

# INDUSTRY BRIEFING PACKAGE FIXED-WING FLIGHT TRAINING



## SECTION 1

### WHAT IS A REGULATORY INTERVENTION?

A regulatory intervention is a coordinated set of activities that are designed to achieve an improvement in the safety performance of a specific aviation sector. The activities that make up an intervention can range from traditional Civil Aviation Authority (Authority) actions like monitoring and inspection to the development of innovative educational and guidance material.

## SECTION 2

### OUR FIRST FOCUS: THE FLIGHT TRAINING SECTOR

Review of recent occurrence data, accident reports, recent sector safety summaries and discussions with flight training subject matter experts highlight there are a variety of flight training practices/activities that are of interest to the Authority.

## SECTION 3

### HOW INTERVENTIONS INFLUENCE OUR REGULATORY ACTIVITY

Regulatory interventions are at the heart of a risk-based, Intelligence-led regulator. The flight training sector intervention will influence the workstreams and focus areas of our Licensing and Standards, Inspection and Monitoring and Certification Teams.

## SECTION 4

### WHAT YOU CAN EXPECT FROM US

Flight training organisations can expect to see the below areas to be focal points for the Authority in the coming months:

- Cross-country training
- Instructor training, experience and supervision
- Joining and circuit procedures
- Situational awareness and threat and error management
- English as a second language



## SECTION 5

### FLIGHT TRAINING SAFETY REPORT

## SECTION 6

### SAMPLE OF OCCURRENCES TO SUPPORT FOCUS AREAS – 2018 TO CURRENT

# SECTION 1

What is a regulatory intervention?



## REGULATORY INTERVENTION

The Authority has established a dedicated Regulatory Interventions Unit that creates interventions to address emerging safety risks and practices of interest.

The unit will design coordinated activities where the Authority will work with the industry to find solutions and identify mitigations to manage areas of risks.

The aim of the activities is to increase the safety performance of a sector whilst tackling a specific aviation safety problem.

The activities that make up an intervention can range from traditional Authority actions like monitoring and inspection to the development of innovative educational and guidance material.

Most of the significant safety risks in aviation have developed slowly over time and are seldom resolved by simply changing any one thing. It takes a concerted effort involving many different regulatory approaches to achieve an effective intervention.

Interventions will be overseen and managed by the Regulatory Interventions Unit. The unit will engage with subject matter experts (SMEs) from the operational units of the Authority to carry out the intervention tasks.



## SECTION 2

Why are we focusing on the flight training sector?



### BACKGROUND

The first focus area for the interventions unit is the flight training sector – more specifically fixed-wing aircraft flight training.

Over the last 15 years there have been 16 fatalities in fixed-wing flight training. In the last 3 years there have been 26 accidents that have included three fatalities. Over the past year (2019-2020) there has been an increase in the recorded rate of fixed-wing flight training accidents.

In addition, there has been an increase in the rate of reported incidents. This may be partly due to an increase in reporting which is to be commended however, the type and severity of incidents occurring are of interest to the Authority.

Review of recent occurrence data, accident reports, sector safety summaries, and discussions with flight training SMEs highlight there is a variety of flight training practices/activities that are of interest to the Authority, and there are key factors from previous accidents and incidents that are still likely to exist.

Areas of interest relate to:

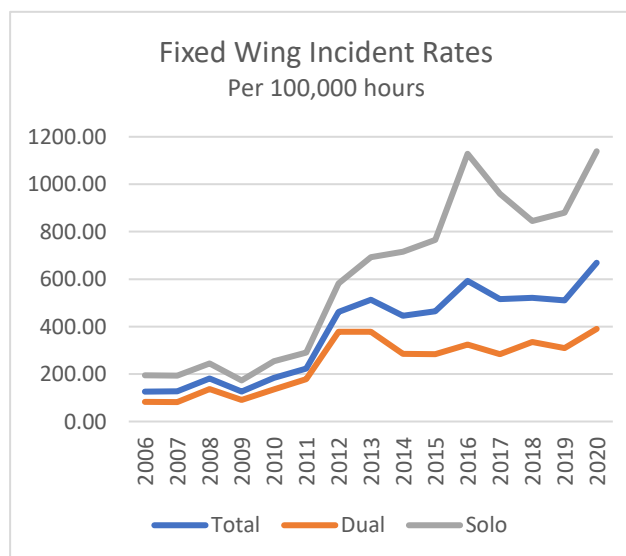
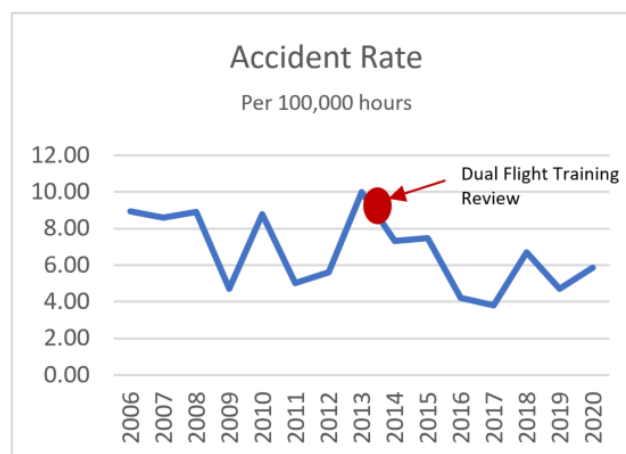
- Situational awareness and threat and error management
- Cross-country training
- Joining and circuit procedures
- Instructor training, experience and supervision
- English as a second language

In addition to the above, the flight training sector is currently experiencing large-scale change and commercial pressures due to COVID-19.

This intervention is focussed on commercial fixed-wing aircraft flight training organisations conducting training under Part 61. This includes organisations certified under

Part 141 as well as those schools that operate purely under Part 61.

The interventions unit will coordinate several tasks to address the highlighted areas of interest. These tasks will be carried out by various operational units.



# SECTION 3

## How interventions influence regulatory activity



### REGULATORY INTERVENTION INFLUENCE

Regulatory interventions are at the heart of what a risk-based, intelligence-led regulator does. The intervention in the flight training sector will influence the workstreams and focus areas of our Flight Standards, Inspection and Monitoring and Certification teams.

The intervention focus areas will feed into standards and guidance development and determine the scope for inspection and monitoring activities. They'll also drive wider education activities for the sector.

Within the intervention activities the Authority will work with the industry to find solutions and identify mitigations to manage areas of risk.

Within the Authority we are aiming to be more responsive in the area of occurrence reporting: If you report an occurrence that relates to our area of focus, there may be follow up with you for further information and to learn findings from your internal investigation. This will help us to share lessons across the sector. Submitted reports and subsequent investigations allow us to monitor system-wide trends, that you may not be aware of within your organisation alone.

This information is vital to the ongoing development of the intervention tasks and products or material produced as part of the intervention.





## SECTION 4

What you can expect from us



Flight training organisations can expect to see practical initiatives in these areas in the coming months.

### SITUATIONAL AWARENESS AND THREAT AND ERROR MANAGEMENT

The number of occurrences within the Flight Training Sector are continuing to rise. Airspace incidents make up the highest proportion of reported occurrences within this sector. A number of these incidents relate to proximity/loss of separation events where avoiding action is required to be taken.

Discussions with the Authority's flight examiners have identified opportunities for improvement within the standards demonstrated of the lookout and practical application of threat and error management (TEM) in the cockpit. A well-constructed lookout and good application of practical TEM contributes towards robust situational awareness, which is vital to safe flight. This is a core skill which should be demonstrated by all pilots.

We will produce updated guidance material, review the current syllabus and produce educational tools to be utilised within flight training organisations

### CROSS-COUNTRY TRAINING

The quality of cross-country training varies across different providers.

Four of the last nine fatal accidents within the sector have occurred during cross-country flights. There are numerous occurrences where students have not successfully completed their cross-country training exercise due to lack of preparation or planning.

The amount of knowledge imparted to a student is dependent upon the level of experience and skill of their instructor. As instructor experience has declined across the sector there is a likely degradation in the quality of cross-country training.

We will focus on the quality of cross-country training, the supervision provided on these flights, and the sign-out processes used by training organisations.

We will conduct inspection and monitoring activity, review existing guidance material and syllabus requirements, and produce educational material

### JOINING AND CIRCUIT PROCEDURES

Recent occurrence data shows an increase in the number of occurrences that are taking place when aircraft are joining, operating within, or departing the circuit. Of focus is the level of execution of the standard overhead join and the integration of IFR and VFR traffic at uncontrolled aerodromes.

The importance of following and complying with published circuit directions and procedures within the AIP has been raised in a [safety notice \(12 August 2019\)](#) produced by the CAA following a recent fatal accident. The use of the radio call that the aircraft is joining or vacating 'non-standard' is not acceptable and does not absolve the pilot from complying with the published circuit direction or procedures.

Occurrence data received and feedback from the Authority's flight examiners highlight that there are opportunities for improvement within the practices currently being demonstrated.

We will produce updated guidance material and educational tools to be utilised within flight training organisations

## SECTION 4

What you can expect from us (continued)



Flight training organisations can expect to see the below areas as focal points for the Authority in the coming months.

### INSTRUCTOR TRAINING, EXPERIENCE AND SUPERVISION

Over the past two years (pre COVID-19) there has been a decline in the number of B and C-cat fixed-wing flight instructors within the sector. The decline in the overall numbers of instructors and the experience level within the remaining instructor pool is an area of interest for the Authority.

The decline of experience has presented a challenge for the industry in terms of sustaining quality instruction that is given by inexperienced instructors with a high supervision requirement. This has placed increasing supervision demands on the decreasing number of senior A-cat instructors, at a time (pre COVID-19) of increased training activity (refer [Flight Training Safety Report Autumn/Winter 2019](#)).

Combined with the decreasing levels of instructor experience has been the continual uptake of instructors to the airline industry. This has left the flight training industry with a pool of low-time, low-experience instructors and an increasing demand for training of new instructors.

The impacts of COVID-19 have created a secondary layer of interest for the authority. With the downsizing of the airline industry, there has been an uptake of redundant airline pilots returning to instruction.

Many of these pilots are renewing their instructor ratings, however as they have been away from the flight training sector for some time, they are increasing the supervision demands on senior instructors. There may also be a perceived authority gradient for some of the younger instructors to manage in their day-to-day roles.

Following a spate of accidents and incidents where a contributing factor was limited instructor experience, and where there was poor supervision and oversight practices, the Authority has placed emphasis on the importance of the instructor as a professional, retaining experience within flying

schools, and the supervision and mentoring practices required for junior instructors.

The Authority has worked with the industry to highlight the risks associated with declining instructor experience and supervision, with this being a topic at the most recent round of flight instructor seminars and a topic for discussion at certification activities.

This is still an ongoing area of interest for Authority and requires ongoing oversight and education.

We will conduct inspection and monitoring activity, review existing guidance material, and produce educational material

### ENGLISH AS A SECOND LANGUAGE

The New Zealand training industry has historically had many foreign students undertaking training within NZ. This creates challenges for those students who have English as a second language.

It has been identified in both discussions with SMEs and upon review of occurrence data that there is significant language and accent challenges within the training industry. At times the quality of radio transmissions from foreign students is poor and confusing to other aircraft in the area, particularly when it comes to high pressure/stress situations.

We will produce updated guidance material and educational tools to be utilised within flight training organisations

## SECTION 5

Flight training safety report – Previously published  
2019 included here for context



## Flight Training Safety Report Autumn/Winter 2019



# Introduction

This review highlights some key activity and safety statistics on flight training activity over the last 6 months. I am keen that we use this information as a means to analyse activity in the training sector, to identify trends and where necessary to enable proactive action that will improve safety outcomes.

The CAA flight examiners in PFT have therefore provided comment in the report that aims to highlight particular focus areas identified from our own risk analysis and through continuous liaison with training organisations, flight examiners and instructors. My aim, through the medium of the report, is to provide you with prompts and guidance that can be used to shape Industry action on training quality and safety together with your own local training and safety improvements.

This edition places an emphasis on 4 significant areas of risk: instructor experience levels, supervision of training activity, airspace incidents and circuit procedures. You may also identify local issues that are highlighted by the statistics presented. Use that information to inform your organisation's safety management system and then tell us about it: your problem might be one that affects others and we should be sharing solutions for the safety benefit of all. There is no 'us' and 'them' in safety.

Future Flight Training Safety Reviews will be published at a 6-monthly interval. My aim is to stimulate comment and feedback, and your suggestions for specific or additional statistical data are encouraged and welcome. The CAA is not an organisation that has a monopoly on good ideas. Inputs can be made direct to any member of the PFT team or can be sent to [pft.admin@caa.govt.nz](mailto:pft.admin@caa.govt.nz) (for the attention of the PAE). I look forward to developing the value of this Review by working together.

David Harrison  
 Principal Aviation Examiner

Note: The following report looks at flight training in fixed wing aeroplanes and helicopters only. Statistics on recreational flying, microlights, sport aircraft and gliders are not included in the data.



## Overview of Sector

There are currently 44 active part 141 training organisations in New Zealand. There are 29 organisations (66%) located in the North Island, and 15 organisations (44%) located in the South Island.

Part 141 Organisations by Location

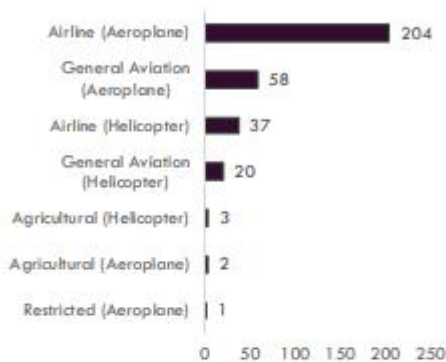




## Current Examiners and Instructors

There are 317 individuals in New Zealand who hold current flight examiner ratings. Seven examiners hold two rating types, and one holds three separate rating types. The figure below shows the number of active flight examiner ratings held.

Current Flight Examiners

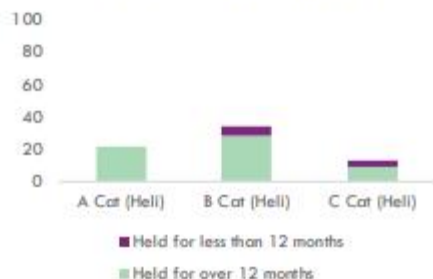


The number of instructors who hold a current rating and either a class 1 or 2 medical certificate are shown in the figure below.

Current Fixed Wing Instructors

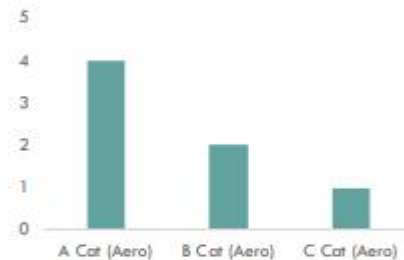


Current Rotary Instructors



The number of instructors who hold a current rating and a DL9 medical are shown in the figure below.

Current Instructors with a DL9 Medical



Over the past two years there has been a drop in the numbers of current instructors across most categories. This is most pronounced in fixed wing B and C Cats. The difference in the numbers of instructors current in 2017 compared to 2019 are shown below.

Fixed Wing Instructors 2017 and 2019



Rotary Instructors 2017 and 2019

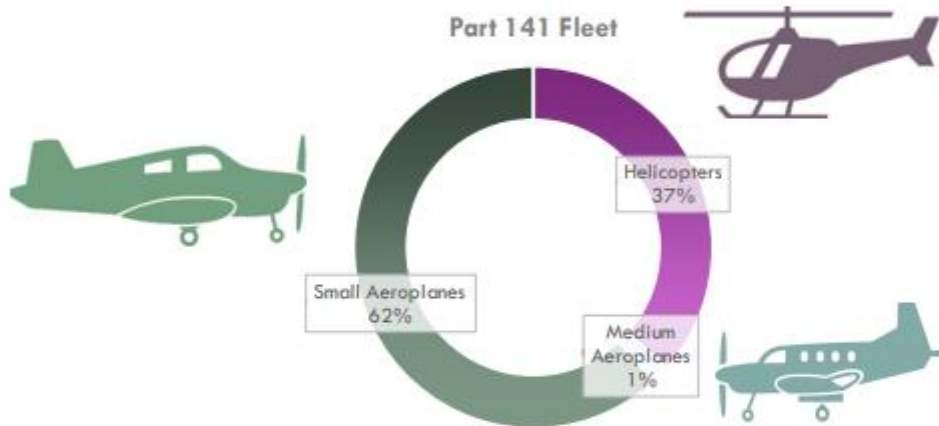




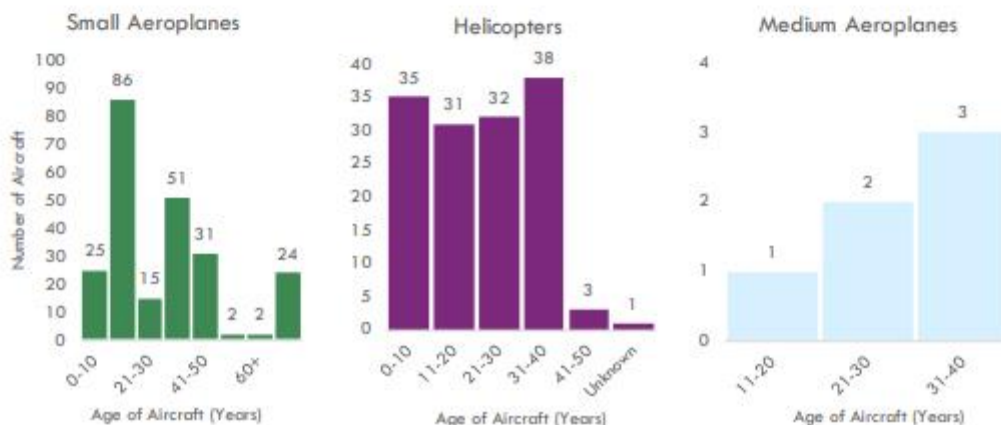
## Training Fleet

### Aircraft Owned by Part 141 Organisations

The following statistics are drawn from the numbers of aircraft owned by Part 141 organisations. There are 128 large aircraft, however these are owned by training organisations who also hold Part 119 certificates, so are not used primarily for training, therefore have not been included here. Aircraft owned by other organisations which are leased to part 141 organisations are also not included in the fleet statistics.



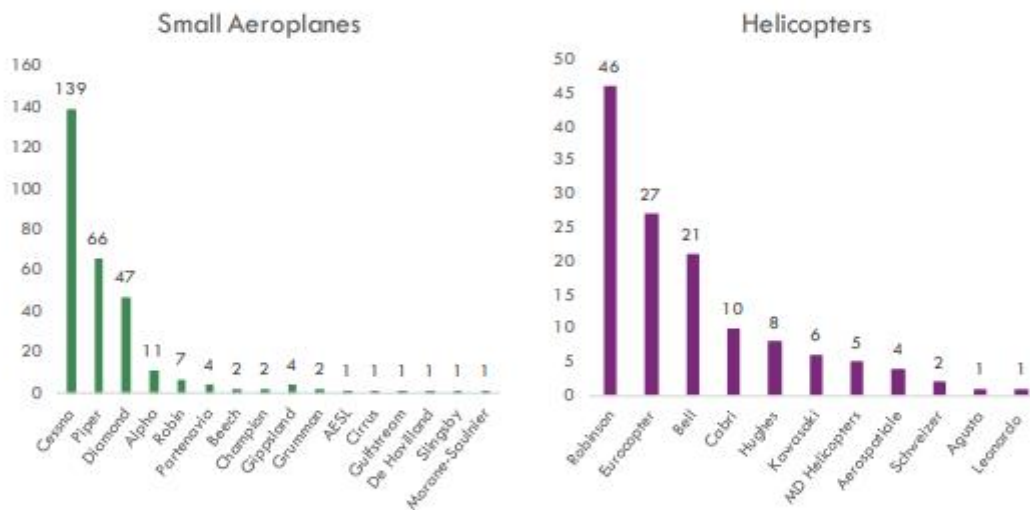
The Part 141 fleet is made up primarily of small aircraft (236) with a small number of medium aircraft (six). There are 140 helicopters owned by Part 141 organisations. The following graphs show the owned aircraft by age and type. The majority of small aircraft are under 20 years old, however most training helicopters are over 30 years old. Unknown ages of aircraft represent aircraft registered prior to the date of manufacturer being a mandatory field.





### Aircraft Operated for Training

All aircraft operated for either dual or solo training are included in the statistics below. This includes training undertaken under Part 61, and aircraft not necessarily owned by Part 141 organisations. In the last 12 months from 1 July 2018 to 30 June 2019, 427 individual aircraft were used for flight training. Of these, 290 were small aircraft, 131 were helicopters and six were medium aircraft. The charts below show the aircraft used by manufacturer. The six medium aeroplane fleet is made up of three Beech, two Cessna and one Raytheon aircraft.



The chart below shows the training hours flown by type of aircraft over the last 12 months from 1 July 2018 to 30 June 2019.





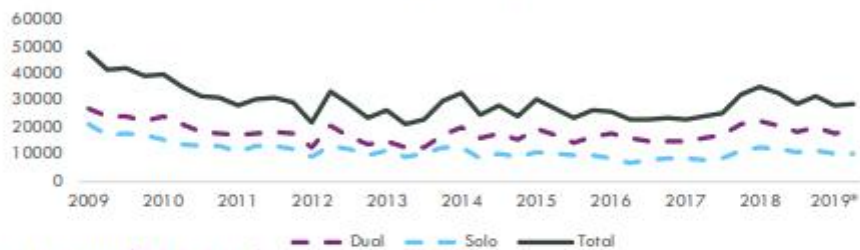


## Fixed Wing Flight Training

### Activity, Dual and Solo

Training activity in fixed wing aircraft is recovering from a low point in 2016/2017. Dual and solo training hours tend to run in parallel, with dual hours being on average 22% higher than solo.

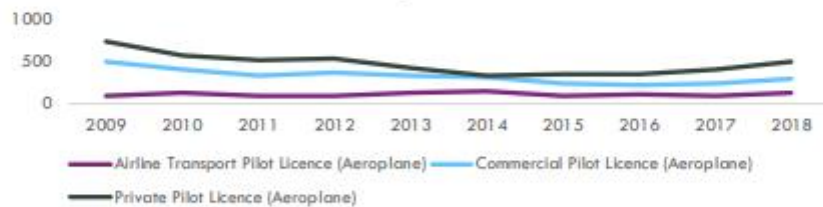
Fixed Wing Training Hours



### Licence Issues (CAA data)

The CAA data on licence issue contains both initial issues from ASPEQ flight tests and licence conversions from overseas. The number of fixed wing licences issued by the CAA was on a steady decline from 2009 to 2014 however licence issues have begun to slowly increase over the past five years.

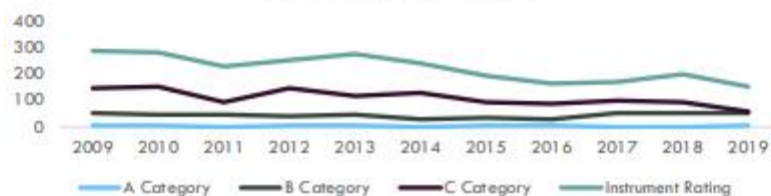
Fixed Wing Licence Issues



### Rating Issues (ASPEQ data)

ASPEQ provides the CAA with the numbers of flight tests conducted for rating issues. The number of instructor and instrument rating issues has seen a decline over the past ten years, and has not seen quite the same level of recovery that has been seen in the licence issues. The number of A Cat issues remains low across the decade.

Fixed Wing Rating Issues

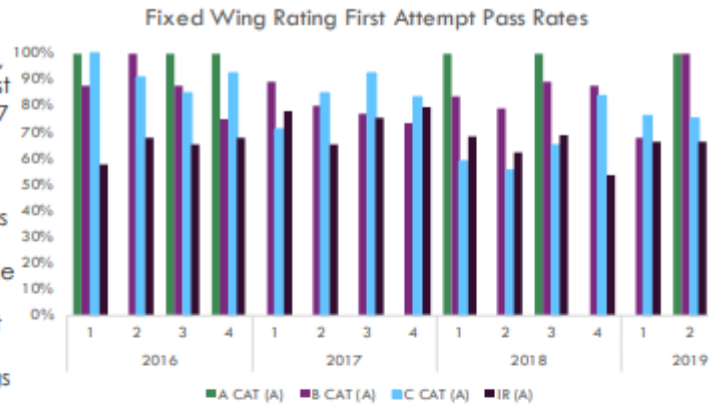




## National Flight Test First Attempt Pass Rates

The first attempt pass rates for rating issues over the last 3.5 years has a varied pattern. A Cat tests have low numbers, but a 100% pass rate overall. B Cat ratings have mixed pass rates over time, where the rate reached its lowest point in the fourth quarter of 2017 where it was 73%. The overall average pass rate for first attempts at B Cat flight tests however, is 83%. C Cat pass rates were at their lowest in the second quarter of 2018 where the first attempt pass rate was 65%, although the overall first attempt pass rate over the period in question is 80%. Instrument ratings follow a low but relatively stable trend, with an average first attempt pass rate of 67% over the period.

Commercial flight test first attempt pass rates have remained relatively stable since 2016, with the average pass rate sitting at 77%.



Fixed Wing CPL Pass First Attempt Rates



While the overall training hours flown remains level, evidence shows that student numbers are increasing and this is also reflected in the number of licences being issued showing a steady upward trend. Some of this is due to a recent increase in foreign licence transfers albeit mainly at the CPL/ATPL level. The marked increase in PPL issues will almost certainly flow into future CPL issues and bolster the upward trend here. A significant proportion of the PPL/CPL licences are being issued to foreign students and a more comprehensive breakdown of these figures will be investigated for the next review.

Against this increase, the decline in the overall number of instructors and the experience level within the cadre is a continuing cause for concern. This presents a challenge for the industry in terms of sustaining the quality of training that can be given by increasingly inexperienced instructors and a growing burden of supervision for a reducing number of senior instructors, and all set against the background of increasing training activity. This has been identified as a risk within the CAA's Regulatory SMS system and has been highlighted in work between the CAA and with the industry, was a particular topic at the recent Flight Instructor Seminars and has led to planning for another CFI Conference in 2020.

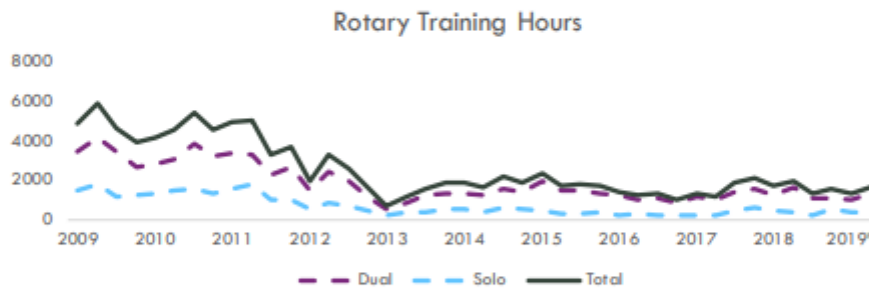
Domestically, a reduced intake to Air New Zealand may slow instructor recruitment to the airlines in the short-term but the global demand shows little decline. Careful management of this issue will be essential to ensure safe operations and should form a core element of any training schools recently introduced or soon to be rolled out SMS system.



## Rotary Flight Training

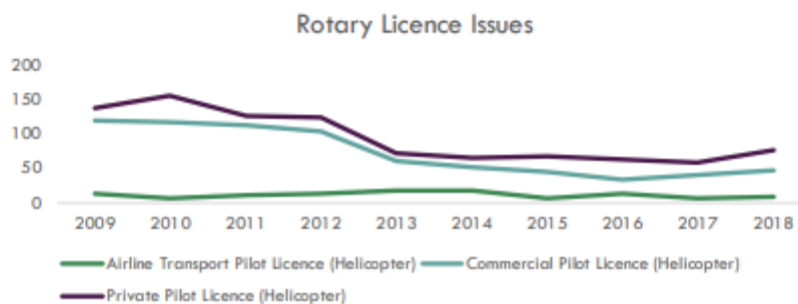
### Activity, Dual and Solo

Rotary training activity in aircraft has declined significantly over the last decade. 2013 saw the lowest activity and since then the training hours have remained somewhat stable at under 2500 hours per quarter. Dual hours are over 50% higher than solo, taking up 75% of all rotary training activity. Solo hours are consistent, sitting under 1000 hours per quarter. Rotary training has gone from 9% of all training activity across fixed wing and rotary in 2009 to 5% in 2018.



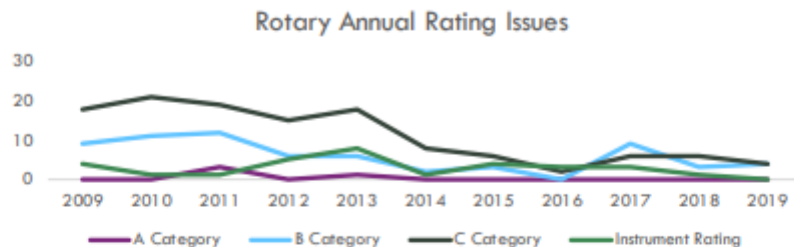
### Licence Issues (CAA data)

The number of rotary licences issued by the CAA has declined from 2009 to a low point in 2017. 2018 however saw a slight increase in rotary licence issues.



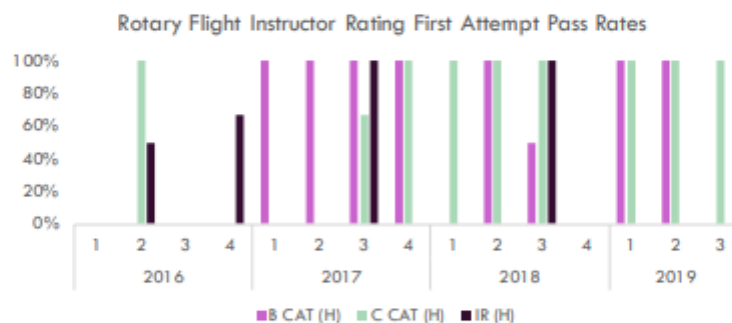
## Rating Issues (ASPEQ data)

The number of rotary instructor and instrument rating issues has seen a significant drop over the past 10 years, which mirrors the decline in training activity. There has been little recovery of this trend apart from a spike in B cat issues in 2017. The number of A Cat issues remains low across the decade. Since 2009, there have only been four rotary A Cat ratings issued.

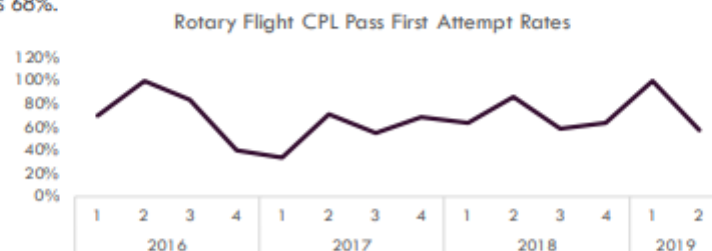


## National Flight Test First Attempt Pass Rates

The pass rates for first attempt rotary instructor rating flight tests over the last 3.5 years sits almost consistently at 100%. There have been no A Cat tests in the period. B and C Cat ratings have a 95% average pass rate overall, the rate falling under 100% in only one quarter for each test over the 3.5 years. Instrument ratings had low pass rates in 2016, but since then have had 100% pass rates. Due to the low number of tests the pass rates may only give limited insight.



Rotary commercial flight test pass rates sit slightly lower than fixed wing, however the lower numbers mean the overall rates are more variable. The average pass rate for first attempts over the last 3.5 years is 68%.



The low number of helicopter instructor rating issues remains stubbornly low. Whilst the factors involved are different to the fixed wing problem – no real equivalent of the airline ‘pull’ – there are issues to be addressed. Funding models for helicopter training do not reflect the additional cost involved compared to an equivalent fixed wing course. Work on the Helicopter NZQA Diploma syllabus provided some ‘smoothing’ of the funding albeit with no increase and Aviation NZ is engaged with TEC to seek increased funding for helicopter training. In the interim, CAA helicopter examiners will meet later this year to look at options for eligibility changes to encourage more A Cat instructor candidates to come forward.

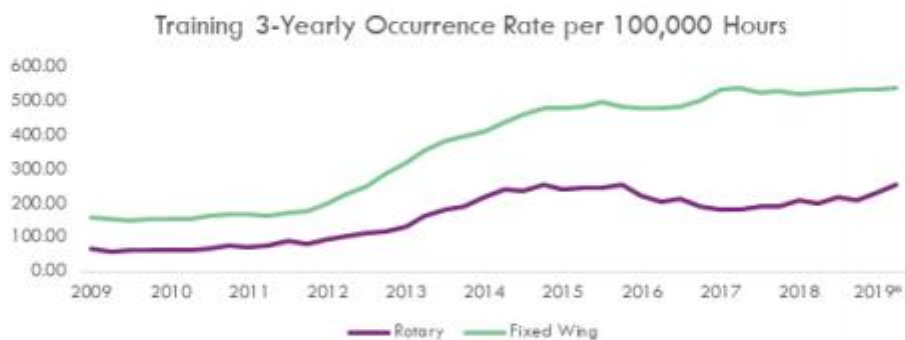


## Occurrences

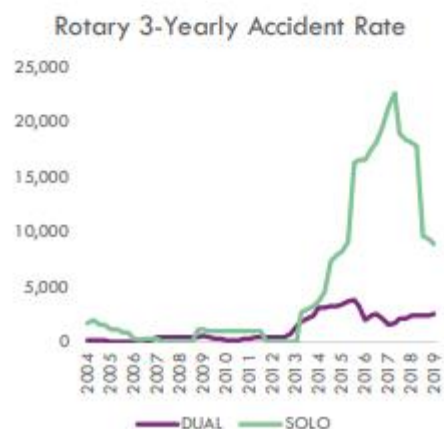
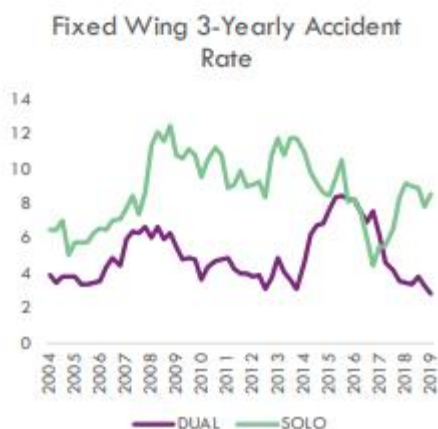
The following statistics show the occurrence, incident and accident rates as three yearly rolling averages. The occurrences included in the analysis are those with the nature of flight stated as either training dual or training solo. The occurrences are reported by operators, entered into the CAA database and subsequently extracted for analysis.

### Fixed wing and Rotary Occurrence Rates

This occurrence rate includes accidents, operational incidents, airspace incidents, aerodrome incidents and defects. The number of occurrences show an upward trend over the last ten years. There is an aspect of this which may be due to the increase in healthy reporting cultures within training organisations, however other explanations for the rise in occurrences requires further exploration.

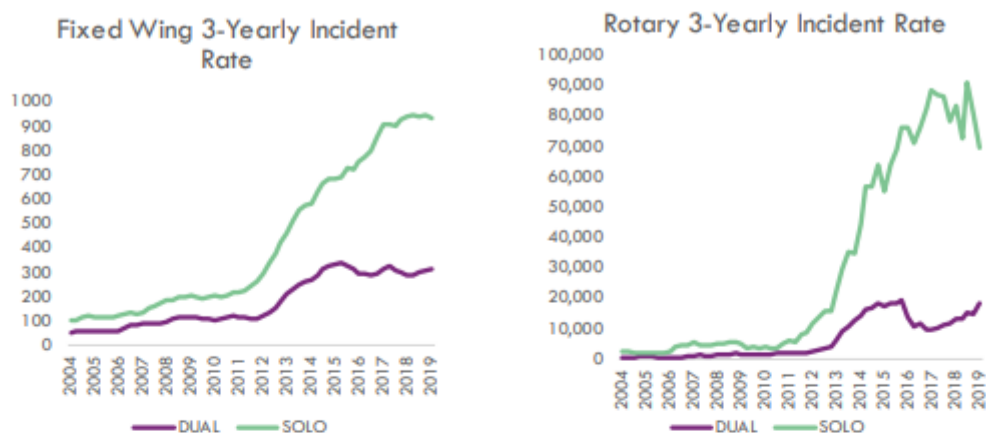


### Accident Rates





## Incident Rates



Both helicopter and aeroplane training follow very similar occurrence trends. The overall occurrence rate for both shows a significant rise from around 2012 to 2015/16 and a plateauing off after that. The increase undoubtedly records the role that better occurrence reporting has had and the levelling off of occurrences in part reflects the work that the CAA and industry has undertaken in tackling the recommendations of 2014's Dual Flight Training Review. The latter is also reflected in the marked drop or levelling off in dual accidents and incidents from about 2015. However, the increase in the events for solo pilots is of some concern.

As yet we have no hard data to support conclusions on why the increase is happening, but these are statistics we need to take proactive action on. Anecdotally, there is some evidence from recent incidents that what we might be seeing is the consequence of the issues of instructor experience and supervision already noted. Additionally, with fewer instructors of less experience, with increasing training demands, the supervisory task grows and the pressures to output students can be both subtle and insidious. This is classic 'swiss cheese' territory where effective supervision can often be the one single action that blocks the train of events leading to an incident or accident.

Also, with growing numbers of foreign students training in New Zealand we are seeing an increasing number of training flights being completed that are required to meet foreign aviation authority or airline requirements and that do not fall directly under a Part 61 syllabus. Additionally, the need to train instructors is generating a significant amount of upgrade flying that is often treated as 'private' flying often in the evenings or the weekend when aircraft are available (think fatigue management in this space as well). These flights require the same level of supervision as you would give to any Part 61 training flight. A B-cat instructor may be experienced VFR single engine, but after conversion to multi-engine or IFR, they are inexperienced in the new operation and must be supervised accordingly. A foreign student may hold a PPL or CPL and be 'only building hours' but they also do not have experience in the NZ environment, English is likely to be their second language and their flying still warrants significant oversight.

Effective supervision is a major block to any potential accident or incident; have a close look at all of your training to ensure you have a robust system in place.

## Incident Types

Fixed Wing Occurrences – Training Dual				
Type	2016	2017	2018	2019*
<b>Accident</b>	3	0	4	1
<b>Aerodrome Incident</b>	2	7	8	2
<b>Airspace Incident</b>	90	88	151	70
<b>Defect</b>	61	97	54	38
<b>Operational Incident</b>	38	25	27	19
<b>Grand Total</b>	<b>194</b>	<b>217</b>	<b>244</b>	<b>130</b>

Fixed Wing Occurrences – Training Solo				
Type	2016	2017	2018	2019*
<b>Accident</b>	1	4	4	2
<b>Aerodrome Incident</b>	16	21	16	6
<b>Airspace Incident</b>	271	204	389	150
<b>Defect</b>	51	48	34	10
<b>Operational Incident</b>	35	50	43	28
<b>Grand Total</b>	<b>374</b>	<b>327</b>	<b>386</b>	<b>196</b>

Rotary Occurrences – Training Dual				
Type	2016	2017	2018	2019*
<b>Accident</b>	2	0	1	0
<b>Airspace Incident</b>	3	4	5	10
<b>Defect</b>	1	3	4	2
<b>Operational Incident</b>	1	2	1	0
<b>Grand Total</b>	<b>7</b>	<b>10</b>	<b>11</b>	<b>12</b>

Rotary Occurrences – Training Solo				
Type	2016	2017	2018	2019*
<b>Accident</b>	1	0	0	0
<b>Airspace Incident</b>	2	0	3	4
<b>Defect</b>	0	1	0	0
<b>Operational Incident</b>	1	0	1	0
<b>Grand Total</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>4</b>

Incorporating feedback from recent examiner and instructor seminars, 2 areas of action are noted in this review.

Firstly, the number of airspace incidents continues to increase (higher activity is noted as a factor in this). Make sure your students are totally familiar with the airspace they will be flying through, ensure they are fully competent in the comprehension and execution of standard RT calls and get them briefed and familiar with the airfields they will be operating to and from. A constant comment from flight examiners at all levels is the generally poor standard of lookout being shown by students. All too often, the lookout scan may be evident prior to an academic steep turn exercise but thereafter, heads and eyes remain fixated ahead or inside the aircraft – not acceptable. And lookout is not just about seeing other aircraft. It should be a scan that includes identifying airspace boundaries coming up, what the weather conditions are ahead or constantly assesses suitable areas for a forced landing. Work hard with your students to improve this core skill.

Secondly, a recent safety notice was issued by the CAA regarding the importance of following standard circuit procedures. Non-standard joins have become endemic with some uneducated/unthinking/selfish pilots at many airfields. An RT call 'joining non-standard' does NOT absolve a pilot from following the rules and has had recent catastrophic consequences. Make sure your circuit training is up to standard: accurate and consistent circuit patterns (not miles away from the runway, you should be able to reach the field in the event of an engine failure from downwind), radio calls in the correct place (visual and aural cues are so important for awareness of other traffic), followed by consistent, stable approaches. Remember a good landing starts with a good, accurate circuit and stable, consistent approaches.



### On-going Action

Four issues have been highlighted in this Review for action, and the CAA PFT team will be monitoring these over the next 6 months and liaising with training organisations about how the risks are being managed. Good ideas will be shared across the sector. Of course, there is plenty more to be looked at and so your feedback will be essential in shaping future risk-mitigation activities.

## SECTION 6

Sample of occurrences to support focus areas –  
2018 to present



### Cross-country training/supervision

Pilot landed on closed side of runway marked with white crosses, that was also NOTAM closed.

Pilot was cleared to land on seal RWY 18, but it landed on grass RWY 18 which was NOTAM closed. Pilot readback seal 18 on the radio. Pilot admitted not seeing the NOTAM. First Solo Cross Country

While on a solo cross-country training flight, the student reported being forced to operate at low level (600ft) in the Kawhia Harbor area due to low cloud and poor visibility. An ALERFA was declared by ATC. Another company aircraft with two instructors onboard went to assist. ZK-\*\*\* was located and at low level, led out of the harbor seawards and climbed to 3500ft, ZK-\*\*\* was then escorted to NZHN for a safe landing.

Reported by 121 operator - Maintained 2000ft in VMC RNAV approach RWY21 due to a student (a little confused) in a Tecnam on final for RWY30 for a touch and go. Dash 8 held clear until Tecnam vacated, traffic was in sight. From the report details, it is likely that ZK-\*\*\* mistook Hokitika for Greymouth to the North.

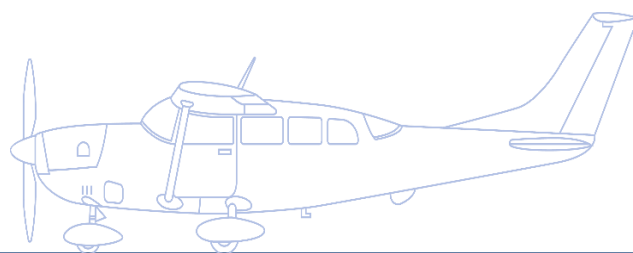
Student conducting a solo X/C training flight to NZGS, on return leg to NZWU south of Napier, the student became unsure of their position due reduced visibility and requested assistance from OH Control.

Radar assistance was provided until the student found NZDV where a full stop landing was conducted.

Student confusion joining at NZKI. Was attempting a standard overhead rejoin for the field but made no radio calls and was too low for the standard procedure. Local operator took evasive action to maintain separation

### Instructor experience and supervision – *note the above cross-country occurrences have supervision aspects associated with them*

The aircraft was on a dual training flight when it suffered a stall while the instructor was executing a reversal turn over rising terrain. The aircraft impacted the trees below and was extensively damaged. The instructor and student sustained some minor injuries.



## Joining and circuit procedures

Near collision. Confusion in the circuit. Two training aircraft were carrying out circuit training when they had a near collision occurrence on final, when aircraft (A) descended to within five vertical meters of aircraft (B).

Aircraft B could not initially turn away due to the potential risk of a collision with aircraft A. It had to descend first before turning away, and then climb to avoid collision with terrain.

Aircraft B was on final when the crew saw aircraft A line up on the runway in front of them.

Aircraft B executed a go-around and continued in the published left-hand circuit. Its crew assumed aircraft A would follow them in the circuit.

The pilot of aircraft A, however, became confused and flew a right-hand circuit.

The two aircraft then ended up flying towards each other on opposing base legs. The crew of aircraft B saw an aircraft in a base leg position but assumed it was a third aircraft and would vacate west.

As aircraft B turned final its crew realized the 'third aircraft' had also turned final and was descending towards them.

Aircraft B took avoiding action and both flights landed safely. The pilot of aircraft A was oblivious to the entire occurrence.

The training organization conducted a Part 12 investigation. They have since introduced several changes such as:

- inclusion of circuit information into pre-flight briefings
- flight-authorizing instructors are now expected to ask students 'relevant questions'. This is to identify any human limitations or knowledge gaps needing addressing before the flight
- the NZHS AIP landing plate has been amended and now states that all pilots must make a radio call on final

Aircraft did a straight in approach despite being requested several times by local instructors in the circuit to do a standard overhead join. Cut off an aircraft in the circuit (on final) who was forced to make an evasive maneuver, the pilot joined long final at Rangiora even though the circuit was busy with several other aircraft operating in the circuit.

Several instructors suggested that the pilot make a standard overhead join, but this advice was not taken.

The aircraft operator has since re-briefed the pilot on unattended aerodrome joining procedures and their own training which advises to make an overhead join at Rangiora.

Near miss in the Dunedin circuit between a C152 and C172. The C152 (Dual) was number one and turned base the following C172 (Solo) was number 2 and had a very close spacing when the C152 turned base it put it directly in front of the C172 causing the C172 to take evasive action to prevent collision.

Near miss in the circuit at \*\* aerodrome - aircraft in opposite directions on downwind.

Reported Description: I was operating in the standard 05 circuit at Taieri. I observed an aircraft taxiing to the hold point 23. I reported final 05 for a touch and go. The aircraft asked us if we were on a touch and go and what our intentions were. We replied that we were going back after our touch and go.

As we took off, we heard ""\*\*\*\* departing 23 remaining in the cct"" we called that we were off the field 05 and vacating the downwind to Dunedin I became concerned in the crosswind, so I asked the other aircraft to confirm that he was climbing straight ahead until we passed him.

There was no response. As I began turning downwind, I saw FHR mid downwind in the opposite direction to us. We climbed quickly to 1100 feet and tracked over the middle of the field, reported our intentions and switched to DN tower."

Non std ORJ of circuit, right base, conflict with aircraft joining circuit left base



## Situational awareness and threat and error management

Loss of Separation - Avoiding action required against a Tecnam transiting through the training area.

Loss of Separation - \*\*\* departed Ardmore aerodrome approx. 0930 NZDT and tracked to the Ponui Island to carry out a dual C Cat training exercise with 3 POB. The aircraft climbed and levelled off at 2500 ft approx. 1 nm east of Ponui Island and operated on Gulf traffic 120.40 MHz.

Shortly after level off \*\*\* was observed at very close range (35-50ft) on the right hand side of the nose and slightly above. \*\*\* was in a left-hand turn at the time. Immediate avoiding action was taken which was a quick descent and turn to the left. No radio call from \*\*\* was heard. \*\*\* confirmed \*\*\* registration by changing to Ardmore 118.1 MHz and listening to \*\*\* position report."

Aircraft were both from the same flight training organization. Both Aircraft were 172s

Loss of separation - Near miss with DA40 during FLWOP practice. Initiated a steep gliding turn to the right to avoid collision. Aircraft that initiated turn had Instructor teaching a trainee Instructor on board. Secondary Aircraft passing through area was a solo flight where the trainee was conducting their first solo out of the training zone.

Aircraft both from the same flight training organisation.

### Contact us



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