



AVIATION SAFETY SUMMARY

APRIL - JUNE 2018

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INTRODUCTORY COMMENT

Welcome to the second Aviation Safety Summary Report for 2018. The report covers the period 1 April to 30 June 2018.

The purpose of this report is to summarise the safety performance of New Zealand's aviation system at quarterly intervals. The report is structured to present the events sector by sector. Within each sector the accidents are listed first followed by serious incidents. To put the accidents in context, there are graphs showing the recent accident rate history in the sector.

Note the event narratives are taken directly from the information supplied. They are not necessarily the findings of a detailed investigation and they may differ from the final accident report.

Safe Flying

Jack Stanton

Manager Intelligence, Safety & Risk Analysis

Accidents by Safety Target Group

Quarterly Comparison

Safety Target Group	1 Apr to 30 Jun 2018	1 Apr to 30 Jun 2017	Average Of Same Quarter In Previous 3 Years
Airline Operations - Large Aeroplanes	0	1	0.0
Airline Operations - Medium Aeroplanes	0	0	0.0
Airline Operations - Small Aeroplanes	0	0	0.3
Airline Operations - Helicopters	0	0	0.3
Sport Transport	1	0	1.7
Other Commercial Operations - Aeroplanes	4	0	1.7
Other Commercial Operations - Helicopters	1	1	1.0
Other Commercial Operations - Sport	1	1	1.3
Agricultural Operations - Aeroplanes	1	0	1.0
Agricultural Operations - Helicopters	1	1	0.3
Agricultural Operations - Sport Aircraft	0	0	0.0
Private Operations - Aeroplanes	2	0	1.3
Private Operations - Helicopters	1	0	1.0
Private Operations - Sport	2	13	7.0
Other	0	2	0.0
Total	14	19	17.0



SECTOR COMMENTARY

Airline Sector:

All airline sectors are showing a decreased accident rate. This includes airline helicopter operations, (helicopter passenger operations under part 135). The medium aeroplane sub sector accident rate has gone to zero as three years have passed since there was an accident in this sector (Cessna caravan taxing accident), 16th January 2015, Wellington.

Adventure Aviation:

There was only 1 accident in the Part 115 Sector, a parachute landing accident. Accident rate for Part 115 parachutes and hang gliders is expressed in flights rather than hours due to the short duration of each flight. The accident rate for parachutes and hang gliders has been decreasing throughout 2017 and the upswing in this second quarter of 2018 will be monitored carefully to determine whether it represents a safety trend or seasonal effect.

Other Commercial Sector:

Other Commercial include all commercial operations other than passenger/goods transport under part 119. It includes flight training in aeroplanes, helicopters and sport aircraft as well as fixed wing and helicopter agricultural operations.

There have been eight accidents in the 'Other Commercial Operations' sector in this period. Of which two were in the agricultural subsector. As a whole the Other Commercial sector is performing significantly worse than in previous years. Most of the increase in accident rate is coming from the 'Other Commercial – Helicopter' subsector. This subsector has the worst accident rate of the five subsectors and is continuing to get worse.

The most serious accident this quarter was a commercial helicopter near Hawkes Bay. The Hughes 600N turbine helicopter crashed with 5 persons on board resulting in 1 fatality, 2 serious and 2 minor injuries. This accident is being investigated by TAIC, and the CAA Health & Safety Unit. The CAA is analysing the causes of the failures in this subsector as a precursor to directing regulatory effort to improving the safety performance. The other serious accident in this period involved a hang glider pilot training accident which also resulted in a fatality.

Private Sector

The number of accidents in the Private and Recreational sector (5) is significantly less than in previous years, although it's still a significant portion of the total number of accidents (36%). The accident rates for private type-certified aeroplane and helicopters are stable. Of the five accidents this quarter only two triggered a CAA investigation and none of the 5 appear to need significant regulatory intervention at this time.



AIRLINE TRANSPORT OPERATIONS

ACCIDENTS

There were no air transport accidents in the quarter.

SERIOUS INCIDENTS

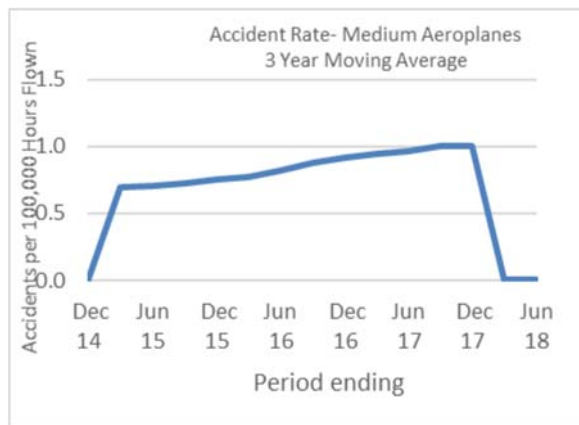
17th April 2018

Perth, Australia

Boeing 737-300

Narrative

An Australian ramp inspection of aircraft found there was insufficient data to enable the crew to check mass and balance calculations.



20th May 2018

En-route

A320

Narrative

Aircraft departed with all doors not armed. Flight departed with doors still disarmed. Flight attendants alerted to the fact the doors were not armed by a passenger.

14th May 2018

Christchurch

Dash 8 Q300

Narrative

Fast bags not weighed. Ground staff did not weigh the fast bags before loading into the aircraft hold, but instead just guessed the weight for the load sheet.



AIRLINE TRANSPORT OPERATIONS

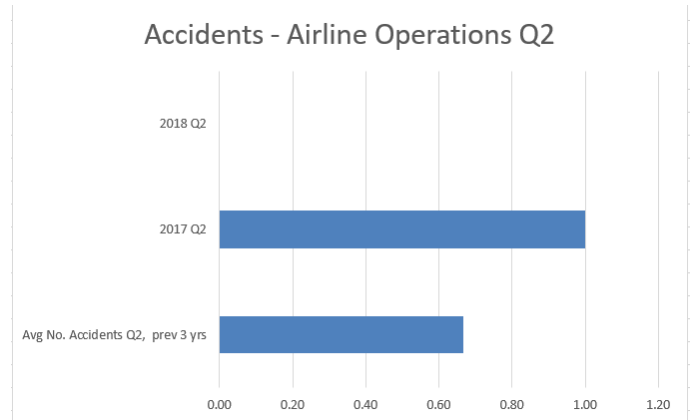
7th May 2018

Wellington

ATR 72-600

Narrative

Go-around due to “Low Gear” warning. A number of ATC distractions taking place, before landing checklist not displayed, checklist not completed, gear not down.



1st April 2018

Christchurch

Dash 8 Q300

Narrative

Flaps retracted after take-off instead of the landing gear. Gear still down at acceleration altitude. Shortly thereafter climb power was set, and autopilot engaged with 150 KIAS set. The Captain called for the climb checklist, noticing at the same time the gear was still down and called for it to be retracted.

21st June 2018

Woodbourne

Dash 8 Q300

Narrative

Ground Procedural Non Conformance: Cleared to start and as an afterthought the headset ground staff member informed the captain that a ground crew member was wiping down a prop. The red anti-collision light had been on for 20 seconds, the captain had his finger on the start button.

9th April 2018

In flight

Dash 8 Q300

Narrative

Master Caution illuminated with Pitot Heat 2. Yaw damper and DADC fail illuminated on ID802 with autopilot disconnect and loss of Nav until reset. Flight path was assured the QRH actioned with no rectification. ASI No2 was reading zero. Made an early descent to reduce ice accretion. PAN call made Config warning due ASI reading zero with power lever at flight idle. Powered descent was subsequently used. CB and was found to be in the popped position. ASI No2 did come back alive prior to the CB reset.



AIRLINE TRANSPORT OPERATIONS



4th April 2018



Auckland



Airbus A320

Narrative

Pilot requested local standby at NZAA due to a hydraulics issue. Landed safely. On descent through 16,000 feet the Green hydraulic system became unserviceable. The crew carried out the ECAM procedure. The crew advised ATC, requested a local standby.



22nd June 2018



Napier



ATR 72

Narrative

After take-off the crew elected to make a precautionary shut down due to abnormal engine indications. Engine noted to surge consistent with compressor stall. Returned to Napier for a safe single engine landing.



11th May 2018



Kerikeri



Dash 8 Q300

Narrative

Parked on the gate engines still running , noted a local helicopter flew from behind the Q300 and crossed in front to the fuel pumps. Pilot then got out, leaving the helicopter running unattended.



ADVENTURE AVIATION OPERATIONS

ACCIDENTS

There was one adventure aviation accident in the quarter.



23rd April 2018



Wanaka



VX79

Narrative

During the final phase of landing, the pilot applied brakes when one toggle slipped from his hand. Due to uneven brake input he fell to his right side and landed heavily on his ankle.

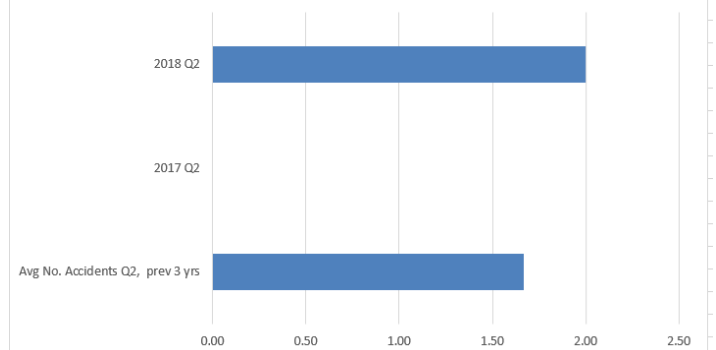
SERIOUS INCIDENTS

There were no serious adventure aviation incidents in the quarter.

Part 115 Operations - 12-Monthly Accidents/Injuries per 100,000 Flights



Accidents - Adventure Aviation Q2








AGRICULTURAL OPERATIONS

ACCIDENTS

There was one agricultural aviation accident in the quarter.

 1st May 2018


 Nelson


 AS 350 BA


Narrative

On an operation spraying a forestry block, during a turn coming back to start another spray line the helicopter struck a tree with the main rotor blade. The strike damaged one of the blades significantly and put the aircraft out of balance.

SERIOUS INCIDENTS

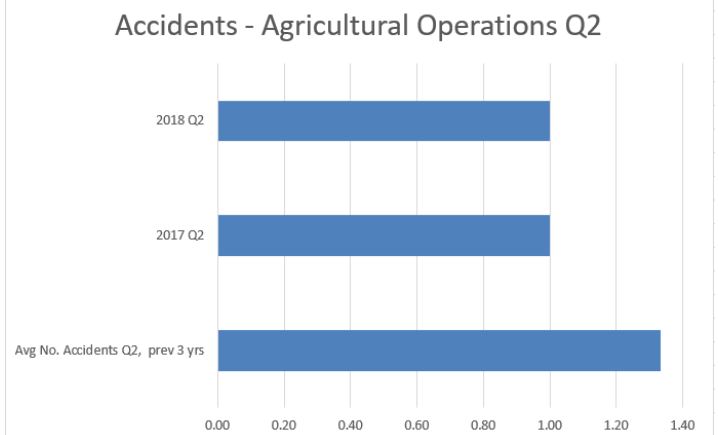
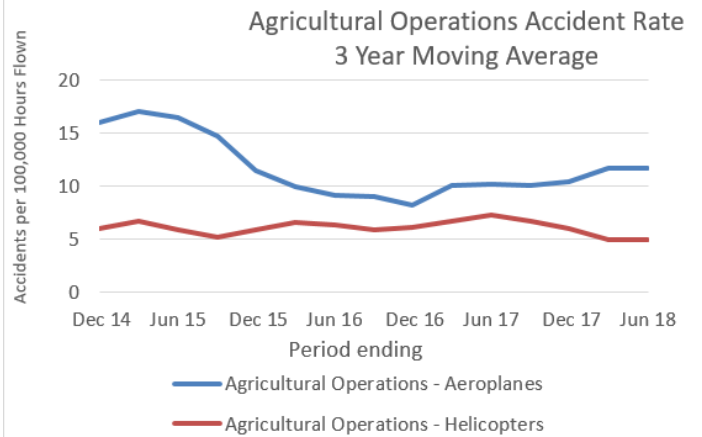
 2nd May 2018

 Lake Lyndon

 Hughes 500D

Narrative

After spraying ops, helicopter at ground idle, as crew removed the spray gear the loader driver inadvertently lifted the spray wand whereby the tip came in contact with the rotating main rotor blades. Helicopter immediately shutdown.







OTHER COMMERCIAL OPERATIONS

ACCIDENTS

There were six accidents in the other commercial sector for the quarter. Two of these accidents resulted in a fatality.


 13th June 2018


 Ngamatea


 MD 600D

Narrative

Helicopter appeared to suffer a partial power loss. Craft landed heavily and was destroyed resulting in several injuries, including one fatality.


 14th June 2018

 Kariotahi Beach

 Hang glider

Narrative

Student pilot under instruction via tow operations. Veered off course and the tow line backup release did not work when actuated crashing onto the beach. Pilot was fatally

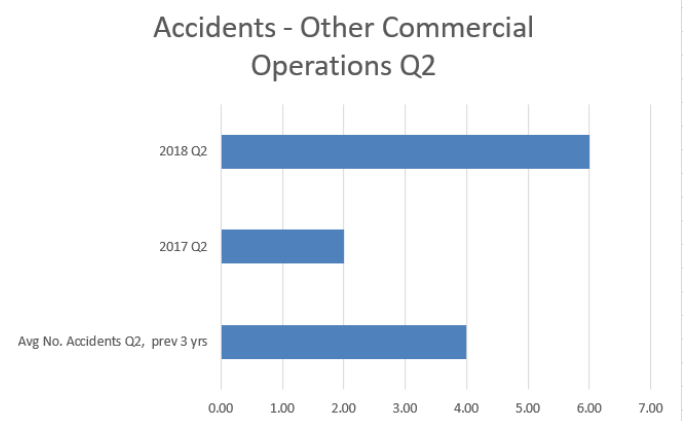
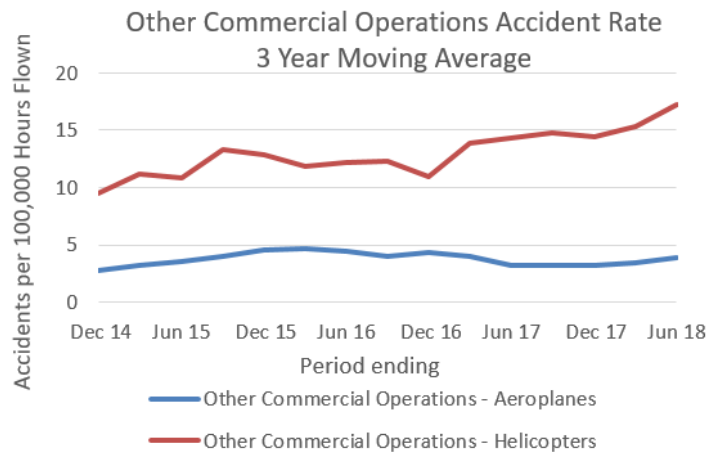
 3rd April 2018


 West Melton


 R2000

Narrative

Minor forced landing accident. Suffered an engine failure after take off resulting in a forced landing into a nearby paddock. No injury, minor damage.



 9th June 2018

 Onewhero


 GA200C


Narrative

After touchdown directional control was lost, resulting in a ground loop. Rear damage occurred when coming to rest down slope on edge of airstrip.



OTHER COMMERCIAL OPERATIONS

 14th April 2018


 Pukaki


 Cessna 152

Narrative

Landing Accident. After touch down student lost directional control, departed the runway and ground looped on the grass. Substantial damage to the aircraft, but no injuries.

 29th May 2018


 Rotorua lake front

 DHC-3 Floatplane


Narrative

The floatplane was taxiing on the lake when it failed to give way and collided with a tourist operators boat. The boat Captain was unable to alter course safely and was attempting to reverse clear of the float plane at the time the two vessels touched. No injuries.

SERIOUS INCIDENTS


 15th April 2018


 West Melton

 P68C Victor

Narrative

Right Engine power loss passing 65kts, take-off aborted. Pre-flight inspection revealed water contamination while taking fuel sample. Fuel drained until no water was present in either fuel tank. Excessive amounts of water found in fuel after heavy rain.


 9th June 2018


 Auckland


 Cessna 162

Narrative

Shortly after takeoff, left door opened. PAN called and circuted to land without further incident. Failure of internal latch mechanism.

 15th April 2018

 Waitamata Harbour

 BK117 B-2

Narrative


Loss of situational awareness during boat winch training. During winch in the pilot looked briefly across cockpit and observed a yacht mast approximately 30ft outside the main rotor disc at mast head height. The pilot moved up and right clear of the Coastguard vessel and away from the yacht.




PRIVATE OPERATIONS

ACCIDENTS

There were five accidents in private operations in the quarter.


 7th April 2018

 Tairei


 Cessna T206

Narrative

Major take-off accident. In the climb after take-off, aircraft slow, stall warning came on, climb continued, the aircraft began to yaw left which could not be controlled with full right rudder, yaw continued until the aircraft struck the ground, possible


 14th April 2018

 Gore


 P92 Eagle

Narrative

On approach encountered severe windshear. Corrected using rudder to lift wing, however clipped ground at end of recovery causing left gear to fold under. Aircraft skidded to a stop.

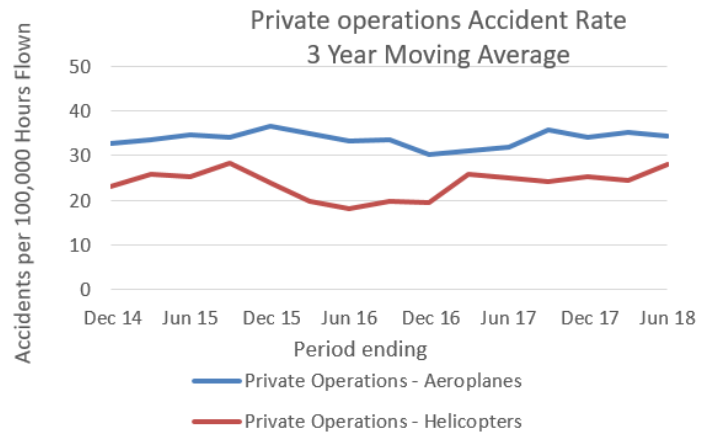
 21st June 2018

 Catlins

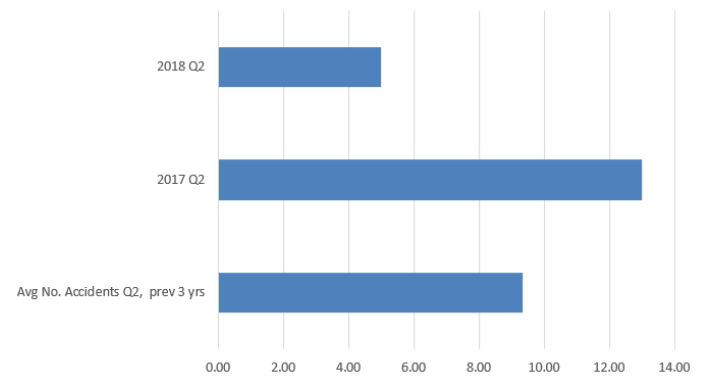
 Schweizer 300C

Narrative

During T/O and departure, aircraft had a loss of power and returned to land on ridge. However due to not enough power, aircraft impacted a steep bank and rolled down the hill.



Accidents - Private Operations Q2





PRIVATE OPERATIONS



11th May 2018



Whakatane



AutoGyro MTOsport

Narrative

Minor accident, minor injuries.



25th May 2018



Ashburton



Alpi Pioneer 200

Narrative

Minor landing accident. Hard landing followed by a bounce onto the nose wheel which collapsed. Damage to the prop.

SERIOUS INCIDENTS



7th April 2018



Port Waikato



Cessna 172

Narrative

VFR aircraft above cloud called AATMR above cloud in the Port Waikato area with further bad weather ahead. Other aircraft reports indicated that the weather was clear in the North Shore area. Pilot tracked north east and climbed to 10,000 ft to get above the weather to the south of NZAA, then descended to the north east of NZNE airfield when they were in the clear to land at NZNE.




RPAS REPORTS


123 occurrence reports involving RPAS were received in the second quarter of 2018, 30 more than in the second quarter of 2017.

The largest share of reports, 34%, have involved complaints from members of the public about drones operating over and around them and/or their property. 17 of the reports (13%) have been from Airways or aircraft operators reporting drones operating in proximity with airborne aircraft.

Here we present the 3 most serious incidents.

AIR PROXIMITY INCIDENT REPORTS


 21st April 2018


 Motuihe Island


 BNA2A-26

Narrative

Pilot reported a near miss with an RPAS overhead Motuihe Island at 2000ft. It was observed to pass roughly 50ft above the aircraft as the pilot applied avoiding action.

 14th May 2018

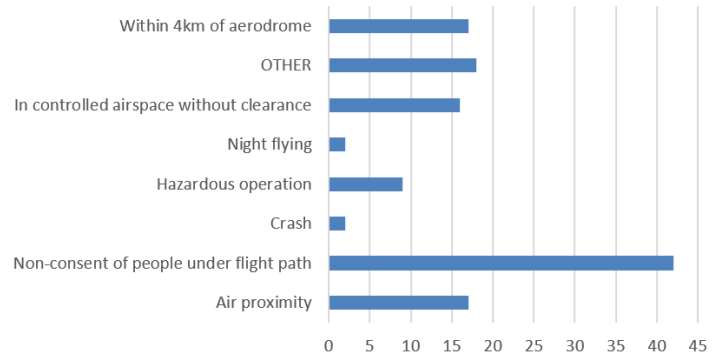
 Huka Falls

 Bell 212

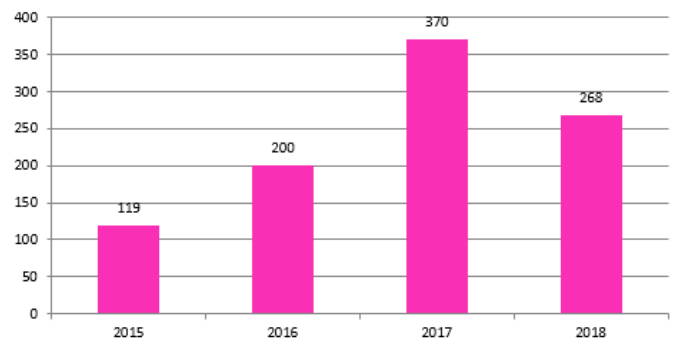
Narrative


On Take off and climb out from Huka Falls Road had a near miss with a drone that was being flown at a lookout of SH1. The drone was close enough that the pilot could identify it was a DJI Marvic and flying above 500ft AGL. By the time the pilot saw the drone he was climbing out past it and I estimate that it passed 2-4 meters past the tip of the rotor blades.


2018 Q2 RPAS Occurrences



Total RPAS Reports by Year



 24th April 2018

 Wanganui

 Cessna 172M

Narrative

Conducting a tribute fly over of the ANZAC Dawn parade. Noted an RPAS in front of the aircraft, avoiding action carried out.



QUARTERLY STATISTICS

Quarter	2015/3	2015/4	2016/1	2016/2	2016/3	2016/4
Social Cost \$ million¹	1.90	33.35	8.35	9.52	3.91	29.86
Number of Fatal Accidents²	0	1	1	2	0	3
Number of Fatal Injuries²	0	7	1	2	0	5
Number of Serious + Minor Injuries²	12	15	18	5	7	14
Number of Aircraft Accidents²						
Large Aeroplanes	0	0	1	0	1	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	4	7	8	2	2	6
Agricultural Aeroplanes	0	0	0	1	1	2
Helicopters	5	4	3	4	2	3
Sport Aircraft	7	9	7	6	5	4
Unknown Aircraft	0	0	0	0	1	0
Hang Gliders	7	8	11	2	2	4
Parachutes	1	4	3	0	0	7
Number of Incidents³	1,233	1,310	1,428	1,612	1,635	1,675
Number of Aviation Related Concerns⁴	171	136	260	202	229	235
Number of Hours Flown⁵	197,169	218,320	243,864	203,167	211,276	237,542
Number of Air Transport Flights⁵	85,321	101,483	114,691	86,611	87,395	106,986
Number of Aircraft Movements⁶	222,320	227,208	237,499	213,927	221,092	231,713
Number of Aircraft on the Register⁷	4,650	4,679	4,700	4,657	4,687	4,723
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	7	8	8	8	8	7
Air Operator – Medium Aeroplanes	13	15	15	15	15	15
Air Operator – Helicopters and Small Aeroplanes	163	164	161	162	163	164
Number of Part 137 Agricultural Aircraft Operators	104	104	102	103	103	102
Number of Part 115 Adventure Aviation Operators	30	30	28	28	28	29
Number of Part 102 Unmanned Aircraft Operators	4	16	31	45	54	76
Number of Part 141 Training Organisations	57	55	54	53	51	52
Number of Part 149 Recreation Organisations	8	8	8	8	8	8
Number of Licences (Type of Medical Certificate)⁸						
Recreational Pilot Licence (RPL Medical)	385	395	401	439	456	453
Private Pilot Licence (Class 1 & 2)	2,585	2,530	2,492	2,462	2,418	2,385
Commercial Pilot Licence (Class 2 only)	2,376	2,316	2,248	2,281	2,240	2,192
Commercial Pilot Licence (Class 1)	2,048	2,076	2,073	2,051	2,045	2,030
Airline Transport Pilot Licence (Class 2 only)	1,046	1,034	1,019	1,002	1,016	1,006
Airline Transport Pilot Licence (Class 1)	1,173	1,210	1,221	1,268	1,249	1,248
Air Traffic Controller Licence (Class 3)	387	383	380	381	373	366
Aircraft Maintenance Engineer Licence (N/A)	2,766	2,779	2,789	2,800	2,817	2,830



QUARTERLY STATISTICS

Quarter	2017/1	2017/2	2017/3	2017/4	2018/1	2018/2
Social Cost \$ million¹	15.49	30.14	1.02	20.46	18.23	9.31
Number of Fatal Accidents²	2	5	0	3	2	2
Number of Fatal Injuries²	2	6	0	4	3	2
Number of Serious + Minor Injuries²	20	12	7	15	23	7
Number of Aircraft Accidents²						
Large Aeroplanes	0	1	0	0	0	0
Medium Aeroplanes	0	0	0	0	0	1
Small Aeroplanes	6	0	4	4	7	4
Agricultural Aeroplanes	4	0	0	2	1	1
Helicopters	10	2	1	2	4	3
Sport Aircraft	8	8	3	11	7	3
Unknown Aircraft	0	2	0	1	0	0
Hang Gliders	4	4	3	6	7	1
Parachutes	7	2	1	4	2	1
Number of Incidents³	1,879	1,815	1,730	1,755	2,096	2,042
Number of Aviation Related Concerns⁴	253	278	231	322	371	323
Number of Hours Flown⁵	243,721	216,424	204,750	254,747	243,721	216,424
Number of Air Transport Flights⁵	99,330	82,766	89,074	114,244	83,245	83,245
Number of Aircraft Movements⁶	233,701	222,907	221,296	249,554	244,396	244,396
Number of Aircraft on the Register⁷	4,734	4,704	4,751	4,779	4,773	4,770
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	6	6	6	6	6	6
Air Operator – Medium Aeroplanes	13	13	13	13	13	13
Air Operator – Helicopters and Small Aeroplanes	166	166	165	167	167	167
Number of Part 137 Agricultural Aircraft Operators	102	102	103	105	105	105
Number of Part 115 Adventure Aviation Operators	31	29	29	29	29	29
Number of Part 102 Unmanned Aircraft Operators	86	89	94	105	105	105
Number of Part 141 Training Organisations	53	52	52	50	50	50
Number of Part 149 Recreation Organisations	8	8	8	8	8	8
Number of Licences (Type of Medical Certificate)⁸						
Recreational Pilot Licence (RPL Medical)	446	442	440	456	456	456
Private Pilot Licence (Class 1 & 2)	2,402	2,358	2,348	2,367	2,367	2,367
Commercial Pilot Licence (Class 2 only)	2,094	2,108	1,992	1,927	1,927	1,927
Commercial Pilot Licence (Class 1)	2,085	2,032	2,096	2,100	2,100	2,100
Airline Transport Pilot Licence (Class 2 only)	990	996	1,031	1,064	1,064	1,064
Airline Transport Pilot Licence (Class 1)	1,252	1,261	1,232	1,201	1,201	1,201
Air Traffic Controller Licence (Class 3)	360	364	371	364	364	364
Aircraft Maintenance Engineer Licence (N/A)	2,842	2,852	2,867	2,882	2,882	2,882