

# Notice of Proposed Rule Making

NPRM 25-01

23 June 2025

# Part 107 Research and Development Organisation Certification Docket 25/CAR/01

**Consequential Amendments** 

Part 102

# Background to the Civil Aviation Rules

The Civil Aviation Rules **(the Rules)** establish the minimum regulatory safety boundary for participants to gain entry into, operate within, and exit the New Zealand civil aviation system. The Rules are structured in a manner similar to the Federal Aviation Regulations of the USA.

Rules are divided into Parts and each Part contains a series of individual rules which relate to a particular aviation activity. Some rules empower the use of a CAA notice or a transport instrument. Both these regulatory tools can be used to set mandatory requirements such as performance standards, conditions, operating requirements, procedures and technical specifications. Both can be amended by the Director following appropriate consultation and where amendments are in accordance with the corresponding enabling rule.

Advisory Circulars accompany many rule Parts and contain information about standards, practices and procedures that the Director has established to be an acceptable means of compliance with the associated rule. An advisory circular may also contain guidance material to facilitate compliance with the rule requirements.

The objective of the Civil Aviation Rules system is to strike a balance of responsibility between, on the one hand, the Crown and regulatory authority (CAA) and, on the other hand, those who provide services and exercise privileges in the civil aviation system. This balance must enable the Crown and regulatory authority to set standards for, and monitor performance of, aviation participants whilst providing the maximum flexibility for the participants to develop their own means of compliance within the safety boundary.

Section 13 of the Civil Aviation Act 2023 (the Act) prescribes general requirements for participants in the civil aviation system and requires, amongst other things, participants to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices.

Sections 52 to 60 of the Act allow the Minister to make ordinary rules for a range of purposes including:

- regulating aviation participants, aircraft, aeronautical products, and aviation places, and people and things carried, or to be carried, in aircraft:
- regulating people, activities, and things in relation to the safety and security of civil aviation:
- regulating the effect or potential effect of civil aviation on people, activities, and things:
- providing for the implementation of New Zealand's obligations under the Convention:
- providing for anything the Act says may or must be provided for by rules:
- providing for anything incidental that is necessary for carrying out, or giving full effect to, the Act.

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# 1. Purpose of this NPRM

The purpose of this rule-making proposal (the proposal) is to develop Civil Aviation Rules to enable the advanced aviation sector to become a highly productive, economically advanced industry that helps to boost New Zealand's productivity performance. These rules will allow the industry to drive technological advancements that have wide-ranging economic and global impacts on everyone's daily lives, for example on global communications, emergency management, scientific discovery, different business models, transportation of goods and green energy development.

This proposal will address a current gap within the system by prescribing rules to appropriately regulate research and development activities in the advanced aviation sector. Establishing these rules will ensure that these operations can be carried out safely whilst having a highly flexible regulatory framework with minimal burden on participants.

# **2.** Background to the proposal

#### 2.1 General Summary

Advanced aviation, or emerging aviation technology, is a broad term that includes aviation technologies that have not been certified before, are innovative or are otherwise not routine. This includes novel crewed or uncrewed aircraft, novel operations, ancillary technologies, and innovative and new ways of doing things.

The Government wants New Zealand to be the location of choice for advanced aviation. The Government's goal is that New Zealand has a world class regulatory environment that allows rapid iteration and testing of advanced aviation vehicles and technology, while maintaining our levels of aviation safety by the end of 2025. Aviation safety and security are paramount.

The Government's intent is also reflected in the 'Going for Growth' action: 'Encouraging the growth of the space and advanced aviation sector by removing unnecessary red tape and freeing up innovators to test and commercialise their technology and ideas'.<sup>1</sup>

Advanced aviation will reshape our aviation sector. It drives technological advancements that have wide-ranging economic and global impacts on everyone's daily lives, for example on global communications, emergency management, scientific discovery, different business models, transportation of goods and green energy development.

New Zealand's advanced aviation sector contributed \$0.48 billion to the economy in the 2024 financial year, equivalent to approximately 0.11% of New Zealand's GDP.<sup>2</sup>

In September 2024, Cabinet agreed the following actions to support advanced aviation via the Advanced Aviation Reform (AAR) package:

- 1. a new Civil Aviation Rule for experimental or developmental aircraft and systems operations to reduce the need for time consuming amendments or re-certification and relieve some pressure on current certification process
- 2. engage with the sector to establish permanent restricted airspace areas for exclusive use by advanced aviation companies
- 3. refresh Civil Aviation Rules to move lower risk operations from Part 102 to Part 101
- 4. explore options for the provision of regulatory advice outside of the regulator
- 5. progress options for a cost-recovered advisory service for applicants with complex operations

<sup>&</sup>lt;sup>1</sup><u>https://www.mbie.govt.nz/assets/going-for-growth.pdf</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.mbie.govt.nz/dmsdocument/30716-innovation-for-growth-charting-the-space-and-advanced-aviation-sectors-pdf</u>

6. co-design an emerging technology programme that clearly defines the roles and responsibilities of different parties in the system and identifies capabilities and capacities needed, and the ways of working.

This Notice of Proposed Rule Making focuses on developing the new rule approved by Cabinet, (refer action 1 above). This proposal allows advanced aviation companies to freely develop their product without needing to seek further approvals from the CAA - unless it is a significant change or until they are ready to certify their product for use in mainstream aviation. The proposed new rule offers a more nuanced regulatory approach and reduces the need for time-consuming amendments or re-certification. Once innovators are ready to export their technologies, they can transition into the current regulatory regime to ensure international credibility. The current rules continue to be available.

To maximise the benefits of a new Rule, a permanent restricted airspace could be required where (new Rule) certificate holders could conduct their experimental or developmental operations freely (along with the necessary ground-based infrastructure and systems to enable products and services to be developed).

#### 2.2 Problem statement

In 2015, the Government brought in new and amended rules that were designed to mitigate the immediate safety and security risks posed by uncrewed aircraft operations. These rules were intended to be an interim step to give regulators an opportunity to examine technology as it developed, and to introduce longer-term regulation once the use of drones had become more standardised internationally.

Any uncrewed aircraft operation that cannot fit under Part 101 must be assessed and certificated under Part 102. In principle, this regulatory pathway can assess any kind of novel technology or operation. As such, the regulator faces a significantly more complex task of assessing each proposed operation. In some cases, this can result in a burdensome process that may not always be proportionate to operational risks and that imposes regulatory costs and delays on innovators.

The length and unpredictability of the time it takes for the CAA to process complex applications poses unnecessary business uncertainty and delays on advanced aviation participants. It also impacts on other regulatory decision-making, as resources are moved around to try and respond to complex applications. Anecdotal evidence suggests regulatory challenges factor into companies' decisions about whether to continue to operate in New Zealand or come to New Zealand as the destination of choice.

Assessments carried out by AARAG indicated that the current set of regulations addressing research and development activity into aviation technology present the following problems:

- Development of UA technology falls under Part 102, which requires an exposition setting out the scope of activities to be conducted by the certificate holder. Any significant deviations from the exposition requires an amendment to the exposition. These amendments require time and resourcing from the regulator and the regulated parties. The need for an updated exposition inhibits developers from pursuing new pathways as they arise.
- The assessment of amendments requires significant input from certification teams. The time spent assessing amendments is time that is otherwise not spent certifying new entrants.
- The current CARs differentiate operations based on the type of aircraft being used, with UA and manned operations being addressed under different rules. This could inhibit the ability of developers to make significant platform switches, even if the platforms are not the main focus of the testing.

CARs do not directly impact developers as they conduct research and development activity on the ground, whether in creating new designs, theoretical testing, or engineering of new components and platforms. However, the combination of rule sets creates difficulties when they seek to test the components in flight.

This work proposes a new rule to facilitate the rapid and iterative testing of aviation technology as a component of research and development activity.

#### 2.3 NPRM Development

The policy work toward this proposal was initiated following the Cabinet decision setting out the work.

Some of the issues underlying the Cabinet decision were previously raised by industry stakeholders. Early input on the proposal was sought from the Advanced Aviation Reform Advisory Group (AARAG), and the members of the Emerging Aviation Technologies Forum, with some other targeted stakeholders.

# 2.4 Key Stakeholders

The following are identified by the Civil Aviation Authority as key stakeholders in the proposed rule amendments contained in this NPRM:

- The Minister of Transport
- The Ministry of Transport
- The Minister for Space
- Ministry of Business, Innovation and Employment
- Airways
- CAA
- Advanced Aviation Reform Advisory Group
- Part 102 certificate holders
- Current or intending advanced aviation developers

# 3. Issues addressed during development

# 3.1 Confirmation of intent

Cabinet agreed to "develop a new Civil Aviation Rule for experimental or developmental aircraft and systems operations to allow rapid iteration and testing of advanced aviation vehicles and technologies". The policy work underlying the agreement set out the broad direction of the proposal, but it did not address the specific actions which need to be taken.

Initially, we sought to further articulate the outcomes sought to better define the outputs and the required regulatory changes.

The wording of the Cabinet agreement requires us to focus on both aircraft and ancillary systems, without a specific focus on unmanned aircraft. Therefore, a required outcome was for the regulatory change to be equally applicable to all aircraft types, without a specific focus on unmanned aircraft. Equally, this would apply to any other aviation component, item, or technology. This approach would need to be enduring and be able to be applied to future technologies.

Another outcome sought by Cabinet is the facilitation of research and development at a rapid pace. In order to achieve this, there is a need to do more than address existing regulatory impediments which may slow down research and development activity. Instead, we need to create new mechanisms which function at a level higher than current pathways.

As this new CAR focusses on research and development, it will be a departure from comparable existing rules, which focus on deployment of an aircraft or conducting a series of tests on an aircraft in direct preparation for its deployment. The CAR will also need to reflect contemporary research and development activity, which may see an operator developing technologies or platforms for the intent of selling the intellectual property or holding in their company, instead of pursuing commercial operation. As a result, the new CAR should, where possible, facilitate an environment where participants can conduct R&D activity at pace and with the freedom and assurance needed to explore new pathways when they arise.

Based on the information provided to Cabinet, it was confirmed that the processing times for Part 102 certifications was a consideration, and easing pressure in this space is a required outcome.

# 3.2 Potential replacement rules

We sought to determine whether the outcomes sought through this work could be achieved by amending existing Civil Aviation Rules, or whether a new Civil Aviation Rule Part needed to be created.

Presently, several existing CARs already allow the aviation component of research and development activity to be conducted by appropriately certified participants. We focussed on the most relevant of these CARs to determine their suitability for amendment.

3.2.1 Part 102

Significant levels of the aviation activity needed for New Zealand research and development (R&D) into unmanned aircraft (UA) is carried out by operators certified under Part 102. This is an organisation certification which allows a participant to carry out operations with a UA, which exceed one of the thresholds set out in Part 101, such as flying at night, above property or people, with an aircraft weighing more than 25kg. This ruleset is highly regarded internationally and has been attributed as one of the key factors in drawing R&D activity to New Zealand.

The application process for the certification requires the preparation of an exposition setting out the nature of the aviation activity, and the safety mitigations that are proposed by the participants to ensure that appropriate levels of aviation safety and security are maintained. Changes to the nature of the operation, its location, the aircraft used, or any other factor listed in the accepted exposition will require a participant to seek an amendment to their certification.

This CAR was deemed unsuitable for amendment for the purpose of this work because:

- Part 102 covers operation of UA.
  - Part 102 could not be reasonably amended to cover manned aircraft without significantly changing the original intent of the Rule.
  - Part 102 could allow for the use of UA as a component of testing other aviation technologies, but the certification would still be focussed on the UA component of the operation.
- Part 102 requires certification amendments
  - Part 102 presently requires operators to seek an amended exposition when changing their operations, which would stifle the pace at which operators could update their operations in response to their research.
  - Retrofitting an expanded R&D mechanism into the Part 102 ruleset without significantly changing the underlying CAR is unlikely to alleviate existing certification pressure and backlog and would likely make it worse.

#### 3.2.2 Part 21 - Experimental certificate

The CAA can issue a Part 21 special category – experimental certificate to operators intending to conduct experimental flights to conduct flight test activities to support the certification of an aviation product or part.

This is a highly effective rule part and has been a mainstay for operators conducting their research, development, and testing activities.

Generally, applications under this category first require identification of a flight test requirement, followed by the preparation of a Flight Test Plan setting out the details of the planned test flights. Following the completion of the flights, the post-flight reports and data may be analysed or audited for the purposes of future certifications.

This CAR was also deemed unsuitable for amendment for the purposes of this work because:

- Part 21 special category -experimental certificates are intended for manned aircraft testing.
  - The CAR could not be reasonably amended to facilitate testing of unmanned aircraft and other emerging aviation technologies without a significant overhaul or significantly compromising the underlying CAR.
- Part 21 certification requires a Flight Test Plan
  - The Flight Test Plans are inherently more flexible than Part 102 expositions, and it is feasible that they could be even more flexible through changes to operational policy. However, a Flight Test

Plan is an inherently limited concept that details an operator's understanding of necessary tests prior to their commencement. This construct does not naturally allow for open ended research and development.

Based on the above, we concluded that it is not feasible to amend either Part 21 or Part 102 to achieve the outcomes and outputs sought through this project. As a conclusion, the new Civil Aviation Rules would need to be enacted as a new Civil Aviation Rule Part.

Based on available CAR numbers and its proximity to the existing Part 101 and Part 102, the new rule part number was settled on Part 107.

# 3.3 Rule Mechanism

Based on the above, work was initiated to determine the optimal mechanism to meet the required outcomes.

# 3.3.1 Sandboxes

Internationally, research and development with lowered regulatory burdens have been facilitated via "sandboxes". Generally, these are established by a regulator and allow a private sector participant to conduct trials in a geographically defined area while enjoying a partially relaxed regulatory setting. In most cases these are limited based on time or purpose and are limited to accepted participants. Often, the sandbox activity is associated with an information sharing agreement, where the outcomes of the trials are also utilised by the regulator for future date-driven decision making.

This approach has significant benefits, but does not meet all the criteria required for AAR, primarily:

- Time/purpose-limited activity this work aims to establish an enduring mechanism for participants to conduct research and development at their own pace and discretion.
- Data requirements sandbox-style mechanisms are likely to result in significant amounts of untargeted data. Analysing such quantities of data will require significant internal resourcing at the CAA, without a clear purpose. Mandating data sharing also raises concerns around data confidentiality, storage, ownership, and use.

To compensate for the identified issues, Part 107 will use a sandbox-like mechanism of reduced regulatory burdens, but:

- Without the government-led focus and goal setting, allowing participants to conduct their own activities
- Without limiting the length of the activity beyond the maximum length of time a participant can hold a certificate under the Civil Aviation Act 2023.
- Without requiring any explicit data sharing requirements. However, participants can use their research and development results at their own discretion in future applications for certification.

#### 3.3.2 Safety Management Systems and rule structure

In order to accommodate an unknown breadth of technologies, platforms, and operations, the new rule needs to be adequately performance based and avoid prescription whenever possible.

The basis for this performance-based rule was taken from Part 100 Safety Management Systems. This CAR applies to many operations across the full spectrum of aviation activity regulated by the CAA. This is a performance-based rule which seeks to "improve New Zealand's aviation safety performance in a way that embeds an effective safety culture in aviation organisations". Organisations to which Part 100 applies are required to prepare a safety management system which details their safety policies, processes for risk management, and other assurance measures. It does not prescribe any specific measures but asks what an organisation is doing and what it intends to do to maintain safety.

The details of what is to be provided by operators as part of their application mirror elements of Part 102, specifically around the nature of the information to be provided as part of the exposition.

Elements were also taken from Part 21 and the Advisory Circulars for Part 19, which deal with experimental testing.

In combination, these elements are intended to contribute to a new CAR which is enduring, capable of encompassing new technologies and developments, and provides for a degree of synergy with complementary rules.

# 3.3.3 Geographic locations

Workstream 1b of the AAR package as agreed by Cabinet is to "engage with the sector to establish permanent restricted airspace areas for exclusive use by advanced aviation companies". The workstream was initially intended to work in tandem to facilitate areas for research and development activity to be carried out.

Similar efforts to establish "drone test sites" have been launched in the past by private sector participants, but faced issues due to:

- Community pushback and opposing submissions during applications to designate Special Use Airspace for the locations
- A disconnect between the proposal and the Part 102 rules at the time, which would mean that a test site could not be certified, while potential users would still need to submit their own application for certification.

To minimise these incompatibilities, the potential use of specific geographic locations, facilities, and special use airspace was included in the planning of Part 107.

However, due to the need for the rule to enable a wide range of activities, the use of any specific type of locations was not mandated at rule-level.

The policy implemented into the Rule is to request information from applicants on the geographic location and airspace type for their proposed research and development activity, along with any information on their standing agreements with facilities providers, Air Traffic Controllers, Administering Authority of any restricted airspace, or Using Agency of any relevant Danger Area. At an operational level, the nature of the airspace, separation from other airspace users, the underlying ground risk, and any ground infrastructure and safety mitigations can be taken into account when considering an application. As a result:

- Applications are not restricted to operations over pre-determined and specified locations. However, applications in locations with significant safety mitigation already in place can be approved easier.
- Commercial operators could establish commercial test facilities with the intent of hosting Part 107 holders.

# 3.3.4 Rules bubbles

The key mechanism which alleviates the regulatory burdens for an operator certified under Part 107 will be a Civil Aviation Rule which explicitly exempts their operations from complying with Rule Parts 19, 26, 39, 47, 63, 66, 67, 92, 93, 95, 115, 119, 129, 133 and 137. Several CARs were not added to the list of exclusions as they were considered too vital for either the operation of Part 107 itself or fundamental principles of aviation.

However, in recognising that Part 107 is intended to encompass a range of technologies, and to endure beyond currently known technologies, Part 107 enables the Director to require participants to comply with specific Civil Aviation Rules or entire Rule Parts, as a condition of holding the certificate. This will be an essential component of any potential certification of an application which proposes operations outside of special use airspace.

# 3.4 ICAO Standards and Recommended Practices (SARPS)

The proposed rule amendments do not address matters covered by existing SARPS, and further work is not required to ensure alignment.

# 4. Summary of changes

Draft rule 107.1 specifies the purpose of Part 107 which is to prescribe the requirements for the certification of an organisation conducting research and the development of an aviation system.

Draft rule 107.3 provides the definition for 3 terms used in Part 107. Note the definition of **aviation system** is broad as it includes 'or any other related system'. This is to capture things such as lasers for batteries which are not traditionally considered to be part of an aircraft system. Also note that the definition of **research and the development of an aviation system** is confined to the testing, inspecting and investigating of an aviation system using an unmanned aircraft or manned aircraft. The intent here is to exclude from certification any person who wishes to carry out research and development activities by other means, such as desktop and ground-based.

Draft rule 107.5 prohibits a person from exercising the privileges specified in rule 107.11 except under the authority of a research and development organisation certificate issued by the Director under the Act and Part 107.

Draft rule 107.7 provides for the application process and specifies the details required for a research and development organisation certificate.

Draft rule 107.9 provides for the issue of the certificate by the Director, if the Director is satisfied that the elements of the rule are met.

Draft rule 107.11 provides for the privileges of the certificate holder. To allow for flexibility given the wide range of activities that a certificate holder can do, it is proposed that the scope of the research and development activities that the certificate holder is authorised to carry out will be specified in the holder's operations specification. This draft rule spells out the suite of Rule Parts which the certificate holder is not required to comply with (unless the exposition specifies otherwise) if using unmanned aircraft or manned aircraft.

Draft rule 107.13 specifies the restrictions that apply to a certificate holder. One of the restrictions is that the certificate holder must ensure that an aircraft is not being operated for hire or reward. This draft rule also allows the Director to require a certificate holder to comply with a Rule Part not specified in the holder's exposition after the certificate had been issued. The two grounds on which the Director may do this is if there is a material change to the nature of the research and development activities and it is in the interests of aviation safety. An example of a material change would be if the certificate holder wishes to transit from using unmanned aircraft to manned aircraft for carrying out testing activities.

Draft rule 107.17 provides for the renewal of certificate. The standard grant and renewal period of a maximum of 5 years apply to a research and development organisation certificate.

Draft rule 107.19 provides for notification of ceasing research and development activities. A certificate holder is required to notify the Director in writing within 30 days of ceasing to carry out research and development activities. The notification must include a request for revocation of the certificate. This notification is considered appropriate to draw a clear line that the research and development phase is complete. The certificate holder may then wish to pursue a new pathway such as the certification of products and parts under Part 21 or the development of designs for products and components under Part 146.

Draft rule 107.51 provides for personnel requirements. An applicant for a research and development organisation certificate is required to have a senior person as the chief executive who has the authority to ensure that all activities undertaken by the organisation can be financed and carried out in accordance with the requirements of Part 107.

Draft rule 107.53 requires a certificate holder to provide the Director with an exposition containing the matters specified in the provision. Namely, that a statement is signed by the chief executive to state what the organisation is about and demonstrate its ability to comply with Part 107. Certain details such as locations, scope and nature of the research and development activities are needed. The applicant is required to have a hazard register that identifies hazards to people, property and other aircraft involved in a proposed operation, and measures to mitigate the associated risks.

Draft rule 107.55 provides for the certificate holder's operations specification which contains the details specified in the rule. Note that the Director may impose any other condition that the Director determines is necessary in the interests of aviation safety.

Draft rule 107.57 provides for iterative testing of a new concept of an aviation system, operating techniques or aircraft use. A restriction is imposed on the applicant to ensure that any flight tests are not carried out at any other place except at the designated location and airspace specified in the applicant's exposition.

Draft rule 107.101 requires a certificate holder to continue to comply with all the procedures and systems detailed in the exposition, and making its exposition available to all its staff members.

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Draft rule 107.103 requires a certificate holder to ensure that its exposition is amended under the circumstances specified in the rule. The certificate holder is also required to ensure continued compliance with all the applicable requirements of Part 107. Before making any material change such as a change of the chief executive, or the scope of the testing activities, the certificate holder must obtain the Director's prior approval before making the change.

#### 5. Legislative analysis

#### 5.1 Power to make rules

The Minister may make ordinary rules under sections 52 to 60 of the Civil Aviation Act 2023, for various purposes including implementing New Zealand's obligations under the Chicago Convention, assisting aviation safety and security, and any matter contemplated under the Act.

These proposed rules are made pursuant to:

- Section 52(1) which allows the Minister to make rules relating to civil aviation for all or any of the following purposes:
  - a. regulating aviation participants, aircraft, aeronautical products, and aviation places, and people and things carried, or to be carried, in aircraft:
  - b. regulating people, activities, and things in relation to the safety and security of civil aviation:
  - c. regulating the effect or potential effect of civil aviation on people, activities, and things:
- Section 53(1)(e) which allows the Minister to make rules under section 52 relating to the certification of aviation participants:
- Section 54(1) which allows the Minister to make rules under section 52 relating to the setting of standards, specifications, restrictions, and licensing requirements for all or any of those persons or things specified in section 53, including but not limited to the following:
  - a. the specification of the privileges, limitations, and ratings associated with licences or other forms of approval:
  - b. the setting of standards for training systems and techniques, including recurrent training requirements:
    - g. the provision of information to the CAA or the Director by applicants for or holders of aviation documents:
- Section 55(1)(d) which allows the Minister to make rules under section 52 providing that an aviation document is required by or in respect of aviation participants:
- Section 56(b) which allows the Minister to make rules under section 52 general operating rules, air traffic rules, and flight rules, including but not limited to:
  - i. the conditions under which aircraft may be used or operated, or under which any act may be performed in or from an aircraft:
  - ii. the prevention of the operation of aircraft in a manner that endangers people or property:
- Section 57 which allows the Minister to make rules under section 52 providing for the classification, designation, special use, prohibition, and restriction of airspace and things affecting navigable airspace, including airspace used by the New Zealand Defence Force or a visiting force:
- Section 60(a) which allows the Minister to make rules under section 52 for the definitions, abbreviations, and units of measurement to apply within the civil aviation system.

#### 5.2 Matters to be taken into account

The development of this NPRM and the proposed rule changes considers the matters under sections 61(2) and 72 of the Act that are part of the procedure for making rules.

Under section 61(2), before making a rule, the Minister must—

- be satisfied that the rule will, to the extent that is practicable, facilitate conformity with the applicable standards of ICAO relating to aviation safety and security; and
- be satisfied that the rule is not inconsistent with New Zealand's international obligations relating to aviation safety and security; and
- have regard to and give the weight that the Minister considers appropriate in each case, to the criteria specified in section 72. This includes weighting the proposal against the main and additional purposes of the Act.

Details on how this proposal meets the criteria prescribed under sections 3, 4 and 72 is detailed below:

Section of the Act	Text in Act	Applicable/Not Applicable	Comments
3	A safe and secure aviation system	Applicable	This proposal will ensure a safe and secure aviation system by increasing clarity for users, and ensuring the appropriate regulatory mechanisms are in place.
4(a)	The Act has the following additional purposes: to maintain, enhance and promote a transport system that contributes to environmental sustainability, economic prosperity, inclusive access, healthy and safe people, and resilience and security	Applicable	This proposal will allow for greater economic prosperity and will ensure that New Zealand is a sought-after location for research and development activity
4(b)	To promote innovation, effectiveness and efficiency in civil aviation	Applicable	This proposal will allow for greater levels of innovation to take place in a less burdensome regulatory environment.
4(c)	To ensure that New Zealand's obligations under international civil aviation conventions, agreements, and understandings are implemented	Not applicable	There are no international obligations relating to this proposal
4(d)	To preserve New Zealand's national security and national interests	Partially applicable	This proposal has no known impacts on New Zealand's national security. The intent of the proposal aligns with national interest as outlined in government policy beyond the aviation sector.
4(e)	To take into account the adverse effects of civil aviation on the interests of people, property, and the environment.	Applicable	This proposal provides solutions to ensure that the adverse effects of this rule on people, property and the environment are limited.
72(a)	The main and additional purposes of this act	Applicable	This proposal meets the majority of the purposes of this Act. If any are not met, it is because they are not applicable.
72(b)	the recommended practices of ICAO relating to aviation safety and security	Not applicable	There are no relevant ICAO standards or recommended practices relating to this project.
72(c)	the level of risk existing to aviation safety in each proposed activity or service	Applicable	This proposal considers the existing risks to aviation safety and puts

			mitigations in place to reduce or remove them.
72(d)	the nature of the activity or service for which the rule is being established	Applicable	This proposal is suitable for the nature of the activity it is intending to establish.
72(e)	the level of risk existing to aviation safety and security in New Zealand in general	Applicable	This proposal will allow for users to develop new technologies freely but will do so within a controlled environment to ensure there any risk to aviation safety and security is managed to an acceptable level.
72(f)	the need to maintain and improve aviation safety and security, including (but not limited to) personal security	Applicable	This proposal will allow for users to develop new technologies freely but will do so within a controlled environment to ensure that aviation safety and security levels are maintained.
72(g)	the costs of implementing measures for which the rule is being proposed	Applicable	This proposal will not introduce any new costs. This will be an opt-in system for users that want to use it.
72(h)	the international circumstances in respect of— .aviation safety and security; and .(ii) mutual recognition of safety certifications in accordance with the ANZA mutual recognition agreements	Not applicable	This proposal is world-leading and does not have any international circumstances to consider.
72(i)	any other matters that the Minister or, as the case may be, the Director considers appropriate in the circumstances.	Applicable	This proposal has taken into account the direction set by Cabinet.

#### 5.3 Incorporation by reference

The proposed rules will not incorporate material by reference.

#### 5.4 Civil Aviation (Offences) Regulations

The proposed changes will be supported by amendments to Schedule 1 of the Civil Aviation (Offences) Regulations 2006.

#### 6. Submissions on the NPRM

#### 6.1 Submissions are invited

Interested persons are invited to participate in the making of the proposed rules by submitting written data, views, or comments. All submissions will be considered before final action on the proposed rulemaking is taken. If there is a need to make any significant change to the rule requirements in this proposal as a result of the submissions received, then interested persons may be invited to make further submissions.

#### 6.2 Examination of submissions

All submissions will be available for examination by interested persons both before and after the closing date for submissions. A consultation summary will be published on the CAA web site and provided to each person who submits a written submission on this NPRM.

Submissions may be examined by appointment with the Docket Clerk at the Civil Aviation Authority Level 15, Asteron Centre, 55 Featherston Street, Wellington 6011 between 8:30 am and 4:30 pm on weekdays, except statutory holidays. Appointments to examine submissions are to be arranged by phone or email docket@caa.govt.nz.

#### 6.3 Official Information Act

Submitters should note that subject to the Official Information Act 1982 any information attached to submissions will become part of the docket file and will be available to the public for examination.

Submitters should state clearly if there is any information in their submission that is commercially sensitive or for some other reason the submitter does not want the information to be released to other interested parties. The CAA will consider this in making a decision in respect of any Official Information Act requests. It should be noted that the CAA cannot guarantee confidentiality in respect of any specific submissions.

#### 6.4 How to make a submission

#### 6.4.1 Online response form

An online response form is available on the CAA web site at <u>www.aviation.govt.nz/rules/rule-development-and-change/nprms-open-for-submission/</u>. When submitted, this form will be sent directly to the Docket Inbox.

#### 6.4.2 Submission response sheet

A submission response sheet may also be downloaded from our website and sent by the following methods:

- e-mail: <u>docket@caa.govt.nz</u> and marked NPRM 25-01 by mail: Docket Clerk (NPRM 25/CAR/01) Civil Aviation Authority PO Box 3555 Wellington 6140 New Zealand
- delivered: Docket Clerk (NPRM 25-01) Civil Aviation Authority Asteron House Level 15 55 Featherston Street Wellington 6011

#### 6.5 Final date for submissions

Comments must be received before 27 July 2025

#### 6.6 Availability of the NPRM:

Any person may obtain a copy of this NPRM from-

CAA web site: <u>www.aviation.govt.nz;</u>

or from: Docket Clerk Civil Aviation Authority Asteron House Level 15 55 Featherston Street Wellington 6011 Phone: 64–4–560 9640 (quoting NPRM 25-01)

#### 6.7 Further information

For further information, contact: docket@caa.govt.nz

# 7. Proposed New Rule

[Note: Except for Part 107, which is all new, inserted texts in existing Parts are shaded, deleted texts are struck through and shaded]

# New Part 107: Research and Development Organisation Certification

# Subpart A General

#### 107.1 Purpose

This Part prescribes the requirements for the certification of an organisation conducting research and the development of an aviation system.

#### **107.3 Definitions**

In this Part, unless the context otherwise requires, -

#### Aviation system-

means a new concept of an aeronautical product, component, control system, product, propulsion system or any other related system:

**research and the development of an aviation system** means the testing, inspecting and investigating of an aviation system using an unmanned aircraft or manned aircraft under rule 107.57; and

**Exposition** means the exposition required by rule 107.53:

#### 107.5 Requirement for certificate

(a) A person must not exercise the privileges under rule 107.11 except under the authority of a research and development organisation certificate issued by the Director under the Act and this Part.

#### **107.7 Application for certificate**

(a) An applicant for the grant of a research and development organisation certificate must complete the applicable CAA form which requires –

- (1) the name and address for service in New Zealand of the applicant;
- (2) the applicant's exposition required by rule 107.53;
- (3) the details for the operations specifications required by rule 107.55; and
- (4) any other information relating to the application as specified on the form.

(b) The applicant must submit the completed form to the Director with a payment of the appropriate fee prescribed by regulations made under the Act.

#### **107.9 Issue of certificate**

A research and development organisation certificate may be issued by the Director under the Act and this Part if the Director is satisfied that -

- (1) the applicant meets the requirements of Subpart B;
- (2) the applicant and the senior person or persons required under rule 107.51(1) are fit and proper persons; and
- (3) the issue of the certificate is not contrary to the interests of aviation safety or security.

#### **107.11** Privileges of certificate holder

(a) The holder of a research and development organisation certificate is authorised to conduct the research and development of aviation systems as specified in the operations specifications.

(b) Unless the exposition required by rule 107.53 specifies otherwise, the holder of a research and development organisation certificate is not required to comply with -

(1) if using unmanned aircraft - Rule Parts 19, 26, 39, 47, 63, 66, 67, 92, 93, 95, 99, 102, 115, 119, 129, 133 and 137.

(2) if using manned aircraft - Rule Parts 19, 21, 26, 39, 43, 47, 63, 66, 67, 92, 93, 95, 99, 115, 119, 129, 133 and 137.

#### 107.13 Restrictions on certificate holder

(a) The holder of a research and development organisation certificate –

- (1) must ensure that an unmanned aircraft or manned aircraft is operated -
  - (i) in accordance with the conditions specified in the operations specifications;
  - (ii) in accordance with the conditions and procedures specified in the exposition;
  - (iii) for research and development purposes only;
  - (iv) within the special use airspace and geographic location specified in the operations specifications;
  - (v) without carrying a passenger.

(b) The holder of a research and development organisation certificate must ensure that an aircraft is not being operated for hire or reward.

(c) Despite rule 107.11(b), the Director may require the certificate holder to comply with a Rule Part not specified in the exposition after the certificate had been issued –

- (1) if there is a material change to the nature or scope of the research and development activities; or
- (2) in the interests of aviation safety.

#### 107.15 Duration of certificate

(a) A research and development organisation certificate may be granted or renewed for a maximum period of 5 years.

(b) The holder of a research and development organisation certificate that is suspended or revoked must surrender the certificate to the Director within 30 days of the suspension or revocation.

(c) The holder of a research and development organisation certificate that is suspended must surrender the certificate to the Director for appropriate endorsement.

#### 107.17 Renewal of certificate

(a) The holder of a research and development organisation certificate who intends to continue exercising the privileges of the certificate past the expiry date must apply for the renewal of the certificate on the applicable CAA form.

(b) The application must be submitted to the Director by the application renewal date specified on the certificate or, if no such date is specified, not less than 60 days before the certificate expires.

#### **107.19** Notification of ceasing research and development activities

(a) A holder of a research and development organisation certificate who ceases to offer research and development activities must notify the Director in writing within 30 days of the date of cessation.

(b) The notification must include a request for revocation of the research and development organisation certificate.

# **Subpart B Certification Requirements**

#### **107.51** Personnel requirements

An applicant for the grant of a research and development organisation certificate must employ, contract, or otherwise engage-

- (1) a senior person identified as the chief executive who has the authority within the applicant's organisation to ensure that all activities undertaken by the organisation can be financed and carried out in accordance with the requirements and standards prescribed by this Part; and
- (2) any other senior person or persons if applicable depending on the scope and nature of the research and development activities.

#### 107.53 Research and development organisation exposition

(a) An applicant for a research and development organisation certificate must provide the Director with an exposition containing—

(1) a statement signed by the chief executive on behalf of the applicant's organisation confirming that the exposition and any included manuals —

(i) define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and

- (ii) are to be complied with at all times; and
- (2) details of all locations where the applicant conducts research and development of aviation systems;
- (3) the scope and details of the intended research and development of aviation systems;
- (4) the details of the airspace to be used in any unmanned aircraft or aircraft operation;
- (5) a hazard register that—
  - (i) identifies the known and likely hazards to people, property and other aircraft involved in a proposed operation;
  - (ii) for each of the hazards identified, includes an assessment of the associated risks;
  - (iii) includes a description of the measures that will be implemented to mitigate or manage the risk;
- (6) procedures for reporting information to the Civil Aviation Authority;
- (7) any agreements or preliminary agreements with relevant air traffic service provider;
- (8) procedures for controlling, amending and distributing the exposition;
- (9) any other approvals that are required to conduct the research and development of aviation systems.

(b) In addition to paragraph (a), if the applicant is to operate an unmanned aircraft or manned aircraft for research and development purposes, the applicant must include the following in its exposition –

- (1) operating requirements and procedures for personnel licensing if applicable, qualifications, training and competency including pilot and other crew member qualifications, training or medical requirements;
- (2) details of the number and specifications of the aircraft to be used, including any identification system used on the aircraft if applicable (for example colour schemes, unique identification numbers, markings);
- (3) details of controlling the unmanned aircraft;
- (4) inflight procedures, including emergency procedures and minimum distances from persons or property; and

(5) procedures for testing restraint systems for the carriage of cargo excluding dangerous goods, if such operations are intended.

(c) An exposition may adopt, by reference, a requirement in a civil aviation rule for the purpose of mitigating or managing a risk identified in the hazard register required by paragraph (a)(5).

(d) The exposition must remain acceptable to the Director from the issue of the research and development organisation certificate up to its expiry date.

#### **107.55 Operations specification**

A research and development organisation certificate issued by the Director under the Act and this Part is to be accompanied by operations specification containing -

- (1) the certificate holder's address for service in New Zealand;
- (2) a list of any business names under which the certificate holder is approved to operate;
- (3) the privileges and operations that the operator is permitted to perform, including:
  - (i) the number, type and description, including if applicable, the serial number and registration, of every aircraft that is authorised for use;
  - (ii) identification of the geographical areas of operations approved by the Director;
  - (iii) any exemption granted from any requirement of this or any other Part; and
  - (iv) any other condition that the Director determines is necessary in the interests of aviation safety.

#### 107.57 Testing new concept of aviation system, operating techniques and aircraft use

(a) An applicant for a research and development organisation certificate may conduct iterative exploratory testing to investigate and inspect a new concept of an aviation system, new operating techniques or new uses for aircraft.

(b) The applicant must ensure that flight tests are not carried out at any other place except at the designated location and airspace specified in the certificate holder's exposition.

# Subpart C — Operating Requirements

#### **107.101** Continued compliance

A holder of a research and development organisation certificate must-

- (1) have at least one complete and current copy of its exposition accessible to staff at each work location specified in its exposition; and
- (2) comply with all procedures and systems detailed in its exposition; and
- (3) make each applicable part of the exposition available to personnel who require those parts to carry out their duties; and
- (4) continue to meet the standards and comply with the requirements that Subpart B prescribes for certification under this Part; and
- (5) determine that each aviation system complies with the approval under this rule and is fit for embodiment.

#### 107.103 Changes to certificate holder's organisation

(a) A holder of a research and development organisation certificate must ensure that its exposition is amended —

(1) each time an amendment is made to any of the matters specified in paragraph (d); and

(2) to ensure continued compliance with the civil aviation rules that have been adopted under rule 107.11(b) or are to be adopted under rule 107.13(b).

(b) The certificate holder must—

- (1) ensure that any amendment made to its exposition meets the applicable requirements of this Part; and
- (2) complies with the amendment procedures contained in its exposition.

(c) Subject to paragraph (d), the certificate holder must forward to the Director for retention a copy of each amendment to its exposition as soon as practicable after the amendment is incorporated into its exposition.

(d) The certificate holder must obtain the approval of the Director before changing any of the following-

- (1) the chief executive:
- (2) the scope of the testing activities the certificate holder undertakes:
- (3) address for service:
- (4) the system for risk management, if the change is a material change:

# 8. Consequential amendments

# **102.7 Requirement for certificate**

A person must not operate an unmanned aircraft other than in accordance with Part 101 or Part 107 except under the authority of, and in accordance with the terms of, a valid unmanned aircraft operator certificate or a research and development organisation certificate granted by the Director under the Act and in accordance with this Part or Part 107.