

Aviation Industry Safety Update

Safety Information Group

1 January to 30 June 2011

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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 Analysis section give an indication of the levels of safety failure in New Zealand aviation during the period 1 January 2010 to 30 June 2010. 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 2011 and 6 months prior:

Aircraft Category	31 Dec 2010		30 Jun 2011		Change	
	Number	Percent	Number	Percent	Number	Percent
Large Aeroplanes	119	2.7	128	2.9	9	7.6
Medium Aeroplanes	84	1.9	86	1.9	2	2.4
Small Aeroplanes	1515	34.1	1519	33.8	4	0.3
Agricultural Aeroplanes	110	2.5	110	2.4	0	0.0
Helicopters	761	17.1	765	17.0	4	0.5
Sport Aircraft	1853	41.7	1882	41.9	29	1.6
Total	4,442		4,490		48	1.1

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 2011 and 6 months prior:

Licence Type (Medical Certificate)	31 Dec 2010	30 Jun 2011	Change	
			Number	Percent
RPL (RPL Medical)	146	180	34	23.3
PPL (Class 1 & 2)	3,655	3,603	- 52	- 1.4
CPL (Class 2 only)	2,083	2,229	146	7.0
CPL (Class 1)	2,385	2,339	- 46	- 1.9
ATPL (Class 2 only)	981	909	- 72	- 7.3
ATPL (Class 1)	1,096	1,188	92	8.4
ATCL (Class 3)	362	361	- 1	- 0.3
LAME (N/A)	2,496	2,519	23	0.9
Total Licences	13,204	13,328	124	0.9

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 2011 and 6 months prior.

Rule part	31 Dec 2010	30 Jun 2011	Change	
			Number	Percent
Part 109 Regulated Air Cargo Agent	63	63	0	0.0
Part 119 Air Operator	187	184	-3	-1.6
Part 129 Foreign Air Operator	34	33	-1	-2.9
Part 137 Agricultural Aircraft Operator	108	104	-4	-3.7
Part 139 Aerodromes	26	26	0	0.0
Part 140 Aviation Security Service	1	1	0	0.0
Part 141 Aviation Training Organisation	56	54	-2	-3.6
Part 141 Restricted Training Organisation	0	0	0	-
Part 145 Aircraft Maintenance Organisation	60	60	0	0.0
Part 146 Aircraft Design Organisation	14	14	0	0.0
Part 148 Aircraft Manufacturing Organisation	22	21	-1	-4.5
Part 149 Aviation Recreation Organisation	8	9	1	12.5
Part 171 Aeronautical Telecommunication Service Organisation	2	2	0	0.0
Part 172 Air Traffic Service	2	1	-1	-50.0
Part 173 Instrument Flight Procedure Service Organisation	3	3	0	0.0
Part 174 Meteorological Service Organisation	2	2	0	0.0
Part 175 Aeronautical Information Service Organisation	1	1	0	0.0
Part 19 Supply Organisation Certificate of Approval	57	58	1	1.8
Part 92 Dangerous Goods Packaging Approval	57	65	8	14.0

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

119 Air Operator	31 Dec 2010	30 Jun 2011	Change	
			Number	Percent
Part 108 Security Programme	19	17	-2	-10.5
Part 121 Large Aeroplanes	10	9	-1	-10.0
Part 125 Medium Aeroplanes	16	15	-1	-6.3
Part 135 Helicopters and Small Aeroplanes	175	174	-1	-0.6

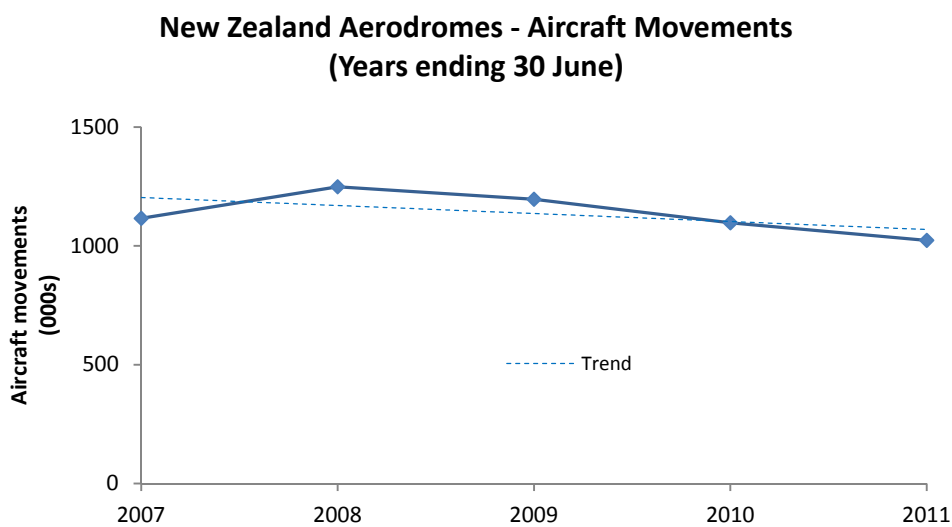
129 Foreign Air Operator	31 Dec 2010	30 Jun 2011	Change	
			Number	Percent
Part 108 Security Programme	26	25	-1	-3.8

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 annual number of aircraft movements for the five-year period 1 July 2006 to 30 June 2011.



The average annual increase in the number of aircraft movements has been 0.6% from the year ended 30 June 2007 until the year ended 30 June 2011 during which 1,023,318 movements were recorded.

Six-Monthly Comparison

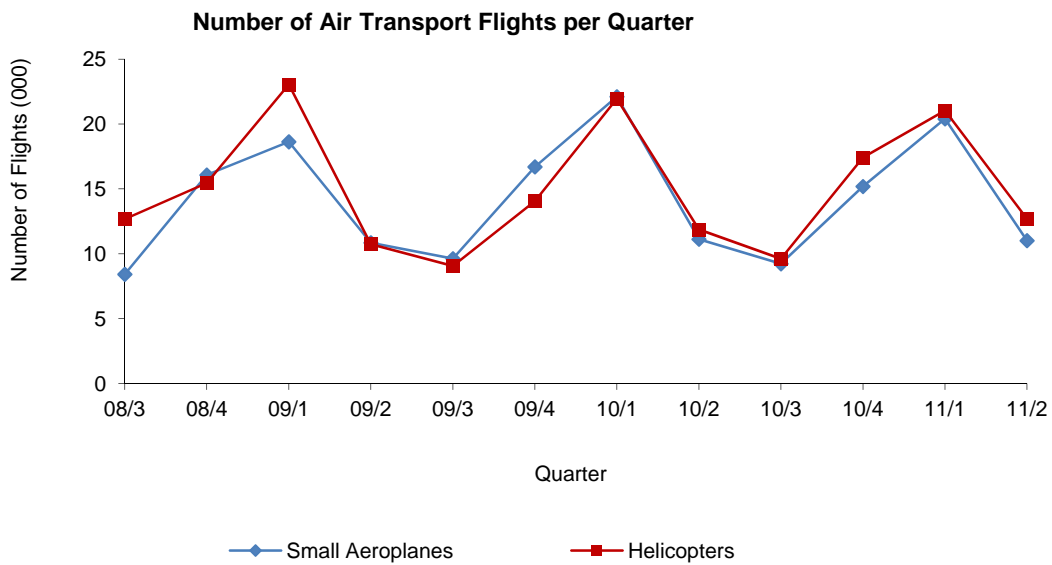
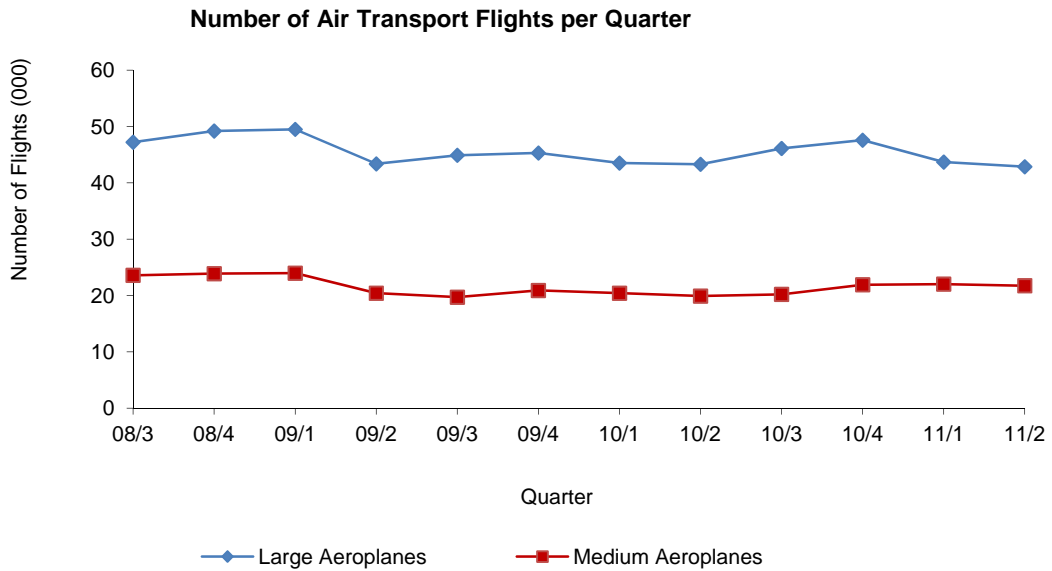
Number of Aircraft Movements

Activity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Aircraft Movements	544,442	514,163	- 30,279	- 5.6

Air Transport Flights

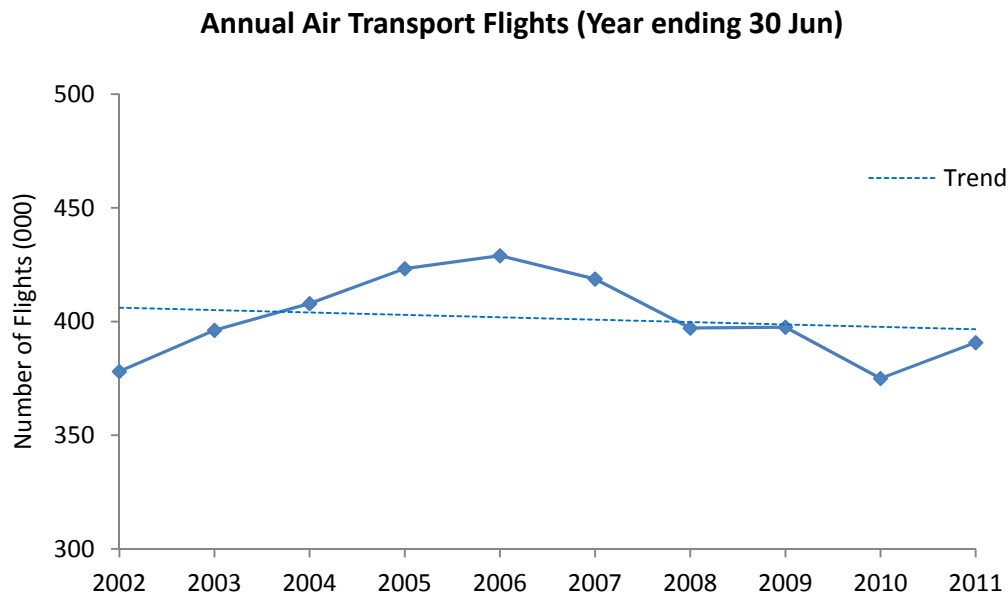
Note that these graphs exclude the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes, and foreign registered aircraft that are operated in New Zealand.

The following graphs show the number of air transport flights per quarter during the three year period 1 July 2008 to 30 June 2011.



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 2001 to 30 June 2010.



The change in the number of annual air transport flights between the years ended 30 June 2002 and 30 June 2011 was equivalent to an annual decrease of 0.2%.

Six-Monthly Comparison

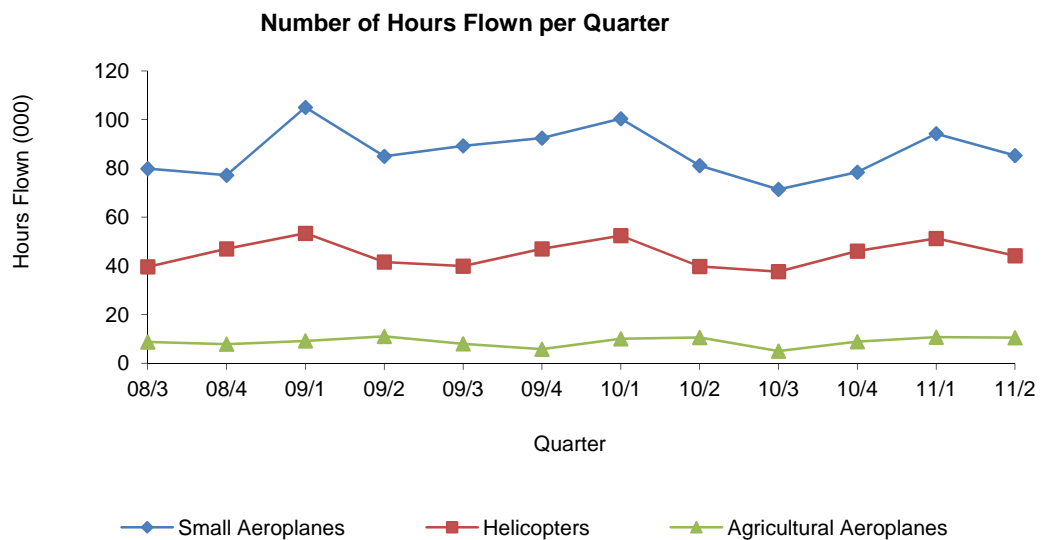
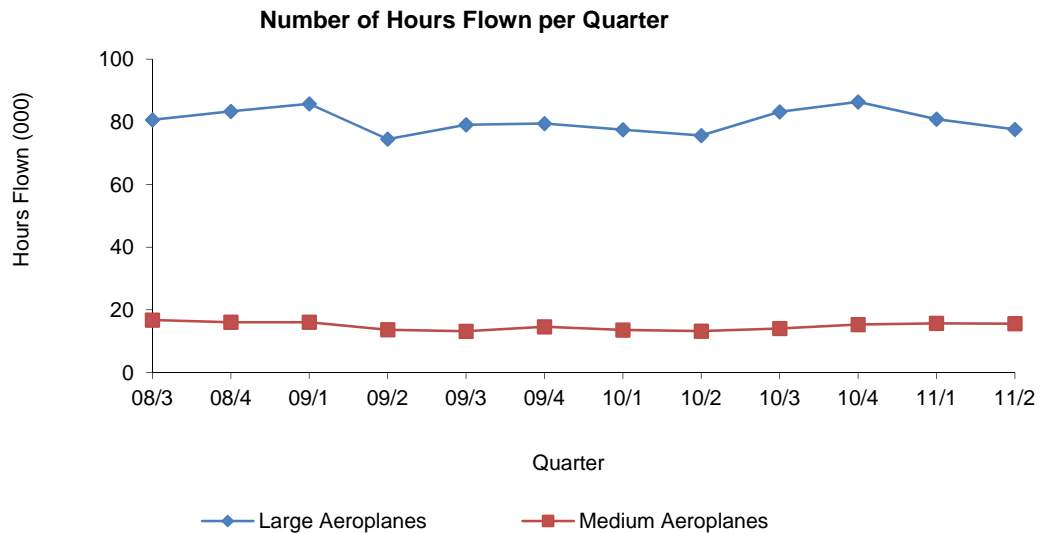
Number of Air Transport Flights

Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Large Aeroplanes	86,832	86,569	- 263	- 0.3
Medium Aeroplanes	40,312	43,765	3,453	8.6
Small Aeroplanes	33,234	31,418	- 1,816	- 5.5
Helicopters	33,832	33,736	- 96	- 0.3
Sport Aircraft (Aeropl, FB, Helo only)	350	276	- 74	- 21.1
Total	194,560	195,764	1,204	0.6

Hours Flown

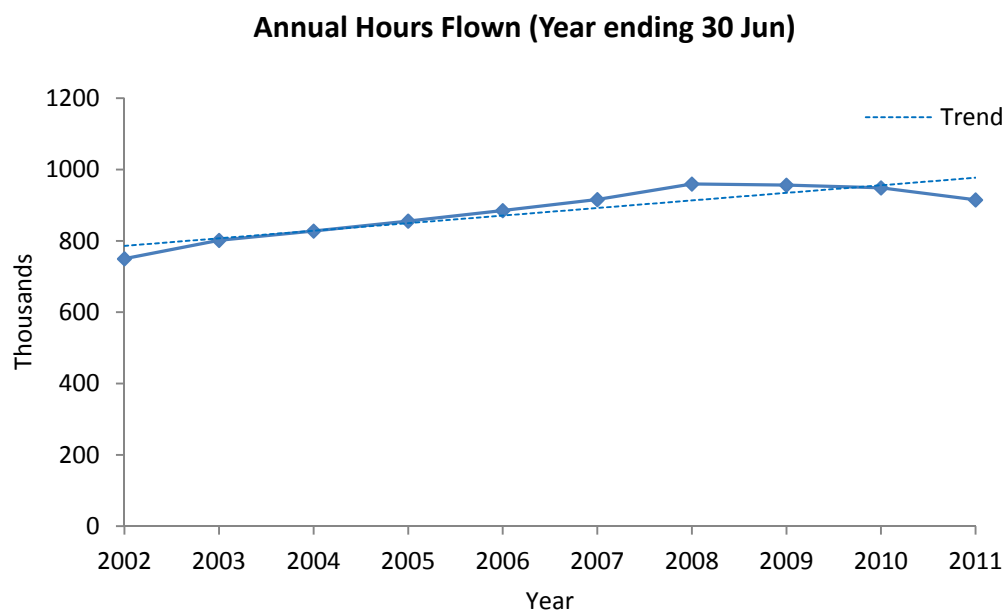
Note that these graphs exclude the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes, and foreign registered aircraft that are operated in New Zealand.

The following graphs show the estimated number of hours flown by aircraft during the three-year period 1 July 2008 to 30 June 2011. The estimates are based on the reported hours flown with an allowance for aircraft for which reports were not received.



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 2001 to 30 June 2011.



The change in the number of annual hours flown between the years ended 30 June 2002 and 30 June 2011 from 749,808.8 to 936,834.7 is equivalent to an annual increase of 2.5%.

Six-Monthly Comparison

Number of Hours Flown by Safety Target Group

Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Airline Operations - Large Aeroplanes	153,106	158,414	5,308	3.5
Airline Operations - Medium Aeroplanes	26,787	31,285	4,498	16.8
Airline Operations - Small Aeroplanes	23,781	24,696	915	3.8
Airline Operations - Helicopter	29,082	29,377	296	1.0
Sport Transport (Aeropl, FB, Helo only)	733	573	- 160	- 21.8
Other Commercial Operations - Aeroplane	137,398	135,242	- 2,156	- 1.6
Other Commercial Operations - Helicopter	29,166	31,162	1,996	6.8
Agricultural Operations - Aeroplane	20,667	21,945	1,278	6.2
Agricultural Operations - Helicopter	23,749	26,751	3,001	12.6
Agricultural Operations - Sport (Aeropl, FB, Helo only)	0	0	0	-
Private Operations - Aeroplane	20,955	19,193	- 1,762	- 8.4
Private Operations - Helicopter	10,188	8,098	- 2,090	- 20.5
Private Operations - Sport (Aeropl, FB, Helo only)	2,285	1,746	- 539	- 23.6
Total	477,897	488,482	10,585	2.2

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 year ending 30 June 2011. 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	47642	96.2
Airline Operations - Medium Aeroplanes	20.59	749	1.5
Airline Operations - Small Aeroplanes	3.89	99	0.2
Airline Operations - Helicopter	3.60	120	0.2
Sport Transport *		122	0.2
Other Commercial Operations - Aeroplane	2.00	250	0.5
Other Commercial Operations - Helicopter	3.60	97	0.2
Agricultural Operations - Aeroplane	2.00	39	0.1
Agricultural Operations - Helicopter	3.60	105	0.2
Agricultural Operations - Sport *			
Private Operations - Aeroplane	2.00	51	0.1
Private Operations - Helicopter	3.60	40	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.

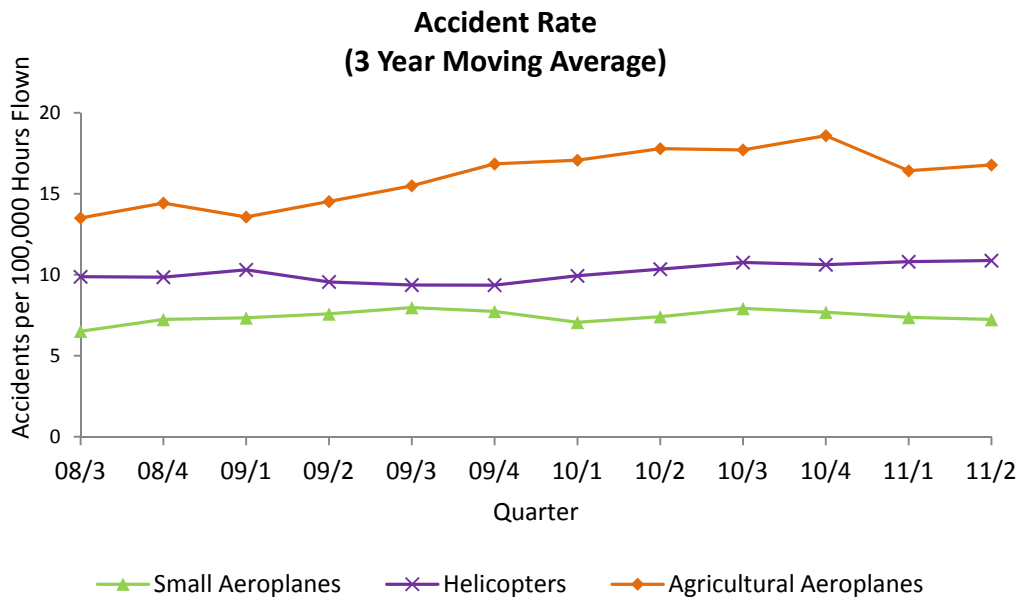
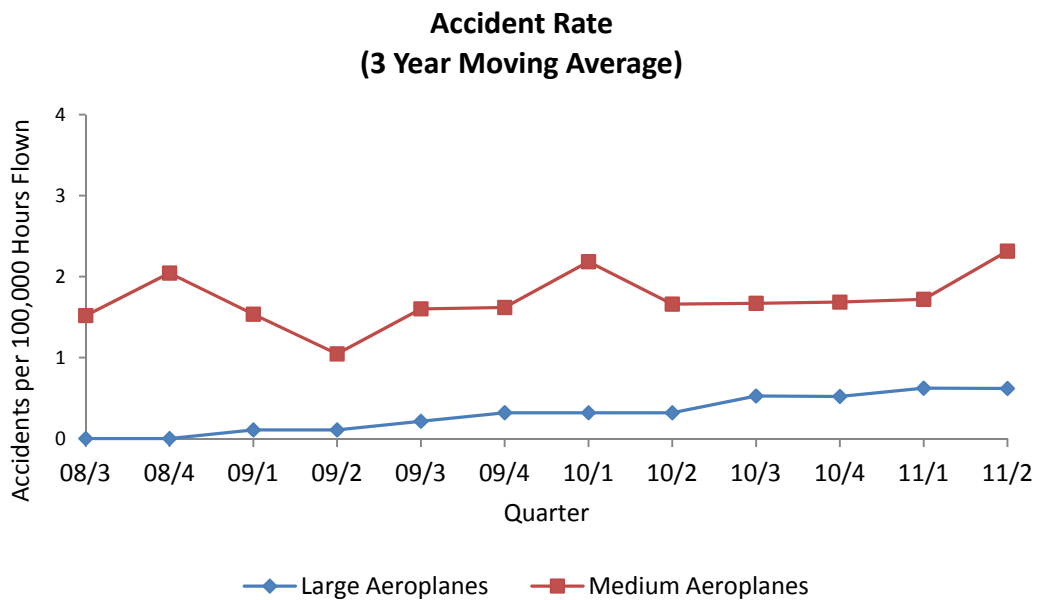
Note that the percentages may not sum exactly to 100.0% due to rounding.

This table shows that approximately 96.2% of seat hours are offered by the Airline Operations – Large Aeroplanes group, around 1.5% 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 Analysis

Aircraft Accidents

The following graphs show the aircraft accident rates (accidents per estimated 100,000 hours flown) three year moving average for the three-year period ending 30 June 2011 (excluding the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes). Trends for each group are shown in the table on the following page.

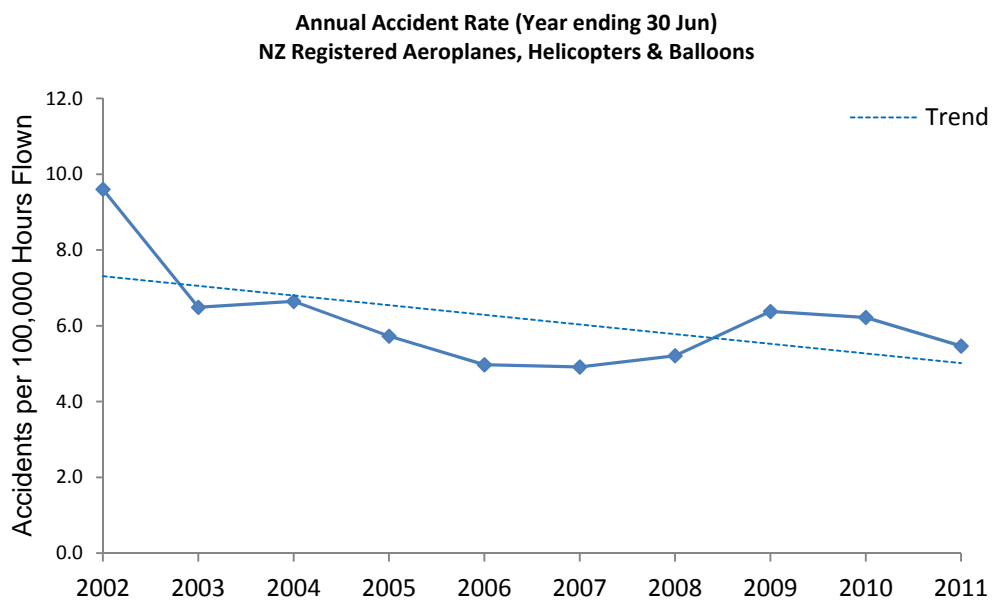


Accident rate trends

Aircraft Category	Straight Line Trend of 3 year moving Average
Large Aeroplanes	Trending up
Medium Aeroplanes	Trending up
Small Aeroplanes	Constant
Agricultural Aeroplanes	Trending up
Helicopters	Constant

Long-Term Accident Rate

The following graph shows the overall annual 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 ending 30 June 2011.



Note that this graph does not show a moving average and because it also includes some but not all sport aircraft it is not appropriate to compare it to the graphs on the previous page.

Six-Monthly Comparison
Number of Aircraft Accidents
by Aircraft Category

Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	0	1	1
Medium Aeroplanes	1	1	0
Small Aeroplanes	11	8	-3
Agricultural Aeroplanes	3	6	3
Helicopters	11	11	0
Sport Aircraft (Excluding hang gliders & parachutes)	15	22	7
Hang Gliders	15	9	-6
Parachutes	3	4	1
Unknown	0	2	2
Total	59	64	5

by Severity

Aircraft Category	Severity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	Critical	0	0	0
	Major	0	1	1
	Minor	0	0	0
Medium Aeroplanes	Critical	0	0	0
	Major	0	1	1
	Minor	1	0	-1
Small Aeroplanes	Critical	2	3	1
	Major	8	5	-3
	Minor	1	0	-1
Agricultural Aeroplanes	Critical	2	1	-1
	Major	1	3	2
	Minor	0	2	2
Helicopters	Critical	4	9	5
	Major	7	2	-5
	Minor	0	0	0
Sport Aircraft (Excluding hang gliders & parachutes)	Critical	7	10	3
	Major	7	11	4
	Minor	1	1	0
Hang Gliders	Critical	3	4	1
	Major	3	3	0
	Minor	9	2	-7
Parachutes	Critical	2	1	-1
	Major	1	1	0
	Minor	0	2	2
Unknown	Critical	0	0	0
	Major	0	2	2
	Minor	0	0	0
Total	Critical	20	28	8
	Major	27	29	2
	Minor	12	7	-5

Safety Outcome Targets for 2010

Each [Safety Outcome 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 Outcomes (in dollars per seat-hour) for the three year period ending 30 June 2011 (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.

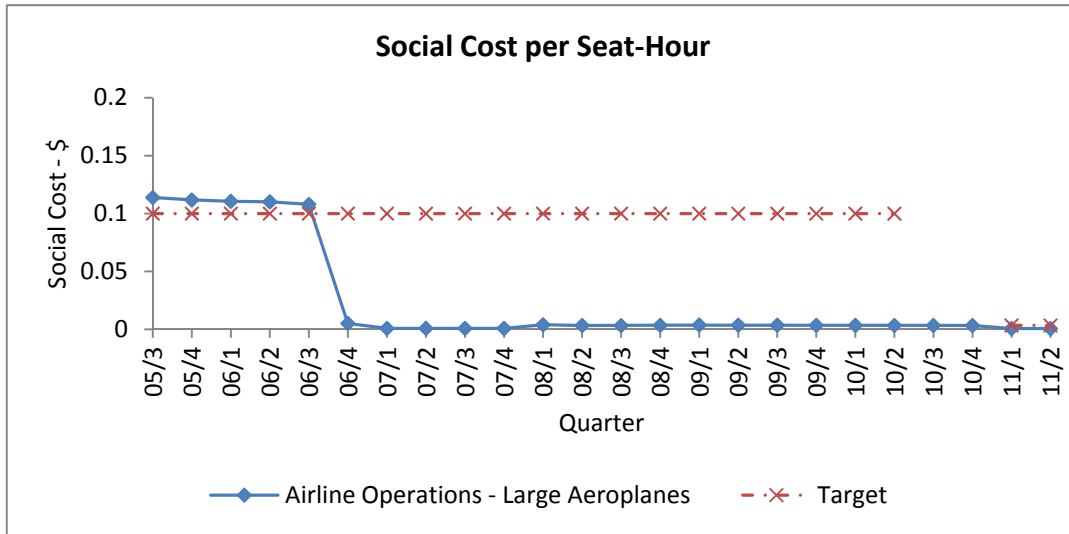
Safety Target Group	Current Estimate	Target
Airline Operations - Large Aeroplanes	0.00	0.00
Airline Operations - Medium Aeroplanes	0.02	0.02
Airline Operations - Small Aeroplanes	2.42	2.34
Airline Operations - Helicopters	10.53	6.50
Sport Transport	63.52	13.00
Other Commercial Operations - Aeroplane	56.66	6.50
Other Commercial Operations - Helicopter	58.24	6.50
Agricultural Operations - Aeroplane	54.11	14.00
Agricultural Operations - Helicopter	7.37	8.56
Private Operations - Aeroplane	55.58	10.00
Private Operations - Helicopter	89.41	10.00
Private Operations - Sport	88.65	20.00

Current Estimate:

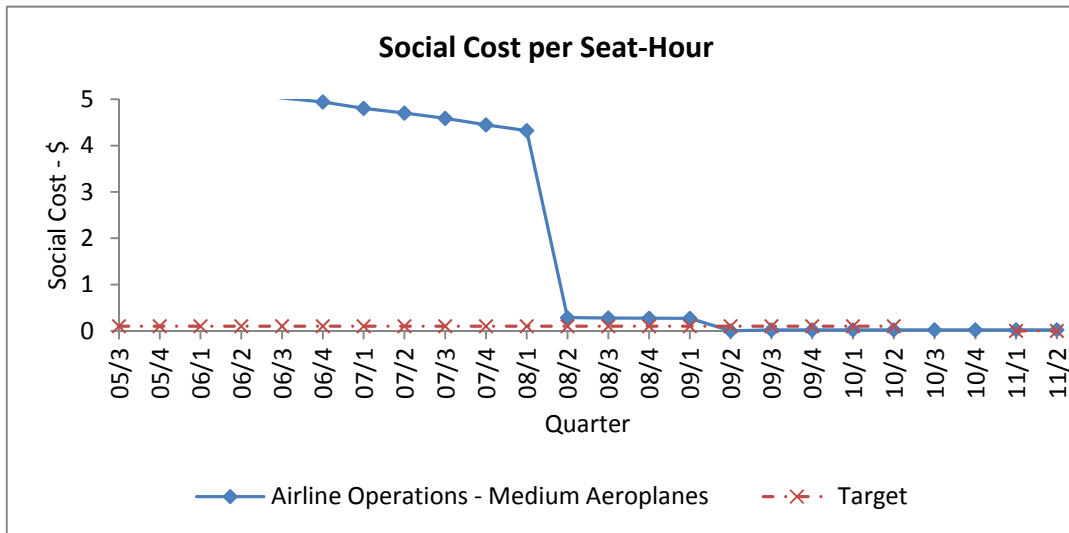
This is the estimated social cost of injuries and aircraft destroyed per seat hour for the three year period ending 30 June 2011. Note: Aviation Safety reports prior to July to December 2008 used a 10 year averaging period for large and medium aeroplanes and a one year period for all others.

Safety Target Graphs

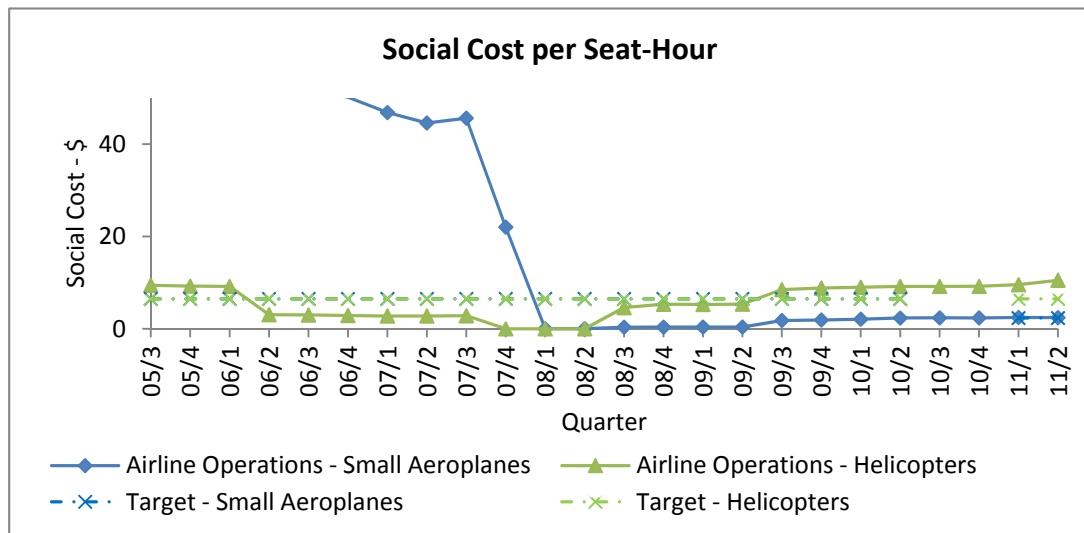
Graphs displaying the Safety Outcome Targets derived using 3 year averages and the progress over each quarter are shown on this and the following pages.



The outcome for Airline Operations – Large Aeroplanes has remained well below the initial target level of \$0.10 per seat hour of exposure since late 2006. The new target appears as 0 but is actually defined as the lesser of the 201 target value and the actual value achieved at 30 June 2010. For this reporting group that amounts to \$0.00342 and the actual performance is significantly below the target. There is no discernible trend either up or down. There were no fatal, no serious and 6 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

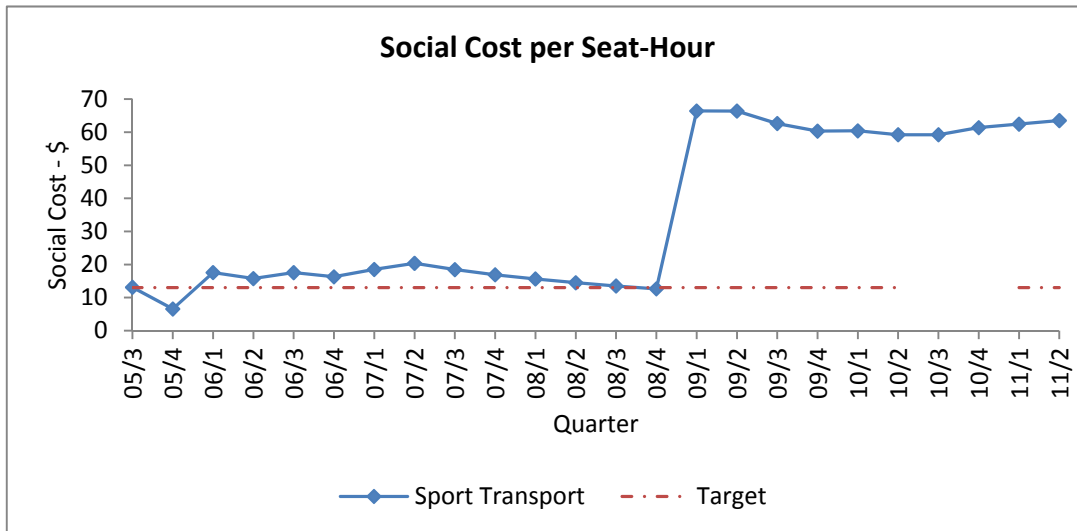


The outcome for Airline Operations – Medium Aeroplanes dropped below the initial target during the second quarter of 2009 and is trending down. The outcome is above the new target of \$0.02 but, at 20% of the previous target may well be acceptable. There were no fatal, no serious and 3 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.



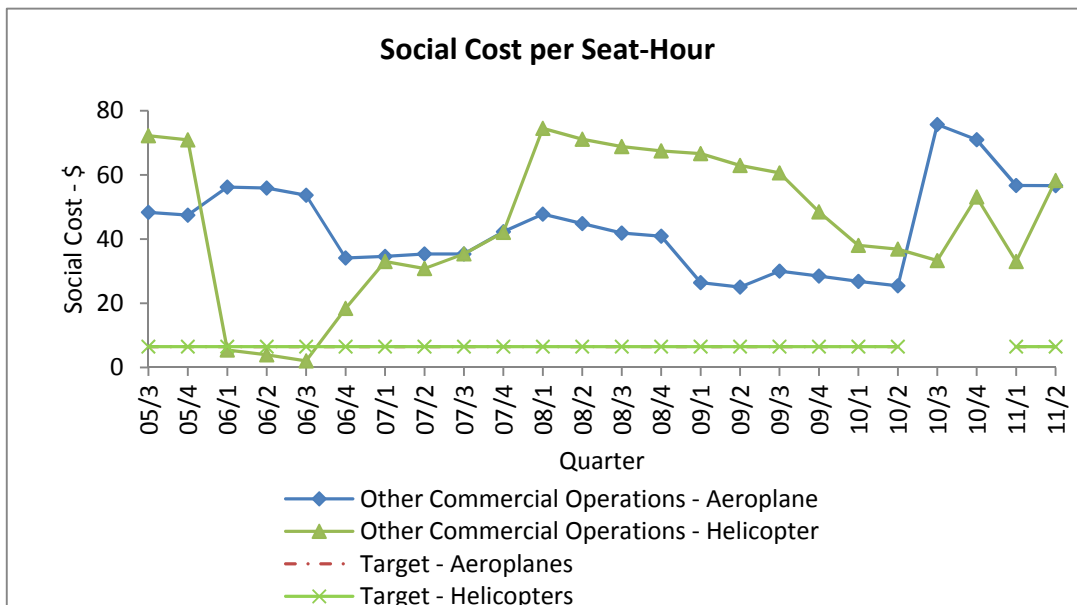
The outcome for Airline Operations – Small Aeroplanes shows a significant long term downward trend from the high starting point of \$45.64 per seat-hour of exposure in the three years to September 2007. The safety outcome for this group has been below the initial target level since the January to March 2008 quarter but exceeds the new target of \$2.34 by a small amount. There were no fatal, 1 serious and 2 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

The outcome for Airline Operations – Helicopter exceeded the target level until the second quarter of 2006 and it has done so again since the 3rd quarter of 2009. A small upward trend is evident. The new target is \$6.50, the same as the old value and has been considerably exceeded during this reporting period. There were no fatal, 2 serious and 6 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.



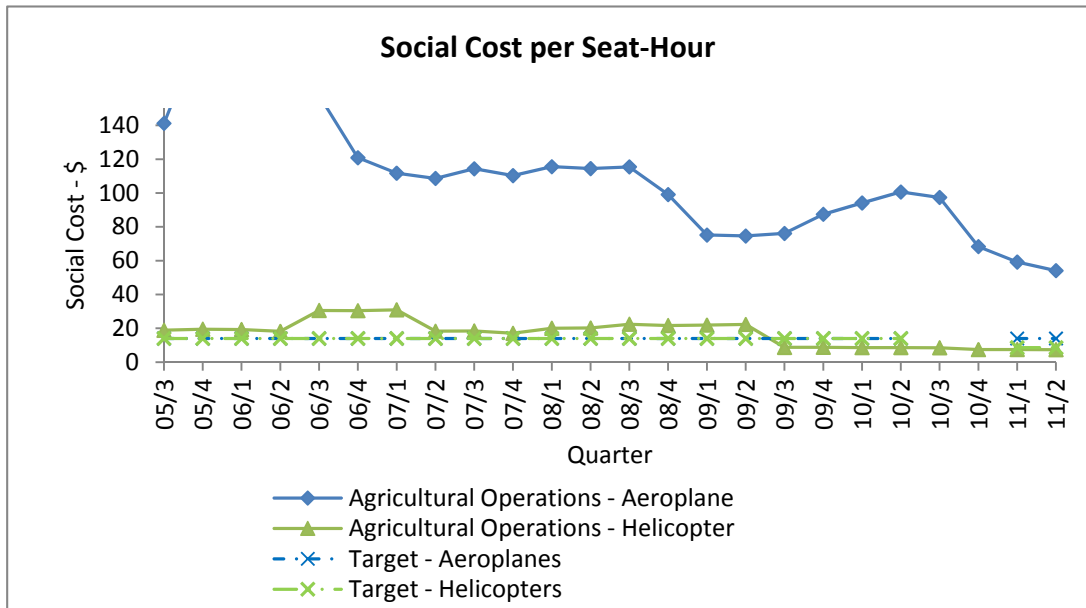
Two hang glider, two microlight and one glider fatalities during the first quarter of 2009 contributed to a significant increase in the upward trend displayed by this group. There were 5 fatal, 13 serious and 14 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011. The outcome exceeds the target of \$13.00 by a large margin.

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



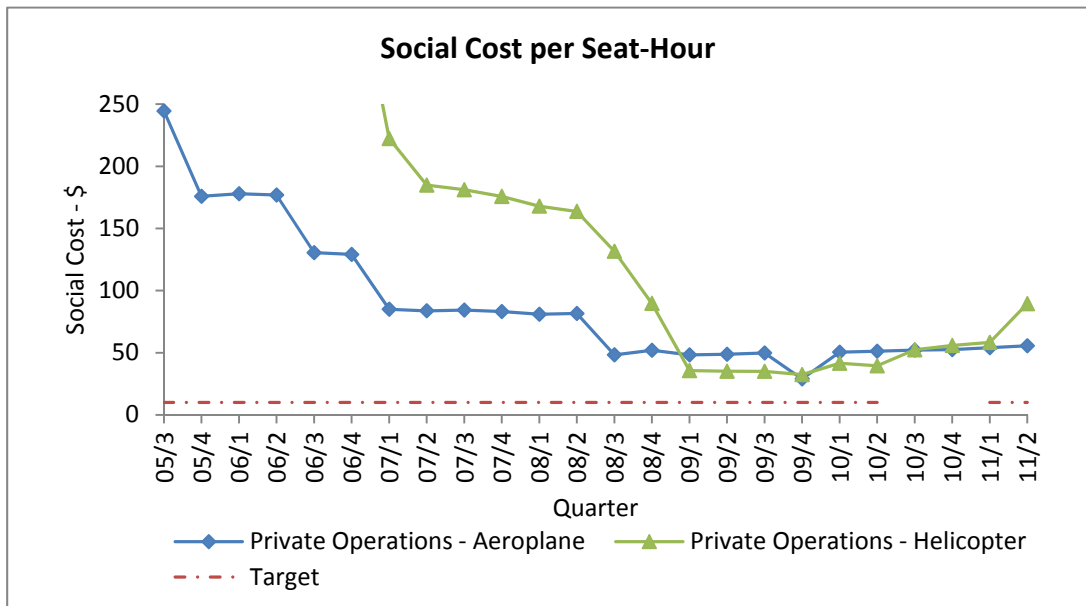
The outcome for Other Commercial Operations – Aeroplane remains above the target of \$6.50. There were 12 fatal, 3 serious and 1 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

The outcome for Other Commercial Operations – Helicopter turned sharply upwards during the first quarter of 2008 and remains well above the target level of \$6.50. There were 4 fatal, 2 serious and 3 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.



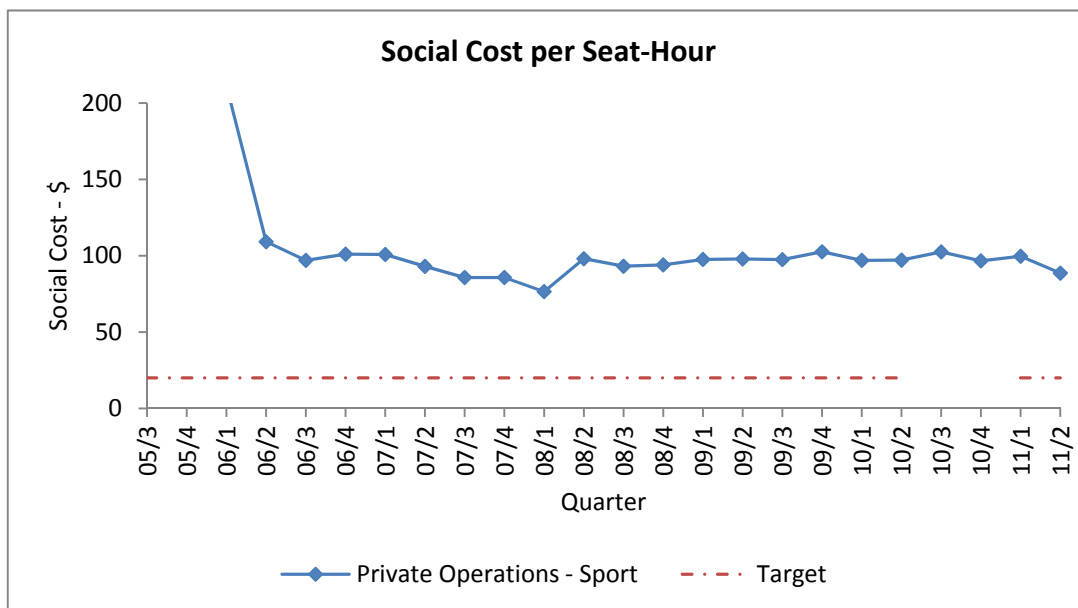
The outcome for Agricultural Operations – Aeroplanes is well above the target level of \$14.00. There were 1 fatal, 1 serious and 2 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

The outcome for Agricultural Operations – Helicopter is below the target level of \$8.56. There were no fatal, 1 serious and 3 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.



The outcome for Private Operations – Aeroplanes has been slowly trending down since late 2005. There were 2 fatal, 3 serious and 2 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

The outcome for Private Operations – Helicopters has been trending down since early 2006. There were 2 fatal, 3 serious and 5 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

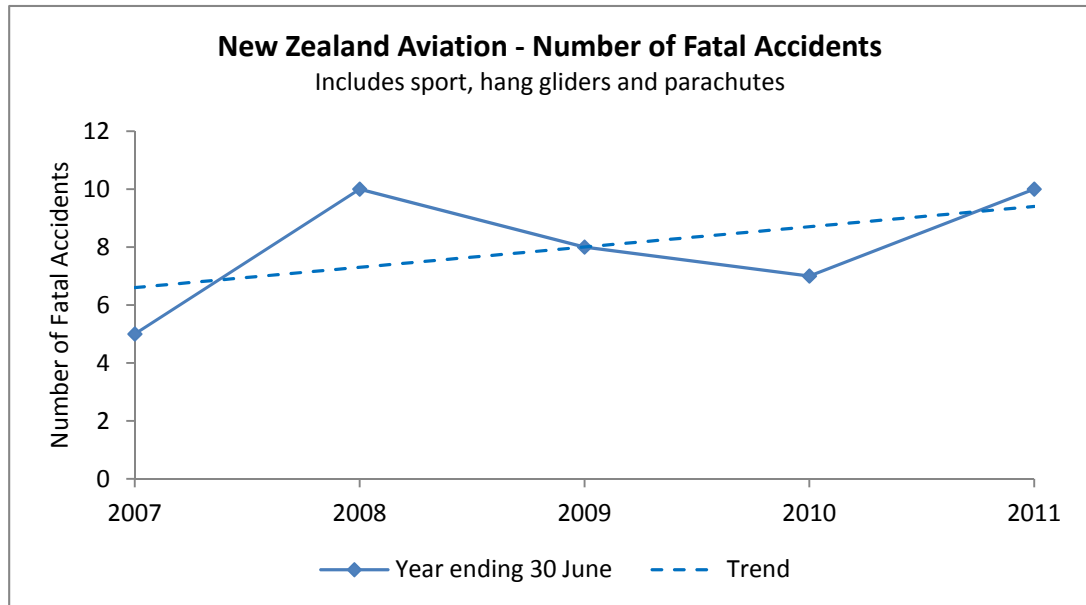


The outcome for Private Operations – Sport is well above the target level and shows no significant trend. There were 12 fatal, 28 serious and 27 minor injuries reported in this group during the period 1 July 2008 to 30 June 2011.

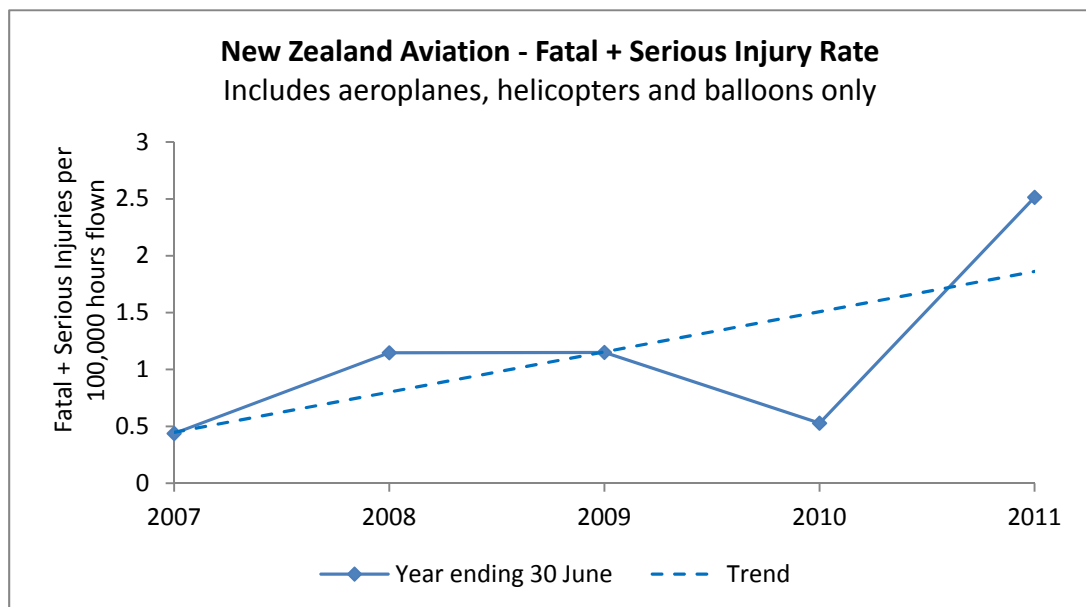
Note that this group includes hang gliders and parachutes used on private operations.

Injury Accidents

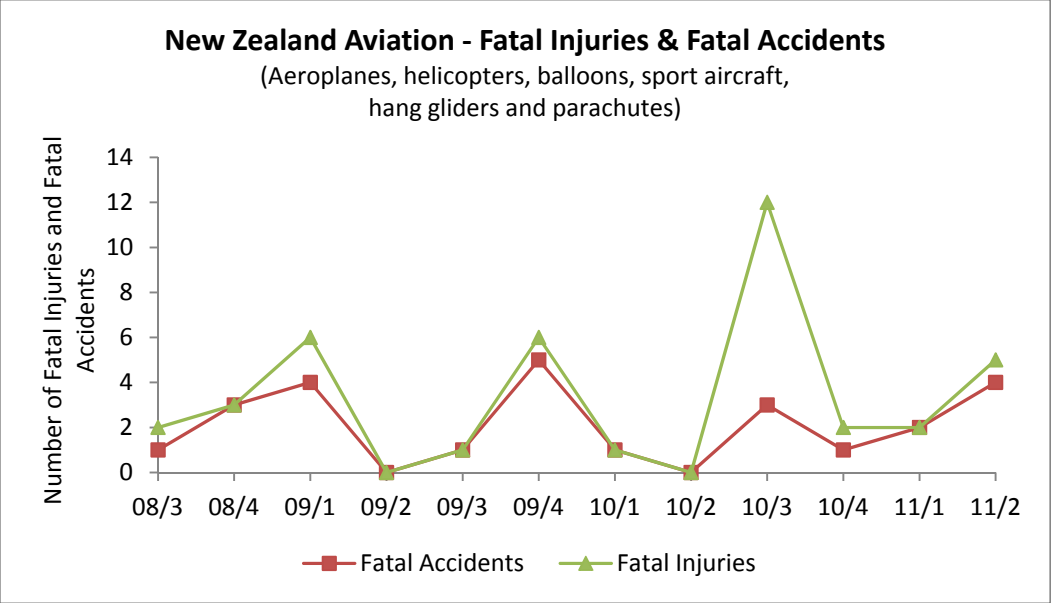
The following graph shows the number of fatal accidents in the 5-year period ending 30 June 2011 (including the aircraft statistics categories Sport Aircraft, Hang Gliders and Parachutes).



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 2011.



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 2011.



There are no significant long term trends in either of these indicators.

Six-Monthly Comparison

Number of Fatal Accidents and Number of Fatal Injuries

Aircraft Category	Fatal Accidents			Fatal Injuries		
	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	0	0	0	0	0	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	1	0	-1	1	0	-1
Agricultural Aeroplanes	0	0	0	0	0	0
Helicopters	0	2	2	0	3	3
Sport Aircraft	0	3	3	0	3	3
Hang Gliders	0	1	1	0	1	1
Parachutes	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
Total	1	6	5	1	7	6

Number of Serious Injuries

Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	0	0	0
Agricultural Aeroplanes	1	0	-1
Helicopters	0	2	2
Sport Aircraft	0	2	2
Hang Gliders	5	6	1
Parachutes	2	1	-1
Unknown	0	0	0
Total	8	11	3

Number of Minor Injuries

Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	0	0	0
Medium Aeroplanes	0	0	0
Small Aeroplanes	0	0	0
Agricultural Aeroplanes	1	0	-1
Helicopters	2	2	0
Sport Aircraft	8	2	-6
Hang Gliders	6	0	0
Parachutes	1	2	0
Unknown	0	0	0
Total	18	6	-12

Flight Phase

The following table shows the flight phase recorded for accidents. The figures include aircraft, hang gliders and parachutes.

Flight Phase	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Aerobatics	0	0	0
Agricultural Manoeuvres	2	1	-1
Approach	3	5	2
Circuit	0	0	0
Climb	2	5	3
Cruise	1	8	7
Descent	2	0	-2
Hover	4	1	-3
Hover Taxi	0	0	0
Landing	28	18	-10
Parked	2	0	-2
Takeoff	10	16	6
Taxiing	2	4	2
Unknown	1	0	-1
Not reported	2	6	4
Total	59	64	5

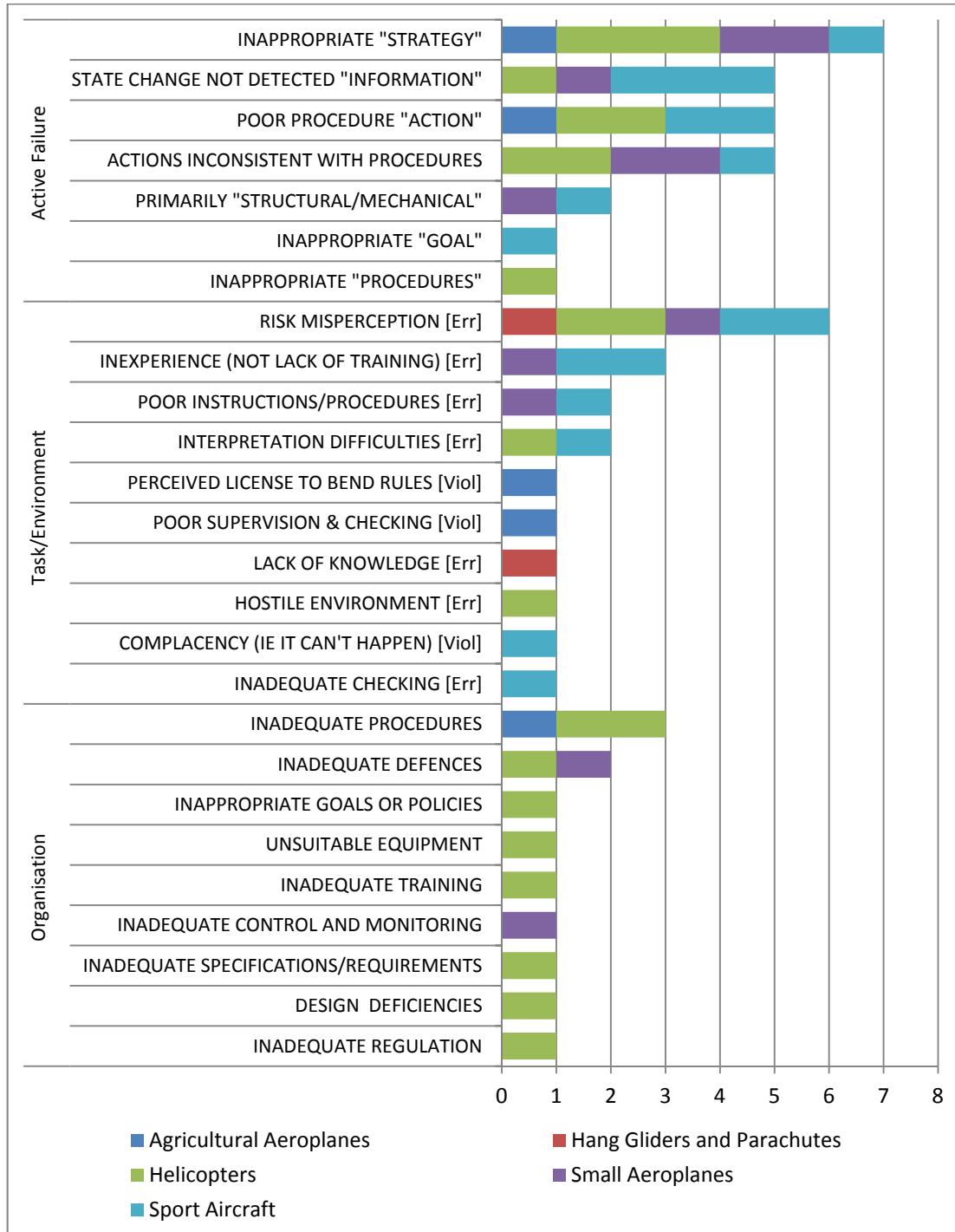
Accidents in the period 1 January to 30 June 2011 were most common during the Landing phase (28.1%).

Analysis of recorded descriptors for Landing phase accidents in the period 1 January to 30 June 2011 shows that the most common descriptor was 'Nose Gear' (12.9%)

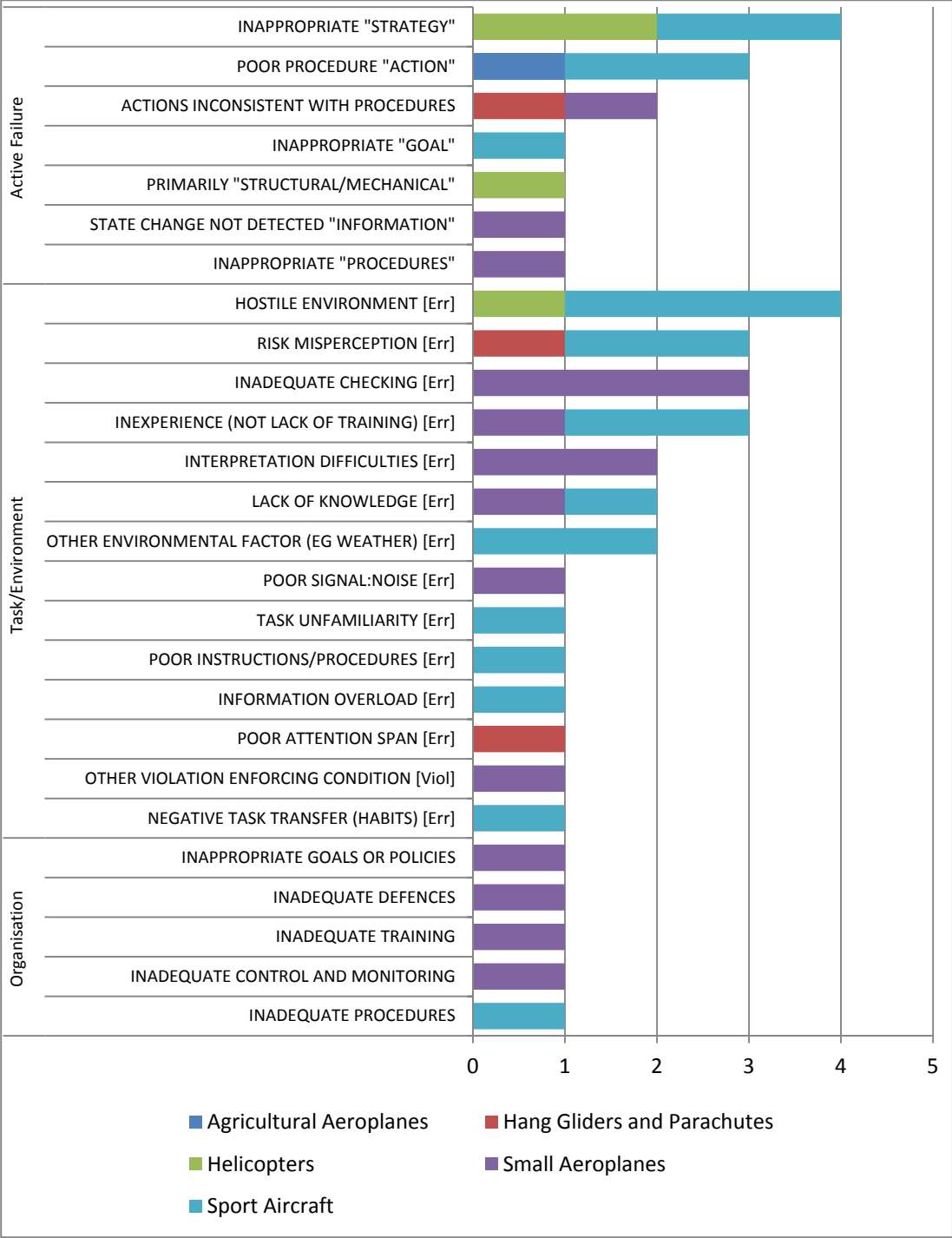
Analysis of recorded causes for Landing phase accidents shows that the most common cause was 'Local Violation Factors - Hazard Misperception' (19%).

Accident Causal Factors by Aircraft Category

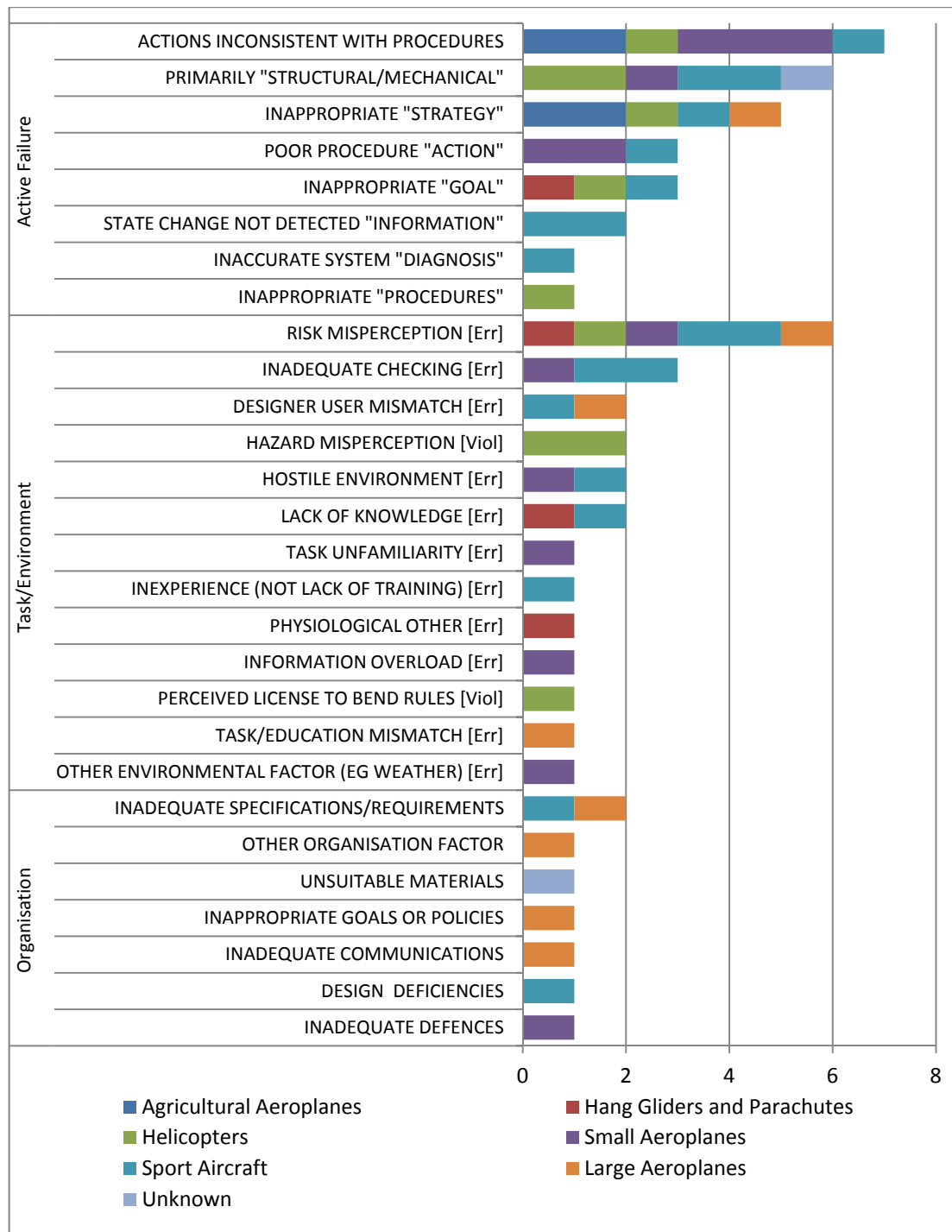
The following graph shows the number of causal factors recorded for accidents that occurred during the period 1 January 2010 to 30 June 2010 for the various aircraft statistics categories. Causal factors have been assigned to 34 (58%) of the 59 accidents.



The following graph shows the number of causal factors recorded for accidents that occurred during the period 1 July to 31 December 2010 for the various aircraft statistics categories. Causal factors have been assigned to 26 (58%) of the 45 accidents.



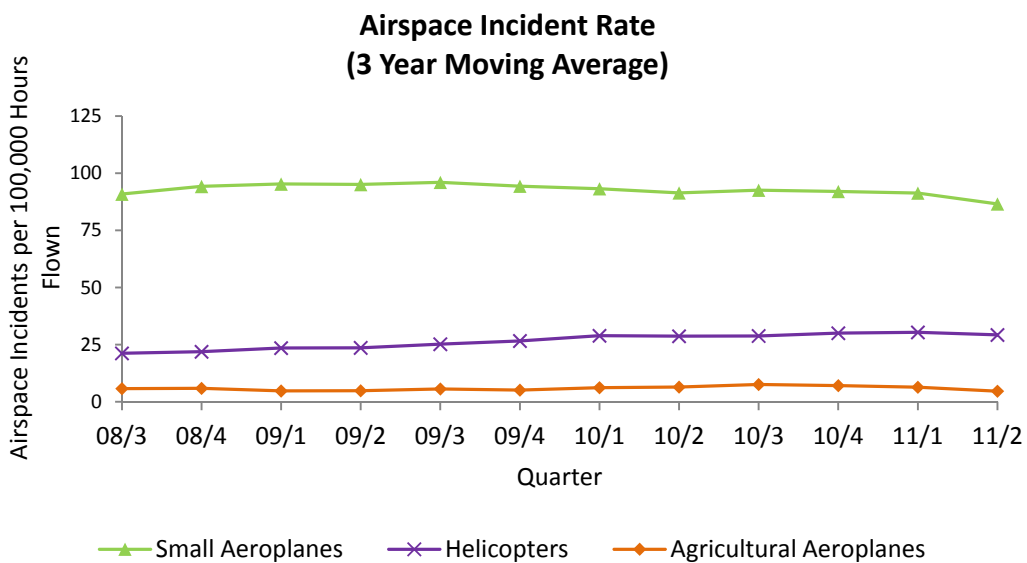
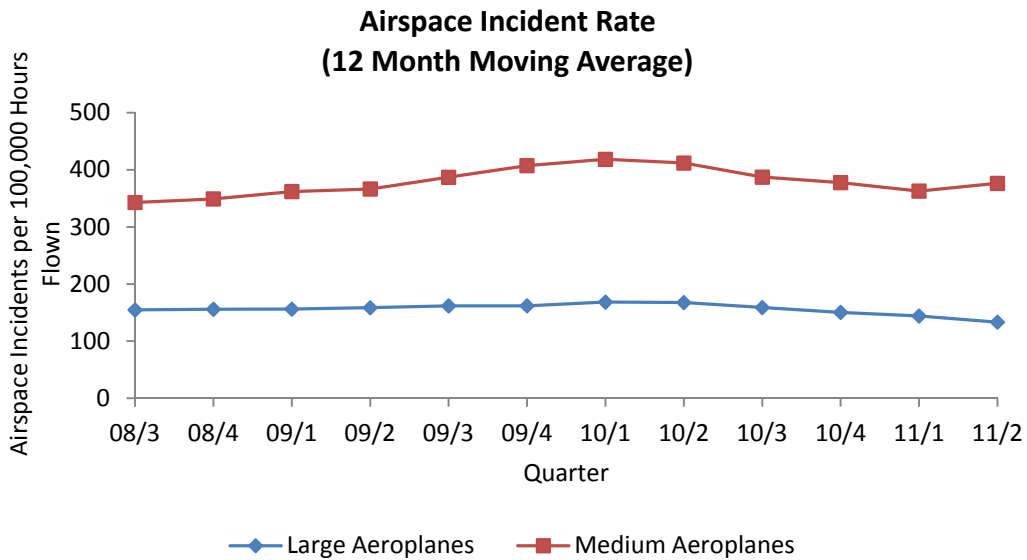
The following graph shows the number of causal factors recorded for accidents that occurred during the period 1 January to 30 June 2011 for the various aircraft statistics categories. Causal factors have been assigned to 34 (53%) of the 64 accidents.



Airspace Incidents

Occurrence Trend

The following graphs show the airspace incident reporting rates (incidents per 100,000 hours flown) three year moving average for the three-year period ending 30 June 2011 (excluding the Sport Aircraft category). 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	Constant
Medium Aeroplanes	Constant
Small Aeroplanes	Constant
Agricultural Aeroplanes	Constant
Helicopters	Trending up

Six-Monthly Comparison

Number of Reported Airspace Incidents by Aircraft Category

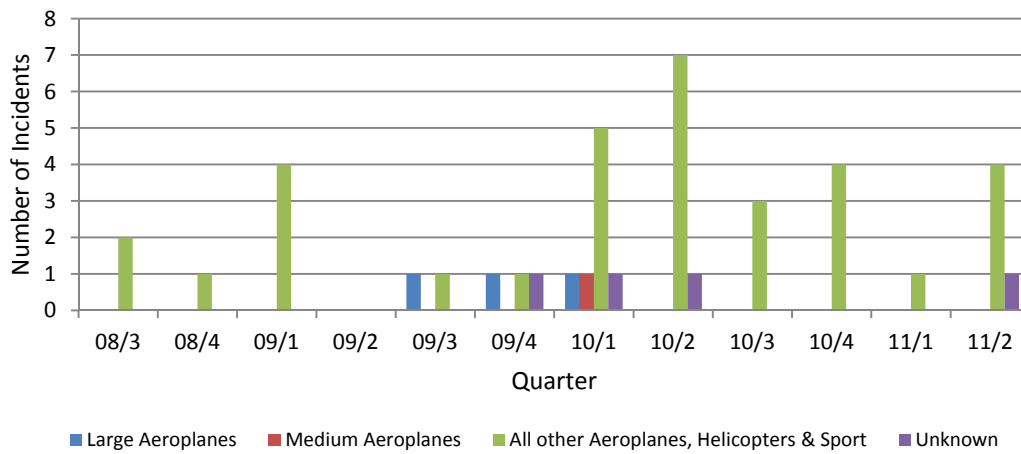
Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Large Aeroplanes	78	46	- 32	-41.0
Medium Aeroplanes	32	42	10	31.3
Small Aeroplanes	133	131	-2	-1.5
Agricultural Aeroplanes	1	1	0	0.0
Helicopters	32	21	-11	-34.4
Sport Aircraft (Excluding hang gliders & parachutes)	23	37	14	60.9
Unknown	125	201	76	60.8
Total	424	479	55	13.0

by Severity

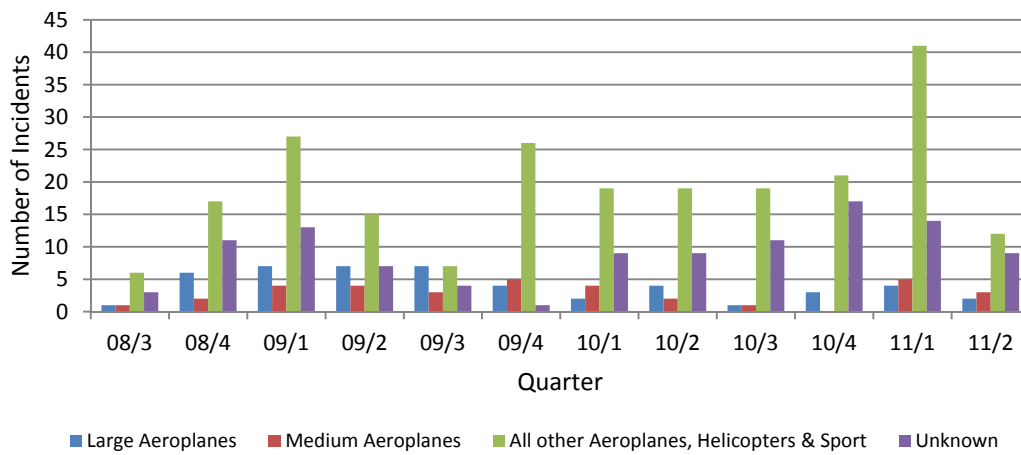
Aircraft Category	Severity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
	Major	6	6	0
	Minor	71	40	-31
Medium Aeroplanes	Critical	1	0	-1
	Major	6	8	2
	Minor	25	34	9
Small Aeroplanes	Critical	7	2	-5
	Major	23	38	15
	Minor	103	91	-12
Agricultural Aeroplanes	Critical	0	0	0
	Major	0	1	1
	Minor	1	0	-1
Helicopters	Critical	4	1	-3
	Major	12	5	-7
	Minor	16	15	-1
Sport Aircraft (Excluding hang gliders & parachutes)	Critical	1	2	1
	Major	3	9	6
	Minor	19	26	7
Unknown	Critical	2	1	-1
	Major	18	23	5
	Minor	105	177	72
Total	Critical	16	6	-10
	Major	68	90	22
	Minor	340	383	43

The graphs on the following page show the severity of airspace incidents reported as occurring during the periods shown.

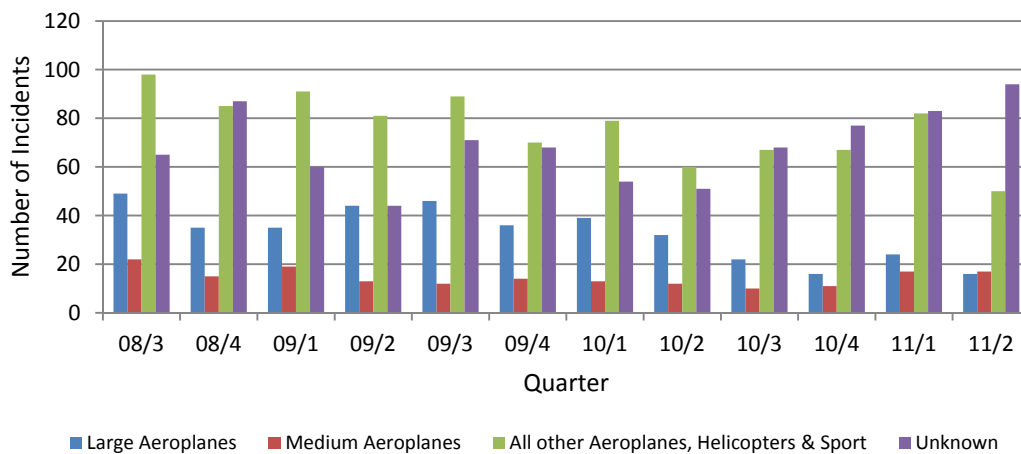
Critical Airspace Incidents by Aircraft Type



Major Airspace Incidents by Aircraft Type



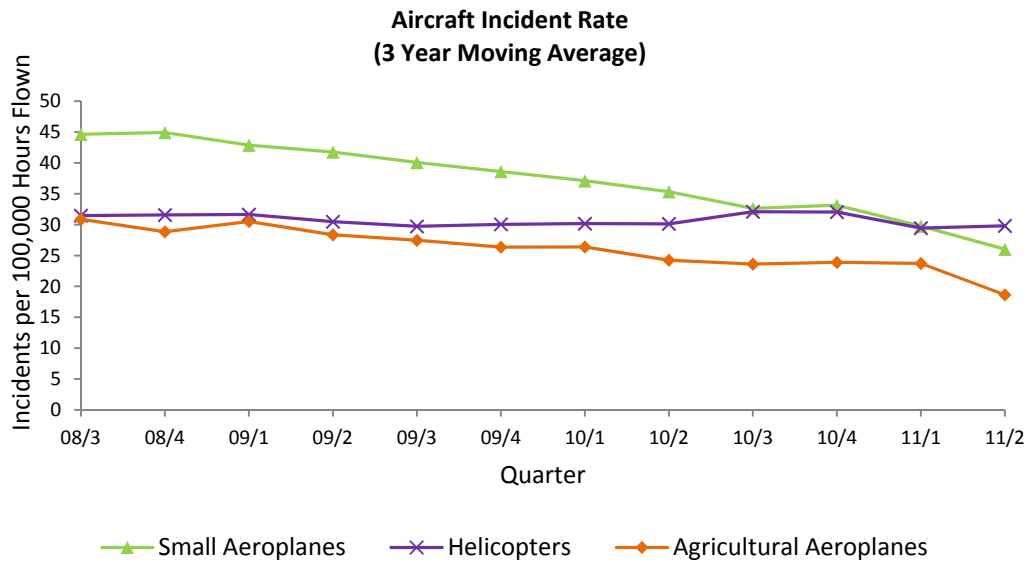
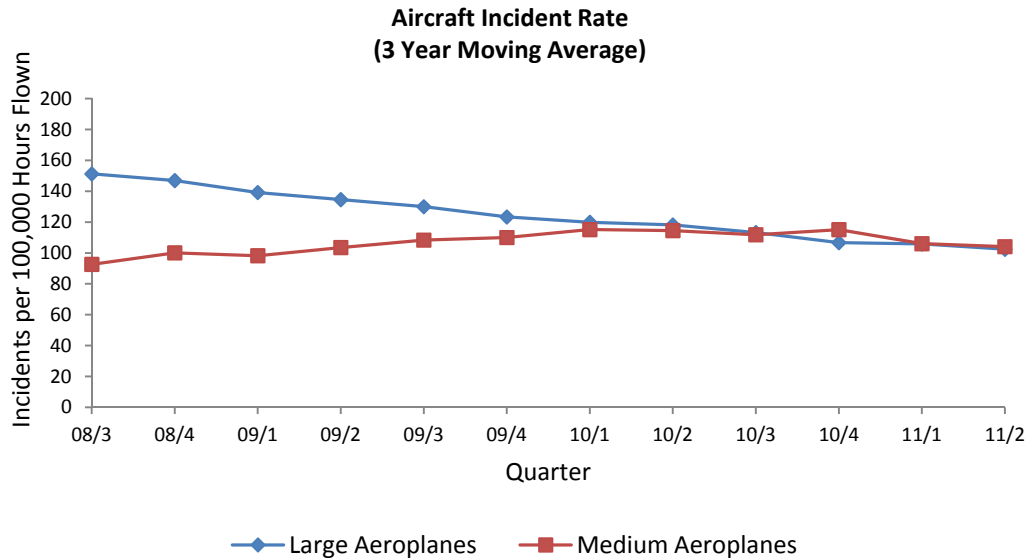
Minor Airspace Incidents by Aircraft Type



Aircraft Incidents

Occurrence Trend

The following graphs show the aircraft incident reporting rates (incidents per 100,000 hours flown) three year moving average for the three-year period ending 30 June 2011 (excluding Sport aircraft).



Aircraft Category	Straight Line Trend of 3 year moving Average
Large Aeroplanes	Trending down
Medium Aeroplanes	Constant
Small Aeroplanes	Trending down
Agricultural Aeroplanes	Trending down
Helicopters	Constant

Six-Monthly Comparison

Number of Reported Aircraft Incidents

by Aircraft Category

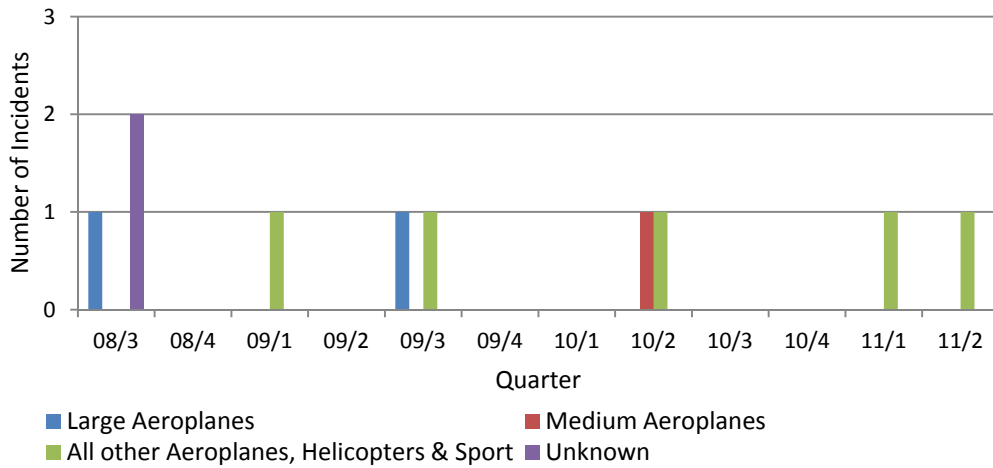
Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Large Aeroplanes	153	171	18	11.8
Medium Aeroplanes	27	20	-7	-25.9
Small Aeroplanes	29	29	0	0.0
Agricultural Aeroplanes	2	7	5	250.0
Helicopters	18	24	6	33.3
Sport Aircraft	8	6	-2	-25.0
Unknown	86	132	46	53.5
Total	323	389	66	20.0

by Severity

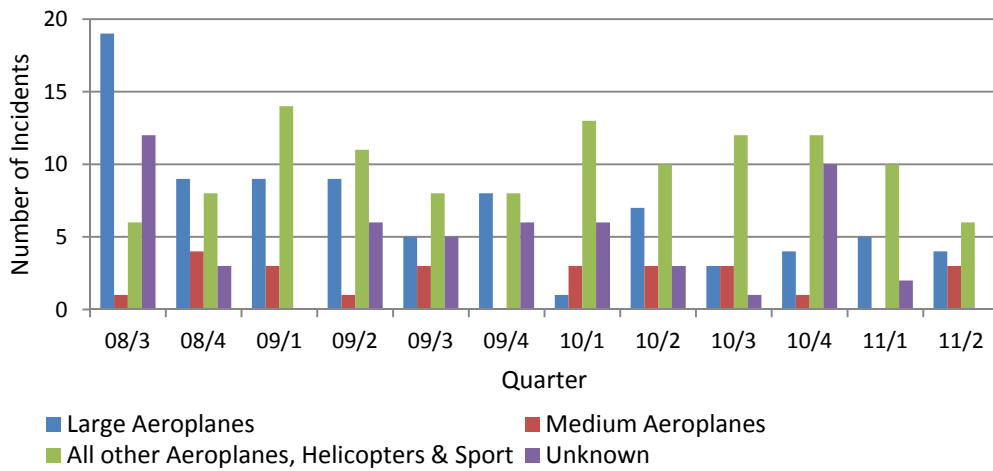
Aircraft Category	Severity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	Critical	0	0	0
	Major	8	9	1
	Minor	145	162	17
Medium Aeroplanes	Critical	1	0	-1
	Major	6	3	-3
	Minor	20	17	-3
Small Aeroplanes	Critical	1	2	1
	Major	9	9	0
	Minor	19	18	-1
Agricultural Aeroplanes	Critical	0	0	0
	Major	2	4	2
	Minor	0	3	3
Helicopters	Critical	0	0	0
	Major	7	2	-5
	Minor	11	22	11
Sport Aircraft	Critical	0	0	0
	Major	5	1	-4
	Minor	3	5	2
Unknown	Critical	0	0	0
	Major	9	2	-7
	Minor	77	130	53
Total	Critical	2	2	0
	Major	46	30	-16
	Minor	275	357	82

The following graphs show the severity of aircraft incidents recorded reported as occurring during the 3 year period ending 30 June 2011.

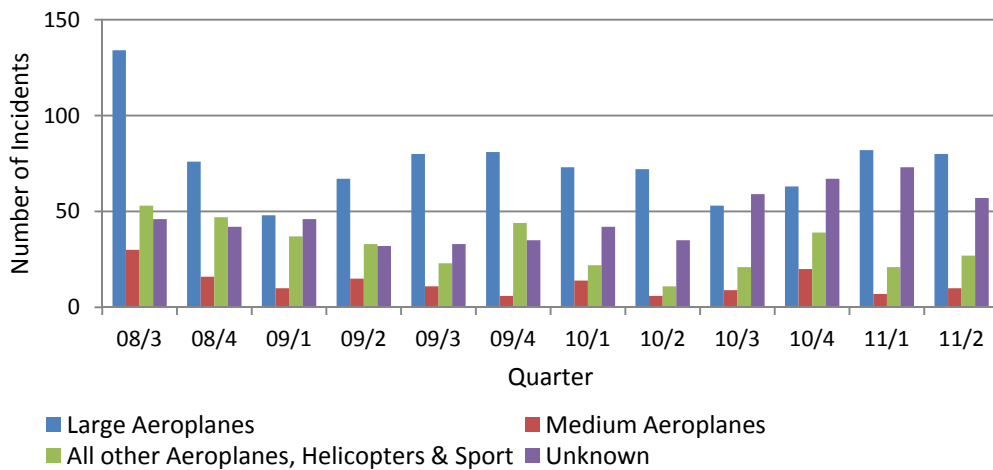
Critical Aircraft Incidents by Aircraft Type



Major Aircraft Incidents by Aircraft Type



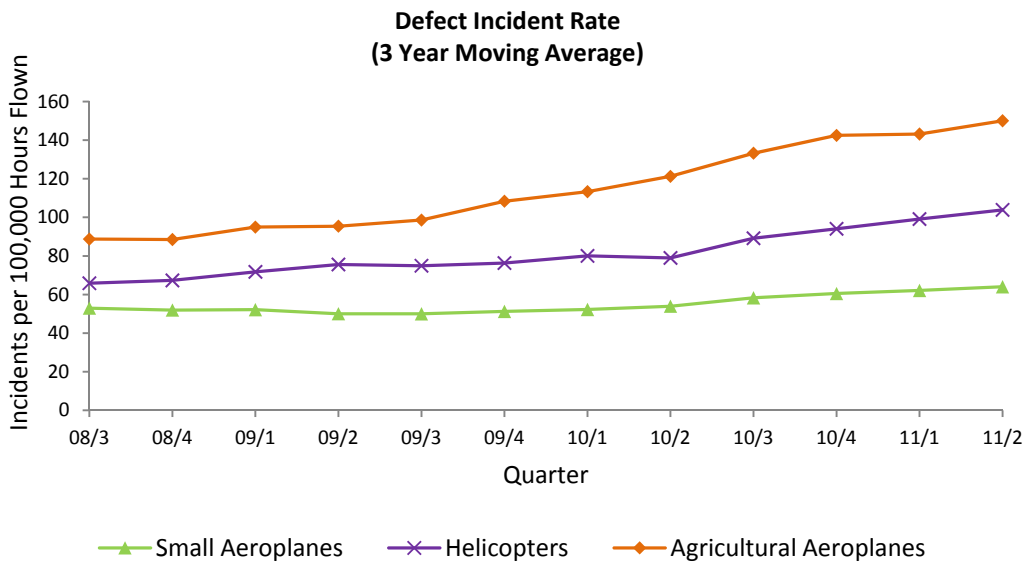
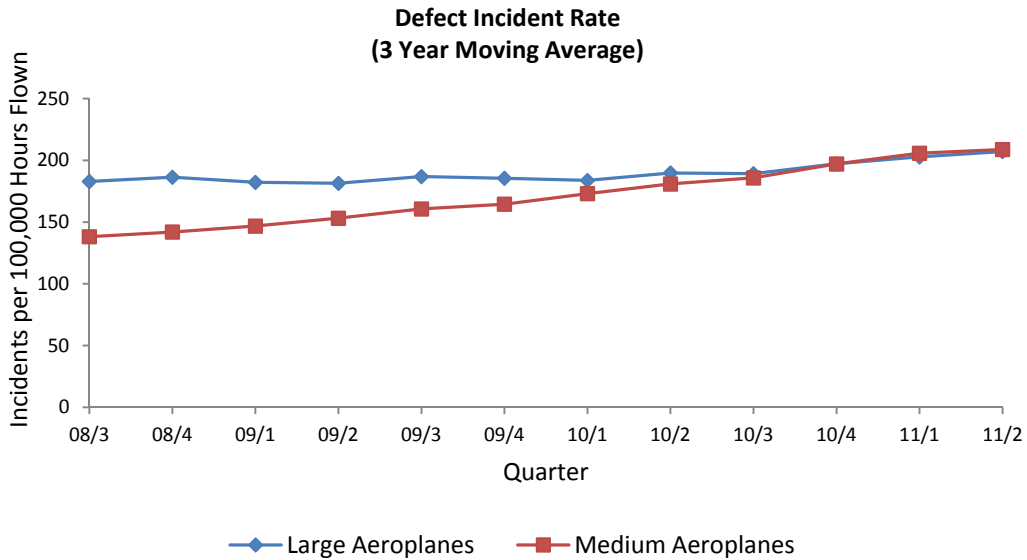
Minor Aircraft Incidents by Aircraft Type



Defect Incidents

Occurrence Trend

The following graphs show the aircraft defect incident reporting rates (incidents per 100,000 hours flown) three year moving average for the three-year period ending 30 June 2011 (excluding Sport).



Aircraft Category	Straight Line Trend of 3 year moving Average
Large Aeroplanes	Constant
Medium Aeroplanes	Trending up
Small Aeroplanes	Trending up
Agricultural Aeroplanes	Trending up
Helicopters	Trending up

Six-Monthly Comparison
Number of Defect Incidents
by Aircraft Category

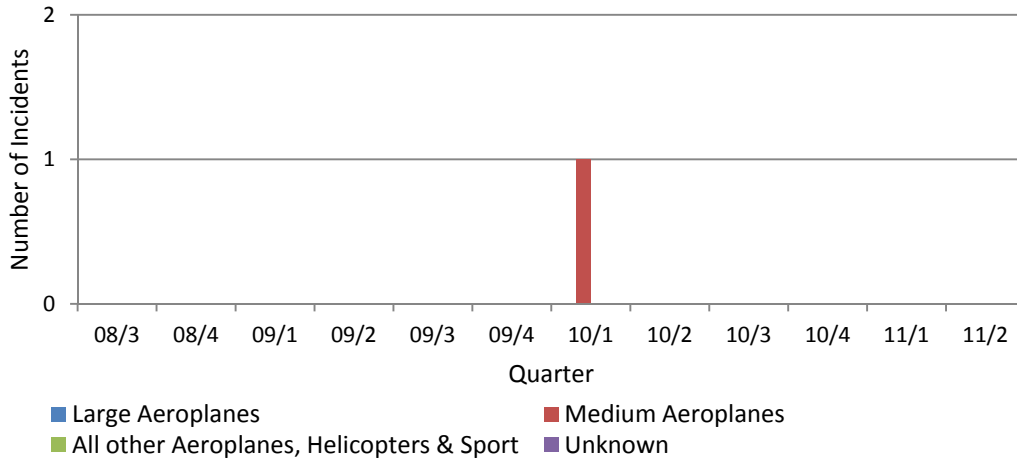
Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Large Aeroplanes	304	386	82	27.0
Medium Aeroplanes	44	94	50	113.6
Small Aeroplanes	130	114	-16	-12.3
Agricultural Aeroplanes	26	34	8	30.8
Helicopters	84	105	21	25.0
Sport Aircraft	20	14	-6	-30.0
Unknown	30	25	-5	-16.7
Total	638	772	134	21.0

by Severity

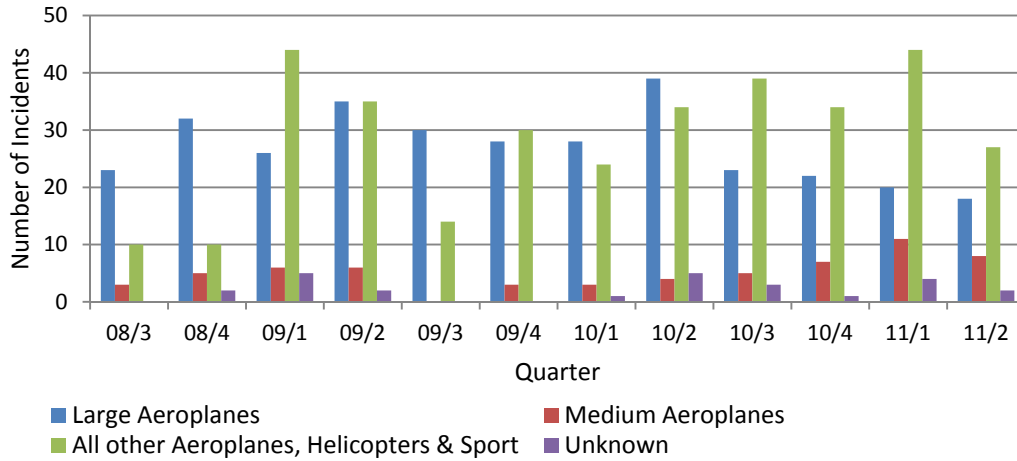
Aircraft Category	Severity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change
Large Aeroplanes	Critical	0	0	0
	Major	67	38	-29
	Minor	237	348	111
Medium Aeroplanes	Critical	1	0	-1
	Major	7	19	12
	Minor	36	75	39
Small Aeroplanes	Critical	0	0	0
	Major	26	33	7
	Minor	104	81	-23
Agricultural Aeroplanes	Critical	0	0	0
	Major	9	10	1
	Minor	17	24	7
Helicopters	Critical	0	0	0
	Major	16	20	4
	Minor	68	85	17
Sport Aircraft	Critical	0	0	0
	Major	7	8	1
	Minor	13	6	-7
Unknown	Critical	0	0	0
	Major	6	6	0
	Minor	24	19	-5
Total	Critical	1	0	-1
	Major	138	134	-4
	Minor	499	638	139

The following graphs show the severity of defect incidents recorded over the 3 year period ended 30 June 2011.

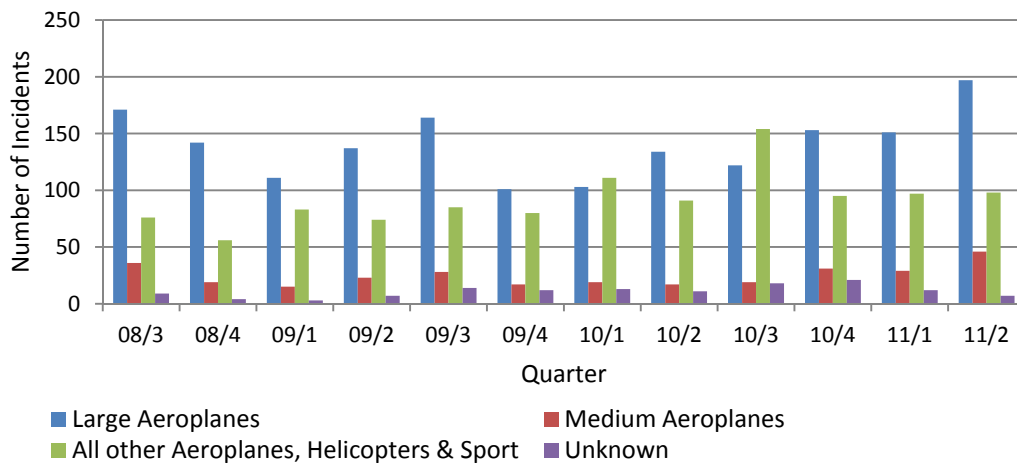
Critical Defect Incidents by Aircraft Type



Major Defect Incidents by Aircraft Type



Minor Defect Incidents by Aircraft Type



Bird Incident Rates

12-Month Moving Average Strike Rate

Bird occurrence rates are measured quarterly by aerodrome. This is achieved by querying the database for the number of strikes reported at aerodromes by quarter. 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.

The following table shows the 12-month moving average strike rates for identified aerodromes for each quarter of the three year period ending 30 June 2011.

Aerodrome	Quarter											
	08/3	08/4	09/1	09/2	09/3	09/4	10/1	10/2	10/3	10/4	11/1	11/2
Auckland	2.7	2.6	2.8	2.1	1.9	2.3	2.4	3.0	3.1	2.9	2.9	2.4
Chatham Islands	0.0	0.0	0.0	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0
Christchurch	2.8	3.0	3.1	2.5	2.5	2.1	1.9	2.0	2.8	2.7	3.0	3.1
Dunedin	2.9	3.3	4.1	3.4	3.4	4.5	4.5	4.3	5.5	4.1	4.8	4.8
Gisborne	10.7	11.1	10.0	6.2	5.5	5.4	4.7	3.0	3.1	4.1	4.2	5.8
Hamilton	2.5	3.0	2.9	2.4	2.1	1.6	1.8	1.9	2.6	2.6	1.9	1.9
Hokitika	7.3	3.6	7.2	3.5	3.5	3.5	3.6	3.7	3.8	7.5	3.7	3.7
Invercargill	8.0	9.9	7.7	7.4	5.7	5.0	7.0	6.9	7.8	6.8	5.5	5.8
Kerikeri	3.8	5.0	3.8	7.5	11.3	10.0	8.8	8.8	6.3	6.3	11.3	8.8
Manapouri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Napier	5.5	6.8	5.4	5.0	6.9	6.6	8.2	12.9	12.0	10.7	11.4	6.9
Nelson	1.6	1.3	1.9	1.8	1.8	1.7	1.4	1.6	2.0	2.3	2.2	2.0
New Plymouth	2.8	3.5	4.7	5.3	4.7	4.6	4.5	4.4	5.2	5.7	5.3	5.8
Ohakea	2.2	2.7	2.3	2.3	1.8	1.5	1.9	2.5	2.6	2.7	1.9	2.5
Palmerston North	3.1	3.1	3.8	5.0	5.3	6.0	5.5	4.3	4.6	4.3	3.8	3.9
Paraparaumu	0.0	0.0	0.0	0.0	0.0	2.1	2.1	2.1	5.0	2.5	2.5	2.5
Queenstown	3.6	2.2	3.1	2.4	2.8	2.8	1.8	1.6	1.8	1.4	1.9	1.9
Rotorua	4.7	4.0	4.4	5.4	5.7	6.3	6.8	6.0	6.7	6.0	4.4	3.6
Taupo	2.0	1.7	2.7	2.5	2.3	2.9	2.0	2.4	2.1	2.8	5.6	6.3
Tauranga	1.7	2.0	2.1	2.0	1.3	1.0	0.7	0.9	1.4	2.0	2.6	2.6
Timaru	7.5	5.0	6.3	8.8	7.5	7.5	6.3	3.8	1.3	2.5	5.0	10.0
Wanganui	0.7	0.0	0.7	1.3	1.3	1.3	0.6	1.3	1.9	1.8	3.7	3.6
Wellington	1.1	1.3	1.6	1.6	1.5	1.4	1.3	1.6	1.8	1.7	1.7	1.5
Westport	4.8	9.7	19.4	19.4	29.1	24.4	23.9	24.6	19.6	19.5	10.0	4.8
Whangarei	0.0	0.0	2.3	3.0	6.8	7.5	6.0	6.8	5.3	5.3	6.8	7.5
Whenuapai	12.7	12.1	9.6	7.7	7.9	10.6	9.9	12.5	12.6	13.2	12.0	10.0
Woodbourne	3.5	3.1	2.9	2.9	2.9	2.9	5.4	5.2	5.7	5.7	4.8	4.2
Overall	3.0	3.1	3.3	3.1	3.0	3.0	2.9	3.2	3.6	3.5	3.6	3.4

Data with a pink background is based on CAA estimates of aircraft movements for the aerodrome because the CAA has either no data or incomplete data for that aerodrome.

Analysis

Each aerodrome is assigned a risk category based on the most recent 12 month average bird strike rate per 10,000 aircraft movements. These categories are:

Low	where the rate is less than 5 strikes per 10,000 movements
Medium	where the rate is not less than 5 strikes per 10,000 movements but less than 10 strikes per 10,000 movements
High	where the rate is not less than 10 strikes per 10,000 movements.

Each aerodrome is also assigned a trend category based on a straight line approximation to the 3 year history of bird strike rates. These categories are:

Trending down	where the 3 year decrease exceeds 0.059 strikes per 100,000 movements per quarter
Constant	where the 3 year change is between + and – 0.059 strikes per 100,000 movements per quarter
Trending up	where the 3 year increase exceeds 0.059 strikes per 100,000 movements per quarter

The CAA then determines what if any actions are required based on the combination of the above categories

Details as at 30 June 2011 for individual aerodromes are shown in the following table.

Aerodrome	Risk Category	Trend
Auckland	Low	Constant
Chatham Islands	Low	Downward
Christchurch	Low	Constant
Dunedin	Low	Upward
Gisborne	Medium	Downward
Hamilton	Low	Downward
Hokitika	Low	Downward
Invercargill	Medium	Downward
Kerikeri	Medium	Upward
Manapouri	Low	Constant
Napier	Medium	Upward
Nelson	Low	Constant
New Plymouth	Medium	Upward
Ohakea	Low	Constant
Palmerston North	Low	Constant
Paraparaumu	Low	Upward
Queenstown	Low	Downward
Rotorua	Low	Constant
Taupo	Medium	Upward
Tauranga	Low	Constant
Timaru	High	Downward
Wanganui	Low	Upward
Wellington	Low	Constant
Westport	Low	Constant
Whangarei	Medium	Upward
Whenuapai	High	Upward
Woodbourne	Low	Upward
Overall	Low	Constant

Security Incidents
Six-Monthly Comparison
Number of Security Incidents
by Aircraft Category

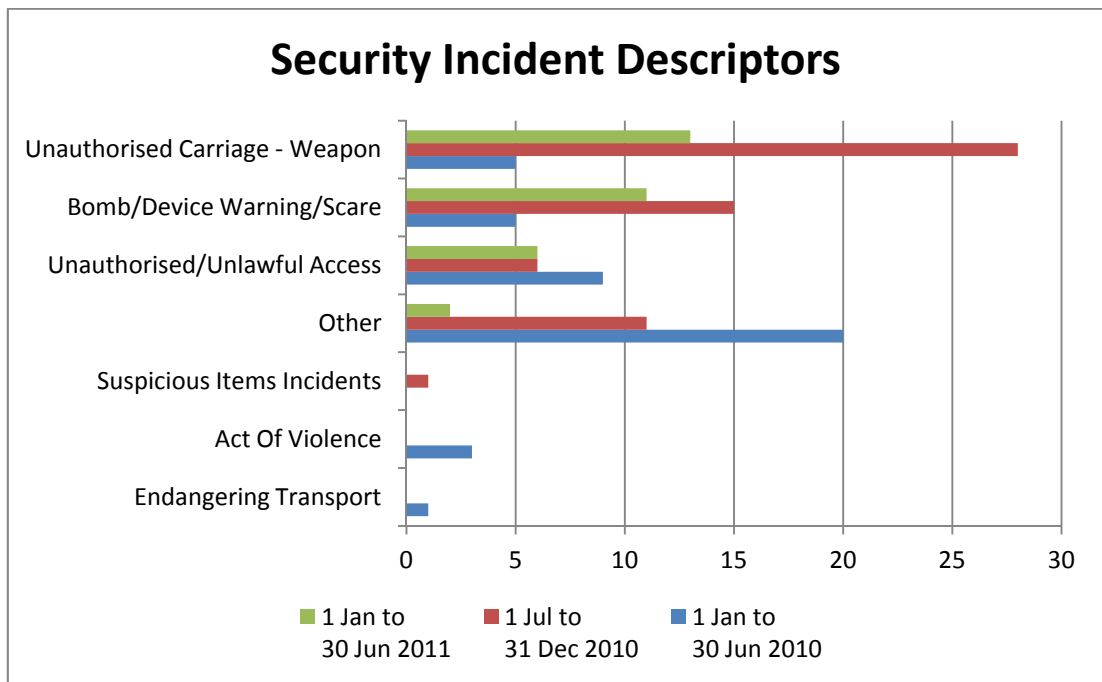
Aircraft Category	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Large Aeroplanes	6	1	-5	-83.3
Medium Aeroplanes	0	0	0	-
Small Aeroplanes	0	0	0	-
Agricultural Aeroplanes	0	0	0	-
Helicopters	0	0	0	-
Sport Aircraft	0	0	0	-
Unknown	38	31	-7	-18.4
Total	44	32	-12	-27.3

by Severity

Severity	1 Jan to 30 Jun 2010	1 Jan to 30 Jun 2011	Change	
			Number	Percent
Critical	0	0	-	-
Major	4	3	-1	-25.0
Minor	40	29	-11	-27.5

Descriptors

The following graph shows the numbers of occurrence descriptors recorded for security incidents reported as occurring during the period 1 January to 30 June 2011 and the two previous six-month periods.



Aerodrome Incidents

Runway Incursions

Runway incursion rates are calculated by dividing the total number of reported Aerodrome Incidents that have any of the five runway incursion descriptors by the total number of reported movements for the same aerodrome over the same period. The result is tabulated and graphed as runway incursions per 100,000 movements.

Usable data is available only from the 4th quarter of 2008 so the current report is rather limited. As time progresses the table and graphs will be extended until they cover a three year period. When movement data becomes available from additional certificated aerodromes they will also be included.

Clearly the number of runway incursions is low with many certificated aerodromes having no such incidents reported at all. With such low numbers caution needs to be exercised in drawing statistical conclusions. When sufficient data becomes available it may be more useful to present this data in a moving 12 month average format.

The following table shows quarterly runway incursion rates for all certificated aerodromes for which adequate movement data is available.

Aerodrome	08/3	08/4	09/1	09/2	09/3	09/4	10/1	10/2	10/3	10/4	11/1	11/2
Auckland	2.5	12.1	10.0	2.7	2.5	5.0	5.0	10.5	2.6	0.0	2.5	5.4
Taupo	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0	11.9	0.0
Christchurch	2.7	5.6	2.8	5.7	0.0	9.1	3.0	20.0	3.2	12.6	3.3	10.3
Dunedin	0.0	0.0	6.3	0.0	0.0	9.9	0.0	16.5	16.4	11.5	0.0	0.0
Gisborne	15.3	33.9	15.8	0.0	0.0	0.0	16.8	0.0	0.0	0.0	37.7	0.0
Hamilton	0.0	10.3	7.5	2.7	7.6	0.0	3.6	12.6	9.0	19.3	7.1	3.7
New Plymouth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Napier	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6	14.0	0.0
Nelson	0.0	0.0	8.0	16.7	8.5	0.0	22.7	7.8	8.3	0.0	31.3	0.0
Invercargill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	0.0
Ohakea	0.0	0.0	0.0	0.0	0.0	7.1	5.8	0.0	0.0	0.0	0.0	19.5
Palmerston North	0.0	0.0	25.0	6.6	0.0	0.0	0.0	6.4	0.0	0.0	0.0	11.5
Queenstown	0.0	0.0	7.3	10.9	0.0	0.0	15.1	0.0	0.0	19.3	31.6	24.6
Rotorua	0.0	0.0	38.4	0.0	0.0	0.0	0.0	18.3	0.0	16.5	0.0	0.0
Tauranga	0.0	8.4	0.0	3.8	4.6	4.6	3.5	0.0	0.0	5.0	4.4	0.0
Woodbourne	0.0	17.5	13.9	0.0	18.1	18.3	0.0	0.0	0.0	0.0	0.0	0.0
Wellington	0.0	6.9	7.0	10.9	3.5	14.5	3.5	0.0	0.0	7.3	0.0	3.9
Whenuapai	0.0	0.0	0.0	0.0	0.0	0.0	25.2	28.4	0.0	28.7	0.0	0.0

By way of comparison, National Transportation Safety Board data puts the runway incursion rate in the United States at about 6 runway incursions per 100,000 tower operations during the 4 calendar years 2005 – 2008 with an improving outlook for 2009.

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-11	12	14	79	93	82	0	105	4	3	66	3	0	2	7
Feb-11	15	8	97	98	102	0	165	3	4	72	2	0	4	6
Mar-11	7	11	77	81	141	0	128	3	0	75	4	0	2	4
Apr-11	6	7	58	82	137	0	145	3	3	75	6	3	3	18
May-11	7	14	53	71	134	0	154	4	1	85	2	0	2	2
Jun-11	7	5	44	63	106	1	102	2	0	45	1	0	3	2
Total	54	59	408	488	702	1	799	19	11	418	18	3	16	39

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

Appendix — 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, 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.

Cargo security incident [CSI] — means an incident involving cargo or mail that is carried, or has been accepted by a regulated air cargo agent or an air operator for carriage, by air on an aircraft conducting an international regular air transport operation passenger service, and—

- (1) there is evidence of tampering or suspected tampering with the cargo or mail which could be an act or an attempted act of unlawful interference; or
- (2) a weapon, explosive, or other dangerous device, article or substance, that may be used to commit an act of unlawful interference is detected in the cargo or mail.

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 or aeronautical data promulgated in an aeronautical information publication, map, chart, or otherwise provided for the operation of an aircraft.

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.

Severity Factor		Definition
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.

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, Agricultural ops & training for Agricultural 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	Agricultural ops & training for Agricultural 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.

Target group name	General description	Includes	Excludes
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

Aircraft Categories

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