



RAANZ Engine On Condition Program

Stan Hyde

There seems to be quite a bit of confusion still with what is required as far as servicing and maintaining our microlight aircraft and engines along with what is needed to get these engines 'On Condition'. I hope this article helps clear a few things up.

We are still extremely lucky that under CAA part 103, we can maintain our own aircraft and this includes the engines. That is, as microlight owners we can maintain and operate our machines without the cost of the GA, LAME world. (This isn't an excuse not to do it though).

It has **never** meant we don't have to do anything or have no preventative maintenance plan in place. Any fire-fighting 'fix when it breaks' attitude in our hobby is silly and dangerous.

Knowing what condition our engines are in and being able to spot changes could save lives. This is where we see the on-condition process not as a punishment for those who haven't been doing the required checks but as a safety net to ensure our older motors are in good condition and won't let us down. Common sense really.

To check the condition of older engines that have to go through this process, we basically follow these three steps.

- **Logbook check.**
Record keeping. Has the engine had regular maintenance and engine parameter checks logged at service intervals or annual inspections. Have all service bulletins and ADs been checked and signed off. If you do something to your engine, log it. No evidence of maintenance means we have nothing to base its condition on.
- **Visual inspection of the engine.**
Does it look in GOOD CONDITION. Are the hoses all OK, no swelling, splits, cracks, leaking coolant or oil. Are plug caps a tight fit and leads in good shape. Engine itself not leaking oil or coolant etc. All clean and tidy. (Can be said to look in good condition.)
- **Condition of engine internals.**
Magnetic plug, Cylinder leak downs, Prop friction check, Gearbox backlash, carb balancing, oil pressure, mag drops, cut and inspect oil filter etc.

These have to all be checked as a 100 hour to enter the on-condition program. Then we go back to the engine log book and compare to previous records to see if it is still in the same condition as last checked. No movement, condition as previous checks = all OK. With all these ticked off, there is no reason not to go On Condition, but remember these checks must continue. Your IA at your next Annual Inspection must compare the latest checks to the previous entries to ensure it is still in GOOD CONDITION.

No checks and no records of maintenance could mean the IA is left in a position where they may have to remove the engine from the On-Condition Program. We would all hate that to happen and it's not a good way to make friends.

We had an example of a low hour old 912ULS that visually was in very good condition- perfect actually. The logs were good but the engine hadn't been run for a long time and only short ground runs previous to that. We decided to start from scratch with this engine with new oil and filter, purge oil system etc, thinking all would be good and this job shouldn't take long.

We didn't get far: magnetic plug not good, cut the oil filter and worse to come- the engine was making metal. Further investigation showed it had gone through the engine and now is unserviceable. This shocked us all especially the owner who now is up for a costly rebuild or another engine.

If this was just an Annual inspection and the I.A passed the aircraft as fit to fly, well I don't have to say any more. It would have failed completely in no time.

While the owner was shocked with the news, he also now appreciates that the time taken to do these checks may have saved somebody's life. I was also surprised, thinking we were in for an easy day. Magnetic plug, easy quick check but only the start of this story. For those out there who are against this program, do you know the condition of your engine and are you happy to take friends for flights without knowing? Hope not.

This exemption to go on to condition expires and is subject to review on 19th February 2021. It is a game saver to all class two microlight owners with older, excellent condition engines. Things will never go back to what some thought it was like prior to this exemption, so to lose it would be devastating as we would all be back to buying new engines or giving up our passion. I get the feeling that some don't realize this is only an exemption at this stage and not yet permanently set in concrete.

If you are a bit confused by all this and your engine is out of time or calendar, give me a call and we will work through the process with you. If you know that your engine will have trouble passing the three steps above, call and have a chat, our job is to make things as easy as possible and get you back on track. It's not all over. We can set up endurance flights to collect data or advice on what needs replacing, checking etc.

There are positives with most things in life and there is a lot of positives with this On Condition Program (exemption). Lets all get on board with this to ensure that it passes following a review of the exemption in February.



CRAC Glentanner fly-in (Ross Marfell)

Pilot logbooks

CAA (along with RAANZ) recently did a spot audit of a couple of clubs, looking at pilot status (pilot logbooks, medicals and BFRs and aircraft status (maintenance logs, annual inspections).

In many cases the pilot logbook entries were entered incorrectly and confusing. They made sense to the pilot, and to CAA once the pilot explained things. But they would not have made sense to an independent reader- and that is the standard required.

Your pilot logbook is a legal document, and needs to stand on its own in any audit/review/inquest/court case/etc.

The main issues were-

- **If you were flying-**
 - Your name (or SELF) goes in the PIC (Pilot in Command) column.
 - Leave the Copilot/Student column empty- do not put passenger names in there.
 - Enter your flight time as hours/minutes (HH/MM) or decimal hours (HH.hh) in the PIC time column (column 2)
- **If you were under instruction-**
 - Your Instructor's name goes in the PIC column.
 - Your name (or SELF) goes in the Copilot/Student column.
 - Enter your flight time as hours/minutes (HH/MM) or decimal hours (HH.hh) in the Dual time column (column 1)
- **Be specific in the Details of Flight column-**
 - Record departure, waypoints or purpose, and destination. Eg NZTE/local flight/NZTE, or NZFI/NZPN (2x circuits)/NZPP.
 - Note any passenger names
 - Use multiple lines if needed- the more information that describes where you went and what you did will make it easier for an independent reader to understand.
- **Make the year and dates clear and obvious-**
 - Put the year entry in the top left of the page.
 - Enter the month and date
 - Put flights in date order
 - On change of year, leave a line or two and mark the new year in the Month/Date column, or start a new page for the new year.
- **Keep running totals of flight time on each page-**
 - On completion of a page, add up each column (dual and PIC) and put totals at the bottom of each column (Totals).
 - Then add both column totals and enter in the Total Flight Experience entry and sign and date- this is your legal statement of flight experience.
 - Then enter those column totals at the top of the next page in Totals Brought Forward.
- **Make your logbook a complete standalone history of your flying-**
 - Make sure your instructor enters BFR details in your logbook.
 - Use the Type Ratings page to record your type ratings.
 - Make sure your instructor signs off your training progress in the training record page.
 - Use some of those spare flight time columns to note particular flight experience- eg gyro, weight shift, instructing



Terry Smith and his Legal Eagle

RAANZ/microlighting brochure

in preparation for the now cancelled Warbirds over Wanaka 2020, RAANZ prepared and printed a 3-fold brochure for handing out to anyone interested in getting into the sport. It has basic information with space for clubs to add their own contact information. If your club wants a bunch of these, [let me know](#).



Membership changes

Jason Anderson	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Robert Irving	Wairarapa Aero Club	Novice	Joined
Hamish Hamilton	West Coast Microlight Club	Flight Instructor	Upgrade
Kirk Smith	Kaitaia Aero Club	Advanced Local	Upgrade
Jacinda Johnston	Wairarapa Aero Club	Advanced National	Upgrade
Geoffrey Breaker	Opotiki Aero Club	Novice	Joined
Neil Hintz	Associate	Novice	Joined
Jason Boyle	Stratford Sport Fliers Club	Advanced National	Upgrade
Dan Batchelor	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Peter Barton	Bay of Islands Aero Club	Advanced Local	Upgrade
Joel Curtain	Canterbury Recreational Aircraft Club	Novice	Joined
Ryan Humphreys	Associate	Novice	Joined
Reuben Hansen	Hawkes Bay and East Coast Aero Club	Senior Flight Instructor	Upgrade
Andrew McAllister	Associate	Novice	Joined
Daniel Wright	Canterbury Recreational Aircraft Club	Novice	Joined
Carl Davidson	Canterbury Recreational Aircraft Club	Novice	Joined
Bradley Fife	Canterbury Recreational Aircraft Club	Novice	Joined
Troy Sutherland	Associate	Novice	Joined
Terry Delore	Canterbury Recreational Aircraft Club	Advanced National	Joined
Kevin Smith	Wairarapa Aero Club	Novice	Joined
Keith McClure	Wairarapa Aero Club	Advanced Local	Joined
Hamish McGregor	Canterbury Recreational Aircraft Club	Novice	Joined
Bruce Cooke	Matamata Aero Club	Advanced National	Joined
Vivienne Patterson	Canterbury Recreational Aircraft Club	Novice	Joined

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