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Summary of Submissions

Enabling Drone Integration

August 2021



Ministry of **Transport**
TE MANATŪ WAKA

Enabling New Zealanders to
flourish



Introduction

- 1 The Ministry of Transport (the Ministry) and the Civil Aviation Authority (CAA) sought feedback on a proposed approach to enhance the regulatory regime applicable to drone operations and enable the integration of these into the New Zealand civil aviation system.
- 2 The proposal contained five measures:
 - 2.1 Civil Aviation Rules (the Rules) updates: making changes to the Rules to make them clearer, fairer and future focused.
 - 2.2 Basic pilot qualification: introducing a basic test for Part 101 drone pilots to improve their knowledge and awareness of the Rules.
 - 2.3 Drone registration: mandating registration for drones weighing 250 grams and their owners, to enable identification, ensure that important information can be communicated to operators, and improve enforcement.
 - 2.4 Remote identification: mandating the use of remote identification capability on certain drones during flight that enables the transmission of aircraft identification information to third parties to improve situational awareness and enforcement.
 - 2.5 Geo-awareness: creating an official digital map and mandating the use of geo-awareness capability for certain drones, to make it easier for operators to know where they can and cannot fly to improve their situational awareness and help protect sensitive sites and infrastructures.
- 3 On 6 April 2021, the Ministry released the discussion document '[Enabling Drone Integration](#)' and began an eight-week period of formal engagement. The consultation closed on 4 June 2021.
- 4 During this time, the Ministry and CAA:
 - held events in Wellington, Auckland, Christchurch, and Queenstown which included:
 - a two-hour 'open afternoon' where the public and stakeholders could informally chat with officials about the proposals
 - a formal presentation which was followed by a question and answer session.
 - held an online presentation and question and answer session for local government
 - held meetings with many key stakeholders.

- 5 This document provides a high-level summary of the themes from the public events and submissions captured during the consultation. The views expressed in this document do not reflect the full record of submissions received or final policy proposals, nor have we weighted one opinion over another.

Submissions received

- 6 A total of 284 submissions were received by the Ministry:
- 220 were from individuals¹
 - 31 were from companies
 - 3 were from government agencies
 - 9 were from local councils
 - 21 from others.
- 7 Of the submission received, a majority were unmanned aircraft users, such as recreational and commercial users, fisherman, and Model Flyers. Some submissions were received from manned aviation, including commercial users, associations, and individual pilots. There were only a few submissions made from members of the public.

General feedback

- 8 There was overall support for the proposed series of measures, with some changes proposed and some concerns raised. Many believed that the proposed series of measures would help achieve the objectives and welcome the initiative as timely.
- 9 We received a lot of feedback on the use of the word 'drone'. Submitters and stakeholders thought the term was not accurate and held negative connotations. Some submitters also felt it was a simplification that does not appropriately cater for the breadth and depth of different aircraft captured under Part 101 of the Rules.
- 10 The concept of 'drone integration' and what Government meant when using this term was also a recurring theme. While there is overall support for the concept of drone integration, it remains unclear for some stakeholders how this could be achieved through the proposed measures. Some were concerned the measures created a separate, segregated system within the existing civil aviation system and did not help achieve integration.

¹ This total includes four individuals that made two submissions each.

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- 11 Although the measures were supported in theory, there were concerns about how the measures will be implemented, especially in relation to potential costs that may be imposed on operators or other aviation participants.
- 12 Enforcement of the new measures was also raised as a potential future issue. Submitters believed that, for the measures to be effective, there must be means (such as resources and capabilities) of enforcing them and ensuring operators are held to account for non-compliance. There was also a general belief that rogue operators would not comply, regardless of the measures in place, and that the problems would persist with such operators. As such, the measures proposed would be an undue burden on already compliant operators instead of the non-compliant ones.
- 13 Generally, the manned aviation sector (including airports, general aviation, airlines, air traffic control) welcomed the proposals, and would be willing to work with the developing unmanned aviation sector and move towards a shared, safe airspace should the proposals proceed. However, there were concerns about Part 101 operators and the possible risks posed when sharing airspace, or potential new forms of electronic conspicuity.
- 14 We also received alternative approaches to the measures and the current Rules' regulatory design. These include for example a proposed middle tier or category of operations based on risk that would provide a more balanced approach between Rule Part 101 and 102, or a split of the regulatory requirements based on the commercial and recreational use of drones. There was also a number of submitters who believed that more comprehensive measures should be implemented, such as Part 61-like licences for operators.
- 15 We received mixed views on the proposed high-level implementation timeframe. While there was general acceptance in the order of implementing measures, manned aviation felt the timeframes proposed were either too ambitious given the complexity of the task, and unmanned sector thought it was not fast enough given the rapid growth of the drone sector and international developments.
- 16 Overall, submitters were appreciative of the opportunity to engage and be heard and wish to engage further with this regulatory process.

Feedback on proposed measures

Rules Updates

- 17 There was general agreement that the Part 101 Rules need to be clarified and, that the language needs to be simplified.
- 18 In terms of the proposed major changes, many felt that a standalone Rule part had merit, making it easier to find specific Rules for drones as a subcategory of unmanned aircraft.

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- 19 There were mixed views on the review of the four-kilometre flight distance requirement from aerodromes. For the most part, submitters liked the blanket application of this Rule because it was simple to follow and felt it was justified in terms of safety. Submitters also mentioned there was already a process in place to fly within the four-kilometre zone for those who wanted to (see Rule 101.205 (i) aerodrome or AirShare approval).
- 20 The process to allow flight near an aerodrome was also flagged as a problem as it can be very difficult to contact and engage with the relevant authorities and receive approval. Some others simply thought this Rule was too cumbersome, disproportionate safety wise, and needed to be amended. Some thought this distance should be reviewed based on an assessment of factors, such as reducing minimum flight distance and height based on risk, type of aerodrome and activity of other aircraft.
- 21 There were many perspectives on the proposal related to the consent provision to fly over property and people. Some thought the Rule was justified for safety, privacy, and nuisance purposes. Some others felt that this Rule was overbearing in some circumstances and that safe distance would be an appropriate replacement, although noting the application and enforcement may be problematic (e.g. difficulty to assess distance without technology).
- 22 Many submissions contained suggestions for additional minor Rules changes which will be considered further by the CAA.

Basic pilot qualification

- 23 Most submitters supported a basic pilot qualification. Many saw the benefits of this measure and believe that it would increase compliance through a better awareness of the Rules.
- 24 There was a strong emphasis on the basic pilot qualification testing being cheap and accessible. However, some stakeholders did not see the need for mandatory basic testing and recommended instead that focus be placed on developing further the safety education campaigns the CAA has been conducting for the last few years.
- 25 Many thought this test should be more comprehensive, with some stating it should be in line with a licencing system and reflect the steps that manned aviation participants must go through when obtaining a Part 61 pilot licence.
- 26 Most submitters believed there should be a minimum age.
- 27 Some also believed that, while compliant users would obtain the qualification there would be a lot of rogue operators who would not bother. Some submitters believed that the problem of non-compliance will not be solved through this

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measure. Others believed that it would only work if the CAA was given more powers to enforce.

Registration

- 28 Most submitters supported the proposal on drone registration. They thought that costs should be kept low, and that the process should be easy and straightforward. Many believed that it should be fully digital and/or completed at point of sale. Some flagged that if there were any barriers (process or cost), operators would not be inclined to comply with this requirement.
- 29 Some believed that all drones should be registered, regardless of weight or the proposed exemptions. On the contrary others thought that registration would only add another layer of regulatory burden and could not see the benefits it would bring.
- 30 While there was support for the proposed 250 grams minimum weight threshold, some submitters, particularly model aircraft operators, suggested higher thresholds, due to the nature of the materials to build their aircraft.
- 31 Recreational operators with multiple drones did not support the idea of registering individual aircraft due to the cost. Instead, they suggested that the owner be registered and be given a unique identification number that would apply to all drones owned and flown.
- 32 Many supported the proposed exemptions or restated the rationale for the exemptions through their submissions. However, there were requests for clarification of the term 'designated area' in relation to Model Flying New Zealand (MFNZ). There was also questions around supervision and what this means for those MFNZ members.
- 33 Enforcement was also emphasised by submitters, stating that while compliant users will register, non-compliant users needed to be policed and held to account when operating in breach of the Rules.

Remote identification

- 34 This proposal received mixed responses. Some stated this would be a necessary step for enforcement when combined with registration, and that it would help improve situational awareness for operators. Submitters wanted further detail on what it would apply to and how.
- 35 Some drone operators stated in their submissions that they are already using existing forms of electronic conspicuity on their drones, such as radio, ADS-B In or FLARM, so that remote identification was not needed.
- 36 The manned aviation sector supported the concept of remote identification for drones if compatibility with their existing technology would be ensured. Some

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were concerned with what implementation would look like and the potential implications for manned aviation, e.g. retrofitting aircraft with new forms of electronic conspicuity or overloading the system/cockpit with additional systems.

- 37 Some submitters stated that this concept promoted an unfair expectation on drone operators operating in uncontrolled airspace, given that manned aviation operators do not have the obligation to carry this form of equipment when operating in uncontrolled airspace.
- 38 Submitters noted that the technology exemplified in the document had many unknowns and that it was too early in its inception.
- 39 Submitters also commented on both additional cost and (possible) additional weight that a transponder will have on their aircraft. These factors would dictate whether they would comply with this requirement.
- 40 Finally, many stated that non-compliant users would simply circumvent the technology. That this would add an additional cost to compliant users and not solve the problems that the measure was put in place to resolve.

Geo-awareness

- 41 There was a lot of interest in the creation of a digital map. Although some believed that Visual Navigation Charts were sufficient, most submitters thought it would be a useful step and wanted the development of this map (for low altitude flying) to be prioritised in terms of the overall timeline as this would greatly improve situational awareness.
- 42 The concept of geo-awareness technology was confused with those of geo-fencing and geo-caging. Those who understood the concept of geo-awareness technology had questions about how and where it would be used, and on which aircraft it would be required. While many believed that it could improve situational awareness, some submitters suggested that the current technology could be turned off or easily circumvented.
- 43 Many noted that this chapter lacked substantive detail to give more robust feedback.

Next steps

Milestone	Status	When
Drone Integration paper <i>Taking Flight</i> released	Completed	July 2019
Early engagement with key stakeholders	Completed	September – November 2019
Public consultation	Completed	6 April – 4 June 2021
Summary of submissions to Minister	We are here	July 2021
Post-consultation policy development	Underway	Q3 2021
Final policy recommendations to Minister and Cabinet approval	Underway	Q4 2021