

Hon Michael Wood
Transport

Enabling Drone Integration: Release of Discussion Document

Date of issue: 28 May 2021

Description

The following document has been proactively released by Hon Michael Wood, Minister of Transport on the Ministry of Transport website <http://www.transport.govt.nz/>

Title: OC200841 Briefing: Discussion document – Enabling Drone Integration
Date: 11 December 2020
Author: Ministry of Transport

Redactions

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11 December 2020

OC200841

Hon Michael Wood
Minister of Transport

Action required by:
Friday, 5 February 2021

Discussion document - Enabling Drone Integration

Purpose

To provide you with a draft discussion document: *Enabling Drone Integration*, for you to take to Cabinet to seek approval to release it for public consultation in early 2021.

Key points

- The Government has a vision to enable a thriving, innovative and safe drone sector in New Zealand with the long-term objective of safe integration of drones into the civil aviation system and ultimately within the wider transport system.
- We need to take steps now to cater for the rapid growth in the use of drones and ensure we have the regulatory tools to maintain appropriate levels of aviation safety and security. This will help to integrate drones efficiently and effectively into the transport system and realise their economic and social benefits.
- The Ministry of Transport (the Ministry), with support from the Civil Aviation Authority (CAA), has developed a discussion document, *Enabling Drone Integration*, for public consultation. It seeks feedback on a proposal that includes a series of complementary regulatory measures that would be gradually implemented, including:
 - updates to the current Civil Aviation Rules (the Rules) applicable to drone operations (mainly Part 101)
 - mandatory basic pilot qualification that involves online theory testing of pilots
 - mandatory registration of drones above 250 grams and their owners
 - requirements for the remote identification of drones
 - requirements for geo-awareness capabilities, including the creation of a single standardised map and new requirements for the use of geo-awareness technology.
- If you agree to the package of proposals being released for public consultation, you would need Cabinet approval to release the attached discussion document. We have attached a draft Cabinet paper for you to submit for Cabinet's approval.

Recommendations

We recommend you:

- 1 **agree** to the proposed regulatory approach set out in the draft discussion document, *Enabling Drone Integration* Yes / No
- 2 **agree** to seek Cabinet approval to release *Enabling Drone Integration* for public consultation Yes / No

Tom Forster
Manager, Economic Regulation

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Hon Michael Wood
Minister of Transport

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- Minister's office to complete:**
- Approved
 - Declined
 - Seen by Minister
 - Not seen by Minister
 - Overtaken by events

Comments

Contacts

Withheld to protect privacy of natural persons

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Discussion document - Enabling Drone Integration

The Government's vision is to enable a thriving, innovative and safe drone sector

1. In 2019, the Government released the vision paper Taking Flight: an aviation system for the automated age (Taking Flight), which sets the strategic direction of the cross-government drone work programme. Effective drone regulation has been identified in Taking Flight as a key building block to achieve drone integration.
2. Achieving this vision could create economic and social benefits, such as those identified in the 2019 Drone Benefit Study. The study estimated that commercial drone use is worth \$4.6 billion to \$7.9 billion over the next 25 years.

The current drone Civil Aviation Rules are interim measures, introduced in 2015

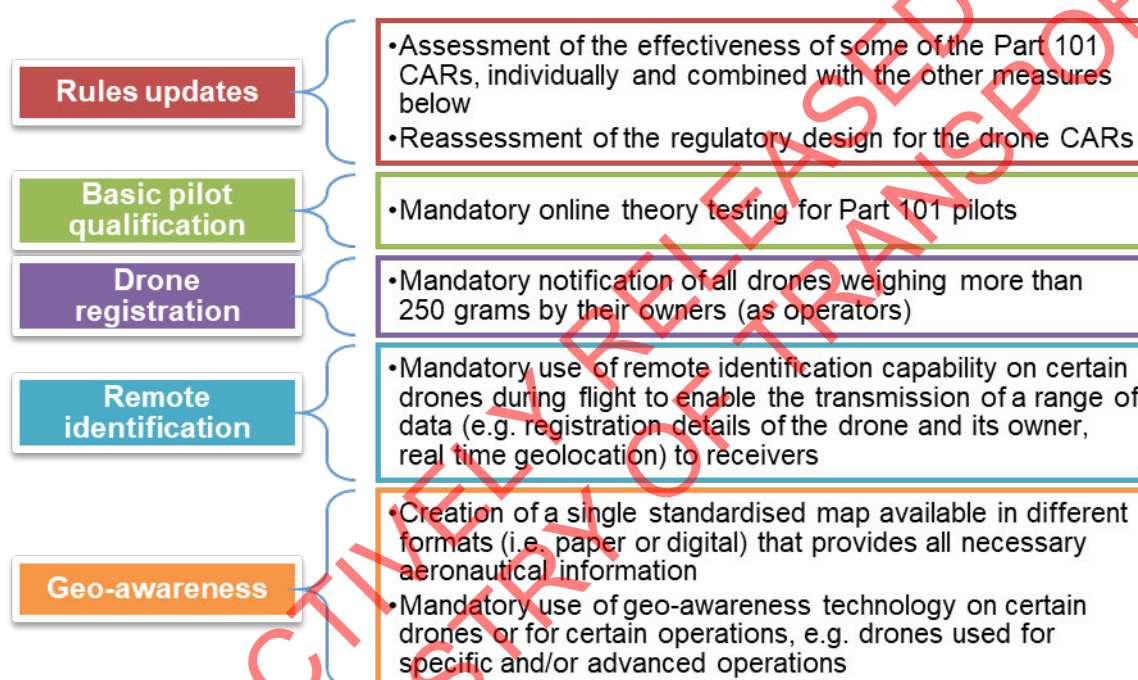
3. There are two parts in the Civil Aviation Rules (otherwise known as CARS) applicable to drones. These Rules were introduced as an interim step to manage and mitigate the short-to-medium-term safety risks of more advanced drone operations:
 - Part 101 contains 12 prescriptive rules capturing low risk operations and drones weighing less than 25 kilograms
 - Part 102 is a risk based certification framework that accommodates riskier operations (that fall outside the remit of Part 101) and drones weighing more than 25 kilograms, on a case by case basis. A Part 102 Operator Certificate is required to conduct such operations.

Maintaining the status quo is not viable, as it fails to integrate drones, realise benefits or address problems

4. The current system, using interim rules, is not sustainable and does not cater for the current number of drones or anticipated growth. It would become increasingly difficult to address the demands of safety, security and privacy risks over time, and we would very likely end up with more severe problems. It is likely that the effectiveness of the rules will erode over time.
5. To progress the Government's vision for drones and realise these benefits, changes to the regulatory system are needed.
6. The Ministry, along with the CAA, has developed a proposed regulatory approach. This approach draws on international jurisdictions' experiences, and balances several, sometimes opposing, objectives, including to:
 - enable **innovation** and **development** in the drone sector, while supporting the interests of the wider aviation sector
 - maintain appropriate standards of **safety** and **security** by deterring and identifying drone pilots operating illegally

- lay the early groundwork for **future integration of drones** into the transport system
 - foster **social licence** as there are a growing number of public concerns about drones' use, including safety and security as well as privacy and nuisance.
7. The proposed series of complementary regulatory measures is shown in Figure 1.
8. If agreed, the measures would be introduced in a phased approach, with each measure building on one another. Each has their own distinct benefits and challenges. The combination of the measures maximises their respective benefits over time and effectively addresses the identified problems in the following section.

Figure 1: Proposed series of regulatory measures



This proposal would also effectively address existing problems related to aviation safety and security, as well as privacy

9. The growing drone sector has challenged aviation safety and security, and created privacy issues. Through our analysis, we have identified the following main problems that the proposal would address:
- **Lack of compliance:** there is a lack of compliance from some drone pilots
 - **Ineffective enforcement:** this lack of compliance combined with current drone technology often makes enforcement difficult, and sometimes impossible, as pilots and drones cannot be identified or located
 - **Suitability of the current regulatory framework:** some of the current rules are no longer fit for purpose

- **System sustainability:** the current aviation system and infrastructure do not enable drone integration.

The Ministry recommends that we seek feedback on the proposal

10. Good regulatory practice involves seeking feedback from the public and industry on the proposals. We have prepared a draft discussion paper that sets out the proposals in more detail (attached). Should you agree with the proposals, Cabinet approval is needed to release the discussion document. We have attached a draft Cabinet paper for your consideration that would seek this approval.

We have identified some risks and challenges associated with the proposed approach and the public consultation

11. There is difficulty in sourcing accurate data on drones and user numbers in New Zealand as there is no system in place to track it at this stage. Until we are able to source accurate data, specific costs will remain difficult to determine. Implementing drone registration and basic pilot qualification systems would significantly help fill this gap.
12. The implementation of the proposal would challenge the current capacity and capability of the CAA. The measures proposed involve largely digital systems, and CAA does not currently have the necessary resources and systems in place to implement these measures. Should the proposal go ahead, it will likely require a specific budget bid or alternative funding options.
13. With respect to the proposed public consultation, there has been some resistance with the proposal from parts of the drone sector – mainly hobbyists and model aircraft affiliates – and some degree of criticism about the necessity of the measures. The discussion document should effectively address these concerns. We have also started to develop a stakeholder engagement plan that includes in person meetings with key stakeholders from the aviation sector.
14. To a lesser extent, there are some challenges with social acceptance of drones with the general public. This may be reflected in the submissions, however we have also tried to address these concerns in the discussion document.

Next Steps

15. If Cabinet approves, the Ministry will release the discussion document on its website, for six weeks. After consultation closes, the Ministry will collate submissions and prepare a briefing informing you of the outcome.

Annex 1: Cabinet paper and Discussion Document

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