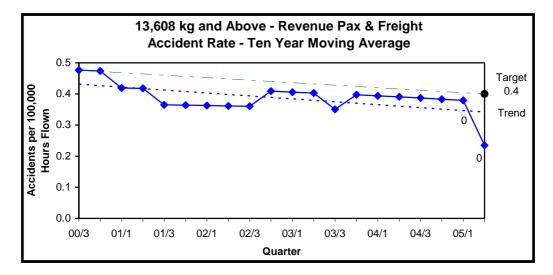


# **Aviation Safety Summary Report**

1 April to 30 June 2005



The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 0.4 accidents per 100,000 flying hours.

# Introduction

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

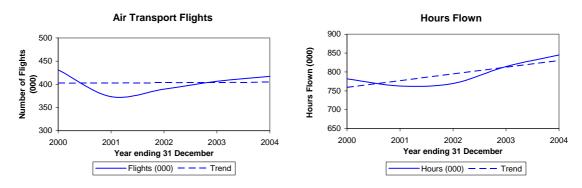
This report uses calendar years; the first quarter is 1 January to 31 March.

# Activity

### General

# Air Transport Flights, Total Hours Trends

The following graphs show the number of air transport flights and the total number of hours flown (annual data) for the five-year period 1 January 2000 to 31 December 2004 (excluding sport).



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

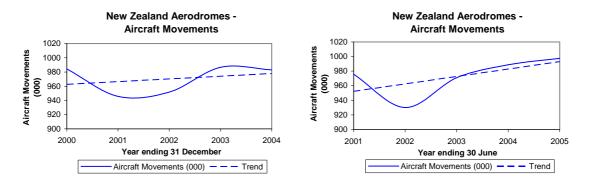
### **Quarterly Comparison**

Activity	1 Oct to 31 Dec	1 Oct to 31 Dec	Change	
	2003	2004	Number	Percentage
Air Transport Flights	108,890	108,865	- 25	- 0.0
Total Hours	213,246	208,652	- 4,594	- 2.2

Note that these assessments exclude sport aircraft, hang gliders and parachutes, and foreign registered aircraft that are operated in New Zealand, and are based on Aircraft Operating Statistics for periods up to the quarter ended 31 December 2004 - the most recent quarter for which these data are available.

### *Aircraft Movements* Trends

The following graphs show the number of aircraft movements at certificated aerodromes (annual data) for the five-year periods 1 January 2000 to 31 December 2004 (the same period as for Air Transport Flights and Total Hours) and 1 July 2000 to 30 June 2005 (the most recent data).



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

### **Quarterly Comparison**

Activity	1 Apr to 30 Jun	1 Apr to 30 Jun	Change	
	2004	2005	Number	Percentage
Aircraft Movements	238,223	249,893	+ 11,670	+ 4.9

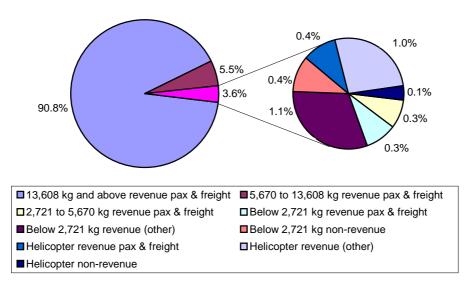
Note that this covers certificated aerodromes only. Includes Auckland, Christchurch, Dunedin, Gisborne (from December 2004), Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Inia William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

### Registered Aircraft Quarterly Comparison

Aircraft Group	30 Jun	30 Jun	Change	
	2004	2005	Number	Percentage
13,608 kg and above	92	93	+ 1	+ 1.1
5,670 to 13,608 kg	72	65	- 7	- 9.7
2,721 to 5,670 kg	124	139	+ 15	+ 12.1
Below 2,721 kg	1,535	1,561	+ 26	+ 1.7
Helicopters	559	624	+ 65	+ 11.6
Sport	1,321	1,390	+ 69	+ 5.2
Total	3,703	3,872	+ 169	+ 4.6

### Industry Size and Shape

The following graph shows the size and shape of the aviation industry as determined by aircraft that returned Aircraft Operating Statistics in the relevant safety target group categories for the period 1 October to 31 December 2004. The number of seats for aircraft with no seats recorded on the database was estimated using (maximum take off weight (lb) of the aircraft/1000). This does not take into account aircraft that are used for freight only, because the small number of aircraft in this category has a minimal effect on the overall outcome. For each safety target group the average number of seats is multiplied by the total hours flown, to give the number of seat hours offered by the group.



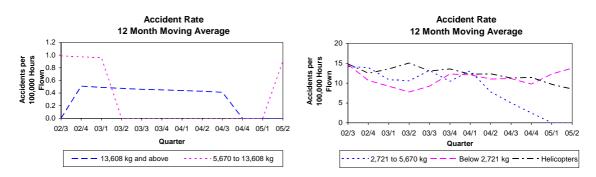
### Percentage Seat Hours

Note that this graph excludes revenue (other) and non-revenue hours flown by the 2,721 kg and above groups because these activities are not included in the Accident Rate Reduction Target graphs.

# Accidents

### Trends

The following graphs show the aircraft accident rates (12 month moving average) for the three-year period 1 July 2002 to 30 June 2005 (excluding Sport).



# **Quarterly Comparison**

### Number of Accidents

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	0	0	0
5,670 to 13,608 kg	0	1	+ 1
2,721 to 5,670 kg	0	0	0
Below 2,721 kg	1	4	+ 3
Helicopters	5	3	- 2
Sport	3	7	+ 4
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	9	15	+ 6

### Severity of Accidents

Severity	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
Critical	2	2	0
Major	7	10	+ 3
Minor	0	3	+ 3

No accidents in the 13,608 kg and above group were classified as Critical.

One accident in the 5,670 to 13,608 kg group was classified as Critical in the 1 April to 30 June 2005 quarter. Both pilots of an aeroplane on a scheduled freight operation were killed when it crashed in the vicinity of Stratford.

No accidents in the 5,670 to 13,608 kg group were classified as Critical in the 1 April to 30 June 2004 quarter.

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	0	0	0
5,670 to 13,608 kg	0	1 (2)	+ 1 (+ 2)
2,721 to 5,670 kg	0	0	0
Below 2,721 kg	0	0	0
Helicopters	2 (2)	0	- 2 (- 2)
Sport	0	0	0
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	2 (2)	1 (2)	- 1 (0)

# Number of Fatal Accidents (and Number of Fatal Injuries)

# Number of Serious Injuries

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	0	0	0
5,670 to 13,608 kg	0	0	0
2,721 to 5,670 kg	0	0	0
Below 2,721 kg	0	1	+ 1
Helicopters	1	0	- 1
Sport	0	1	+ 1
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	1	2	+ 1

# Number of Minor Injuries

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	0	0	0
5,670 to 13,608 kg	0	0	0
2,721 to 5,670 kg	0	0	0
Below 2,721 kg	1	0	- 1
Helicopters	0	1	+ 1
Sport	0	2	+ 2
Hang Gliders	0	0	0
Parachutes	0	0	0
Total	1	3	+ 2

# The Social Cost of Accidents

Different accidents have different economic impacts on the nation. Estimating the social cost of accidents is one way of valuing the impact of accidents on the country. It is also a way to rank the severity of accidents, which would otherwise receive equal weighting within a safety target group regardless of their scale, for example, a fatal accident and a non-fatal accident are each recorded as one accident.

The main components of the social cost of accidents are fatalities, serious injuries, and aircraft destroyed in fatal or serious injury accidents. The value to the nation of fatalities (\$2.842 million each) is the value of statistical life (VOSL) estimated by the Land Transport Safety Authority (LTSA) in June 2004 dollars. The value of serious injuries (\$0.2991 million each) is also the LTSA's figure. Aircraft destroyed are valued using estimates of aircraft values made by the CAA on the basis of market prices in a number of developed aviation nations (in 1999 dollars).

The total estimated social cost of accidents for the nine safety target groups and the sport group over the ten-years 1 July 1995 to 30 June 2005 is \$648.59 million (on average \$64.9 million per annum). This represents the cost of 207 fatalities and 105 serious injuries, and 99 aircraft destroyed in fatal and serious injury accidents. Almost 97% of the cost is incurred by the below 5,670 kg, helicopter and sport groups.

Safety Target Group	Annual Average \$m
13,608 kg and above revenue pax & freight	0.97
5,670 to 13,608 kg revenue pax & freight	1.00
2,721 to 5,670 kg revenue pax & freight	5.59
Below 2,721 kg revenue pax & freight	8.82
Below 2,721 kg revenue (other)	5.39
Below 2,721 kg non-revenue	12.54
Helicopter revenue pax & freight	4.78
Helicopter revenue (other)	8.33
Helicopter non-revenue	5.03

The following tables show the annual average social cost over the ten-years 1 July 1995 to 30 June 2005 for the safety target groups and the sport group.

Aircraft Group	Annual Average \$m
Sport	12.40

### Significant Accidents and Other Injury Accidents

### Significant Injury Accidents

This section describes significant injury accidents that occurred during the period 1 April to 30 June 2005.

### 5,670 to 13,608 kg

• Both pilots of an aeroplane on a scheduled freight operation were killed when it crashed in the vicinity of Stratford.

### Significant Non-Injury Accidents

This section describes significant non-injury accidents that occurred during the period 1 April to 30 June 2005.

### Below 2,721 kg

• The pilot of an aeroplane on a private flight reported that upon landing windshear forced the aircraft to weathercock to the right. The pilot was unable to maintain directional control, the left wheel dug into the soft ground and broke off, and the aircraft rolled over.

### **Other Injury Accidents**

This section describes other injury accidents that occurred during the period 1 April to 30 June 2005.

### Below 2,721 kg

• An aeroplane on a ferry/positioning flight was low on approach to land and the pilot's application of power was too late to avoid a collision with a bank at the approach end of the airstrip. The pilot received serious injuries.

### Helicopters

• A helicopter on a training dual flight tried to turn at low level and pulled up steeply, then struck a ridge. One crewmember received minor injuries.

### Sport

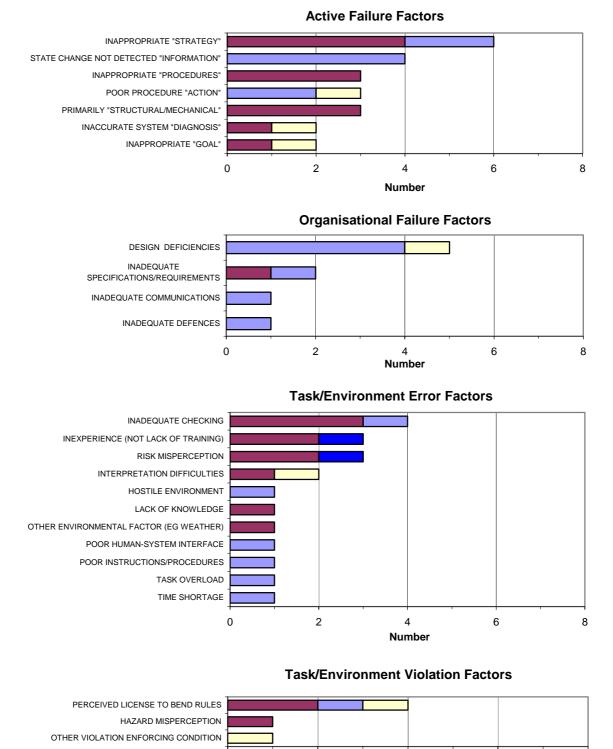
- A microlight on a private flight was forced to take evasive action during finals to avoid another aircraft, resulting in a heavy landing in an adjacent paddock and minor injuries to the passenger.
- A gyroplane on a training dual flight lost control during takeoff and came to rest upside down. The pilot received minor injuries and the passenger received serious injuries.

# Accident Causal Factors by Aircraft Group

The following graphs show the number of causal factors recorded for accidents that occurred during the 12-month period 1 April 2004 to 31 March 2005 for the various aircraft groups.

Causal factors have been assigned to 37 (44%) of the 84 accidents.

Note that causes are not yet available for all accidents that occurred in the 1 April to 30 June 2005 period.





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### Accident Reduction Targets - 2005

Targets that will be achieved are:

- 13,608 kg and above revenue pax & freight, and
- 5,670 to 13,608 kg revenue pax & freight operations.

Targets likely to be achieved are:

- below 2,721 kg revenue (other),
- helicopter revenue pax & freight, and
- helicopter revenue (other) operations.

Targets unlikely to be achieved are:

• helicopter non-revenue operations.

Targets that cannot be achieved are:

- 2,721 to 5,670 kg revenue pax & freight,
- below 2,721 kg revenue pax & freight, and
- below 2,721 kg non-revenue operations.

#### Graphs

The "Target" lines begin at the accident rates that existed at the start of the 5-year target period.

Pending receipt of Aircraft Operating Statistics the accident rates are based on estimated hours for the quarters 2005/1 and 2005/2.

The actual numbers of accidents for the quarters 2005/1 and 2005/2 are shown next to the accident rates, and the trend is a dashed blue line.

Note that the CAA accident rates for the period ended 31 December 2004, based on estimated hours, were within 5% of the final rate except in the following cases.

Two exceptions occurred in the 1 October to 31 December 2004 report:

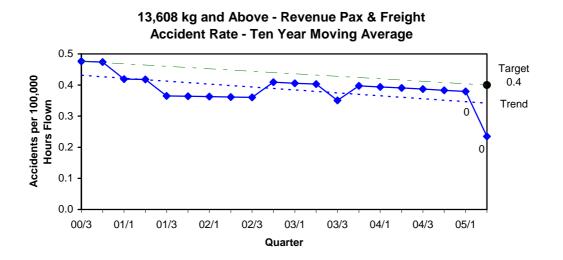
- below 2,721 kg revenue pax & freight (- 10.1% error), and
- helicopter non-revenue operations (- 18.6% error).

These errors did not change whether the groups were above or below the "Target" line.

Four exceptions occurred in the 1 January to 31 March 2005 report.

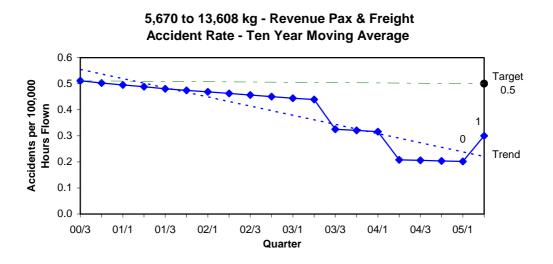
- below 2,721 kg revenue pax & freight (9.5% error),
- below 2,721 kg revenue (other) (5.7% error),
- helicopter revenue pax & freight (6.9% error), and
- helicopter revenue (other) operations (6.2% error).

These errors did not change whether the groups were above or below the "Target" line.



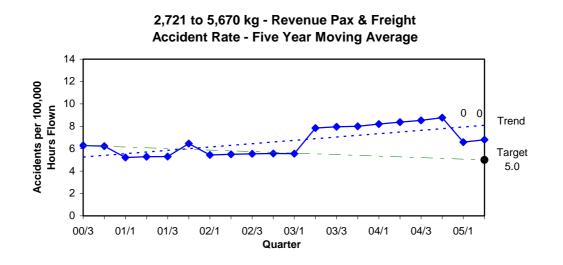
The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 0.4 accidents per 100,000 flying hours.

No accidents in the 2005/1 or 2005/2 quarters were classified as revenue (other) or non-revenue.



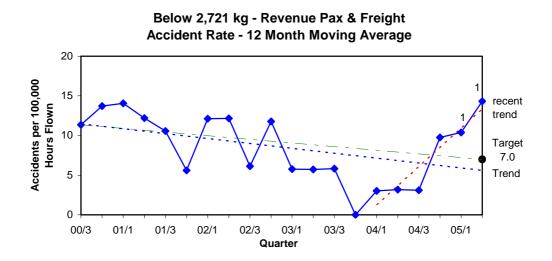
The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 0.5 accidents per 100,000 flying hours.

No accidents in the 2005/1 or 2005/2 quarters were classified as revenue (other) or non-revenue.

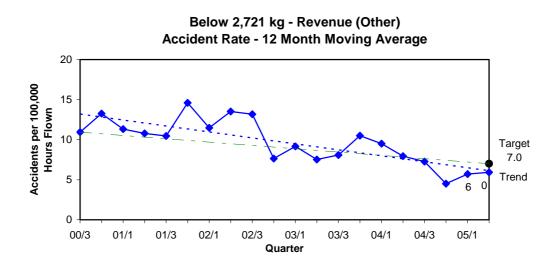


The accident rate for the period ended 30 June 2005 and the trend line are above the "Target" line. The accident rate is currently above the 2005 target of 5.0 accidents per 100,000 flying hours.

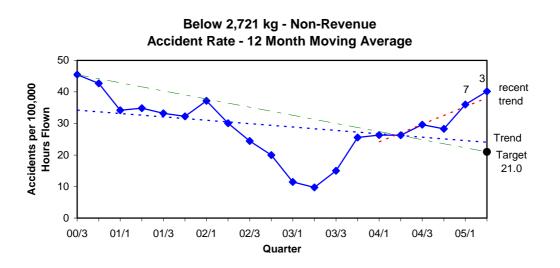
No accidents in the 2005/1 or 2005/2 quarters were classified as revenue (other) or non-revenue.



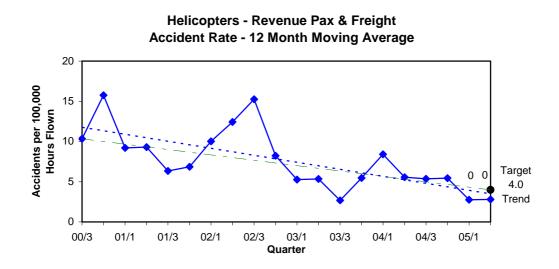
The accident rate for the period ended 30 June 2005 and the 'recent' trend line for the period ending 30 June 2005 are above the "Target" line. The accident rate is currently above the 2005 target of 7.0 accidents per 100,000 flying hours. However, the trend line is below the "Target" line.



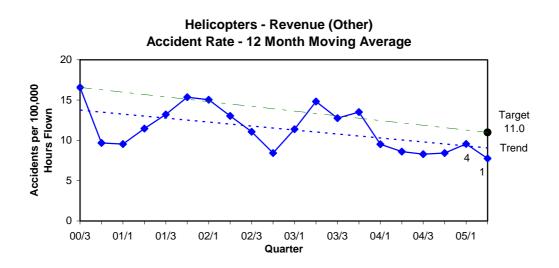
The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 7.0 accidents per 100,000 flying hours.



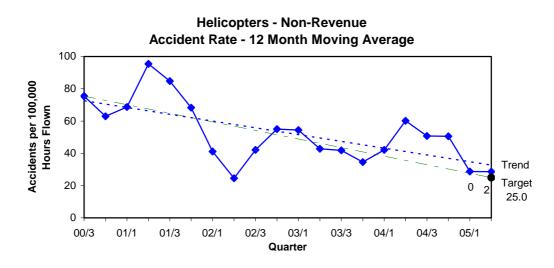
The accident rate for the period ended 30 June 2005, the trend line and the 'recent' trend line are above the "Target" line. The accident rate is currently above the 2005 target of 21.0 accidents per 100,000 flying hours.



The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 4.0 accidents per 100,000 flying hours.



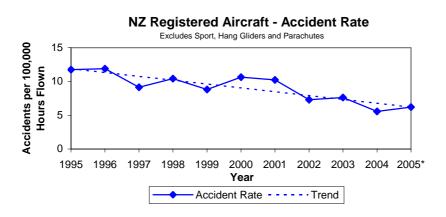
The accident rate for the period ended 30 June 2005 and the trend line are below the "Target" line. The accident rate is currently below the 2005 target of 11.0 accidents per 100,000 flying hours.



The accident rate for the period ended 30 June 2005 and the trend line are above the "Target" line. The accident rate is currently above the 2005 target of 25.0 accidents per 100,000 flying hours.

### **Overall Accident Rate**

The following graph shows the overall accident rate per 100,000 hours flown (excluding the sport group, hang gliders and parachutes) for the years 1995 to 2004. The data point for 2005\* is for 1 January to 30 June 2005 only.



Note that this graph does not show a moving average.

# **Bird Incident Rates**

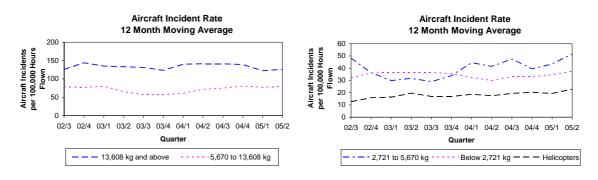
Bird hazard monitoring has been carried out against the CAA standard for the period ended 31 December 2004. Analysis shows that 6 of the 18 monitored aerodromes have bird strike rates above the "trigger level" for CAA action.

One aerodrome exhibited a strike rate in the high risk category of the CAA standard (above 1.0 bird strikes per 1,000 aircraft movements). Five aerodromes exhibited a strike rate in the medium risk category (0.5 to 1.0 per 1,000 movements) and three of these aerodromes displayed a long-term upward or constant trend. Twelve aerodromes exhibited a strike rate in the low risk category (below 0.5 per 1,000 movements) and two of these aerodromes displayed a long-term upward trend.

# **Aircraft Incidents**

### Trends

The following graphs show the aircraft incident rates (12 month moving average) for the three-year period 1 July 2002 to 30 June 2005 (excluding Sport).



The ratios of reported aircraft incidents for the below 2,721 kg and helicopter groups to the respective number of reported accidents continue to be low.

### **Quarterly Comparison**

### Number of Aircraft Incidents

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	75	91	+ 16
5,670 to 13,608 kg	25	28	+ 3
2,721 to 5,670 kg	3	7	+ 4
Below 2,721 kg	24	29	+ 5
Helicopters	7	12	+ 5
Sport	7	7	0
Unknown	13	15	+ 2
Total	154	189	+ 35

### Severity of Aircraft Incidents

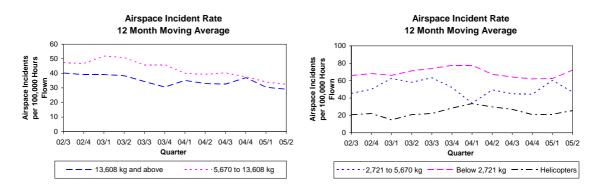
Severity	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
Critical	0	1	+ 1
Major	13	14	+ 1
Minor	141	174	+ 33

No aircraft incidents in the 5,670 kg and above groups were classified as Critical.

# **Airspace Incidents**

### Trends

The following graphs show the airspace incident rates (12 month moving average) for the three-year period 1 July 2002 to 30 June 2005 (excluding Sport).



# **Quarterly Comparison**

#### Number of Airspace Incidents

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	19	17	- 2
5,670 to 13,608 kg	10	8	- 2
2,721 to 5,670 kg	8	3	- 5
Below 2,721 kg	38	58	+ 20
Helicopters	8	14	+ 6
Sport	11	3	- 8
Unknown	93	83	- 10
Total	187	186	- 1

### Severity of Airspace Incidents

Severity	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
Critical	0	0	0
Major	14	15	+ 1
Minor	173	171	- 2

No airspace incidents in the 5,670 kg and above groups were classified as Critical.

### Attributability

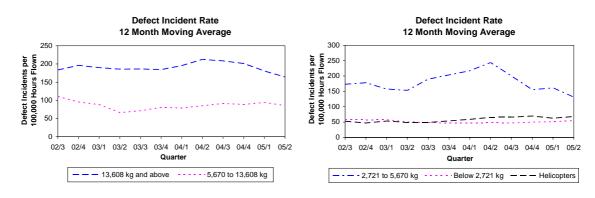
Of the 186 airspace incidents in the 1 April to 30 June 2005 quarter, 19% are Air Traffic Service (ATS) attributable, 66% are pilot attributable, 2% are ATS and pilot attributable, and 12% are unknown attributable.

Since July 2002 the long-term trends of the ATS attributable airspace occurrence rate and pilot attributable rate are upward. However, the slope of the ATS attributable trend line is close to zero.

# **Defect Incidents**

# Trends

The following graphs show the defect incident rates (12 month moving average) for the three-year period 1 July 2002 to 30 June 2005 (excluding Sport).



# **Quarterly Comparison**

### Number of Defect Incidents

Aircraft Group	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
13,608 kg and above	145	111	- 34
5,670 to 13,608 kg	24	14	- 10
2,721 to 5,670 kg	29	18	- 11
Below 2,721 kg	32	37	+ 5
Helicopters	21	28	+ 7
Sport	3	7	+ 4
Unknown	6	6	0
Total	260	221	- 39

### Severity of Defect Incidents

Severity	1 Apr to 30 Jun 2004	1 Apr to 30 Jun 2005	Change
Critical	0	1	+ 1
Major	49	33	- 16
Minor	211	187	- 24

One defect incident in the 13,608 kg and above group was classified as Critical in the 1 April to 30 June 2005 quarter. An INS failure required the aircraft to return to blocks.

No defect incidents in the 13,608 kg and above group were classified as Critical in the 1 April to 30 June 2004 quarter.

No defect incidents in the 5,670 to 13,608 kg group were classified as Critical.

# Rate Monitoring

Defect incident rate monitoring of individual types of medium and large air transport aircraft has been carried out against the CAA standard for the period ended 31 March 2005. Analysis shows that none of the twelve monitored aircraft types have defect rates above the "trigger level" for CAA action.

# **Quarterly Statistics**

Quarter	2002/3	2002/4	2003/1	2003/2	2003/3	2003/4
Number of Air Transport Flights <sup>1</sup>	82,664	104,098	114,820	94,601	88,249	108,890
Number of Hours Flown <sup>1</sup>	177,402	205,768	222,324	196,156	182,696	213,246
Number of Aircraft Movements <sup>2</sup>	232,376	240,492	252,948	245,136	239,288	249,245
Number of Aircraft on the Register <sup>3</sup>	3,394	3,465	3,497	3,530	3,552	3,600
Number of Licences						
Private Pilot Licence	3,467	3,648	3,688	3,762	3,773	3,656
Commercial Pilot Licence	3,206	3,250	3,266	3,317	3,335	3,276
Airline Transport Pilot Licence	1,524	1,564	1,574	1,608	1,612	1,624
Aircraft Maintenance Engineer Licence	1,779	1,806	1,827	1,847	1,865	1,881
Air Traffic Controller Licence	252	270	282	305	304	286
Number of Part 119 Certificated Operators						
Air Operator Certificate	128	139	157	159	159	161
Air Operator Pacific Certificate	0	0	0	0	0	0
Number of Aircraft Accidents <sup>4</sup>						
13,608 kg and above	0	1	0	0	0	1
5,670 to 13,608 kg	0	0	0	0	0	0
2,721 to 5,670 kg	0	2	0	2	1	1
Below 2,721 kg	4	6	9	4	8	15
Helicopters	6	3	9	5	3	4
Sport	3	10	3	7	4	7
Hang Gliders	2	1	5	1	0	2
Parachutes	0	0	3	0	0	0
Unknown	1	1	1	0	0	1
Number of Fatal Accidents <sup>4</sup>	2	3	4	6	2	7
Number of Fatalities <sup>4</sup>	2	7	4	15	2	10
Number of Serious + Minor Injuries <sup>4</sup>	5	8	12	4	4	6
Injury Social Cost \$ million <sup>5</sup>	6.5	12.6	10.9	44.1	6.2	29.4
Number of Incidents <sup>6</sup>	757	845	871	891	755	904
Number of Aviation Related Concerns	75	54	101	56	56	76

<sup>1</sup> New Zealand registered aircraft. Excluding the sport group, hang gliders and parachutes. Estimated for 2005/1 and 2005/2.

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

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

<sup>3</sup> Includes the sport group. Excludes hang gliders and parachutes. All aircraft categories. Includes hang gliders and parachutes.

<sup>4</sup> 

<sup>&</sup>lt;sup>5</sup> Safety target groups and sport group. Cost per fatal and serious injury in June 2004 dollars, cost per aircraft destroyed in 1999 dollars.

Quarter	2004/1	2004/2	2004/3	2004/4	2005/1	2005/2
Number of Air Transport Flights <sup>1</sup>	115,052	95,715	97,568	108,865	114,403	96,057
Number of Hours Flown <sup>1</sup>	228,439	203,332	204,513	208,652	221,171	198,217
Number of Aircraft Movements <sup>2</sup>	261,860	238,223	243,338	239,658	264,617	249,893
Number of Aircraft on the Register <sup>3</sup>	3,675	3,703	3,737	3,795	3,828	3,872
Number of Licences						
Private Pilot Licence	3,710	3,711	3,687	3,649	3,655	3,683
Commercial Pilot Licence	3,349	3,381	3,437	3,470	3,484	3,524
Airline Transport Pilot Licence	1,661	1,695	1,714	1,733	1,746	1,791
Aircraft Maintenance Engineer Licence	1,898	1,927	1,960	1,983	2,003	2,019
Air Traffic Controller Licence	304	314	304	299	302	306
Number of Part 119 Certificated Operators						
Air Operator Certificate	160	159	160	163	164	164
Air Operator Pacific Certificate	2	1	1	1	1	2
Number of Aircraft Accidents <sup>4</sup>						
13,608 kg and above	0	0	0	0	0	0
5,670 to 13,608 kg	0	0	0	0	0	1
2,721 to 5,670 kg	1	0	0	0	0	0
Below 2,721 kg	8	1	9	10	14	4
Helicopters	7	5	2	4	4	3
Sport	6	3	2	10	11	7
Hang Gliders	4	0	1	2	6	0
Parachutes	2	0	0	0	0	0
Unknown	3	0	0	0	0	0
Number of Fatal Accidents <sup>4</sup>	3	2	0	3	4	1
Number of Fatalities <sup>4</sup>	6	2	0	4	7	2
Number of Serious + Minor Injuries <sup>4</sup>	2	2	2	9	6	5
Injury Social Cost \$ million <sup>5</sup>	11.8	6.9	0.0	13.4	20.4	10.3
Number of Incidents <sup>6</sup>	1,018	962	840	886	955	940
Number of Aviation Related Concerns	85	62	75	77	111	58

# Definitions

### Accident

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

- (1) a person is fatally or seriously injured as a result of-
  - (i) being in the aircraft; or
  - (ii) direct contact with any part of the aircraft, including any part that has become detached from the aircraft; or
  - (iii) direct exposure to jet blast-

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

- (2) the aircraft sustains damage or structural failure that-
  - (i) adversely affects the structural strength, performance, or flight characteristics of the aircraft; and
  - (ii) would normally require major repair or replacement of the affected component-

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

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

### Aircraft Group

The following table shows the aircraft classes included in each aircraft group.

Aircraft Group	Aircraft Class
13,608 kg and above	Aeroplane
5,670 to 13,608 kg	Aeroplane
2,721 to 5,670 kg	Aeroplane, Balloon
Below 2,721 kg	Aeroplane, Balloon
Helicopters	Helicopter
Sport	Amateur Built Aeroplane, Amateur Built Glider, Amateur Built Helicopter, Glider, Gyroplane, Microlight Class 1, Microlight Class 2, Power Glider

### Aircraft Incident

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

### Airspace Incident

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

- (1) avoiding collisions between aircraft; or
- (2) avoiding collisions between aircraft and other obstacles when an aircraft is being provided with an Air Traffic Service.

### **Bird Incident**

Means an incident where-

- (1) there is a collision between an aircraft and one or more birds; or
- (2) when one or more birds pass sufficiently close to an aircraft in flight to cause alarm to the pilot.

### Defect Incident

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

### Fatal Injury

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

### Incident

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

### Occurrence

Means an accident or incident.

### **Serious Injury**

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

- (1) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- (2) results in a fracture of any bone, except simple fracture of fingers, toes, or nose; or
- (3) involves lacerations which cause severe haemorrhage, nerve, muscle, or tendon damage; or
- (4) involves injury to an internal organ; or
- (5) involves second or third degree burns, or any burns affecting more than 5% of the body surface; or
- (6) involves verified exposure to infectious substances or injurious radiation.

# Severity

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

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