CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Aviation Safety Summary

1 July to 30 September 2017

Winter 2017

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Introduction to the Quarterly Safety Summary Report

Welcome to the quarterly safety summary report for the winter of 2017 (Jul/Aug/Sep).

The purpose of this document is to summarise the accidents and serious incidents that occurred during the winter quarter of 2017. There were no fatalities in this period and only two serious injuries, which occurred in private hang glider and paraglider flights.

Reported incidents often provide a better view of the safety risk than accidents and this is true again this quarter. The three most critical incidents were all near miss events between small aeroplanes and helicopters. All three occurred in uncontrolled airspace, very close to the boundary of controlled airspace. These events highlight the need to remain vigilant when flying under VFR. Controlled airspace is designated around significant aerodromes, and significant traffic can be expected in the vicinity of controlled airspace, not just within the boundaries. There were also near misses between an agricultural helicopter and small agricultural aeroplane in the isolated Awatere valley, another near Kaikoura (where a NOTAM is in force) between a medium aeroplane and an unknown aircraft, and between an air transport helicopter and an RPAS at 1,200 ft over Auckland harbour

Elsewhere in the report the effects of winter are evident in the accidents and incidents attributable to icing and poor weather. In the South Island, there were take-off and landing accidents in which icing was a factor. In the North Island wet field conditions caused problems on take-off for a small aeroplane, and two large/medium aeroplanes lost directional control on the ground due to gale force winds in Wellington.

The next six monthly Aviation Safety Update will be published before the 31st of December 2017.

Safe flying,

J.D. Stanton
Manager Intelligence, Safety & Risk Analysis

jack.stanton@caa.govt.nz

Executive Summary - Aviation Safety to 30 September 2017

- There were 12 accidents in the winter of 2017.
- There were no fatal accidents in this quarter. (There were also no fatal accidents in the winter quarter of 2016.)
- There were two serious injuries in accidents:
  - the pilot of a private hang glider flight;
  - the pilot of a private powered paraglider flight;

  see page 6.
- There were five minor injuries in accidents:
  - the passenger of a tandem parachute flight;
  - one person on a helicopter dual training flight;
  - one passenger on a private small aeroplane flight;
  - a fisherman received minor injuries from a private class 2 microlight carrying out a forced landing on a beach;
  - the pilot of a private hang glider flight;

  see page 6.
- And without injury there were:
  - one commercial small aeroplane solo training accident while landing;
  - two private small aeroplanes, one while taking-off and one while landing;
  - two private class 2 microlights, one while rolling out and one during a glide approach;

  for details see page 7.

Section 1 - Accidents

Accidents by Safety Target Group

Quarterly Comparison

Safety Target Group	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	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	0.7
Airline Operations - Helicopters	0	1	0.7
Sport Transport	**1**	2	1.3
Other Commercial Operations - Aeroplanes	**1**	0	1.7
Other Commercial Operations - Helicopters	**1**	0	1.0
Other Commercial Operations - Sport	0	0	2.0
Agricultural Operations - Aeroplanes	0	1	0.3
Agricultural Operations - Helicopters	0	0	0.7
Agricultural Operations - Sport Aircraft	0	0	0.0
Private Operations - Aeroplanes	**3**	1	1.0
Private Operations - Helicopters	0	1	1.0
Private Operations - Sport	**6**	7	7.3
Other	0	0	0.0
Total	**12**	14	17.7

Comment

Overall accident numbers in the 2017 winter quarter have decreased by 2 (14%) in comparison to the 2016 winter quarter. The biggest increase is within the Private Operations - Aeroplanes group.

Summary of Accidents

This section describes all accidents that occurred during the period 1 July to 30 September 2017. These accidents are classified according to the highest level of injury sustained and the safety target group. Not all of these accidents were investigated by the CAA, and some of the CAA investigations have not been completed, so the text may be condensed from the original accident notification.

Fatal Accidents

There were no fatal accidents during this reporting period.

Injury Accidents

Sport Transport

- Parachute, Wanaka: When the tandem customer was given the signal to open his arms and he did so, his left arm dislocated (minor injury). The customer has had two previous dislocations, which means he has a predisposition to future dislocations. (17/6290)

Other Commercial Operations - Helicopters

- Guimbal Cabri G2, Waikawa Beach: While in hover on a dual training flight, the instructor reportedly heard a bang and the helicopter started spinning and descending towards the ground. The helicopter contacted the ground and came to rest on its side. One person received minor injuries. CAA safety investigation in progress. (17/5304)

Private Operations - Aeroplanes

- Cessna 177B, Queenstown: Engine failure after getting airborne, landed hard back at airfield. One passenger received minor injuries (there were four people on board). CAA safety investigation in progress. (17/5001)

Private Operations - Sport

- Class 2 microlight, Matata Beach: Aircraft landing on a beach (with two people on board) struck a fisherman, causing minor injuries. Engine surges and loss of power prior to forced landing. CAA safety investigation completed. Cause determined to be wiring fault, which interrupted power supply to the electric fuel pump. (17/3958)
- Hang Glider, South of Auckland: Described as a minor crash landing of parasail. Pilot received minor injuries. Relaunched and flew back to the original launch site. (17/4463)
- Hang Glider, North of Auckland: Hang gliding accident, serious injuries. CAA safety investigation completed. (17/4731)
- Powered paraglider, Tuakau: During take-off, pilot appeared to lose control of the aircraft and was observed drifting towards a nearby building and an overhead wire. The rigging contacted the overhead wire between the pilot's harness and the canopy. As the pilot descended, the pilot's leg contacted a bollard, struck the ground and was dragged for approximately 10 metres before coming to rest. The pilot received serious injuries. CAA safety investigation in progress. (17/6085)

Non-Injury Accidents

Other Commercial Operations - Aeroplanes

- Piper PA-28-140, Wanaka: Student pilot on a solo training flight landed long and bounced on uneven grass runway. Aircraft then drifted right and main wheel clipped marker board, detaching from undercarriage. Aircraft ground looped on landing causing substantial damage to right wing and undercarriage. (17/6244)

Private Operations - Aeroplanes

- Cessna 180B, Pyke River: During take-off on a riverbed (with 3 people on board), one of the wheels got stuck in the sand and aircraft came in contact with a log. Aircraft sustained substantial damage to the undercarriage leg, propeller and wing tip. The inherent risks of remote area landings and take-offs are considered to be sufficiently addressed in existing CAA education approaches, no further CAA action. (17/5441)
- Cessna T182T, Lowther: While landing on frozen ground (with 3 people on board), aircraft skidded into the fence. Aircraft sustained substantial damage to the left wing tip, left and front wheels, left horizontal stabiliser, fuselage and cargo door. (17/4108)

Private Operations - Sport

- Class 2 microlight, Taupo: During a glide approach, aircraft sank suddenly, clipping the top of a fence. Aircraft sustained substantial damage to the propeller and undercarriage. (17/3969)
- Class 2 microlight, Whangarei Airport: Recently qualified pilot on a solo flight, started roll out with rotor brake still on. Aircraft pulled left and rolled onto the right side. Speed was approximately 10 knots. CAA safety investigation completed. The Safety Investigation Unit Duty Investigator spoke at length with the instructor and pilot regarding the occurrence which was identified by the pilot as a lapse in his pre-take-off checks. Minor remedial education was considered sufficient to address this occurrence. (17/5909)

Section 2 - Incidents

This section describes selected incidents from the period which had a high potential risk. In the period 1 July to 30 September 2017 there were a total of 1,708 incidents reported to the CAA, the 96 incidents presented here have been selected on the basis of potential risk.

For brevity the text may be condensed from the original occurrence notification. In some cases the aircraft model descriptions have been reduced to a sector (e.g. large jet). This is done for two reasons:

- to maintain the privacy of the reporter, and
- to focus on the nature of the incident.

In many incidents such as airspace occurrences, the specific aircraft type is not relevant to the problem. By comparison for defect incidents the specific model is highly relevant, but the location is not. The occurrences are grouped by sector to enable consideration of specific risks. While this is intended to assist operators to identify their sector relevant risks, there will be some events occurring in a given sector that could equally occur in other sectors.

Critical Incidents

Other Commercial Operations - Aeroplanes

Airspace Incident

- Auckland, single piston engine small aeroplane: Cessna approached at the same level from 3 o'clock and passed in front within 200 m, took avoiding action - limited by the banner towing. No radio calls heard and banner aircraft had been making regular position reports. The other aircraft did not appear to have the banner aircraft in sight and made a descending turn over Eden Park before turning back the Harbour Bridge. No subsequent calls were heard. CAA safety investigation in progress. (17/5395)

Private Operations - Aeroplanes

Aerodrome Incident

- Omaka, single turboprop engine small aeroplane: Aircraft crossed (at approximately 200 to 300 m) in front of another aircraft making a touch and go on runway 01, while on the crossing runway 25. No radio calls had been received from aircraft. Aircraft making touch and go had to abort the take-off. (17/6139)

Private Operations - Helicopters

Airspace Incident

- Te Rapa, single turbine engine helicopter: TCAS target 100 ft lower while in cruise. Aural warning, and observed other aircraft climbing straight in front. Made evasive turn and descended beneath them. Had made radio calls lifting off and climbing, but heard nothing from other aircraft before evading. (17/5808)

Selected Major Incidents

Airline Operations - Large Aeroplanes

Aerodrome Incident

- Wellington, twin turboprop engine: Aircraft vacated runway 16 via taxiway A7. After crossing the yellow holding point marks, a gust of 47 knots (reported by tower) blew the entire aircraft sideways. The aircraft slid through approximately 60 degrees coming to a stop facing south along taxiway Alpha. The airline issued an Ops notice prohibiting use of the intersection in poor grip conditions. CAA safety investigation completed. (17/4206)
- Auckland, twin turboprop engine: Gate 35, just prior to taxi (requesting clearance) with engines running beacon on, a cart with 3 baggage trolleys cut through the forward clearance area to rush into the baggage hanger. (17/4429)

Aircraft Incident

- Twin turbine engine, Auckland: While unloading rear hold, the loaders found that the floor lock between position 31 and 32 was not in locked position. ULDs were loaded in 31, 41 and 42 and a no fit in 32 so ULD in 31 could move freely between the positions 31 and 32. Pilots reported hearing several bangs during the flight. CAA safety investigation completed. (17/4038)
- Christchurch: Freight only flight. Weighed ULD removed from quarantine area. ULD weights presented, load manifest submitted to the Load Controller at the staging area. Without the Load Controllers knowledge a ULD was removed back into the warehouse, had 7 kg added and returned, the Load Master was not informed. The Load Controller had noticed a ULD missing and noted it had been returned a short time later. (17/4176)
- Twin turboprop engine, Auckland: Selection error on approach. Gear down call made, PM selected flap 30. (17/4396)
- Twin turbine engine, Melbourne: After departure cabin pressure door warning light illuminated. Trouble shooting revealed rear doors not armed for take-off. Doors armed and warning ceased. CAA safety investigation completed. (17/4400)
- Twin turboprop engine, en-route: Suspected fuel leak noted in flight. PAN declared, requested priority landing. CAA safety investigation completed. (17/4470)
- Twin turboprop engine, Nelson: Flaps retracted instead of gear just after rotate. (17/4541)
- Twin turboprop engine, Nelson: Trip fuel on the load sheet incorrectly entered as 150 instead of 510. This was sent on the load sheet and acknowledged by the crew. The error was not picked up until the flight had landed. CAA safety investigation completed. (17/4884)
- Twin turbine engine, Perth: Freight only flight. Injury to person. Airstairs were removed from FWD Aircraft entry area without notifying engineer who subsequently stepped out of the aircraft and partially fell. (17/4899)
- Twin turboprop engine, Christchurch: Airframe De-Ice fault soon after departure. Reset but fault reoccurred and with the icing conditions at the time returned to Christchurch. Changed a/c but it got De-Ice fault 90 NM from Wellington. By time had run a reset and reoccurring fault, it was easier to continue to Wellington with radar descent and cleared the icing conditions after approximately 7 minutes. CAA safety investigation completed. (17/5037)
- Twin turboprop engine, Wellington: Inadvertently retracted flap after take-off instead of retracting gear. CAA safety investigation completed. (17/5063)

- Twin turboprop engine, Auckland: A ground staff member walked past a spinning propeller as he was going to connect the ground power unit. CAA safety investigation in progress. (17/5572)
- Twin turboprop engine, Hamilton: Low Speed on visual approach. Due distraction crew allowed speed to decay below the flap 0 Vmin Ops speed (approximately 133 kts indicated). Power was immediately increased and flap selected to 15 degrees. CAA safety investigation in progress. (17/6334)
- Twin turboprop engine, en-route: Incorrect programming of VNAV. The FMS VNAV was incorrectly programmed with the approach commencement alt of 3,205 ft at waypoint ELDAK instead of UNTAT, this resulted in the aircraft being at 3,205 ft 26 NM early (8,000 ft low on descent). CAA safety investigation in progress. (17/6342)

Airspace Incident

- Auckland: Vectored Below Radar Terrain Contour. On final approach, the controller was not comfortable with the positioning of the aircraft in relation to other traffic. Was taken off the approach and repositioned into the sequence. During this process the aircraft was below radar terrain while on a radar vector. CAA safety investigation completed. (17/4272)
- En-Route, twin turbine engine: Loss of separation due pilot descent error. (17/4293)
- Mesix: ATC Clearance Confusion. Aircraft holding MESIX at FL160 with another aircraft above in the hold at FL170. Aircraft crew requested a clearance to return to Wellington at FL170. The Controller issued an onwards clearance to the aircraft at FL170. Some seconds later the aircraft crew queried the climb clearance. CAA safety investigation in progress. (17/4363)
- Queenstown, twin turbine engine: The large aeroplane was cleared for take-off with a medium aeroplane landing on crossing runway. Take-off clearance cancelled a moment later. The crew of the large aeroplane did not commence take-off as they were aware of the medium aeroplane landing on the crossing runway. (17/4401)
- Wellington: ATC loss of separation. CAA safety investigation completed. (17/4619)
- Palmerston North, twin turboprop engine: Aircraft was instructed to make a right visual departure due to G357 being active to the north of Palmerston North, but instead made a left turn. CAA safety investigation completed. (17/4745)
- Nelson, twin turboprop engine: Aircraft landed without receiving a landing clearance. A light aircraft was blocking runway at taxiway A1. (17/5458)
- Queenstown, twin turbine engine: Aircraft was on the outbound leg of the entry procedure into the UBDAM hold descending to cleared FL150 when issued with an instruction to cancel the hold and descend to 10,000 ft via the UBDUM1A arrival. Aircraft was then observed descending through A135 prior to UBDAM, and crew was informed that they had descended below the UBDAM requirement to be FL150 or above. Crew informed they were still clear of terrain, and that they would re-enter controlled airspace at UBDAM. Aircraft levelled off at A130 and continued descent once crossed UBDAM. (17/5464)

- Palmerston North: Separation between the two twin turboprop engine large aeroplanes reduced to 4.4 NM as one was given direct routing and climb to FL190, while the other was cleared to descend from FL200. CAA safety investigation in progress. (17/5525)
- Napier: Two aircraft were tracking from Napier to Auckland. The preceding aircraft was climbing to FL170 and the other aircraft FL190. While both aircraft were in the transition layer with the preceding aircraft passing 14,900 ft and the other aircraft 13,200 ft, separation was reduced to 4.6 NM. CAA safety investigation in progress. (17/5562)
- Nelson: Nelson Tower coordinated with Taranaki Planner for the aircraft to be 10,000 ft by KUNVO but this was not passed to the aircraft, leading to a loss of separation assurance between aircraft and another aircraft coming from the South. CAA safety investigation completed. (17/5605)
- Sydney, twin turbine engine: Aircraft was cleared to taxi via Lima and to hold short of 34L. While taxiing, another aircraft taxied in front, from taxiway C onto L. Crew had not been advised of this aircraft. Braking applied to avoid a collision. (17/6191)
- Nelson: Crew requested deviation due weather. ATC mixed up the flight number and cleared another aircraft (similar call sign but not on frequency) for a deviation. Crew read back the clearance and took up a new heading. ATC detected this immediately and instructed aircraft to stop descent. Conflicting traffic was instructed to stop climb. (17/6197)

Bird Incident

- Twin turbine engine, Wellington: Aircraft hit multiple birds on landing, many were missed. Multiple gulls ingested into both engines. (17/4090)

Defect Incident

- Twin turboprop engine, Rotorua: Loss of control on landing, passing 70 knots, as brakes were applied. The left outboard wheel brake locked and the aircraft veered severely to the left nearly vacating the runway. Pilot flying brought the aircraft to an immediate and complete stop. On checking with the tower, crew were advised that some smoke had been observed but had dissipated. Aircraft taxied to the terminal and passengers disembarked. Aircraft was grounded after discussion with engineering. CAA safety investigation in progress. (17/4077)
- Twin turboprop engine, Palmerston North: While passing over Palmerston North, aircraft suffered a depressurisation at 21,000 ft. Crew declared a PAN and commenced emergency descent at 3,000 ft/minute. Aircraft descended to 5,000 ft and crew began the QRH procedure for cabin pressure, even though by this time the warning light had been extinguished. Aircraft diverted to Palmerston North. CAA safety investigation completed. (17/4173)
- Twin turboprop engine, Tauranga: On becoming airborne, roll control was very stiff, and a graunching noise was heard from under flight deck floor. Decision made to land back at Tauranga. On landing fast roll control commanded and turning right spoilers/ailerons slipped with graunching noise. Roll disconnect pulled, left control free, right controls stiff and sticky and making graunching noise. CAA safety investigation completed. (17/5015)
- Twin turboprop engine, Palmerston North: Hydraulic failure on departure with an associated gear unsafe indication. QRH applied, alternate gear extension down and locked, aircraft landed safely back at Palmerston North. CAA safety investigation completed. (17/5732)

- Twin turboprop engine, en-route: ID802 warning Mistrim Nose Down during Altitude capture at FL240. Autopilot disengaged and mistrim confirmed. Elevator Trim jammed (Possibly Frozen). Trim wheel jam eventually overcome with a very sloppy elevator trim wheel. Diverted to Nelson under MCCs direction. CAA safety investigation completed. (17/6002)

Facility Malfunction Incident

- Rarotonga, twin turbine engine: Poor Communication With TWR and Unserviceable ILS/DME In Rarotonga. (17/4404)

Airline Operations - Medium Aeroplanes

Airspace Incident

- Kaikoura, Cessna 208B: While descending to 1,600 ft crew observed a TCAS target 100 ft below and remaining at the same altitude. The Cessna commenced a climbing right turn to remain clear of the traffic. No radio calls were heard on the radio and crew could not identify the other aircraft. (17/5875)

Airline Operations - Small Aeroplanes

Aircraft Incident

- Britten-Norman BN2A-26, Great Barrier: Engine shutdown after landing. Managed to restart engine at end of runway. CAA safety investigation completed. (17/5355)

Airline Operations - Helicopters

Aerodrome Incident

- Queenstown, Eurocopter AS 350 B3: Helicopter was instructed to depart off runway 23 and track via the Arms to Collins Bay due to traffic about to depart off runway 14, but was instead observed tracking in front of the Tower to depart off runway 14. Traffic on runway 14 was still to receive take-off clearance. CAA safety investigation in progress. (17/5833)

Airspace Incident

- Mt Cook, Aerospatiale AS 355 F1: Misunderstanding between two pilots led to a potential loss of separation. Following helicopter slowed down to restore separation. Both pilots in visual contact. CAA safety investigation completed. (17/5153)
- Wanaka, Robinson R44 II: Near miss with a Paraglider over Wanaka Township. No radio contact able to be established. CAA safety investigation in progress. (17/6014)

Other Commercial Operations - Aeroplanes

Aerodrome Incident

- Hamilton, Cessna 172S: Solo training flight. Aircraft was instructed to taxi and hold at D3 but continued past the holding point, crossing runway 18R as another aircraft was crossing the landing threshold. ATC assessed that it was safer to allow the landing aircraft to continue with the landing instead of a go around from flare. CAA safety investigation completed. (17/5492)
- Hamilton, single piston engine small aeroplane: Solo training flight. Aircraft was cleared for a touch and go on runway 36L and read this back, but proceeded to conduct a touch and go on runway 36R, where a vehicle was completing a runway inspection. When the vehicle driver saw the aircraft approaching, he vacated the runway and there was 200 m between aircraft and vehicle when the vehicle cleared the runway. CAA safety investigation completed. (17/5523)
- Stratford, Cessna 152: Solo training flight. Condition of airfield surface noted to be poor and muddy. Take-off acceleration very poor and aircraft rotated prior to designated rotation speed, failed to reach take-off climb speed and climb performance impeded. Suspect incorrect NOTAM for movement area, soft when surface was too soft to be usable. (17/6255)

Aircraft Incident

- Cessna 152, Feilding: Dual training flight. Aircraft operated for 13.8 hours while overdue for a periodic maintenance check. Issue was noticed during a pre-flight check. Operator has identified that there is a requirement to better educate students on the use of the Tech log. An issue also existed where the upcoming maintenance requirements for the aircraft were not being adequately relayed to the Maintenance Controller following the training organisation moving their operation to a different aerodrome. This issue is being addressed by the operator and maintenance organisation. CAA safety investigation completed. (17/5680)

Airspace Incident

- Tauranga, twin diesel engine small aeroplane: Dual training flight. Conflict on final. Crew felt they had to make an urgent go-around to prevent a collision. CAA safety investigation in progress. (17/4283)
- En-Route, twin turboprop engine medium aeroplane: Air ambulance flight. Descended without a clearance from FL200 to F180. Pilot advised, he did not realise he was descending. CAA safety investigation completed. (17/4951)
- En-Route, single piston engine small aeroplane: Dual training flight. Aircraft made calls inconsistent with actual position which caused confusion for other flight crews in the vicinity. One aircraft crew saw the converging traffic and avoided it by approximately 150 ft vertically and off to one side. CAA safety investigation completed. (17/5262)
- Palmerston North: Dual training flight. Aircraft was cleared for take-off from D1 on runway 25. At the time, an electrician was working on runway 25 threshold. Even though that area was east and clear of the departure area of the aircraft, no instructions were issued to the electrician to remain east of the departure point. CAA safety investigation in progress. (17/5496)
- Hamilton, single piston engine small aeroplane: Passenger transport A to B flight. Aircraft turned base in front of another company aircraft. ATC noticed the confliction and instructed aircraft to continue on downwind. CAA safety investigation completed. (17/5608)

- Palmerston North, single piston engine small aeroplane: Solo training flight. Aircraft requested a full stop and was cleared to land. Aircraft was observed making a touch and go instead of the full stop landing. Loss of wake turbulence separation with a departure ahead. One minute was still remaining on the wake turbulence counter. (17/5877)
- Palmerston North, Piper PA-28-181: Dual training flight. Was instructed to join via a 5 mile final for RWY 07 to achieve sequencing. Observed on Radar to be tracking for a 2 mile final, instructed to turn right and fly downwind, instructed to report sighting another aircraft on right base, reported traffic in sight, was instructed to follow with unrestricted descent. Was subsequently observed on final close to the other aircraft, and instructed to go-around. (17/5930)

Defect Incident

- Single piston engine small aeroplane, Hamilton: Solo training flight. Radio failure near the zone boundary - total failure of Comm 1 box, intermittent operation Comm 2. (17/5085)
- Twin diesel engine small aeroplane, Tokoroa: Rudder trim failure. Rudder trim knob detached on final approach whilst conducting an asymmetric landing. CAA safety investigation in progress. (17/5253)
- Twin diesel engine small aeroplane, Hamilton: Dual training flight. During touch and go aircraft was observed to swerve on the runway and make a full stop landing. Aircraft had a flat tyre causing the aircraft to pull to the right. Instructor took over control and managed to stop near the western edge close to taxiway Echo. Another aircraft holding at Echo had to move out of the way for aircraft to taxi to C2 where engineering came and replaced the tyre. Aircraft then continued taxi back to base. (17/5522)
- Piper PA-34-220T, Dunedin: After flight in severe turbulence it was found that both rear seats (occupied) had become disengaged from the front leg retaining plates PN: 79781-02. CAA safety investigation in progress. (17/5876)
- Single piston engine small aeroplane, Palmerston North: Dual training flight. During climb on a Mansfield Departure, oil was noticed covering the windscreen. Pilot wiped the windscreen with hand and aircraft made turn back to Palmerston North. Glide approach made from 1,300 ft and aircraft landed safely. (17/6266)

Other Commercial Operations - Helicopters

Aircraft Incident

- Robinson R44 II, Auckland: Passenger transport A to A flight. Helicopter had near miss with RPAS at the Auckland harbour. The pilot was conducting a scenic helicopter flight around Auckland city when he passed a small UAS within 30 m. The pilot was flying at 1,200 ft. CAA safety investigation completed. (17/4612)
- Single turbine engine helicopter, Tauranga: The pilot failed to maintain clearance from obstacles, resulting in blade damage. CAA safety investigation completed. (17/4661)

Defect Incident

- Guimbal Cabri G2, Wanaka: Dual training flight. Engine failed during throttle roll off for practice auto. Restarted at 300 ft, and helicopter made precautionary run-on landing. CAA safety investigation completed. (17/5076)
- Hughes 369D, Wanaka: Rotor blades fitted did not match serial numbers in log. These were a correct part number, and appeared to be fitted correctly. Serial numbers belonged to another aircraft that was undergoing maintenance at previous provider when this aircraft was there. CAA safety investigation completed. (17/5302)
- Robinson R44 II, Landsborough Valley: Ferry/positioning flight. Pod lid opened while in the cruise. Pilot landed, closed the door and continued flight. (17/6260)

Agricultural Operations - Aeroplanes

Defect Incident

- Pacific Aerospace Cresco 08-600, Hamilton: Two wing spar to fuselage bolts found with heads sheared off. (17/5338)

Agricultural Operations - Helicopters

Airspace Incident

- Awatere Station, single turbine engine helicopter: Aircraft flew directly across course approximately 100 m ahead. Unable to contact by radio. Approximately 5 minutes earlier another operator had been heard on 119.1 trying to make contact with the same aircraft. CAA safety investigation completed. (17/5626)

Defect Incident

- Hughes 369HS, Riversdale: Aircraft parked and running, pilot noticed an abnormal vibration in the tail stabiliser support. Walk around revealed the Horizontal Stabilizer Support Strut Damper was found broken at the transition from the plain shaft to the threaded end of the adjuster. Aircraft shut down. (17/4889)

Private Operations - Aeroplanes

Aircraft Incident

- Pacific Aerospace 750XL, Hamilton: Test flight. Indicated engine torque not consistent with power lever position. Discussion with maintenance engineer who had dispatched the aircraft led the engineer to remove the engine cowl and discovered that the compressor inlet FOD blank had not been removed prior to flight. CAA safety investigation in progress. (17/5738)

Airspace Incident

- Palmerston North, Piper PA-28-181: Aircraft climbed into controlled airspace and conflicted with a twin turboprop engine large aeroplane on approach into Palmerston North. The large aeroplane's approach was cancelled and aircraft instructed to enter the hold. The crew of the large aeroplane requested a heading to remain clear of the traffic. (17/5399)
- Waiouru, Cessna 177B: Aircraft entered M301 which is permanently active without a clearance. The rifle range was active at the time. Pilot had miss-read the text on the VNC expecting that the military area would be activated by NOTAM. CAA safety investigation completed. (17/5716)
- Omarama, Cessna 185A: Aircraft flew very close to a microlight on final and landed behind. (17/6208)
- Ardmore, Cessna T182T: Aircraft joined a non-standard right circuit and conflicted with another aircraft as both turned base, opposite direction. Avoiding action taken by aircraft on left base. CAA safety investigation in progress. (17/6259)

Private Operations - Helicopters

Airspace Incident

- Kerikeri, Bell 206L-3: Helicopter approaching to land at the pumps flew over a ground handler assisting another aircraft as it was starting up. CAA safety investigation in progress. (17/4160)

Private Operations - Sport

Aerodrome Incident

- Tauranga, glider: Three people moved glider onto runway 22 without clearance causing aircraft on final, with a touch and go clearance, to be instructed to go around. (17/6040)

Airspace Incident

- Rangiora, class 2 microlight: Dual training flight. Pilot observed another aircraft making a sharp turn from it, at the same level. CAA safety investigation completed. (17/4689)
- Wanaka, foreign registered: Aircraft seen to conduct "buzz and break" overhead another aircraft already rolling on runway. (17/5061)
- Whanganui, class 2 microlight: Avoiding action required against another aircraft when both aircraft joining at Whanganui. CAA safety investigation in progress. (17/5064)
- Queenstown, amateur built aeroplane: Aircraft was cleared for the Devil's Staircase Departure, to keep clear of the Jardines Sector as there was parachuting going on at the time. Aircraft later observed over the lake at the southern end of the Jardines Sector and had routed direct without clearance. Parachuting aircraft was holding at FL160 and no parachutes were observed in the air at the time. CAA safety investigation completed. (17/5494)

Defect Incident

- Class 2 microlight, Nelson: Aircraft unable to maintain direction control while on ground - went off runway prior to clearing at A1. CAA safety investigation completed. (17/5337)
- Class 2 microlight, New Plymouth: Aircraft canopy opened immediately after lift off from touch and go. Canopy damaged and perspex FOD removed from runway by RFS. (17/6225)

Other

Aerodrome Incident

- Christchurch: Vehicle entered the runway at A4 as aircraft touched down on runway 20. Moderate braking was used to ensure the aircraft stopped prior to A4. (17/5171)

Aircraft Incident

- Wellington. Passenger transport A to B flight. During push back, the flight crew were not advised that the tug was disconnecting or to set the park brake. The aircraft rolled forward and came in close proximity with the dispatcher and the reversing tug. Aircraft moved forward approximately 35 to 40 m before stopping. During aircraft moving the tug was managed to be reversed out of the way of the moving aircraft, the dispatch personnel and the tow bar however moved with the aircraft until stopping. CAA safety investigation in progress. (17/5160)
- Foreign registered, Wellington: Passenger transport A to B flight. Loss of steering authority due strong winds. Parked on taxiway and towed to gate. (17/5707)
- Foreign registered, Wellington: Passenger transport A to B flight. After flight, ULD was found to have moved positions. The ULD contained 19 bags which weighed at total of 346 kg. (17/5976)

Airspace Incident

- En-Route, foreign registered: Passenger transport A to B flight. Non Compliance With Clearance. Failed to comply with an ATC clearance, resulting in OCS showing a loss of separation with a twin turbine engine large aeroplane. (17/4366)
- Auckland: Passenger transport A to B flight. Conflicting take-off clearance issued. The tower controller instructed a twin turboprop engine large aeroplane to line-up RWY 23L and wait from TWY A2, then instructed a twin turbine engine large aeroplane to line up RWY23L from TWY A1. The turbine aeroplane was advised that it was number two to depart behind the turboprop aeroplane. A take-off clearance was then issued to the turbine aeroplane while the turboprop aeroplane was still waiting to depart. The turboprop aeroplane crew immediately advised ATC that it was on the runway in front of the turbine aeroplane. CAA safety investigation in progress (17/4643)
- En-Route, foreign registered: Passenger transport A to B flight. Failure to detect incorrect readback. A twin turbine engine large aeroplane was climbing to F340 en-route Auckland to Coolangatta. The aircraft requested F360. Due to conflicting opposite direction unidentified radar traffic, the aircraft was instructed to fly a heading of 270. After the inbound traffic was identified the aeroplane was instructed to climb to F360 and once at level 360 to resume own navigation direct to PAPTI. This was readback as 'Climb to F360 resume own nav direct to PAPTI' and the aircraft turned right and started tracking to PAPTI and into the conflicting traffic. The incorrect readback was not detected by the controller. CAA safety investigation completed. (17/4644)
- Christchurch, foreign registered: Passenger transport A to B flight: Cleared Level Deviation, Descended below STAR. RNAV STAR RWY 02 requires aircraft to be at or above 3,000 ft at GOMPI. Was observed descending to 2,000 ft prior to GOMPI. TAIC safety investigation in progress. (17/4735)
- Auckland, unmanned aircraft: Pilot of a passenger transport A to B flight reported near miss with drone approximately 50 to 100 ft as aircraft climbed through 1,900 ft on departure. CAA safety investigation completed. (17/5325)
- Auckland, foreign registered: Passenger transport A to B flight. Aircraft landed without receiving a landing clearance from the Tower Control. Even though Tower had used a green light signal, the crew advised after landing that they did not see the light. Crew had entered the tower frequency incorrectly. CAA safety investigation completed. (17/5520)

Defect Incident

- En-Route: Passenger transport A to B flight. Pressurisation failure. MAYDAY declared, descended to A100 and returned to Auckland. (17/5817)

Facility Malfunction Incident

- Christchurch: Voice switch outage caused all sectors at the Christchurch radar centre to lose frequencies and phone lines for approximately two minutes. Towers advised to hold all aircraft on the ground. Normal operations resumed when frequencies were fixed and short delays were incurred across the country due to the outage. (17/4550)
- Palmerston North: Runway 25 had been in use at Palmerston North. New ATIS came out with runway 07. The Tower controller unsure why the change happened and was not aware until Ohakea Tower changed to runway 07. (17/5678)
- Auckland: OCS reserve platform failed and for 11 hours and 36 minutes staff were not aware that the reserve platform was not available for operational use. CAA safety investigation in progress. (17/5984)

Not Recorded

Dangerous Goods Incident

- Auckland, twin turboprop engine large aeroplane: Bulk lithium battery consignment loaded and transported on passenger flight. Consignment travelled from Auckland to Tauranga. (17/4313)
- Auckland: Undeclared shipment of lithium ion batteries travelled from Auckland to Dubai. The carton with the batteries had a lithium ion battery label but there was no paperwork accompanying the package. (17/5974)

Defect Incidents by Aircraft Statistics Category

Quarterly Comparison

Number of Reported Defect Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	240	269	198.7
Medium Aeroplanes	11	3	26.0
Small Aeroplanes	59	55	57.0
Agricultural Aeroplanes	6	4	9.7
Helicopters	40	43	70.7
Sport Aircraft	6	5	6.0
Unknown Aircraft	32	30	26.7
Total	**394**	**409**	**394.7**

Severity of Reported Defect Incidents

Severity	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Critical	0	0	0.0
Major	27	18	72.7
Minor	367	391	322.0

No critical defect incidents were reported in the 1 July to 30 September 2017 quarter.

Aircraft Incidents by Aircraft Statistics Category

Quarterly Comparison

Number of Reported Aircraft Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	421	231	96.0
Medium Aeroplanes	2	7	15.3
Small Aeroplanes	23	25	31.3
Agricultural Aeroplanes	0	0	3.0
Helicopters	12	10	13.0
Sport Aircraft	0	6	5.3
Unknown Aircraft	83	91	49.0
Total	**541**	**370**	**213.0**

Severity of Reported Aircraft Incidents

Severity	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Critical	0	4	1.0
Major	29	25	17.3
Minor	512	341	194.7

No critical aircraft incidents were reported in the 1 July to 30 September 2017 quarter.

Airspace Incidents by Aircraft Statistics Category

Quarterly Comparison

Number of Reported Airspace Incidents

Aircraft Statistics Category	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Large Aeroplanes	54	49	34.0
Medium Aeroplanes	6	11	16.7
Small Aeroplanes	86	128	137.7
Agricultural Aeroplanes	0	2	2.7
Helicopters	19	11	17.3
Sport Aircraft	13	16	18.7
Unknown Aircraft	136	168	135.0
Total	**314**	**385**	**362.0**

Severity of Reported Airspace Incidents

Severity	1 Jul to 30 Sep 2017	1 Jul to 30 Sep 2016	Average Of Same Quarter In Previous 3 Years
Critical	2	1	1.7
Major	46	23	26.0
Minor	266	361	334.3

Of the 2 critical airspace incidents reported in the 1 July to 30 September 2017 quarter:

- 1 was in the 'Small Aeroplanes' statistics category (Occurrence Number 17/5395, see page 8 for details); and
- 1 was in the 'Helicopters' statistics category (Occurrence Number 17/5808, see page 8 for details).

Attributability

Of the 314 reported airspace incidents in the 1 July to 30 September 2017 quarter, 21% are Air Traffic Service (ATS) attributable, 67% are pilot attributable, 5% are ATS and pilot attributable, and 7% are unknown attributable. (Note that the percentages may not sum exactly to 100% due to rounding.)

Since October 2014 the long-term trend of the ATS attributable airspace occurrence rate is neutral and the long-term trend of the pilot attributable rate is neutral.

Bird Incident Rates

Bird hazard monitoring has been carried out for the period ended 30 September 2017.

There were two aerodromes with strike rates in the high risk category of the CAA standard (10.0 and above bird strikes per 10,000 aircraft movements), both having long-term upward trends.

There were six aerodromes with strike rates in the medium risk category (5.0 to 10.0 per 10,000 movements), two having long-term upward trends, two having long-term constant trends and two having long-term downward trends.

20 aerodromes had strike rates in the low risk category (below 5.0 per 10,000 aircraft movements), nine having long-term upward trends, three having long-term constant trends and eight having long-term downward trends.

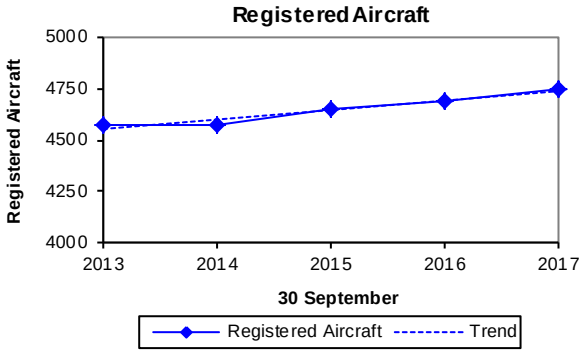
For more information visit the 'Bird Hazard Reports' section of the CAA web site http://www.caa.govt.nz/safety-info/safety-reports.htm (or look up Aviation Info, Safety Info, Safety reports)

Section 3 - Activity

Registered Aircraft by Aircraft Statistics Category

Trends

The following graph shows the number of registered aircraft at 30 September for each of the five-years 2013 to 2017.



Note that the scale on this graph does not start at zero.

Quarterly Comparison

Aircraft Statistics Category	30 September 2017	30 September 2016	Average Of 30 September In Previous 3 Years
Large Aeroplanes	134	136	126
Medium Aeroplanes	72	73	78
Small Aeroplanes	1,524	1,503	1,506
Agricultural Aeroplanes	91	94	98
Helicopters	854	832	811
Sport Aircraft	2,076	2,049	1,980
Total	**4,751**	**4,687**	**4,599**

Note that these figures include the sport aircraft statistics category but exclude hang gliders, paragliders and parachutes.

Licences and Organisations

The number of 'Part 129 Foreign Air Operators' increased from 38 at 30 September 2016 to 42 at 30 September 2017, an increase of 4 (11%). Over the same period the number of 'Part 148 Aircraft Manufacturing Organisations' decreased from 17 to 15, a decrease of 2 (12%); and the number of 'Part 19 Supply Organisation Certificate of Approvals' decreased from 49 to 44, a decrease of 5 (10%).

At 30 September 2017 there were 94 'Part 102 Unmanned Aircraft Operators', this certificate was introduced on 1 August 2015.

At 30 September 2017 there were 39 'Recreational Helicopter Pilot Licences', this licence was introduced in April 2016.

Section 4 - Quarterly Statistics

Quarter	2014/4	2015/1	2015/2	2015/3	2015/4	2016/1
Social Cost $ million[1]	15.55	43.83	3.37	1.90	33.35	8.35
Number of Fatal Accidents[2]	2	4	0	0	1	1
Number of Fatal Injuries[2]	2	9	0	0	7	1
Number of Serious + Minor Injuries[2]	23	13	11	12	15	18
Number of Aircraft Accidents[2]						
Large Aeroplanes	1	0	0	0	0	1
Medium Aeroplanes	0	1	0	0	0	0
Small Aeroplanes	4	7	6	4	7	8
Agricultural Aeroplanes	1	1	1	0	0	0
Helicopters	3	7	2	5	4	3
Sport Aircraft	13	8	5	7	9	7
Unknown Aircraft	0	0	0	0	0	0
Hang Gliders	7	6	7	7	8	11
Parachutes	3	1	2	1	4	3
Number of Incidents[3]	1,288	1,432	1,432	1,233	1,310	1,428
Number of Aviation Related Concerns[4]	227	244	188	171	136	260
Number of Hours Flown[5]	209,012	244,904	193,755	197,169	218,320	243,864
Number of Air Transport Flights[5]	91,697	110,624	83,020	85,321	101,483	114,691
Number of Aircraft Movements[6]	220,846	237,404	211,137	222,320	227,208	237,499
Number of Aircraft on the Register[7]	4,615	4,662	4,610	4,650	4,679	4,700
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	8	8	7	7	8	8
Air Operator – Medium Aeroplanes	12	13	13	13	15	15
Air Operator – Helicopters and Small Aeroplanes	165	163	163	163	164	161
Number of Part 137 Agricultural Aircraft Operators	97	101	103	104	104	102
Number of Part 115 Adventure Aviation Operators	27	27	28	30	30	28
Number of Part 102 Unmanned Aircraft Operators	0	0	0	4	16	31
Number of Part 141 Training Organisations	55	56	56	57	55	54
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)	320	337	366	385	395	401
Private Pilot Licence (Class 1 & 2)	2,617	2,587	2,580	2,585	2,530	2,492
Commercial Pilot Licence (Class 2 only)	2,442	2,390	2,448	2,376	2,316	2,248
Commercial Pilot Licence (Class 1)	2,125	2,141	2,046	2,048	2,076	2,073
Airline Transport Pilot Licence (Class 2 only)	998	987	995	1,046	1,034	1,019
Airline Transport Pilot Licence (Class 1)	1,226	1,232	1,228	1,173	1,210	1,221
Air Traffic Controller Licence (Class 3)	379	379	387	387	383	380
Aircraft Maintenance Engineer Licence (N/A)	2,726	2,737	2,754	2,766	2,779	2,789

[1] Social cost of accidents and injuries. All aircraft statistics categories. Includes hang gliders and parachutes. Cost of fatal, serious and minor injuries, and aircraft destroyed, in June 2016 dollars.
[2] All accidents. All aircraft statistics categories. Includes hang gliders and parachutes.
[3] Number of reported incidents. All incident sub-types.
[4] Number of reported Aviation Related Concerns.
[5] New Zealand registered aircraft. Includes the aircraft classes aeroplane, helicopter and balloon only; excludes other aircraft classes, hang gliders and parachutes. Based on reported Aircraft Operating Statistics for periods up to the quarter ended 31 December 2016 (the most recent quarter for which adequate data are available) with an allowance for aircraft for which reports were not received. Estimated for 2017/1 and 2017/2. Data not yet available for 2017/3.

Quarter	2016/2	2016/3	2016/4	2017/1	2017/2	2017/3
Social Cost $ million[1]	9.52	3.91	29.86	15.47	30.14	1.02
Number of Fatal Accidents[2]	2	0	3	2	5	0
Number of Fatal Injuries[2]	2	0	5	2	6	0
Number of Serious + Minor Injuries[2]	5	7	14	19	12	7
Number of Aircraft Accidents[2]						
Large Aeroplanes	0	1	0	0	1	0
Medium Aeroplanes	0	0	0	0	0	0
Small Aeroplanes	2	2	6	6	0	4
Agricultural Aeroplanes	1	1	2	4	0	0
Helicopters	4	2	3	10	2	1
Sport Aircraft	6	5	4	8	8	3
Unknown Aircraft	0	1	0	0	2	0
Hang Gliders	2	2	4	4	4	3
Parachutes	0	0	7	7	2	1
Number of Incidents[3]	1,612	1,635	1,675	1,877	1,812	1,708
Number of Aviation Related Concerns[4]	202	229	235	253	277	229
Number of Hours Flown[5]	203,167	211,276	237,542	258,603	247,446	
Number of Air Transport Flights[5]	86,611	87,395	106,986	120,910	91,308	
Number of Aircraft Movements[6]	213,927	221,092	231,713	233,701	222,907	221,296
Number of Aircraft on the Register[7]	4,657	4,687	4,723	4,734	4,704	4,751
Number of Part 119 Certificated Operators						
Air Operator – Large Aeroplanes	8	8	7	6	6	6
Air Operator – Medium Aeroplanes	15	15	15	13	13	13
Air Operator – Helicopters and Small Aeroplanes	162	163	164	166	166	165
Number of Part 137 Agricultural Aircraft Operators	103	103	102	102	102	103
Number of Part 115 Adventure Aviation Operators	28	28	29	31	29	29
Number of Part 102 Unmanned Aircraft Operators	45	54	76	86	89	94
Number of Part 141 Training Organisations	53	51	52	53	52	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)	439	456	453	446	442	440
Private Pilot Licence (Class 1 & 2)	2,462	2,418	2,385	2,402	2,358	2,348
Commercial Pilot Licence (Class 2 only)	2,281	2,240	2,192	2,094	2,108	1,992
Commercial Pilot Licence (Class 1)	2,051	2,045	2,030	2,085	2,032	2,096
Airline Transport Pilot Licence (Class 2 only)	1,002	1,016	1,006	990	996	1,031
Airline Transport Pilot Licence (Class 1)	1,268	1,249	1,248	1,252	1,261	1,232
Air Traffic Controller Licence (Class 3)	381	373	366	360	364	371
Aircraft Maintenance Engineer Licence (N/A)	2,800	2,817	2,830	2,842	2,852	2,867

[6] Certificated aerodromes. Reported to CAA by Airways Corporation and Taupo Airport. Includes Auckland, Christchurch, Dunedin, Gisborne, Hamilton, Invercargill, Napier, Nelson, New Plymouth, Ohakea, Palmerston North, Paraparaumu, Queenstown, Rotorua, Taupo, Tauranga, Wellington and Woodbourne. Excludes Chatham Islands/Tuuta Airport, Hokitika, Kerikeri/Bay of Islands, Mount Cook, Te Anau/Manapouri (certificated until April 2015), Timaru, Westport, Whakatane (certificated from April 2015), Whanganui and Whangarei.

[7] As at the last day of the quarter. Includes the sport aircraft statistics category, excluding hang gliders, paragliders and parachutes.

[8] As at the last day of the quarter. For RPL holders, a medical fitness certificate, in accordance with the NZTA medical fitness standards that are applicable for a Class 2, 3, 4 or 5 driver licence with a passenger endorsement. RPL helicopter licences were introduced in April 2016. For PPL, CPL & ATPL holders, an active class 1 or active class 2 medical certificate; 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). For ATCL holders, an active class 3 medical certificate. This does not show the number of licence holders as each client may hold more than one licence.

Definitions

Accident

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.

Aircraft Incident

Any incident, not otherwise classified, associated with the operation of an aircraft which did not immediately affect the safety of an aircraft operation but which,

(1) if allowed to continue uncorrected, or

(2) if repeated in different but likely circumstances,

could affect the safety of an aircraft operation.

Social Cost of Accidents and Injuries

Social cost of accidents and injuries is a way of measuring safety performance by accounting for the number and severity of casualties, and aircraft damage. The values used to estimate cost to the nation of fatal, serious and minor injuries are obtained from the annual report of the ‘Social Cost of Road Crashes and Injuries’ published by the Ministry of Transport. The Ministry of Transport has directed its agencies to use social cost to permit comparisons between transport modes. The current value of statistical life is $4.14 million. Estimates of the values of aircraft destroyed or written off are made by the CAA on the basis of market prices in a number of developed aviation nations.

Aircraft Statistics Category

The following table shows the definition of each aircraft statistics category and the aircraft classes included.

Aircraft Statistics Category	Definition	Aircraft Class
Large Aeroplanes	Aeroplanes that must be operated under Part 121 when used for air transport	Aeroplane
Medium Aeroplanes	Aeroplanes that must be operated under Part 125 when used for air transport, except for those required to operate under Part 125 solely due to operating SEIFR	Aeroplane
Small Aeroplanes	Other Aeroplanes with Standard Category Certificates of Airworthiness	Aeroplane
Agricultural Aeroplanes	Aeroplanes with Restricted Category Certificates of Airworthiness limited to agricultural operations	Aeroplane
Helicopters	Helicopters with Standard or Restricted Category Certificates of Airworthiness	Helicopter
Sport Aircraft	All aircraft not included in the groups above	Aeroplane, Amateur Built Aeroplane, Amateur Built Glider, Amateur Built Helicopter, Balloon, Glider, Gyroplane, Helicopter, Jetpack, Microlight Class 1, Microlight Class 2, Power Glider

Other Aircraft Types (not included on the NZ Aircraft Register)

Hang Glider
A glider, including a powered glider, that is capable of being launched and landed solely by the use of the pilot's legs, and includes paragliders. **Paraglider** means a hang glider with no rigid primary structure.

Parachute
Any device, without a motor in operation, comprising a flexible drag, or lift/drag, surface from which a load is suspended by shroud lines capable of controlled deployment from a packed condition.

Airspace Incident

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

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

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

Fatal Injury

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

Incident

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

Incident Sub-Types	
Aerodrome Incident	Dangerous Goods Incident
Aircraft Incident	Defect Incident
Airspace Incident	Facility Malfunction Incident
Bird Incident	Promulgated Information Incident
Cargo Security Incident	Security Incident

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 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 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.

Safety Target Structure