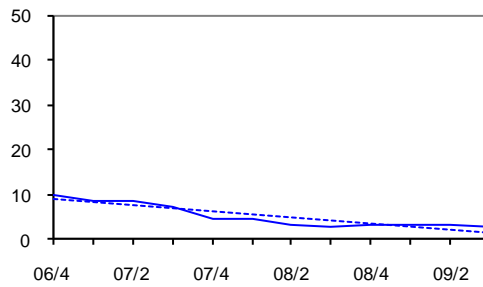
**New Plymouth - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



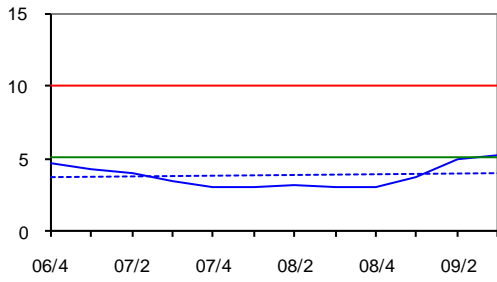
**Ohakea - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



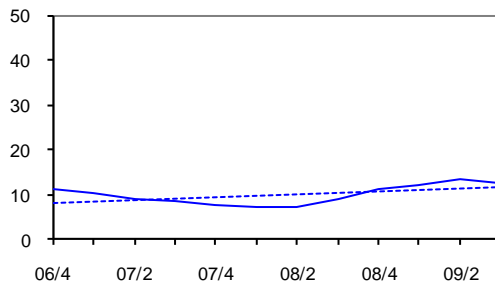
**Ohakea - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



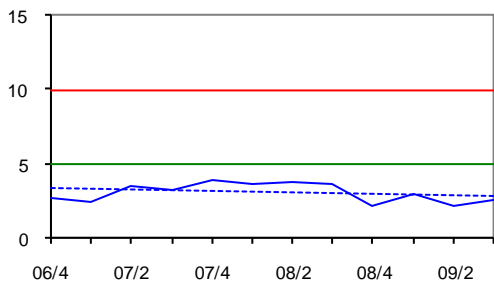
**Palmerston North - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



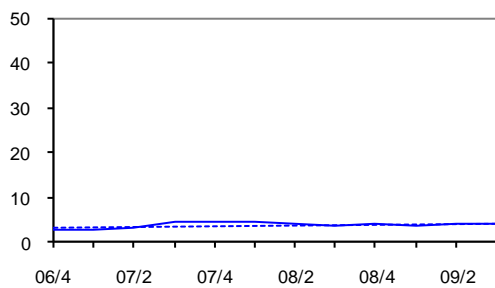
**Palmerston North - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



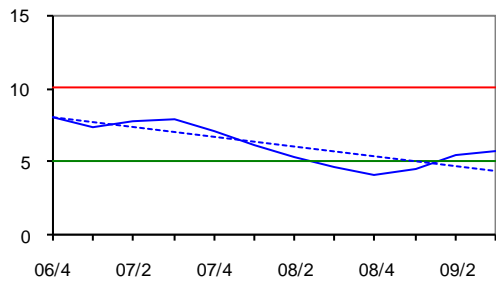
**Queenstown - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



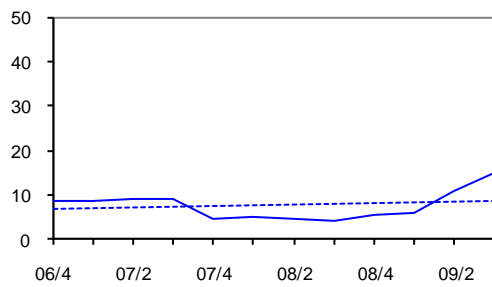
**Queenstown - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



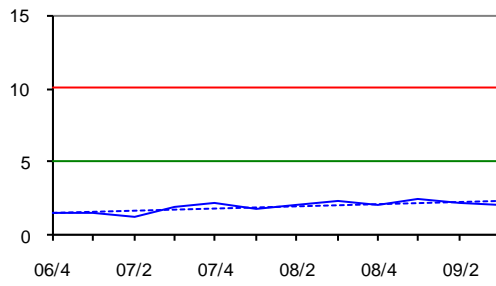
**Rotorua - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



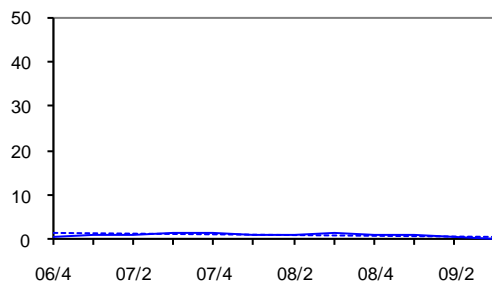
**Rotorua - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



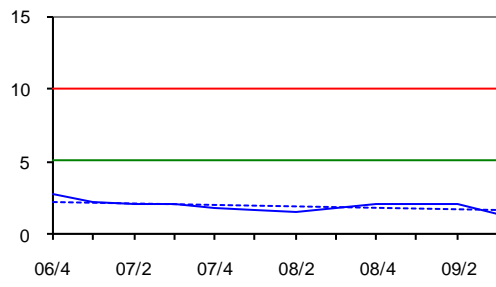
**Taupo - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



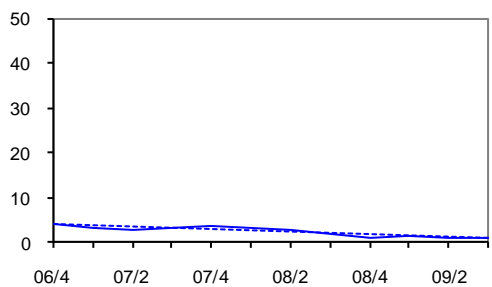
**Taupo - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



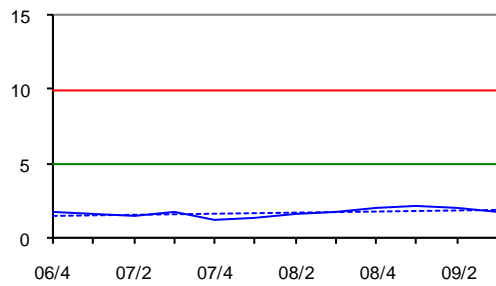
**Tauranga - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



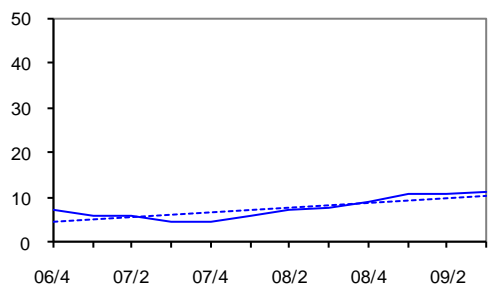
**Tauranga - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



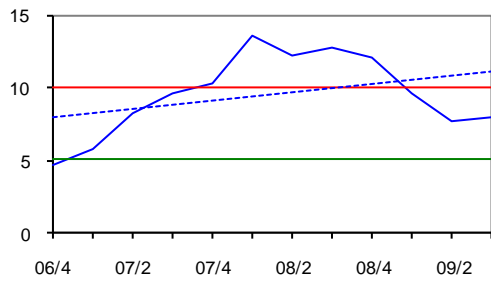
**Wellington - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



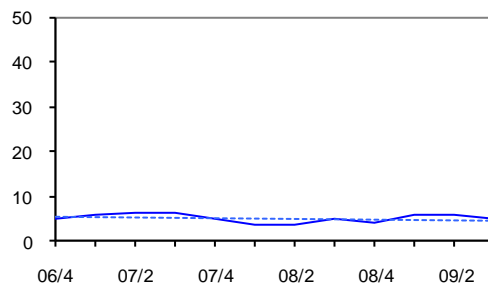
**Wellington - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



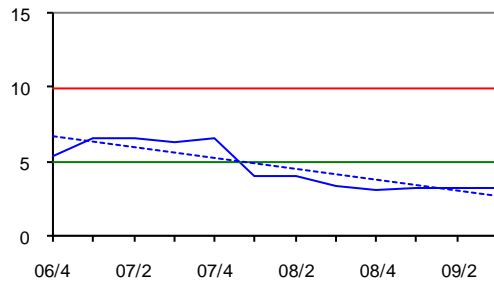
**Whenuapai - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



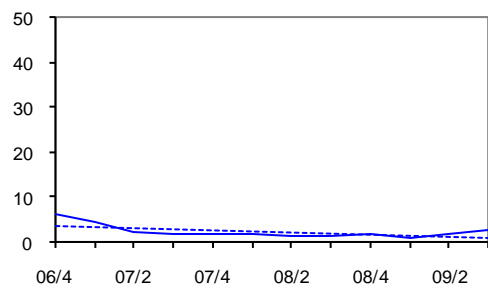
**Whenuapai - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



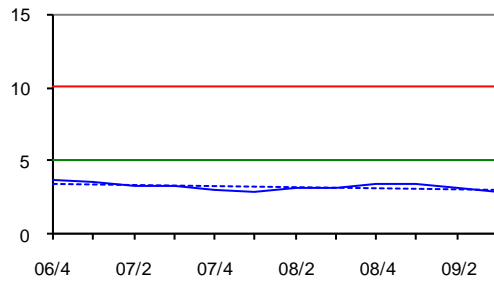
**Woodbourne - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



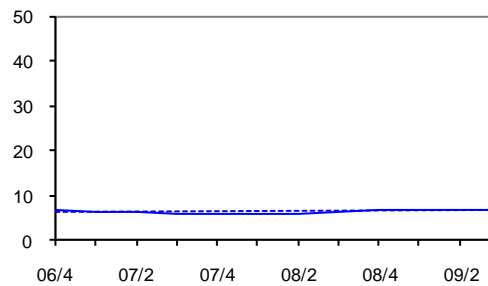
**Woodbourne - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



**Overall - 12 Month Moving Average Bird Strike Rate per 10,000 Aircraft Movements**



**Overall - 12 Month Moving Average Bird Near Strike Rate per 10,000 Aircraft Movements**



## Security Incidents

### Six-Monthly Comparison

#### Number of Security Incidents

Aircraft Category	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Large Aeroplanes	19	17	- 2	- 10.5
Medium Aeroplanes	2	2	0	0
Small Aeroplanes	0	0	0	0
Agricultural Aeroplanes	0	0	0	0
Helicopters	0	0	0	0
Sport Aircraft	0	0	0	0
Unknown	87	102	15	17.2
<b>Total</b>	<b>108</b>	<b>121</b>	<b>13</b>	<b>12.0</b>

#### Severity

Severity	1 Jan to	1 Jan to	Change	
	30 Jun 2008	30 Jun 2009	Number	Percent
Critical	1	0	-1	- 100.0
Major	16	8	-8	- 50.0
Minor	91	113	22	24.2
<b>Total</b>	<b>108</b>	<b>121</b>	<b>13</b>	<b>12.0</b>

## Occurrences — General

The following table shows the number of occurrences (excluding Non Reportable Occurrences) that were registered on the CAA database during each of the six months of the reporting period.

Month	ACC	ADI	ARC	ASP	BRD	CSI	DEF	DGD	HGA	INC	NIO	PAA	PIO	SEC
Jan-09	14	9	21	52	95		88	4		49	4		2	18
Feb-09	9	13	27	131	132		111	3	8	40	4	1	1	41
Mar-09	5	19	67	95	180		135	9	2	43	8		1	14
Apr-09	5	11	26	61	132	1	83	7	4	40	3	1	1	21
May-09	2	8	22	67	96	1	108	3		59	3			23
Jun-09	5	13	27	84	102		126	16	1	43	4	1	1	17
<b>Total</b>	<b>40</b>	<b>73</b>	<b>190</b>	<b>490</b>	<b>737</b>	<b>2</b>	<b>651</b>	<b>42</b>	<b>15</b>	<b>274</b>	<b>26</b>	<b>3</b>	<b>6</b>	<b>134</b>

<b>ACC</b>	Accident	<b>DGD</b>	Dangerous Goods Incident
<b>ADI</b>	Aerodrome Incident	<b>HGA</b>	Hang Glider Accident
<b>ARC</b>	Aviation Related Concern	<b>INC</b>	Aircraft Incident
<b>ASP</b>	Airspace Incident	<b>NIO</b>	Facility Malfunction Incident
<b>CSI</b>	Cargo Security Incident	<b>PAA</b>	Parachute Accident
<b>BRD</b>	Bird Incident	<b>PIO</b>	Promulgated Information Incident
<b>DEF</b>	Defect Incident	<b>SEC</b>	Security Incident



## **Definitions**

### **General**

#### **Accident (ACC)**

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, rotors, antennas, tyres, brakes, fairings, small dents, or puncture holes in the aircraft skin; or
- (3) the aircraft is missing or is completely inaccessible.

#### **Aerodrome Incident (ADI)**

Means an incident involving an aircraft operation and–

- (1) an obstruction either on the aerodrome operational area or protruding into the aerodrome obstacle limitation surfaces; or
- (2) a defective visual aid; or
- (3) a defective surface of a manoeuvring area; or
- (4) any other defective aerodrome facility.

#### **Aircraft Incident (INC)**

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

**Airspace Incident (ASP)**

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 (BRD)**

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.

**Dangerous Goods Incident (DGD)**

Means an incident associated with and related to the carriage of dangerous goods by air after acceptance by the operator, that–

- (1) results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation, or other evidence that the integrity of the packaging has not been maintained; or
- (2) involves dangerous goods incorrectly declared, packaged, labelled, marked, or documented.

**Defect Incident (DEF)**

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

**Facility Malfunction Incident (NIO)**

Means an incident that involves an aeronautical facility.

**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.

Note: Incident has many sub-categories.

**Occurrence**

Means an accident or incident.

**Promulgated Information Incident (PIO)**

Means an incident that involves significantly incorrect, inadequate, or misleading information promulgated in any aeronautical information publication, map, or chart.

### **Security Incident (SEC)**

Means an incident that involves unlawful interference.

### **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 occurrences and to findings as the result of investigation of occurrences.

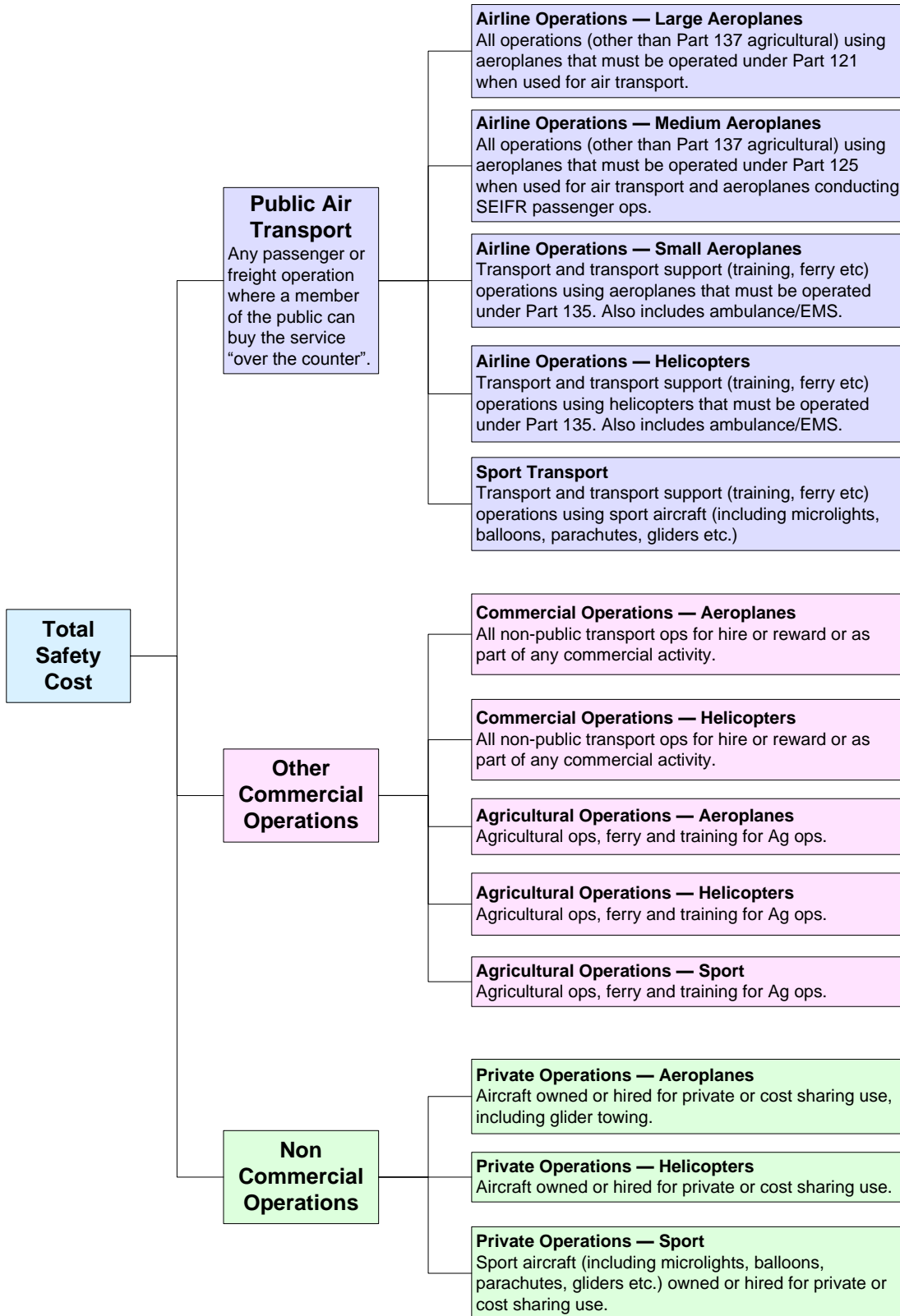
<b>Severity Factor</b>	<b>Definition</b>
CR    Critical	An occurrence or deficiency that caused, or on its own had the potential to cause, loss of life or limb;
MA    Major	An occurrence or deficiency involving a major system that caused, or had the potential to cause, significant problems to the function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

## 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

# Safety Target Structure



## Safety Target Groups

Target group name	General description	Includes	Excludes
Airline Operation - Large Aeroplanes	All operations using large passenger and freight aeroplanes that are operated under part 121	Ferry, test, training, passenger and freight, domestic and international, Part 91 operations, and commercial operations other than Part 137 agricultural operations. Includes all aeroplanes that have a passenger seating configuration of 30 seats or more, or a payload capacity of more than 3410kg.	Part 137 agricultural operations
Airline Operation - Medium aeroplanes	All operations using medium passenger and freight aeroplanes that are operated under part 125.	Ferry, test, training, passenger and freight, domestic and international, Part 91 operations, and commercial operations other than Part 137 agricultural operations. Aeroplanes that have a seating configuration of 10 to 30 seats, excluding any required crew member seats, or a payload capacity of 3410 kg or less and a MCTOW of greater than 5700 kg, and any aeroplanes conducting SEIFR passenger operations.	Part 137 agricultural operations
Airline Operation - Small aeroplanes	All operations by 119 certificate holders using other aeroplanes.	Ferry, test, passenger and freight, domestic and international, training in support of Part 135 operations, Ambulance/EMS	Part 137 agricultural operations, Part 91 operations, and commercial operations. SEIFR under Part 125
Airline Operation - Helicopters	All operations by 119 certificate holders using helicopters	Ferry, test, passenger and freight, domestic and international, training in support of Part 135 operations, Ambulance/EMS	Part 137 agricultural operations, Part 91 operations, and commercial operations. SEIFR under Part 125
Commercial Operations - Aeroplane	Other commercial operations Aeroplane (all non-public transport ops for hire or reward or as part of any commercial activity)	Positioning, ferrying flights, training (dual and solo), "Commercial non-certified", Business and Executive	Public transport ops, Ag ops & training for Ag ops, non-commercial ops
Commercial Operations - Helicopter	Other commercial operations Helicopter (all non-public transport ops for hire or reward or as part of any commercial activity)	Positioning, ferrying flights, training (dual and solo), "Commercial non-certified", Business and Executive	Ag ops & trg for ag ops, public transport, non-commercial ops.
Agricultural Operations - Aeroplane	Agricultural operations using aeroplanes	Agricultural ops, ferry & training for Ag ops.	Everything else.
Agricultural Operations - Helicopters	Agricultural operations using helicopters	Agricultural ops, ferry & training for Ag ops.	Everything else
Agricultural Operations - Sport Aircraft	Agricultural operations using sport aircraft	Agricultural ops, ferry & training for Ag ops.	Everything else
Private Aeroplane	Private operations in aeroplanes	Cost sharing, aircraft hired from schools and clubs for private or cost sharing use, glider towing	Airline, commercial, agricultural operations, sport aircraft, balloons, training (dual and solo)
Private Helicopter	Private operations in helicopters	Cost sharing, aircraft hired from schools and clubs for private or cost sharing use	Airline, commercial, agricultural operations, sport aircraft, balloons, training, ferry/positioning flights by commercial operators
Sport Transport	All public transport ops by sport aircraft	Ferry, test, passenger and freight, domestic and international, training for such ops. And balloons	Agricultural operations.
Sport Private	Private operations using sport aircraft	Cost sharing, aircraft hired from schools and clubs for private or cost sharing use, training, gliders, power gliders, hang gliders, parachutes and all forms of inflatable wing. Balloons	Airline, commercial, agricultural operations, and training for these activities