RAANZ RECPILOT

Recreational Aircraft Association of New Zealand (Inc)

AUGUST 2022

WELCOME

It's nearly spring and we finally seem to have some flyable weather.

Hello from your President

The year is marching by, and we are approaching our 2022 AGM. This year we are holding this in November in Te Kowhai

It would be great to have as many of our members along as possible, and just as importantly, we need people to put up their hands to be on the RAANZ executive. We need a wide range of experience, and ideally from all over the country. There is a bit of work to do over the next couple of years but it is a rewarding time.

If you are thinking of putting your hand up but have questions, please give me, or one of the other executives a call.

AGM

NZTE Nov 19

1000 – 1400

WELCOME

Apologies for the change in layout this month. Normal service will resume next month!

If you have anything about your club, planned Fly-ins, or general items that you think may of interest to other RAANZ members, please email editor@raanz.org.nz

OPERATIONS UPDATE

I am always amazed how quickly technology evolves. No sooner than we have become familiar with a particular piece when some new bit comes along with the fine intention of making our life easier.

I sometimes think we are being hoodwinked by some geek having a lot of fun with R and D at our expense.

The aviation world is certainly no stranger to technological advancements and most of the advances are very beneficial. E.g. a completely automated bad weather approach into Queenstown in an Airbus A320 with the pilot only intervening by easing back the on the stick a bit just before contact with the runway.

Sometimes the technology has detrimental effects.

The tragic accident involving Air France 447 enroute Rio de Janeiro to Paris June 1 2009 was certainly a wakeup call. While the Captain was having a lie down rest the aircraft entered a weather system which caused a temporary icing up of airspeed indicators. The crew flying the aircraft at the time did not interpret or use other information that was available with the aircraft entering a stalled mode and descending into the sea from 40,000ft at up to 10,000 ft per minute killing all 228 people on board.

I do apologise for using big aircraft accident data but these are well investigated and generally the learnings apply to any aircraft. They are all subject to the laws of physics, and gravity will always win if you give it half a chance.

One of the learnings out of Air France 447 was the need for Aircrew to be competent in hand flying the aircraft in unusual or degraded performance modes. On this particular leg of 11 hours generally the crew would be hand flying for around 3 minutes.

I am certainly aware of some of the equipment that is available and quite often installed in our type of aircraft. Whilst this equipment could no doubt be useful it is essential that the basics of what the equipment is trying to do is fully understood so we can quickly ascertain whether the answer is correct or not.

It is also absolutely essential that we are able to operate the aircraft with the whizzy technology inoperative.

All aircraft come with a perfectly good moving map display that has no semiconductors, power source or other parts that may fail. All one has to do is to keep it clean and look out of it in various directions at regular intervals. One can gain all the information needed to safely fly the aircraft by what the world looks like out the window and where the throttle lever is positioned.

Some people have also been known to obtain some enjoyment by looking out the window at the world going by and personally I have on a few occasions detected the need to move my aircraft to miss a colleague going the other way.

Becoming competent at the very basic principles should form the foundation of our aviation learning. Revision of the basic principles or techniques must also be an integral part of our aviation life.

We are in the process of introducing a Navigation Exam that will focus heavily on very basic principles.

Safe Flying,

Regards,

Rodger Ward.

RAANZ Operational Officer.

ops@raanz.org.nz

0274932943

TECHNICAL OFFICER REPORT

This month's report is mainly for aircraft owners and I/As performing the annual inspections on these aircraft.

Part 103.217 states that an operator of a microlight must ensure that the aircraft is maintained in an airworthy condition and every applicable aircraft directive (A/D) is complied with. This means that the owner, operator of the microlight can attend to all that is required to maintain airworthiness including the changing of Rotax five yearly mandatory rubber component replacement.

While you legally can change all the rubber hoses etc. yourself, common sense says if this type of work isn't in your skill set, best not to do it. Get your I/A, capable friend or engineer to sort it.

I have come across two examples lately where the coolant hoses on Rotax 912 engines have been removed and new ones incorrectly replaced. In both cases the hoses were the top one on number three cylinder.

All the top coolant hoses come from the black filler tank to the heads, but number three isn't straight, and this is the area of concern.

Picture 1

Some replacement kits have the curved hose as the Picture 1 shows. Straight hoses have also been known to be used but you must be very careful to not kink the hose.

On the first engine, the I/A noticed a drop in number three-cylinder leak down test. While still well within Rotax specs, this was a change from the norm and needed investigating.

The drop in leak down check was due to a leaking intake valve. Leaking values don't fix themselves so time to find the problem, a bit of carbon or something under the valve (not likely) or distorted head due to overheating.

In his case it was overheating, and number three head, cylinder and piston had to be replaced.

The number three top hose had been fitted in such a way that the hose was completely closed due to hose collapse as picture 1 shows.

A five-minute job to replace the hose and an extremely bad outcome that could have ended in a disaster. Lucky it was found by the I/A.

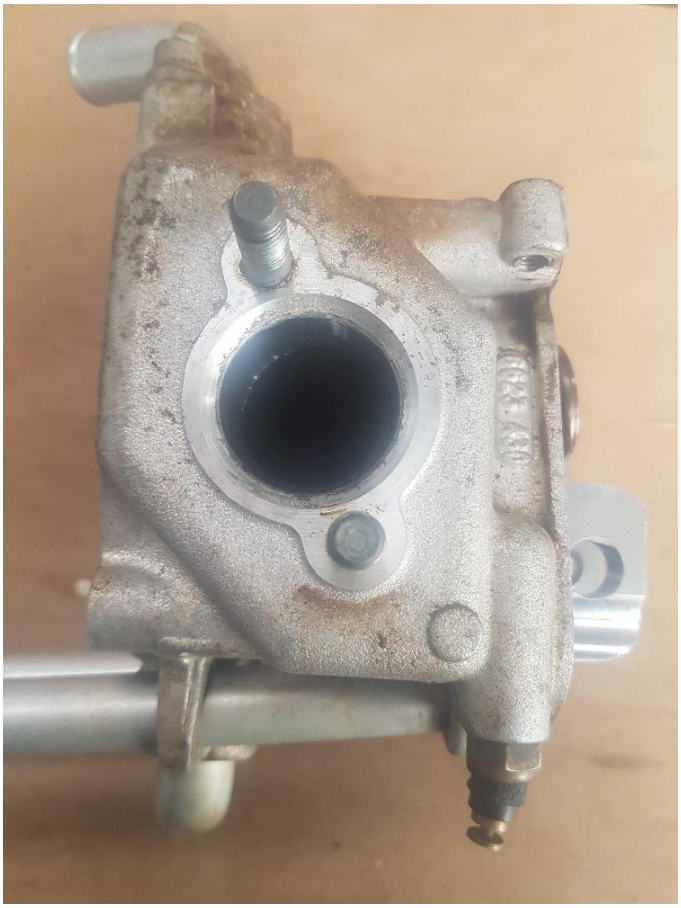
Picture 2

The second was also found at the annual inspection but wasn't closed off as far as the first one. The engine didn't in this case suffer from the error and good spotting from the I/A. Look at the picture 2, it is hard to see, even on the engine as the hose heads under the spark plug leads and inlet manifold.

If you have changed your own hoses and used a straight piece on top number three, can you please

check that it isn't closed off and I/As, please have a close look in this area on all 912 inspections.

Number two and number three heads on the earlier 912 engines (most out in service in NZ) have the temperature sender on the underside.



Picture 3

If the black insulator has melted as picture 3 shows, then you have had an overheat at some stage. If yours looks like the one in the picture, give me a call and we can work through what to do next.

As you all hopefully know by now; your engine can be put onto the RAANZ On Condition Program.

This can be done before its time in service or calendar time runs out. If the hoses look in perfect serviceable condition, being in this program allows the components to continue in service.

This avoids the issues in the two examples above. They must be continually checked (At annual) to stay in the On Condition Program, it's not a one check and carry on forever.)

NEW FPV FORMS

RAANZ has also updated the Annual inspection forms. (FPV books)

For owners and I/As, you will see on the new form below, that there is a tick box for the engine being on condition or not.

If it is, then there needs to be logged evidence that the engine parameter checks, rubber component inspections etc. are the same as previous checks to stay in the program. (At annual and box ticked yes)

Ticking no means that as the I/A you have checked that the engine still has hours to run before its manufacturers service life runs out or if the manufacture has stated a calendar life as well, that this also hasn't run out. If it is out of time, then it must be assessed to go into the on-condition program or replaced before the aircraft passes its annual and continue flying. As I/As (or LAMEs), you can't sign it as on condition. (Can assist in the process) This must go through one of RANNZ On Condition Officers. Not a big deal, give me a call if you are a bit lost with this still.

The On-condition Program has been in place for a couple of years now, but I still get calls on how it works so I hope this all helps.

The second thing you will note on the new form is that the owner, operator must be a member of RAANZ to use a RAANZ I/A for their Annual inspection. If the aircraft is owned by say a RAANZ affiliated club, just note club instead of RAANZ number as club members own club assets which include the aircraft. RAANZ subs are being paid by the users of these aircraft.

The reason behind this is to ensure that all owner operator that use RAANZ I/As contribute their share to the admin side, printing of the books etc. (all that goes on behind the scene.) Pretty straight forward really.

Right now, Scott James (RAANZ Auditor) and myself (Tech) are going through the I/A list and giving the inspectors with lower numbers of inspections the chance to drop out if they wish. (No pressure) This goes for any I/A who is thinking of giving it away in the near future.

With the purchase of SAC, the I/A numbers have increased (over double) and we are attempting to

get the list to an accurate number before starting our I/A audits. Not continuing is your choice but helps a lot at our end if you are thinking of finishing.

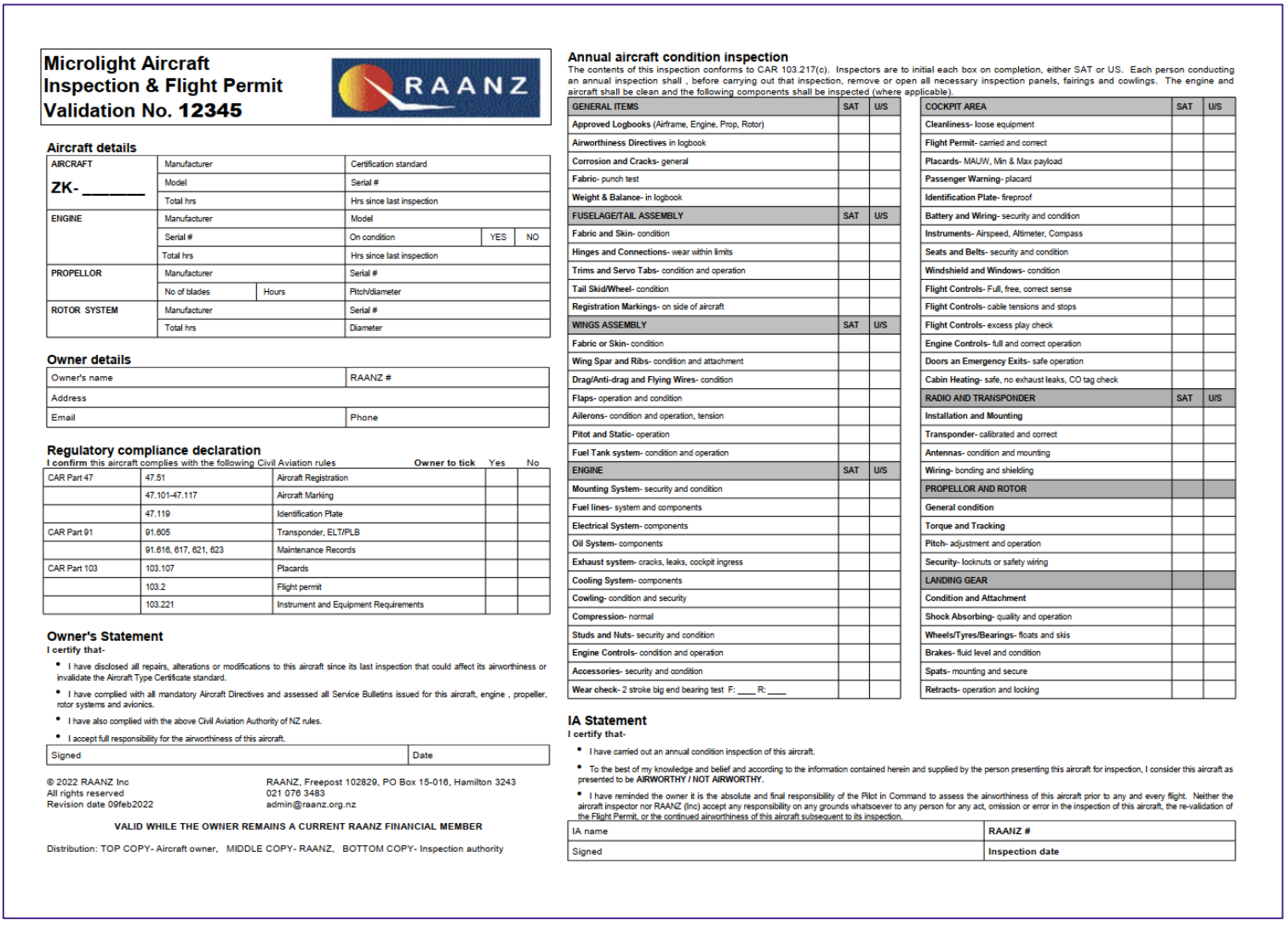
RAANZ will send out the new version of the annual inspection book as soon as we think we have the list of I/As accurate.

The online version will also be all up to date when the new books are sent out.

Lastly, we have had a bad run of weather, planes not seeing the light of day for a while. Give them a good check over before heading skyward. The sun is shining as I write this so I am heading out and making the most of it.

Be Safe.

Cheers Stan Hyde.



Microlight Aircraft Inspection & Flight Permit Validation No. 12345

RAANZ

Aircraft details

AIRCRAFT ZK- _____	Manufacturer		Certification standard	
	Model		Serial #	
	Total hrs		Hrs since last inspection	
ENGINE	Manufacturer		Model	
	Serial #		On condition	YES / NO
	Total hrs		Hrs since last inspection	
PROPELLOR	Manufacturer		Serial #	
	No of blades	Hours	Pitch/diameter	
ROTOR SYSTEM	Manufacturer		Serial #	
	Total hrs		Diameter	

Owner details

Owner's name	RAANZ #
Address	
Email	Phone

Regulatory compliance declaration

I confirm this aircraft complies with the following Civil Aviation rules — Owner to tick: Yes / No

CAR Part 47	47.51	Aircraft Registration		
	47.101-47.117	Aircraft Marking		
	47.119	Identification Plate		
CAR Part 91	91.605	Transponder, ELT/PLB		
	91.616, 617, 621, 623	Maintenance Records		
CAR Part 103	103.107	Placards		
	103.2	Flight permit		
	103.221	Instrument and Equipment Requirements		

Owner's Statement

I certify that-

- I have disclosed all repairs, alterations or modifications to this aircraft since its last inspection that could affect its airworthiness or invalidate the Aircraft Type Certificate standard.
- I have complied with all mandatory Aircraft Directives and assessed all Service Bulletins issued for this aircraft, engine , propeller, rotor systems and avionics.
- I have also complied with the above Civil Aviation Authority of NZ rules.
- I accept full responsibility for the airworthiness of this aircraft.

Signed	Date

Revision date 09feb2022

RAANZ, Freepost 102829, PO Box 15-016, Hamilton 3243
021 076 3483
admin@raanz.org.nz

VALID WHILE THE OWNER REMAINS A CURRENT RAANZ FINANCIAL MEMBER

Distribution: TOP COPY- Aircraft owner, MIDDLE COPY- RAANZ, BOTTOM COPY- Inspection authority

Annual aircraft condition inspection

The contents of this inspection conforms to CAR 103.217(c). Inspectors are to initial each box on completion, either SAT or US. Each person conducting an annual inspection shall , before carrying out that inspection, remove or open all necessary inspection panels, fairings and cowlings. The engine and aircraft shall be clean and the following components shall be inspected (where applicable).

GENERAL ITEMS	SAT	U/S
Approved Logbooks (Airframe, Engine, Prop, Rotor)		
Airworthiness Directives in logbook		
Corrosion and Cracks- general		
Fabric- punch test		
Weight & Balance- in logbook		
FUSELAGE/TAIL ASSEMBLY	**SAT**	**U/S**
Fabric and Skin- condition		
Hinges and Connections- wear within limits		
Trims and Servo Tabs- condition and operation		
Tail Skid/Wheel- condition		
Registration Markings- on side of aircraft		
WINGS ASSEMBLY	**SAT**	**U/S**
Fabric or Skin- condition		
Wing Spar and Ribs- condition and attachment		
Drag/Anti-drag and Flying Wires- condition		
Flaps- operation and condition		
Ailerons- condition and operation, tension		
Pitot and Static- operation		
Fuel Tank system- condition and operation		
ENGINE	**SAT**	**U/S**
Mounting System- security and condition		
Fuel lines- system and components		
Electrical System- components		
Oil System- components		
Exhaust system- cracks, leaks, cockpit ingress		
Cooling System- components		
Cowling- condition and security		
Compression- normal		
Studs and Nuts- security and condition		
Engine Controls- condition and operation		
Accessories- security and condition		
Wear check- 2 stroke big end bearing test F: ___ R: ___		

COCKPIT AREA	SAT	U/S
Cleanliness- loose equipment		
Flight Permit- carried and correct		
Placards- MAUW, Min & Max payload		
Passenger Warning- placard		
Identification Plate- fireproof		
Battery and Wiring- security and condition		
Instruments- Airspeed, Altimeter, Compass		
Seats and Belts- security and condition		
Windshield and Windows- condition		
Flight Controls- Full, free, correct sense		
Flight Controls- cable tensions and stops		
Flight Controls- excess play check		
Engine Controls- full and correct operation		
Doors an Emergency Exits- safe operation		
Cabin Heating- safe, no exhaust leaks, CO tag check		
RADIO AND TRANSPONDER	**SAT**	**U/S**
Installation and Mounting		
Transponder- calibrated and correct		
Antennas- condition and mounting		
Wiring- bonding and shielding		
PROPELLOR AND ROTOR		
General condition		
Torque and Tracking		
Pitch- adjustment and operation		
Security- locknuts or safety wiring		
LANDING GEAR		
Condition and Attachment		
Shock Absorbing- quality and operation		
Wheels/Tyres/Bearings- floats and skis		
Brakes- fluid level and condition		
Spats- mounting and secure		
Retracts- operation and locking		

IA Statement

I certify that-

- I have carried out an annual condition inspection of this aircraft.
- To the best of my knowledge and belief and according to the information contained herein and supplied by the person presenting this aircraft for inspection, I consider this aircraft as presented to be **AIRWORTHY / NOT AIRWORTHY**.
- I have reminded the owner it is the absolute and final responsibility of the Pilot in Command to assess the airworthiness of this aircraft prior to any and every flight. Neither the aircraft inspector nor RAANZ (Inc) accept any responsibility on any grounds whatsoever to any person for any act, omission or error in the inspection of this aircraft, the re-validation of the Flight Permit, or the continued airworthiness of this aircraft subsequent to its inspection.

IA name	**RAANZ #**
Signed	**Inspection date**

INCIDENT REPORTS

Often there will be very few or no incident reports reported here. That doesn't mean that there aren't any, but that submitters have chosen not to have them published. Please continue to submit, and if you think others can learn from is, please flag the Publish option.

AM I HERE

ALAN CLARKE

I own and fly my Pipistrel motor glider from Kerikeri

I am 75 and have 12,000 hrs. That includes 2,000 hrs instructing, 8,000 ag work, 500 oil rig servicing and 1,500 on the Pipistrel

A couple of years ago I introduced an extra in my pre take off checks

AM I HERE ? or is my mind somewhere else, is it focused on some of life's other stuff ? If so get it back into the cockpit before opening the throttle

Or don't take off at all

A variation of the sterile cockpit

I remember a 14,000 hr top dressing pilot was killed some years ago in a 400 hp Fletcher. He stalled shortly after take off and dived into the ground.

This made no sense, he had flown Fletcher for years and years, and would not make such a basic mistake

Then a few years later I heard from a good source that he had been involved in a bitter dispute of some kind (not aviation related) and that had been big in his mind for weeks

Who know if that was a contributory cause?

If he was so upset, maybe he should not have been flying ?

Tragic for him and everyone around him

NOTES FROM THE ADMINISTRATOR

New CMV (membership/flight test form)-

We have updated the CMV form to better capture the information we need prior to issuing a Flight Certificate, also to meet the future requirements of the Incorporated Societies Act revision.

This includes the pilot providing evidence of and confirming any previous flight experience being claimed, and acceptance of RAANZ membership and rules.

Books of these forms will be progressively issued to Instructors, and also available as pdfs on our website for those who prefer online entry and submission.

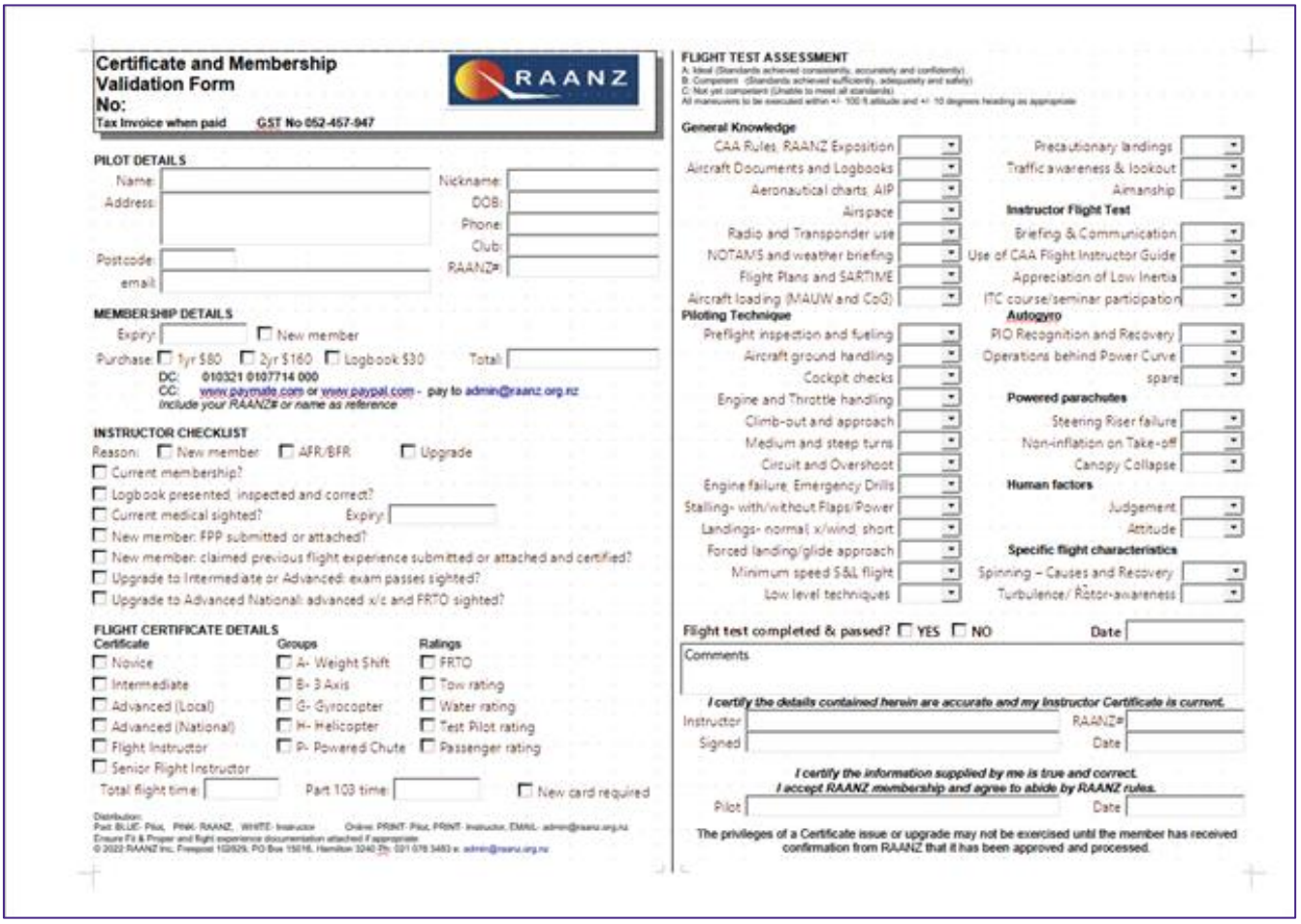
Hours

I am still getting flight test forms and aircraft inspection forms with no hours recorded on them.

This suggests that either the pilot/owner has not submitted their logbooks for inspection, or they are so ratty the information was not decipherable, or they have no logbooks.

Instructors and IAs - when a pilot/owner fronts up, the first question should be "Lets have a look at your logbook'.

No logbook?- go home and sort it out.



Certificate and Membership Validation Form
No:
Tax Invoice when paid GST No 052-457-947

PILOT DETAILS
Name: Nickname:
Address: DOB:
Phone:
Club:
Postcode: RAANZ#
email:

MEMBERSHIP DETAILS
Expiry: New member
Purchase: 1yr $80 2yr $160 Logbook $30 Total:
DC: 010321 0107714 000
CC: www.paymate.com or www.paypal.com - pay to admin@raanz.org.nz
Include your RAANZ# or name as reference

INSTRUCTOR CHECKLIST
Reason: New member AFR/BFR Upgrade
Current membership?
Logbook presented, inspected and correct?
Current medical sighted? Expiry:
New member: FPP submitted or attached?
New member: claimed previous flight experience submitted or attached and certified?
Upgrade to Intermediate or Advanced: exam passes sighted?
Upgrade to Advanced National: advanced x/c and FRTO sighted?

FLIGHT CERTIFICATE DETAILS

Certificate	Groups	Ratings
Novice	A- Weight Shift	FRTO
Intermediate	B- 3 Axis	Tow rating
Advanced (Local)	G- Gyrocopter	Water rating
Advanced (National)	H- Helicopter	Test Pilot rating
Flight Instructor	P- Powered Chute	Passenger rating
Senior Flight Instructor		

Total flight time: Part 103 time: New card required

Distribution:
Post: BLUE- Pilot, PINK- RAANZ, WHITE- Instructor Online: PRINT- Pilot, PRINT- Instructor, EMAIL- admin@raanz.org.nz
Ensure P1 & Proper and flight experience documentation attached if appropriate
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FLIGHT TEST ASSESSMENT
A- Ideal (Standards achieved consistently, accurately and confidently)
B- Competent (Standards achieved sufficiently, adequately and safely)
C- Not yet competent (Unable to meet all standards)
All manoeuvres to be executed within +/- 100 ft altitude and +/- 10 degrees heading as appropriate

General Knowledge			
CAA Rules, RAANZ Exposition		Precautionary landings	
Aircraft Documents and Logbooks		Traffic awareness & lookout	
Aeronautical charts, AIP		Airmanship	
Airspace		**Instructor Flight Test**	
Radio and Transponder use		Briefing & Communication	
NOTAMS and weather briefing		Use of CAA Flight Instructor Guide	
Flight Plans and SARTIME		Appreciation of Low Inertia	
Aircraft loading (MAUW and CoG)		ITC course/seminar participation	
Piloting Technique		**Autogyro**	
Preflight inspection and fueling		PIO Recognition and Recovery	
Aircraft ground handling		Operations behind Power Curve	
Cockpit checks		spare	
Engine and Throttle handling		**Powered parachutes**	
Climb-out and approach		Steering Riser failure	
Medium and steep turns		Non-inflation on Take-off	
Circuit and Overshoot		Canopy Collapse	
Engine failure, Emergency Drills		**Human factors**	
Stalling- with/without Flaps/Power		Judgement	
Landings- normal, x/wind, short		Attitude	
Forced landing/glide approach		**Specific flight characteristics**	
Minimum speed S&L flight		Spinning – Causes and Recovery	
Low level techniques		Turbulence/ Rotor-awareness	

Flight test completed & passed? YES NO Date
Comments

I certify the details contained herein are accurate and my Instructor Certificate is current.
Instructor RAANZ#
Signed Date

I certify the information supplied by me is true and correct.
I accept RAANZ membership and agree to abide by RAANZ rules.
Pilot Date

The privileges of a Certificate issue or upgrade may not be exercised until the member has received confirmation from RAANZ that it has been approved and processed.

MEMBERSHIP CHANGES

Xavier Gregory	Parakai Aviation Club	Advanced Local	---
Hamish Haywood	Whangarei Flying Club	Intermediate	Exam
Richard Taylor	Associate	Novice	Exam
Emma Lockie	Parakai Aviation Club	Advanced Local	Upgrade
Duncan Elliott	Wairarapa Aero Club	Advanced Local	Upgrade
Jeremy Cuthbert	Associate	Intermediate	Upgrade
Matthew Walker	Associate	Novice	Exam
Rex Godfrey	Associate	Novice	Joined
Richard Pollard	Whangarei Flying Club	Novice	Exam
Stephen James	Canterbury Recreational Aircraft Club	Novice	Exam
Kevin Reed	Associate	Advanced National	Joined
Dean Gregory Rainey	Matamata Aero Club	Novice	Joined
Megan Alexinas	Canterbury Recreational Aircraft Club	Novice	Exam
Johann Stroobach	Associate	Novice	Joined
Charles Robin Wooldridge	Whangarei Flying Club	Novice	Exam
Yusuke Inui	Whangarei Flying Club	Novice	Joined
Christopher Beath	Associate	Novice	Joined
Stephen Harwood	Whangarei Flying Club	Novice	Joined
Christian Burtscher	Associate	Advanced National	Joined