TESTING AND DEVELOPING UNMANNED AIRCRAFT SYSTEMS IN NEW ZEALAND
Fast developing technologies such as unmanned aircraft systems (UAS, commonly known as ‘drones’) have great potential to contribute to a safer and more efficient multi-modal transport system, and to support sustainable economic development in a range of sectors.

The increasing use of these aircraft, and the growing complexity of this technology, is reshaping more than just the transport sector. The proposed uses of these systems could not only profoundly affect the way people and goods move about, but significantly impact other sectors (e.g. surveying and agriculture).

This document provides general information for anyone wishing to conduct testing or development of UAS in New Zealand. This document applies to the testing and development of small multi-rotor UAS through to large UAS capable of carrying passengers and cargo.

While the UAS sector has grown considerably in recent years, further technological advancements are required to enable the most beneficial applications of the technology.

Advanced UAS technologies, such as ‘sense and avoid’, are still in the research and design phase and need significant real-world testing. Some operators are also proposing ambitious and complex operations, such as door-to-door delivery, which also require robust testing before they can become routine. Testing is already underway in a number of countries, including in New Zealand.

This document explores the advantages of developing UAS technology in New Zealand, and provides information on the legal context for testing. It also provides contact details for people in New Zealand who will help you establish your presence here.
Why test and develop UAS in New Zealand?

New Zealanders are keen builders and adopters of new technology. The Government hopes that supporting the testing and development of new technology such as UAS in New Zealand will have benefits for the country and encourage rapid uptake once they are commercially available.

New Zealand is a great place to test and develop all forms of technology. Among its advantages are:

- a risk-based regulatory framework, which enables innovative aircraft and applications
- local government willingness to support trials
- large, low-density airspace, with a wide range of geographic, climate and airspace conditions
- areas of restricted airspace, available for the testing of UAS
- a trusted, low cost business environment
- a simple tax system
- world-class universities and research centres
- the appeal of the New Zealand lifestyle and culture.

An enabling and supportive regulatory regime for testing and development

A particular advantage of testing and developing UAS in New Zealand is our world-leading risk-based regulatory framework.

Under Civil Aviation Rule Part 102, operators have the freedom to propose nearly any type of UAS operation, provided they have sufficient safety mitigations in place. This provides considerable discretion to the Civil Aviation Authority (CAA – the New Zealand aviation regulator) in working with operators to develop and test their UAS.

For advanced UAS testing, a certificate issued under Part 102 will be required. Under this rule, operators are expected to submit an exposition and operating plan, including how any safety risks would be mitigated.

Further detail on CAA expectations can be found on the CAA website at http://www.caa.govt.nz/rpas/index-2/ that includes the relevant Rules (Parts 101 and 102) and the Advisory Circulars AC101-1 and AC102-1.

Full details of the application requirements can also be found at the above website under the ‘Forms’ link.

The application includes the supply of an Exposition, Fit and Proper Person assessment, and risk strategies for compliance with the Rules amongst others.
Open airspace for testing

Testing of UAS technology can be undertaken in most areas of New Zealand airspace, as long as it can be done safely. New Zealand has a relatively quiet aviation system compared to other countries, with an enabling regulatory system for UAS that permits novel approaches to testing.

Anyone can apply to the Director of Civil Aviation for a temporary or permanent designation of airspace (under Civil Aviation Rule Part 71.7).

You can contact the CAA at airspace@caa.govt.nz regarding the designation of an area of special use airspace for UAS.

Anyone testing a UAS in New Zealand is accountable for ensuring the operation does not create a hazard to people, property or other airspace users, and for ensuring that testing does not affect routine aviation activity, or reduces the efficiency of the aviation system.

Health and Safety obligations

In addition to transport legislation, there are also obligations under the Health and Safety at Work Act 2015. This imposes duties on a ‘person conducting a business or undertaking’ to ensure, so far as reasonably practicable, the health and safety of its workplace, of its workers while at work, and of others it directs or influences. They must also ensure the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

A UAS operation, including the remote pilot site, is regarded as a place of work and the duties of persons who control places of work apply.

Insurance

Anyone undertaking UAS testing should hold appropriate levels of Public Liability and Professional Indemnity insurance to protect against the risks associated with testing.

New Zealand has a social insurance scheme that covers personal injury, administered by the Accident Compensation Corporation.

Assistance for those wanting to test and develop UAS

The CAA is the regulator of aviation in New Zealand. Anyone considering, or who has questions about, testing and developing UAS technology in New Zealand should contact the CAA.

In addition to helping ensure that any testing is safe and legal, the CAA will provide assistance for applicants involved in the testing process. The CAA can be contacted by:

Phone: +64 4 560 9400
Email: rpas@caa.govt.nz
Address: Level 15, Asteron Centre 55 Featherston Street Wellington 6011 New Zealand

Airshare.co.nz is another useful source of information for people wanting to operate UAS in New Zealand.

This website has been set up by Airways Corporation (the New Zealand air navigation service provider), the CAA and UAVNZ (the main UAS industry body).

Airshare provides information about the New Zealand regulatory system, contact details for UAS companies, maps of restricted airspace and allows operators to log flights with Airways Corporation.
Engagement

The CAA and the Ministry of Transport can help to identify who else should be engaged. For example, it may be appropriate to provide information for members of the public who may observe any tests. Engagement is likely to depend on the nature of the testing.

Other assistance for companies wanting to carry out Research and Development in New Zealand

New Zealand is home to a thriving innovation ecosystem that encourages world-leading research and development (R&D) activity. The Ministry of Business, Innovation and Employment (MBIE) can assist you with establishing your R&D activities in New Zealand, and facilitate the connections you need to get things done.


Feedback and further information

To provide feedback or for further information regarding these guidelines, please email the Ministry of Transport at technology@transport.govt.nz


Following the recommendations in this document does not constitute a defence against applicable legal requirements.

**More information:**

**Accident Compensation Corporation**
[http://www.acc.co.nz/](http://www.acc.co.nz/)

**Airshare**
[http://www.airshare.co.nz](http://www.airshare.co.nz)

**Civil Aviation Authority of New Zealand**
[https://www.caa.govt.nz/](https://www.caa.govt.nz/)

**Civil Aviation Rules**

**Health and Safety at Work Act 2015**

**Intelligent Transport Systems Technology Action Plan 2014-18**