

// There was an assumption by a junior engineer that the task had been completed correctly by the senior engineer. //

» But the threat and error management guidance on the CAA website says, “As humans we are all fallible and errors are to be expected. Even the most experienced and well-trained person can make an error.”

So duplicate inspections should be carried out with healthy scepticism, says Matt.

“That second engineer should be looking for what has not been done correctly, or is out of the ordinary. Their fresh eyes are essential to the maintaining engineer.

“Maybe it’s been a busy day with lots of distractions – go in with the intention of finding anywhere those distractions could have prevented your colleague doing their job fully.

“It’s about having your mate’s back.” ➤

For more information on what the rules say, read rule 43.113 *Duplicate safety inspection of control system*.

Comments or queries?

Email warren.hadfield@caa.govt.nz

// OUR THANKS

The CAA thanks this operator, and others who've reported their duplicate inspection failures, for telling us about their occurrences. Reporting is the only way we can know where education should be aimed.

Thanks too, to the operator highlighted in this article, for being willing to share their story with Vector readers. It means the rest of you get a free lesson about the importance of duplicate inspections being done effectively.

AIRCRAFT AIRWORTHINESS CATEGORIES

SOME BASICS



The reason there are different airworthiness categories is because the certification requirements are tailored to how the aircraft is intended to be used.

Standard and restricted category

Standard category aeroplanes and helicopters have a type certificate fully complying with an airworthiness design standard.

These are the typical factory-produced aircraft you see at your local aerodrome, many operated by flight training organisations and airlines.

Because of the robust certification process and requirements applied to these aircraft, they can do any operations the rules and their flight manual allow, for example, passenger transport in IMC.

There’s also a restricted category type certificate used for specific operational purposes. For instance, a helicopter with a spray system can’t meet some rules, say, for passenger safety and emergency exit. The CAA allows that, but with the restriction that the aircraft can’t carry passengers when fitted with the spray system.

It may be, however, that, after a morning of spraying, the helicopter can have the spray system removed, and be transporting passengers in the afternoon. So a dual category – restricted and standard – certificate is issued.

Special category

Special category enables a number of slightly more specialised aircraft to be operated under more limiting conditions, without the need for the rigorous requirements of a type certificate.

There are six sub-categories: experimental, primary, amateur-built, LSA (light sport aircraft), limited, and exhibition. See **Part 21 and Advisory Circular AC21-3 for more information.**

We'll just look at the three most common ones.

// THE THREE MOST COMMON SPECIAL CATEGORY AIRCRAFT

Photo courtesy of Pacific Aerospace



Experimental

Experimental aircraft are undergoing test flying – not to be confused with post-maintenance test flying – or research and development. Once a test flight requirement is satisfied, the aircraft will have a new airworthiness certificate issued in one of the other categories.

If an aircraft has been modified, it may need to undergo a flight test programme under the experimental category before being issued its certificate.

Photo: CAA



Amateur-built

Amateur-built aircraft have, as the name suggests, been built – at least 51 percent – by their owners. They complete a flight evaluation process under the experimental category, then have a new airworthiness certificate issued in the amateur-built category.

This category is intended for the private recreational sector where the owner is the aircraft builder and operator. It allows for greater innovation and creativity, without the need for compliance to an airworthiness design standard, but with the balance of more restrictive operating conditions.

Photo courtesy of Roz Anderson Photography



Light sport aircraft

Known as LSAs, these aircraft have been produced and certified by their manufacturer to an agreed set of industry consensus standards. These standards are developed by an international committee, of which the CAA is a member.

These aircraft require a manufacturer's statement of compliance. »

» Microlight category

The means of compliance for an aircraft to be in the microlight category are in Advisory Circular AC103-1. Put simply, these are based on weight and flying speed, or acceptance by some other countries.

Administration is largely through a Part 149 certificated organisation and this results in lower cost for the operators. With privileges though, come some restrictions, including not being permitted to fly over congested areas such as towns or cities.

Sometimes an operator will want to move their aircraft from one of the standard or special categories to a microlight category. This only needs a flight permit and has simplified standards, including the pilot being able to do their own maintenance.

Having moved their aircraft to the microlight category, however, the operator cannot then move it back again – it stays permanently in the microlight category.

If you need advice about this, email certification@caa.govt.nz.

Will you own an aircraft on 1 July 2022?

Each July, aircraft owners who do not pay a passenger levy, pay a registration fee for their aircraft and a participation levy based on aircraft weight.

This contributes to the CAA's oversight of aviation safety, including things like the analysis of trends to find out where most risk is.

The fee and the levy are invoiced as at 1 July and the person who has to pay them is the aircraft owner registered with the CAA on that day. That's even if the aircraft is about to be sold.

The Civil Aviation Act 1990 defines 'owner' as the person lawfully entitled to possession of the aircraft for 28 days or longer. That means if you lease the aircraft for 28 days or longer, you are the 'owner' who needs to pay the fee and the levy.

If you're selling your aircraft before 1 July, all the necessary documents, and the applicable fee, need to have been received and actioned by the CAA before 1 July 2022. So send all this in as early as possible to allow time for processing.

If the aircraft is still in your name on 1 July, you will have to pay the fee and levy, even if you've sold the aircraft. Once the CAA has issued you with the invoice, you can't have it transferred to anyone else.

If your aircraft is inoperable at 1 July and remains that way for at least three months, you can request to defer the participation levy. You should request this before your invoice is issued on 1 July. See the information box below.

Payment of the fee and levy is due by 20 July 2022. If it isn't paid, your aircraft may be deregistered but the fee and levy will still be collectable. If the aircraft is deregistered, its airworthiness certificate, or flight permit, is revoked and the aircraft cannot be legally flown. ➔

Comments or queries?

certification@caa.govt.nz

aircraftregistrar@caa.govt.nz

// FOR MORE INFORMATION

Go to aviation.govt.nz > **aircraft** > **aircraft-registration** > **fees and levies for aircraft** > **registration fee and participation levy**.

Go to aviation.govt.nz > **forms**, for forms and information relating to the sale of an aircraft, deferral of the participation levy, deregistration of your aircraft, and so on.

Go to aviation.govt.nz > **about us** > **what we do** > **how we are funded** > **fees, levies and charges** for more information about the aircraft registration fee and participation levy.

Email publications@caa.govt.nz for your free copy of the Good Aviation Practice booklet, *How to be an aircraft owner*. There are more details in there of aircraft categories and their owners' obligations to safe flying in them.

Over the next two pages, you'll find the revised *Aircraft operator requirements* poster. If you're not successful in removing it in one piece, you can get another from one of our aviation safety advisors (contacts on page 23), or email publications@caa.govt.nz.



Photo: CAA/Pen Macklay