

NEW ZEALAND MODEL AERONAUTICAL ASSOCIATION (INC)



Ministry of Transport
PO Box 3175
Wellington
6140

May 2019

Civil Aviation Bill

Thank you for the opportunity to comment of the Civil Aviation Bill exposure draft. This response represents the views of the members of Model Flying New Zealand (MFNZ). This is an Association of over two thousand members in more than 70 clubs throughout the country. The flying of model aircraft is a hobby that has been conducted in New Zealand since before World War 2. It has an exemplary safety record and as an aviation sub group, was once described by a CAA officer the most legislatively compliant of any in general aviation.

Model aircraft enthusiasts have a structure of rules and operate in a collaborative environment that ensures safety and responsibility. There are also large numbers of enthusiasts who are fortunate enough to own or have access to land where they can fly safely without needing to use one of MFNZ's more than 300 flying site locations.

Traditionally, model aircraft flyers built their own planes and sometimes radio gear and even engines but in recent years, advances in manufacturing techniques have meant that ready to fly aircraft can be purchased and flown outside of the club environment. The vast majority of ready to fly aircraft fall into the "toy" category and only a tiny percentage of these purchases translate into a hobby enthusiast. These small aircraft are both fixed wing and multirotor types. It is, however, notable how many members of the full size aviation community have started their interest by flying a model aircraft before turning to full size aircraft. Any action that damages the model aircraft hobby has the potential to reduce the numbers of people who first interest in aviation is fostered by the hobby before it becomes a career.

Definitions

The exposure draft and other documentation makes frequent use of the word "drone". Whilst in general usage, this is a word without a meaning, otherwise, slang. We do not use slang words such as "chopper" to refer to helicopters and we should not use drone when we mean unmanned aircraft. If someone devises a gender free term for an aircraft without a pilot on board, that will be the time to change.

Our recommendation is that "drone" should not occur in the bill or supporting documentation.

The realm of unmanned aircraft has a much wider span than conventional aviation. It is spread from microscopically small devices up to machines with a wingspan broader than a Jumbo Jet. At the same time, the Government is being drawn in two opposing directions. Trying to foster commercial use of unmanned aircraft for such tasks as parcel and passenger delivery whilst discouraging disruption of airports by illegal use of the same category of craft. When the Minister appears on TV to talk about unmanned aircraft, you don't know whether he is going to be singing the praises of Zephyr or lambasting irresponsible idiots.

It is time for the Ministry to create separate categories of unmanned aircraft defined by their usage and mass.

There are several ways in which classes of unmanned aircraft can be differentiated:

By weight:

Under 250gms

From 250 gms to 15kg

From 15kg to 25kg

From 25 kg to 100 kg

Over 100 kg.

By utilisation:

Recreation

Commercial

By operator/PIC:

Member of the public

Member of an approved organisation

Commercial operator

By location:

In controlled airspace

In Class G airspace

Our recommendation is that the bill adopts a class system to categorise types of unmanned aircraft similar to the EASA C0 – C4 system.

90. Accident

It is clear that the greater use of unmanned aircraft will lead to a need to report and investigate some accidents. Equally, there is no capacity or need to report or investigate trivial matters. A child's flying toy crashing and breaking in the park is a different situation to a passenger carrying craft falling into the harbour. The exposure draft refers to "nuancing" to achieve the desired result. Using the meaning of "a feeling or an opinion" is not a satisfactory solution. Pilots and operators should be quite clear what needs to be reported and what does not. By adopting a class system as recommended above, appropriate reporting can be made according to the importance of the outcomes rather than the nature of the damage. A broken wing is important on a passenger carrying craft, it is not important on a 2kg hobby craft.

Our recommendation is that accidents and incidents be reported according to their outcomes rather than by references to what part of the aircraft structure was involved.

93. Pilot in Command

We understand the need to clarify and update the references to the person responsible for a flight to include someone who is not the Pilot in Command. Care should be taken to ensure that such changes do not impose unnecessary restrictions. An example would be the requirement to be a certain age or have the same level of physical fitness as a certified pilot. Unmanned aircraft can be flown in perfect safety by persons with disabilities such as being confined to a wheelchair and by persons under the age of 17.

Our recommendation is that any changes to the rules be proportional to the class of unmanned aircraft being operated, in accordance with a system as recommended above.

94 to 106 Detention, seizure and destruction

One of the features of the 2015 revisions to Civil Aviation Rule Part 101 that has caused most negative feedback from stakeholders is the requirement to have permission to fly over people and property. This change was introduced on the grounds of safety. Not from any evidenced based data but from an intuitive feeling that it would be safer. The exposure draft introduces the concept that it would be acceptable to use force to remove a rogue unmanned aircraft that was operating in contravention to the rules. Such measures are envisaged as electronic jamming or *“extreme action such as destroying the drone (sic)”*. It cannot be acceptable to protect persons and property on the ground by preventing overflight of serviceable unmanned aircraft and yet allow rogue unmanned aircraft to be shot down. The majority of incidents that have occurred where rogue unmanned aircraft have allegedly been spotted in the flightpath of crewed aircraft have occurred at heights above 1000ft and over populated areas. There is no sense in showering the population with debris from a forcibly interdicted aircraft. If such an occurrence were to happen, any injury or damage would clearly be the responsibility of the enforcement agency.

Option 3 at para 105 of the commentary document is highly alarming. It appears to give everyone the right to use force against any unmanned aircraft that they reasonably think might be contravening civil aviation law. In other words any unauthorised craft flying over property can be shot down. This rule has the potential for a year round open season for drone shooting.

Our recommendation is that all reference to deliberately causing rogue aircraft to crash are expunged from the exposure draft and supporting documentation. The cause of disruption is not the unmanned aircraft but the operator. Any measures to control bad behaviour should be directed at the operator and not at the aircraft.

In response to the questions in the commentary:

- The potential costs of destroying rogue unmanned aircraft include damage to persons and property on the ground as well as the loss of the machine and cargo. There are two effective remedies to the problem of rogue unmanned aircraft operation. They are education and tracking. All reported incidents where unmanned aircraft have been spotted disrupting airport operations have been by craft with the common feature of emitting a radio signal. It is a simple task to identify the source of the signal and follow it. The result will be either seeing the source of the signal leave the threat area or tracking it back to the operator who can then be dealt with by the authorities.
- Primary legislation should recognise that there are separate classes of unmanned aircraft and their operators. Definitions of the classes should be added to primary legislation. Recognition of the unique place of model aircraft associations in managing safe operation of model aircraft should be included in primary legislation.
- The recognition that unmanned aircraft are operated by someone who is not on board should not impact adversely the current basis of operation by imposing unnecessary restrictions on physical attributes or age limits.
- The topic of detention seizure and destruction of unmanned aircraft is not included in the exposure draft and should not proceed further without broader consultation. The “shoot em down” mentality has no place in legislation. Evidence needs to be gathered that uncorroborated sightings are in fact a cause for disruption and not an over-reaction caused by organisations with their own agenda.

- Recreational use of unmanned aircraft is an integral part of life and has been so for decades. New primary legislation should not impact the right to continue to enjoy this recreational activity.
- There should be no attempt to introduce a levy on uncertificated unmanned aircraft operators. The vast majority of recreational unmanned aircraft operators make no use of any service provided by CAA or Airways. To impose a levy on them would be akin to taxing swimming in the sea or walking in one's own garden.
- Any new legislation must be supported by analysis of the risk that it seeks to mitigate and an adequate safety case.

A handwritten signature in blue ink, reading "Jonathan Shorer", written on a light blue grid background.

Jonathan Shorer
Secretary, Model Flying New Zealand