FEBRUARY 2023

Recreational Aircraft Association of New Zealand (Inc)

RAANZ RECPILOT

- Microlight Certificate or PPL?
- P3 Orion Retires from RNZAF
- Oxford Wheels and Wings

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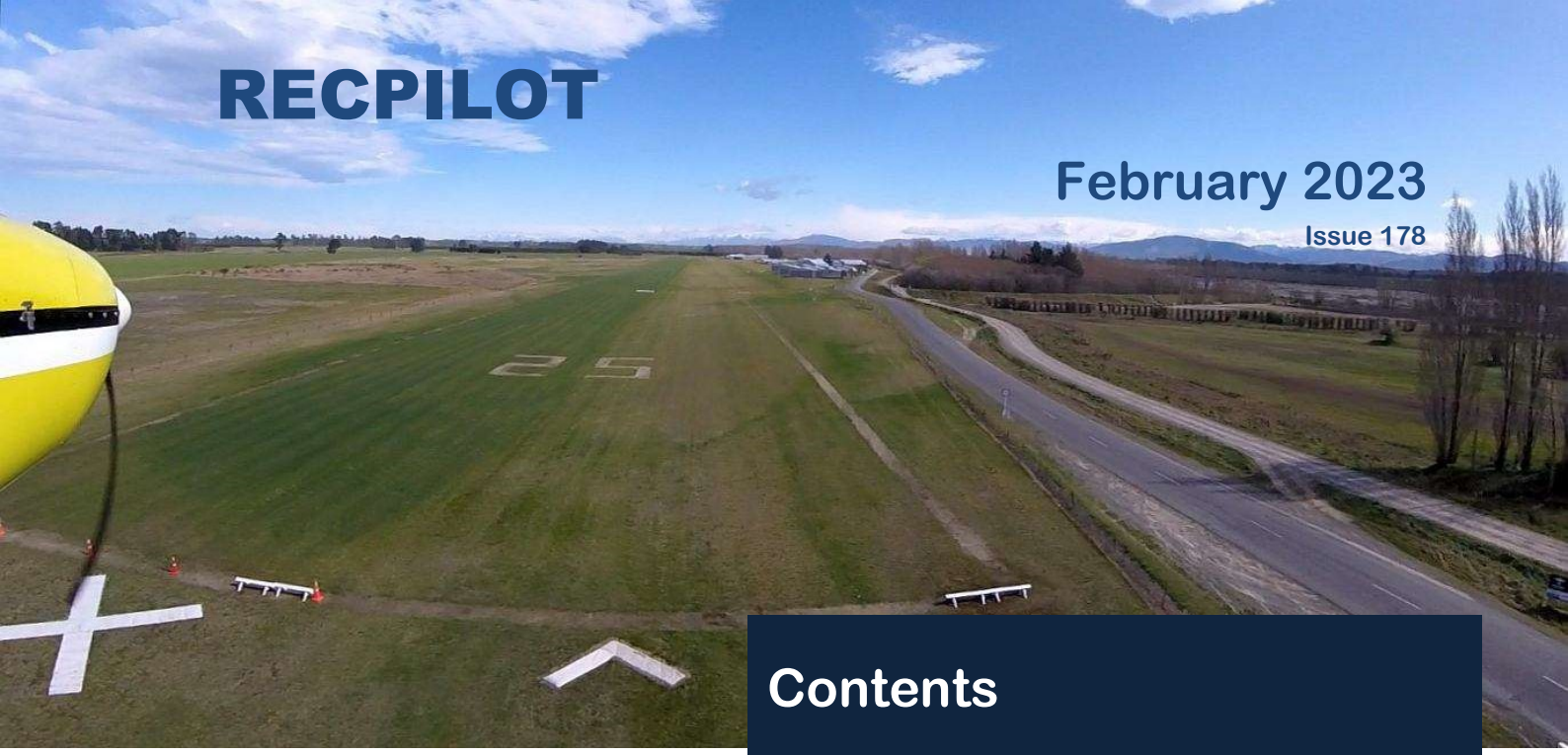

RECPILOT

February 2023

Issue 178

Contents

WELCOME TO THE FEBRUARY RECPILOT ISSUE

Cyclone Gabrielle has affected large parts of North Island, we hope that you and your loved ones aren't too badly affected by this terrible event.

In the South Island we have marked the 12th Anniversary of the Canterbury Quakes and honoured those we lost.

Personally, I plan to go flying as much as possible. It's a great coping mechanism!

***Cover** – Hamish Crowe demonstrates a safe short landing at the recent Oxford Wheels and Wings. Hamish recently won the Healthy B*stards Bush Pilot Championship" at Omaka*

Notes from the CEO
Scott James

As this comes out, we are just a few days from our fly-in. I hope to see many of you there! The forecast isn't looking too bad, but keep an eye on that, as well as our Facebook page and any emails from our Administrator.

New look

I am sure it is obvious, but we have a new look magazine. Brian Greenwood has been creating an amazing magazine for the Canterbury Recreational Aircraft Club for a number of years and has very kindly agreed to apply his skills for RAANZ. Special thanks to Makho Moyo for his assistance over the last year. You will see articles relating to Canterbury - this is primarily because these are the ones we have! I am hoping that this will encourage other clubs to also provide contributions. Brian can be contacted on editor@raanz.org.nz.

This magazine is a lot of work, so we will be moving it to every two months. We will continue to use our Facebook and web pages for information as well.

RAANZ Strategic Plan

RAANZ has been operational for many years now and has served the microlight community well. The environment around us is constantly changing. Club dynamics, our demographics, regulatory and of course, our capability, have all changed and continue to change.

To help RAANZ provide the best possible service for our members and ensure we continue to meet the requirements from both CAA and the community, the executive will be creating a Strategic Plan. This will provide input on the future decisions of the executive. It is critical that our members provide input into this process. In the next few weeks, we will be sending a survey out to all of our members. I encourage you to respond to this, and of course, provide any other comments and feedback.

Scott James 021 525 561

Shiny New Editor
Brian Greenwood

This edition of RecPilot is my first as editor – please forgive my usual typos and poor grammar!

Originally, I volunteered to do the RAANZ magazine and just include the content in RecWings. However, that magazine is mainly focussed on the Canterbury Recreational Aircraft Club, and the first draft just didn't feel right - it did neither organisation justice! RecWings is a light, promotional magazine in print format, whereas RecPilot is far more informational, and deals with some very serious issues. I will try to keep my sense of humour at bay.

I've never made any apology for publishing aviation stories completely unrelated to Microlights. This month's story on the P-3 Orion withdrawal from the RNZAF marks the end of a very impressive service record that will only be beaten by the C-130H. We fly microlights because we love aviation, microlights just happen to be a superb path to the dream.

RAANZ has been a proponent for Microlights since the earliest days, we have them and the CAA to thank for the enlightened and advanced Part 149 framework that we enjoy in New Zealand.

Stepping up to help RAANZ is an honour, and I hope to do it justice.

I'm obviously based in Canterbury so my content will be biased towards this region. I would love your help in photographs and articles to paint a better picture of recreational flying in New Zealand. Or, in fact, aviation in general, anywhere! Even just a nice photo is great (although, it should be aviation focussed!)

This first magazine was produced at short notice from the original combined draft, so please forgive me if some of the content and format overlaps with RecWings a little.

Please feel free to submit your contributions, articles, bouquets and brickbats to editor@raanz.co.nz.

Oxford Wheels and Wings

Brian Greenwood

The Oxford Lions Club held their "Wheels and Wings" fundraising event at Oxford air strip on Sunday 22nd of January.

Nestled near the foothills of the Southern Alps, by the confluence of Coopers Creek and Eyre River, it would be difficult to imagine a prettier location in Canterbury.

The vehicle event is a display of classic and interesting vehicles, the entrance fee for which went to the Lions charity fund. An added attraction was a trial flight, the cost of which was to cover expenses.

Although it wasn't a CRAC or RAANZ event there were several members amongst the supporting cast (including myself). All pilots were senior instructors of some variety.

I arrived at around 11:00am and the car park filled to the brim by around lunch time. The Trial flights were going flat out so I wandered around the car section for a while. Naturally I headed towards the Jaguars but there was a wide variety of vehicles including a very nice Ford GTHO Falcon (replica), Bedford Trucks, Alfas, a swarm (Squadron? Nursery?) of Bambinos, Porsches, American Muscle and Classics, and the cars of my youth – 1960 New Zealand everyday cars such as Consuls, Cambridges, Morris's, etc.

Above, *A rather tasty Porsche 928 S4 graces the carpark.*

Below left*, RAANZ CEO Scott James in his Zenith CH-601. I thought I'd better show a picture of the boss!*

Quite a few people were enjoying the flying, both as spectators and participants, with long queues for the flights. These were very well organised, with the operational area properly fenced and plenty of helpers to provide security.

Once an incoming aircraft had shut down, the previous trial student was escorted from the plane back to the public area, and the next one escorted out and buckled in. If another aircraft was taxiing in, the process ceased until the aircraft was in and shut down.

***Above**, Dave Mitchell's Kermit touches down.*

***Below**, as well as the lesser breeds there were a selection of Jaguars – a white 1968 Jaguar 240, Grey Mark VIIM, and a Champagne 1999 XK8.*

***Above,** the queues for the trial flights had been a lot longer earlier in the day.*
***Below**, Ryan Humphries assembling his Trike in the display area*

I arrived just as the pilots and ground staff were taking a break. With my usual good luck someone had ordered an extra coffee and it was a shame to let it go cold (who do I owe for that?). I really don't feel like I had earned it.

Amongst other arrivals for the static display were a near new Zenith CH-750, Ryan Humphreys' very cool amphibious float equipped Trike (trailered in out of respect for the cross wind), the gorgeous Rans S6 ZK-CCE (I will admit my bias for S6's), Zenith 701's ZK-SLO and JRT, Savannah SDR, SkyRanger SRS, and the Chook FTJ.

Another very cool arrival was Gary Cotterell in his Mk26 Spitfire replica. This beautiful aircraft is painted up as a Spitfire V flown by a Lt Eric Lock (DSO, DFC). (Info thanks to David Paull's NZ Civil Aviation Blog.)

Although outside the scope of this article, I need to acknowledge the aircraft accident that occurred later in the day and wish the two involved a speedy and easy recovery.

Above, *who wouldn't like to sit on the hay and watch aeroplanes?*
Above right*, Michael Small in Karatoo ZK-KTW committing aviation in style.*

That aside, the event was a huge success, and the organisers should be very proud. And the Lions Club's Bacon and Onion sandwiches were a delight!

Below, *Doug Anderson's awesome Zenith CH-750 Cruiser*

A special shout out to the hard working crew during the event, and a special thanks to Mike Small for enabling the Air to ground photographs.

P3 Orion retires from RNZAF Service

Brian Greenwood

The Lockheed P-3 Orion was a Maritime Patrol aircraft developed from the Lockheed L-188 Electra in the 1950's under the USN's Type Specification 146. This was a requirement for a Lockheed P2 Neptune replacement specifying a short development time, which necessitated development from an existing aircraft.

Modifications included an enlarged nose radome with an ASV radar, MAD (Magnetic Anomaly Detector) in a tail boom, a lower fuselage bomb bay forward of the wing, hardpoints for weapons pylons on the wing, and other structural details.

The Lockheed YP3V-1 prototype was modified from the 3rd Electra L-188 airframe. Production P-3's had a fuselage which was shortened by 2.1m (7')

The aircraft first flew in 1959 and entered service with the US Navy in 1962.

By the early 1960's the RNZAF needed to replace it's WW2-era Short Sunderland MR.5 flying boats with a modern airframe. In 1964 the New Zealand Government sought approval for 5 of the new Lockheed P-3A Orions in an 8 million Pound project.

The RNZAF received their brand-new P-3s, by this time the 'B' model, in September and December 1966. The RNZAF were the first "foreign" operators of the Orion. A further second-hand P-3 was purchased from RAAF stocks via Lockheed in 1985.

Being a land-based aircraft, the RNZAF no longer required its seaplane facilities, so the RNZAF base in Luathala Bay, Fiji, was closed.

The initial fleet of 5 aircraft soon proved their worth as a rugged and reliable long-range patrol aircraft.

They frequently participated in overseas events, such as the Fincastle Trophy - an Anti-Submarine Warfare exercise held between the UK, Canada, Australia, and New Zealand. The Kiwi Orions have won this 8 times.

By the 1980's the technology was dated, and the RNZAF initiated the first major upgrade under the project name 'Rigel'. The aircraft received new avionics, radar (APS-134 X-band), radio systems, digitised internal systems, and an IRSD (Infra-Red) camera in a turret under the nose. Eventually the latter caused the retirement of the now redundant underwing search light. The much-improved aircraft was re-designated P-3K.

The harsh operating environment and the expected long service life necessitated a life extension program in 1997, under the name 'Project Kestrel'. The entire outer-wing section, horizontal tailplane, lower wing centre panels, wing wiring, and engine pods were replaced. A fuel dump system was installed. The sixth airframe was completed in 2001 and the operational life had been extended by 25 years.

In 2005 the fleet of six were further upgraded to P-3K2 standard, which included a glass cockpit, new flight management system, digitalised radio navigation systems, GPS, improved IFF (Identification Friend or Foe), updated radios, electronic surveillance, and removal of the MAD (Magnetic Anomaly Detection) equipment (however the empty tail "sting" remained in place). In 2016 the acoustic systems were upgraded to P-8A Poseidon equipment.

During the nearly 60 years of service the aircraft have served New Zealand incredibly well. They have hunted submarines, participated in humanitarian missions, saved countless lives in Search and Rescue missions, joined our friends in operations such as "Enduring Freedom" (2004 Global war on Terrorism), and patrolled New Zealand's Exclusive Economic Zone. An RNZAF P-3B holds the world record for the longest duration flight for a P-3, of 21 hours and 30 minutes set in 1972.

The Orion is being replaced by 4 Boeing P-8A Poseidon aircraft, the first of which has been delivered to RNZAF Ohakea. Sadly, the P-3K2 Orions have had to be retired early to allow enough resources to concentrate on the P-8A introduction.

There's also an EMAC project (Enhanced Maritime Awareness Capability) which is intended to remove some of the more "civilian" roles (such as Search and Rescue, EEZ Patrols, pollution tracking) from the P-8A. The requirement mentions Aircraft, Satellites, and possibly UAVs.

Such aircraft as the ATR-72 Maritime Patrol and CN235MP have been mentioned, King Air type aircraft may also be suitable.

In the meantime, we celebrate the tremendous service that the RNZAF and the P-3B/K/K2 has given the New Zealand taxpayer and look forward to our Air Force getting to grips with the equipment.

RAANZ Operations

Rodger Ward

I mentioned in our last newsletter that there has recently been several Accidents / Incidents.

Tragically one has resulted in a fatality. Our collective sympathy goes to those associated with this event.

Our Incident rate in some areas of the country has caused the regulator to pay more attention than normal to some of our operators.

Certainly those areas that have a greater concentration of operators will statistically have an equally higher percentage of Incidents. There is no reason however to accept this and indeed one could argue the a greater concentration of like minded people could and maybe should, be setting a higher standard for the rest to follow.

Several items that have been brought to the regulator's attention around one of our major concentrations of aircraft. We don't know what we don't know, so some of these items could well be prevalent in other areas as well.

- Accidents and Incidents occurring that are allegedly not being reported as required under CAA rules or as required by our Part 149 Exposition.
  All members should be acutely aware of their requirements to report and also should be acutely aware that the first objective of any reporting is to prevent a similar event happening to anyone else.
- Damaged aircraft are being removed and placed out of sight without proper examination.
  All should be aware, except in promulgated circumstances, of the need to get approval to move damaged aircraft. This is essential to facilitate proper investigation of the occurrence.
- Airspace conflicts.
  Even if you are not a regular user of controlled airspace it is essential that proper training is completed in the recognition and respect of controlled airspace boundaries.

- Non-Compliance with MBZ procedures.
  MBZ's are promulgated to facilitate the safe movement of aircraft and it is essential that they are complied with. The AIP does allow for some exceptions but it does require someone else to broadcast on your behalf.
- Non-Compliance with circuit procedures.
  Circuits procedures are promulgated to allow for an orderly and predictable flow of traffic around an aerodrome. There is no excuse to fly a nonstandard circuit for expediency or worse if you just haven't read the chart.
- Non-Compliance with Notams.
  Before any flight no matter how short or how local it is there is a requirement to preflight check on anything that may affect your flight. There is no excuse for landing on a closed runway or flying in Temporary Restricted Airspace of which there has been a lot of late. This will include a check on Notam and AIP Supplement.
- General unsafe behaviour and Incidents relating to the above.

I have mentioned many times that we have the best framework in the world for operating our type of aircraft. It is a privilege, not a right and must be treated with much respect. We must be and be seen to be responsible members of the aviation community. We are flying real aircraft with real people and sharing the skies with many other types of aircraft.

On a brighter note the long range forecast is looking ok for the National Fly-in at Matamata March 3 – 5. I will be getting out for some competition practice before the event.

Safe Flying,
Regards,

Rodger Ward.
RAANZ Ops

A Cautionary Tail

Privacy and your aircraft registration - A cautionary tale or?

In these days of scams, identity theft and smashed avocados on toast it pays to be careful with your personal data. Most of us will be cautious in on-line environments and hopefully have complex passwords like the unique 123456789 I use.

Around 6 months before COVID I received a handwritten letter in the mail. Quite an unusual event these days. This had originated in the UK, according to the stamp, and had survived the transit through NZ post to arrive in my box. It seemed innocuous, thin, and non-rattly. To be safe I left it unopened for a few days - my wife eventually succumbed to curiosity and opened it. Naturally wearing rubber gloves as she did.

It was from a colleague, in the UK, who had been one of my classmates on my Air Traffic Control training course 50 years previously. This was the first I had heard from him for 50 years.

It transpired that he was coming to the Wanaka air show and offered to meet up for a beer. After exchanging a few modern communications by email, I found I had not only agreed to a beer but also invited him to stay for a few days. Much against my wife's advice.

But - How had he found me? The New Zealand CAA Aircraft Register Search is to blame.

He is an aviation enthusiast. 50 years ago, it was almost a prime requirement to become an Air Traffic Controller. He had been browsing *nzcivair.blogspot.com* and had seen a picture of the microlight I had just built along with my name. I must add that my name is not very common. A search on the Internet turns up less than a dozen globally. Also 20 years previously he had heard a rumour that I had moved to NZ.

A quick search with the registration in the CAA registration search and he had confirmed my name and physical address!

Did I get to meet him again? No, apparently, he was arrested attempting to leave the UK and has since been charged with the attempted murder of two other people on the ATC course.

Of course, that last sentence is a complete fabrication. In fact, his flight was cancelled because of COVID. I haven't heard from him since.

It does raise the question as to how easy it was to obtain this information. Anyone who sees your registration can find your name and address. This could include press reporters, following an incident, or any member of the public - friend or foe.

Within the CAA registration web site there is a section on privacy and digging into this you can find an email address to have your personal details removed. **privacy@caa.govt.nz.** and the words "**private owner** "substituted.

There are **very few** microlight aircraft where this has been done.

There are few places that make such information is so openly available on the web. You could not, for example, look up the address of a car owner from the registration number.

I personally believe that in this day and age, "Private owner" should be the default and that you should have to ask for your address and name to be displayed.

If you are concerned about your privacy, consider switching to "**private owner**".

ZKSUA

Membership Changes

Name	Club	Certificate	Update
Peter Chartres	Southern Recreational Aircraft Club	Advanced Local	Upgrade
Aaron Wakelin	Gore Aero Club	Advanced National	Upgrade
Carsten Mathieu	Whangarei Flying Club	Advanced National	Upgrade
Peter Avery	Gyrate Flying Club	Senior Flight Instructor	Upgrade
Robert Bargent	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Johan Doevendans	Associate	Novice	Joined
Ryan Humphreys	Associate	Advanced National	Upgrade
Duncan Elliott	Wairarapa Aero Club	Advanced Local	Upgrade
David Gordon	Wanganui Aero club	Advanced National	Upgrade
Wayne Godfrey	Associate	Advanced Local	Upgrade
Samuel Miller	Associate	Advanced National	Joined
Harry Izard-Price	Associate	Advanced Local	Upgrade
Ronald McFarlane	Associate	Senior Flight Instructor	Upgrade
Bruce Stevenson	Associate	Senior Flight Instructor	Upgrade
Matthew Walker	Golden Bay Flying Club	Intermediate	Upgrade
Russell Grundy	Associate	Novice	Joined
Brett Belworthy	Associate	Intermediate	Upgrade
Richard Pollard	Whangarei Flying Club	Advanced Local	Upgrade
Nathan Glen	Associate	Novice	Exam

Name	Club	Certificate	Update
Donald Payne	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Dino Damiani	Associate	Novice	Joined
Jeffery Ellesmere-Sly	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Ann Laylee	Associate	Advanced National	Joined
Robert Climo	Bay of Islands Aero Club	Advanced National	Upgrade
Bruce Larkin	Bay of Islands Aero Club	Advanced National	Joined
Paul Clinton	Gyrate Flying Club	Advanced National	Upgrade
John Gorringe	Associate	Advanced National	Joined
Matthew Botherway	Associate	not issued	Joined
Jordan Searle	Canterbury Recreational Aircraft Club	Novice	Exam
Tali Lawry	Associate	Novice	Exam
Dean Remnant	Associate	Advanced National	Type rating
Malkit Singh	Associate	Novice	Joined
Chad Pienaar	Associate	Advanced National	Joined
Dhaval Gehlot	Hawkes Bay and East Coast Aero Club	Advanced National	Joined
Ameya Nayak	Associate	Novice	Joined
William White	Associate	Advanced National	Joined
Ella Kutsyk	Fiordland Aero Club	Novice	Joined
Cameron Witteman	Associate	Novice	Joined
Cameron Rae-Coombes	Associate	Novice	Joined
Hugh McLellan	Associate	Advanced National	Joined
Brandon Harpur	Associate	Novice	Joined
Fiona McCloy	Geraldine Flying Group	Novice	Joined
Gregory Gemmell	Kaitaia Aero Club	Novice	Joined
Jonathan Faram	Hawkes Bay and East Coast Aero Club	Advanced National	Joined
Lewis Stick	Manawatu Aviation Club	Novice	Joined
Andrew Fisher	Parakai Aviation Club	Advanced National	Joined
Peter Hendriks	Associate	Senior Flight Instructor	Joined
Christopher Morrissey	Associate	Advanced National	Joined

Why we do stuff - Microlight Certificate or PPL?

Bill Henwood

In my roles in microlight and GA training/testing, I am often asked the differences between the privileges and responsibilities of holders of microlight aircraft pilot certificates and Private Pilot Licences. Recently on social media there have also been discussions about the same subject and some misinformation has been perpetuated. This article is not intended to denigrate or promote microlight or general aviation aircraft and pilots, but to dispel some of the misinformation out in the aviation community.

Two of the more traditional 'rag and tube' microlight aircraft, Micro Aviation Bantam B22 flying near Te Kowhai in 2011.

Of course, for a pilot wishing to progress to a career in aviation the PPL is the first formal step, but often gliding, parapentes, hang gliders, model aircraft or microlight flying is a precursor to starting PPL training. The PPL training caters for potential progress on to a future professional pilot licence. For recreational pilots though the choice is not so cut and dried. There are definite reasons for a pilot to choose general aviation or microlight licences, and in some cases reading between the lines is required to make that choice. Here I will try to clarify some of the reasons pilots decided to swing a decision one way or the other. And of course, we often strive to continually improve our knowledge and skills, so there is no harm in extra training skills even if not aiming for a professional licence.

Upskill VERB (transitive)
to improve the aptitude for work of (a person) by additional training

Firstly, the bottom-line rules.

Microlight pilots are governed by CA Rules Parts 61 (Pilot Licences and Ratings) and 91 (General Operating and Flight Rules), modified by Part 103 (Microlight Aircraft Operating Rules) and must

One of the more modern High Performance microlights, Bristell NG5, flying over North Waikato in 2018.

operate under the auspices of an Aviation Recreation Organisation certified under Part 149.

Microlight aircraft are defined as aircraft of low inertia designed to carry a maximum of two people, up to 544 or 600 kg maximum all up weight, depending on the manufacturers data. The stall speed must not exceed 45 knots. They can also be defined as High Performance (Tecnam, Bristell, Sting, Dynamic etc) or Low Performance (Bantam, X-Air, etc.) and be further categorised as weight shift or 3 axis control, gyrocopters, or powered parachutes.

Part 103 requires that pilots wanting to fly a microlight aircraft must be a member of a Part 149 organisation that offers Microlight Certification, i.e. Flying NZ or RAANZ, Recreational Aircraft Association of New Zealand. The part 149 organisation sets the

standards for ground and flight training, and maintenance, which in most cases is more relaxed than the traditional pilot licences. Part 103 also allows microlight pilots and owners to carry out their own maintenance, and Inspection Authorisations are issued by the Part 149 organisations to suitably qualified people for maintenance oversight of owners. Part 43 allows GA pilots to be trained and approved to carry out minor maintenance such as cleaning, changing tyres, spark plugs and light bulbs on their own aircraft. Medical standards for microlight pilots are to a lower standard than General Aviation Pilots (PRES: Note that GA Pilots now have the option to use a DL9 Medical certificate similar to Microlight standards).

Microlight pilots are not allowed to fly their aircraft over built up areas, fly in Instrument Meteorological Conditions, (IMC or cloud) or fly at night.

Part 103 allows a pilot to practice varying levels of privilege including:

- Solo flight after appropriate training and under supervision of an instructor.
- Local flying after further flight and ground training and exams.
- Cross Country flying after further training and exams.
    - Advanced – Local. Minimum of 4 exercises, 5 hrs total, 2 hrs solo x/c, including 1 hr/3 leg flight, high level, low level, mountain, weather diversion
    - Advanced – National. Minimum of 4 exercises, 10 hrs total, 4 hrs solo x/c, including 3hr/3 leg flight, high level, low level, mountain, weather diversion, controlled airspace
- Carriage of up to one passenger after further experience and training.
- Train for a microlight Instructor Rating after a minimum of 150 hours flight experience, including 10 hours microlight and 10 hours x/country.

Private Pilots are allowed to fly solo after gaining a medical, demonstrating English Language proficiency and flight training to a safe standard.

Private Pilots gain their Licence after:

- minimum experience requirements are met in accordance with the PPL Syllabus (approximately 60 hours minimum),
- 6 exams are passed,
- 10 hours (5 dual, 5 solo) of Navigation Training,
- 5 hours Instrument training and
- 5 hours Terrain and Weather Awareness Training

All training is conducted and certified by their instructor.

When judged proficient by their CFI they sit a flight test conducted by a Flight Examiner, which includes an oral and practical test.

Private Pilots are allowed to fly as Pilot in Command any aircraft for which they have a rating, and with a Class 2 medical can:

- carry passengers
- hold an aerobatic rating,
- hold an instrument rating,
- hold a night rating,
- tow gliders,
- drop parachutists,
- tow banners,
- fly pressurised aircraft.
- fly multi-engined aircraft
- Carry out Agricultural Operations

Private Pilots can choose to operate with a NZTA DL 9 medical instead of the CAA Class 2 medical. This closes some of the gap in expense between the microlight

medical requirements and GA medical requirements as requested by industry. The DL 9 medical is conducted by a pilot's own doctor and is a more relaxed medical standard but comes with reduced privileges.

As below a PPL with a DL 9;

- is restricted to aircraft below 2,730 kg MAUW
- can carry no more than 5 passengers,
- is not allowed to fly under IFR,
- is not allowed to perform agricultural operations,
- is not allowed to carry out aerobatics with a passenger,
- can operate up to 25 nm from a lighted aerodrome at night.
- can tow gliders.
- can operate multi-engined aircraft up to 2730 kg MAUW.

The PPL and Class 1 medical are a prerequisite to sit a Commercial Pilots Licence (CPL) flight test. The CPL and Class 1 medical are a prerequisite to sit an Instructor Rating flight test.

The study reference to be a RAANZ Flight Instructor is the same CAA Flight Instructor Guide as a Part 61 Instructor and the RAANZ online Instructional Technique Course.

A GA/Part 61 Flight Instructor is required to have a minimum of 225 hours flight experience and required to have an in-depth knowledge of the CAA Flight Instructor Guide, know the preflight briefings, have a good knowledge of the 'Mechanics of Flight' by AC Kermode (also a CPL Reference), Principles of Flight and good knowledge of CPL Met and CA Rules. The minimum practical requirement is for 25 hours flight experience after attaining their CPL, so a total of 225 hours including 15 hours of instructor training flight time. More importantly though is the countless hours practicing the pre-flight briefings to develop instructional techniques. In my case, learning to be an instructor took 3 months of solid study and practice, about 4 hours per weekday, and 8 hours per day on the weekends, woven into a full time job. Then the trainee instructor sits a flight test with an ASL or CAA Flight Examiner.

GA aeroplanes can be certified, Light Sport Aircraft (LSA), warbirds, or homebuilt. Depending on weight and owners' choice, homebuilt aircraft can be GA, LSA or microlight and must be operated in accordance with the appropriate rule parts.

There are some areas of the above that can lead to different interpretations of the rules to operate under, and where I am often asked for clarification as a Microlight flight examiner or GA trainer or when I administer BFRs on behalf of the Director of Civil Aviation.

Again, sometimes you have to read between the lines to get to the correct interpretation.

Cross crediting of microlight flight time to PPL is a common area of misinterpretation. The rules allow for up to a maximum of 10 hours microlight PinC time to be credited to PPL minimum flight time. The 10 hours consists of;

- 50% of the Pilot in Command time of a microlight aircraft,
- carried out in the previous 12 months.

Key points here are that the microlight hours are Pilot in Command (PinC or solo) carried out in the previous 12 months on PPL flight test day. So if you have no flying experience at all, it may be of limited value to think that 10 hours (to see if you like flying) can be carried over to PPL.

To achieve 10 hours PinC from scratch you will:

- do some dual instruction, (say 7 hours to solo),
- solo and dual consolidation, (5 solo, 5 dual instruction),
- then another 15 hours solo interspersed with dual, to achieve the qualifying 20 hours solo.

So, it could easily take between 30 and 40 hours flying to achieve the 10 hours solo. Then those 10 hours need to be current on flight test day. Might as well just start off doing PPL training? And with a PPL you can fly a microlight with just a type rating and Microlight Certificate issued by an Instructor holding a type rating and a microlight instructor rating issued by a Recreation Organisation holding a Part 149 Certificate (currently RAANZ or Flying NZ).

Microlight aircraft are not permitted by the rules to fly over built-up areas, including built up areas on approach to an airfield. This is the trade-off industry made to have relaxed medical standards and owner maintenance of microlight aircraft, to protect the general public below. LSAs can only fly over built-up areas on approach or departure to or from an airfield, as they must be maintained by qualified maintenance engineers and flown by at least a PPL. If an LSA is flown by a Microlight Pilot it must be flown to conform with Part 103, i.e., flown as a microlight. As I said a trade-off. At the owner's discretion a LSA or GA aircraft can be re categorised as a microlight if it fits within the weight limits, but not vice versa. And if the change is made, then it cannot be reversed. In general, experience has shown that an aeroplane that is re categorised as a microlight will lose value. Examples of aircraft that could be microlights, LSA or GA are shown in the photo below.

J-2 Cub ZK-AGD, MTOW 453kg, registered as a microlight.

J-3 Cub ZK-AHD, MTOW 498 kg, currently GA, could be microlight.

PA-18 BQV MTOW 680 Kg, GA, too heavy for microlight.

As airfields are being encroached on by housing developments, this can preclude operations by microlight aircraft from an increasing number of airfields. It is up to PIC of all aircraft to operate within their licence privileges.

Some of the high-performance microlight aircraft perform better and are more technically enhanced than legacy GA aircraft. This can be a challenge as often microlight pilots are in the older age group, and sometimes less able to understand the technical advances being made. This problem is also being felt by airlines since 'glass cockpits' were introduced in the early 1980's. A lot of work has been done by airlines and professional pilot associations to counter the knowledge or technical gap, and some of this work has filtered into the GA and microlight communities. In some cases, I have seen manufacturers of avionic equipment using the homebuilt/microlight communities to 'Beta Test' new equipment or software before making improvements and migrating to the airliner cockpits. This is by no means meant as a criticism of older pilots, as a lot of work is being done in a lot of areas as the population ages and medical techniques improve so pilots can hold medicals for longer.

In summary,

- Part 103 governs microlight aircraft and pilot operations. This relaxed oversight is often cheaper than can be provided by the regulator which filters down the chain to cheaper aircraft operation and maintenance.

- Microlight and Recreational Pilot Medicals are carried out by your own doctor thus another saving over the Designated Medical Examiners who must charge more to recoup the cost of extra training they must undergo. With the recent approval of the DL 9 (NZTA) medical for PPLs this advantage has been eroded. Maintenance is cheaper when done by an owner but must still be done properly. If it has to be done twice, is it indeed cheaper? Cosmetic maintenance and simple tasks

such as changing tyres, spark plugs, and light bulbs can be carried out by the GA pilot.

- There is no doubt that PPL training is more expensive and requires more study hours than a Microlight Certificate. A PPL can fly a microlight aircraft but not vice-versa, so a pilot needs to weigh up the cost versus benefit, both ways. However whichever way is chosen, don't be afraid to upskill at every opportunity, especially at BFR time.

Microlight Incident Reports

Microlight Type/Model	Zlin Savage Cub
Place of Incident	NZOM
Other Aircraft Involved	None
Describe the Incident	4 Feb 2023 0830 Omaka. Tail wheel attachment spring of microlight aircraft broke during practice circuits – probably on landing but may have been during take-off: There was no obvious shock to the airframe to effectuate the damage so cannot be exactly determined when it occured. Tail spring failed and broke in half leaving the tail wheel inoperative and attached to aircraft only by steering chains. While the pilot suspected (felt) an issue with the tail wheel, he was unaware of the extent of the breakage and flew an additional circuit with the tail wheel only partially attached to the airframe. The pilot had already elected to stop and inspect the aircraft after the next landing, but ground observers also notified the pilot of a suspected problem by radio. Upon landing, broken tail spring was observed and the aircraft was removed from the airfield for repair.
Describe the affect on Safety	While it was unlikely for the tailwneel to have fallen from the aircraft during flight, (and if it had the likelinood of damage / injury on the ground was negligible), there was a possible chance due to the structural failure of the main attachment of the tail wheel to the aircraft.
Remedial action taken	A more robust and higher strength spring has been now fitted to the aircraft to prevent re-occurence.
Corrective or preventative action recommendations	Spring steel material is known to eventually fatigue and fail under long repetitive use. In this case the stresses of the very frequent short take-off and landing performances for this aircraft likely accelerated the wear and fatigue rate of the spring. Given the heavy usage and performance demands of the spring, the pilot should have been more vigilant for monitoring condition and inspecting for damage / cracking. While the aircraft had been thoroughly inspected less than 2 months prior for its AI, the underside of the spring is difficult to inspect and easily over-looked. Recommend more dedicated checking of tail undercarriage when conducting STOL.

Microlight Type/Model	Tecnam P2002RG
Place of Incident	NZPI
Other Aircraft Involved	
Describe the Incident	Nose leg retracted on landing CAA005 submitted by operator and maintenance
Describe the affect on Safety	Aircraft nose hit runway, veered off to side
Remedial action taken	Work in progress awaiting parts, prop repair by manufacturer. GB inspection done.
Corrective or preventative action recommendations	Nose gear actuator very stiff – approx 50kg force to move. Pnuematic actuator, inside cylinder dirty preventing o-ring from moving sliding. Recommend annual check of force required to move and bienniel internal inspection

Microlight Type/Model	GY201 Minicab
Place of Incident	Waipukarau
Other Aircraft Involved	
Describe the Incident	Flying about 5 miles to the west of Waipukarau on track Hastings at 2200 feet when the fabric on the horizontal stabilizer let go at the seam causing drag which pulled the control stick out of my hand. The plane instantly nose dived towards the ground. I pulled the power and regained control at around 1000 feet. With a very heavy stick I landed at Waipuk and taped up the fabric to get the plane back to Hastings for repairs
Describe the affect on Safety	I lost around 1000 feet before regainng control. I'm Glad I was at 2200 feet.
Remedial action taken	The aircraft tail has been completely recovered and the aircraft test flown and returned to service
	

Microlight Type/Model	Savannah S
Place of Incident	NZRT
Other Aircraft Involved	
Describe the Incident	Rough running engine turning crosswind in circuit. Revs seemed stuck around 4808. Selecting single mags had no effect. Vibration was constant and as clear approach to runway engine was switched off. Trying engine on ground gave same issue. 850 hours total time.
Describe the affect on Safety	No real issue in the location and time
Remedial action taken	That morning I had changed the plugs so was convinced I had left something out or done something wrong. This was a test flight after the change. In fact removing the cowl revealed a broken throttle cable on one side. Both cables replaced. Test flight showed no ill effects.
Corrective or preventative action recommendations	I was aware that it was possible for the cable to wear and break where it did. At the swivel on the firewall end of the cable. I had closely inspected 3 months ago. Obviously not closely enough. Probably would be better to physically remove the cable every 100 hours. Carried out work to make the swivel action much looser than it was. Oh yes – the second cable broke at the same place as I removed it. Moral of the story check and check again known areas of weakness.

Random Aircraft Photo

White space is beautiful but aeroplanes are better – David Leefe in his Alpi 300 and Kevin Dore in his Alpi 200, August 2018. Kevin has since upgraded to an Alpi 300 too.

YEALANDS
WINES

CLASSIC FIGHTERS Omaka 2023

20TH ANNIVERSARY

APRIL 7TH - 9TH
EASTER WEEKEND

OMAKA AERODROME, BLENHEIM, MARLBOROUGH NZ

WWW.CLASSICFIGHTERS.CO.NZ

sounds AIR
FULL NOISE 35
ROBINSON
JEM aviation
FIREFLIGHT Aviation Consultants
Marlborough Lines
BUTT DRILLING
SCAFFOLD
CLASSIC
RD petroleum aviation
REDWOOD TRUST
RENAISSANCE
TINTO CONTAINERS
SOUNDS CONNECTION
SIMCOX
MARLBOROUGH DISTRICT COUNCIL