Civil Aviation Rules

CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Notice of Proposed Rule Making

NPRM 17-02

20 February 2017

Small Issues Rule Amendments

Docket 16/CAR/10

Affected Rule Parts:
Part 1
Part 12
Part 21
Part 43
Part 61
Part 91
Part 115
Part 121
Part 125
Part 135

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Background to the Civil Aviation Rules

The Civil Aviation 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 set of aviation activities. Some rules empower the use of a CAA Notice. Notices contain specific mandatory requirements including detail about the approvals, standards, conditions, procedures and technical specifications that have been approved or determined by the Director to be appropriate in accordance with a 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 12 of the Civil Aviation Act 1990 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.

Section 28 of the Act allows the Minister to make ordinary rules for any of the following purposes:

- The implementation of New Zealand's obligations under the Convention
- To allow for mutual recognition of safety certifications in accordance with the ANZA mutual recognition agreements
- The provision of aviation meteorological services, search and rescue services and civil aviation security programmes and services
- Assisting aviation safety and security, including but not limited to personal security
- Assisting economic development
- Improving access and mobility
- Protecting and promoting public health
- Ensuring environmental sustainability
- Any matter related or reasonably incidental to any of the following:
    i. The Minister's objectives under section 14 of the Act;
    ii. The Minister's functions under section 14A of the Act;
    iii. The Authority's objectives under section 72AA of the Act;
    iv. The Authority's functions and duties under section 72B of the Act; and
    v. The Director's functions and powers under section 72I of the Act
- Any other matter contemplated by any provision of the Act.

Contents

1. Purpose of this NPRM

The purpose of this rule-making proposal is to make minor amendments to various rules that are considered not significant enough in nature or impact to warrant their own rule proposal. Traditionally, there have been two categories of rule changes: Omnibus, for minor editorial and drafting changes; and standard for all others. In 2016, a third category was developed, Small Issues, to package together a suite of distinct rule changes that are not Omnibus changes but that also do not require the extensive cost-benefit analysis of standard rule changes because the costs are insignificant. These changes are not likely, on an individual basis, to be prioritised high enough for proceeding with rule development.

An issue is considered to have met the criteria for the Small Issues Rule if—

- the proposal is minor, does not include a policy change, or Cabinet approval has been obtained for that change;
- the proposal addresses minor technical matters or updates;
- compliance costs are insignificant or no safety risk will result from the proposal;
- the proposal is not likely to be controversial; and
- the proposal has little or no regulatory impact.

2. Background to the Proposal

2.1 General Summary

The Small Issues 2016 Rule Proposal proposes a broad range of minor amendments to CAR Parts 1, 12, 21, 43, 61, 91, 115, 121, 125 and 135. There are 11 distinct policy items in this NPRM set out below:

A. Reviews of airworthiness for aircraft not used for hire or reward (rule 91.615)
B. Definitions of ‘major modification’ and ‘major repair’ (rule 1.1)
C. Ensuring most relevant standards for aircraft design changes (rules 21.83 (new), 21.505)
D. Prohibition on manipulation of controls (rules 115.215, 115.613, 115.667 and 115.759)
E. Maintenance on large balloons (rule 43.54)
F. Extended Diversion Time Operations (EDTO) requirements (Rule Part 121 Subpart N)
G. Landing distance assessment (rules 121.221, 121.223, 125.233, 125.235, 135.233, 135.235)
H. Leaving helicopters unattended with rotors turning under power (rule 91.120 and rule 135.67)
I. Emergency electrical supply requirements for single engine aircraft (rule 125.361)
J. Requirements for training, operation and use of aircraft following a safety review of risk (Rule Part 61 Subpart I (new))
K. Reporting of tonnage carried on cargo-only flights (rule 12.151).

2.2 NPRM Development

The proposed amendments were developed using the current rule consolidation extracts from the Civil Aviation Authority (CAA) Rules Register in combination with those of the International Civil Aviation Organisation (ICAO), the Federation Aviation Administration (FAA) the European Aviation Safety Agency, the Civil Aviation Safety Authority of Australia, and the applicable advisory circulars including acceptable means of compliance and guidance material.

A regulatory impact statement (RIS) has been developed for each issue and collated into a single comprehensive RIS.

2.3 CAA Notices

The CAA is introducing a new regulatory tool called CAA Notices. There is authority in law for such notices in section 28(5) of the Civil Aviation Act 1990. This section permits the Minister of Transport to make rules on any terms and conditions specified in the rule to –

- require a matter to be determined or undertaken or approved by the Authority, the Director or another person; or

- empower the Authority, Director or another person to impose requirements or conditions as to the performance of any aviation activity including (but not limited to) any procedures to be followed.

These requirements must be in writing and will be set out in CAA Notices. Only the person specified by the Minister in the empowering rule will issue CAA notices. The provisions in CAA Notices are mandatory for those participants to whom a CAA Notice applies. Before Notices may be issued there must be a corresponding enabling rule in the Civil Aviation Rules.

It is intended that CAA Notices will apply in circumstances where the rules may not adequately or appropriately capture technical or procedural requirements. The aim of CAA Notices is to better support risk-based regulation, and improve the flexibility and responsiveness of the rules. Notices will be used where it is determined that a performance-based approach is particularly needed, for example in circumstances where new technological changes or innovations require more flexibility than prescriptive approach and rules may become quickly out-dated, or where there is a need to respond to safety issues which the rules cannot adequately deal with. Other existing rules and regulatory tools, such as Airworthiness Directives and Advisory Circulars will remain in use where their use if deemed to be more appropriate.

The use of CAA Notices is aligned with international trends in risk-based regulation, and some comparable overseas aviation regulators use similar instruments.

This NPRM proposes a new Part 61 Subpart I allowing the Minister to empower the Director to issue a CAA Notice which sets requirements or conditions on the training, operations, or use of aircraft with respect to type ratings.

2.4 Key Stakeholders

The CAA identifies the following as key stakeholders in the proposed rule amendments contained in this NPRM:

- The Civil Aviation Authority;
- The Minister of Transport;
- The Ministry of Transport;
- Airlines (Parts 121, 125 and 135);
- Balloon maintenance organisations;
- Part 115 Adventure Aviation operators;
- Organisations utilising helicopters (Part 135);
- Holders of Part 61 pilot licenses;
- Operators of aircraft not used for hire or reward operations;
- Aircraft ensign and maintenance organisations; and
- Operators of air freight operations.

3. Issues Addressed during Development

This Small Issues rule amendment project presents a set of proposals that do not meet the criteria for an Omnibus rule change but that also do not, taken individually, warrant the resources of a standard rule change process.

The primary objectives of these proposals are to:

a. reduce regulatory burdens on aviation operators without reducing safety
b. address risks to aviation safety
c. improve the level of information reported from cargo-only operations
d. achieve consistency with ICAO standards and recommended practices (SARPs), and

e. achieve the above objectives (a–d) with no reduction of aviation safety, and at minimal cost to the aviation industry, the travelling public and government.

The eleven proposals presented here seek to amend several Civil Aviation Rules. The issues addressed and the main rules affected are:

1 Reviews of airworthiness for aircraft not used for hire or reward (rule 91.615)
2 Definitions of 'major modification' and 'major repair' (rule 1.1)
3 Ensuring most relevant standards for aircraft design changes (rules 21.31, 21.102 (new), 21.118 (new), 21.505)
4 Prohibition on manipulation of controls (rules 115.215, 115.613, 115.667 and 115.759)
5 Maintenance on large balloons (rule 43.54)
6 Extended Diversion Time Operations (EDTO) requirements (Rule Part 121 Subpart N)
7 Landing distance assessment (rules 121.221, 121.223, 125.233, 125.235, 135.233, 135.235)
8 Leaving helicopters unattended with rotors turning under power (rule 91.120 and rule 135.67)
9 Emergency electrical supply requirements for single engine aircraft (rule 125.361)
10 Requirements for training, operation and use of aircraft following a safety review of risk (Rule Part 61 Subpart I (new))
11 Reporting of tonnage carried on cargo-only flights (rule 12.151).

3.1 Reviews of airworthiness for aircraft not used for hire or reward (rule 91.615)

3.1.1 CAA data indicates that maintenance-related accidents for operations that are not for hire or reward are a small proportion of overall accidents reported under Rule Part 12. The analysis indicates that accidents are rarely caused by maintenance-related issues in standard category aircraft, and that annual reviews of airworthiness rarely identify problems that would result in flight safety risks in this aircraft category.

3.1.2 One caveat is the possibility that maintenance-related issues resulting in safety risks are identified and rectified in the annual review process but are not recorded on the annual review returns submitted to the CAA. There are a number of existing mechanisms in place to mitigate risks of these issues no longer being identified, such as 100 hour/12 month maintenance inspections and manufacturers' maintenance programme requirements.

3.1.3 The requirement for an annual airworthiness review for standard category aircraft not used in hire or reward operations imposes costs on operators that does not appear justified on the basis of findings or accidents, and which largely duplicates the requirement for at least annual airworthiness inspections. Without demonstrable safety benefits, this level of regulatory intervention is not justified.

3.1.4 The amendments in this NPRM amend the rules to allow for reviews of airworthiness for aircraft that are not operated for hire or reward to be completed at two-yearly intervals. This would result in a negligible, or no, impact on safety which is outweighed by the reduction of financial and regulatory burdens on operators. This aligns with New Zealand's risk-based approach to regulation.

3.1.5 Other existing safety measures would remain in place with this proposed change.

3.1.6 Rule 91.605 would continue to require maintenance inspections at every 100 hours of flight time or 12 months, and major modifications and other changes to the aircraft would require airworthiness assessment and CAA approval.

3.2 Definitions of 'major modification' and 'major repair' (rule 1.1)

3.2.1 The existing definitions of "major modification" and "major repair" in Part 1 are not clearly drafted and a risk of inconsistent interpretation exists in relation to aircraft modification. This could have safety implications where a design change is not completed or assessed to the appropriate standards.

3.2.2 In addition, not specifically including the effects of major modifications or repairs of avionics in the definition could result in significant safety concerns if a maintenance engineer misclassifies a major modification or repair and completes this type of work without the necessary approvals.

3.2.3 The rule amendments in this NPRM amend the Part 1 definitions of "major modification" and "major repair" to more clearly describe which design changes fall into these categories.

3.2.4 The amended definitions also include the effects of instrumentation, navigation, communication and electrical loads in the list of potential consequences that identify a major modification or repair to avionics equipment.

3.3 Ensuring most relevant standards for aircraft design changes (rules 21.31, 21.102 (new) 21.118 (new) and 21.505)

3.3.1 There is a risk that out of date standards may be applied when making and assessing modifications to aircraft, resulting in potential risks to safety relating to that aircraft's airworthiness. The exact risks and costs of this depend on what changes are made to the relevant airworthiness standards in regulations from the state of design or manufacture.

3.3.2 This situation also poses a risk to New Zealand's international reputation and ability to work with other regulatory authorities due to different design standards being applied in different countries for the same aircraft. There is also a risk that the international acceptability of CAA supplementary type certificates (STCs) may be affected if the airworthiness requirements used for STC approvals are out-of-step with other international regulations.

3.3.3 The rule amendments proposed in this NPRM require the most recent airworthiness standards be used for a modification to an aircraft. Cost implications to industry would be minimal, as operators currently appear to be following existing guidance provided in Advisory Circulars. Creating a rule would provide greater certainty of standards and enable the CAA to take appropriate action where needed in response to safety risks.

3.4 Prohibition on manipulation of controls (rules 115.215, 115.613, 115.667 and 115.759)

3.4.1 The distinction between which operators can and cannot offer manipulation of controls by customers was based on an assessment of which operators were likely to want to offer the option. It is not based on a safety assessment. As a result, the rule creates an artificial distinction between some Part 115 operators.

3.4.2 Adventure aviation operators can charge more for flight experiences that offer passengers the opportunity to manipulate the controls. The status quo means that some operators can offer the opportunity without incurring the expense of applying for an exemption.

3.4.3 The CAA has granted exemptions to allow passenger manipulation of controls on the grounds that the operators concerned have proposed risk management actions that are at least as effective as prohibiting the manipulation of controls. The CAA considers operator demonstration of adequate risk identification and management is appropriate with regard to allowing manipulation of controls. The introduction of Part 100 *Safety Management Systems* and the requirement to have an exposition are existing measures that can be used to identify and mitigate risks.

3.4.4 The rule amendments in this NPRM propose to enable all Part 115 operators who wish to offer manipulation of controls to do so under specified safety conditions rather than generally prohibiting the activity. This change could create new business opportunities for some operators and create a more equitable market. This proposal would result in the removal of the current exemptions, thereby introducing more efficient and defensible regulation. It allows operators to identify and mitigate their specific risks while maintaining regulatory oversight through the approval of operators' expositions.

3.4.5 The same risk identification and management requirements would apply to all Part 115 operators wishing to offer manipulation of controls. As a result, the recommended amendment would not introduce any additional safety risk to the aviation system. Operators who do not want to allow passengers to manipulate the controls would not incur any additional costs. Operators who wish to offer this experience can do so subject to CAA approval of their exposition.

3.5 Maintenance on large balloons (rule 43.54)

3.5.1 There is no evidence of a safety risk for capturing large balloons (those capable of carrying 10 or more passengers) within the requirements of rule 43.54. CAA understands that large balloons were erroneously included in the requirements of rule 43.54 with the insertion of 43.54(a)(1)(ii) after the adoption of Part 115 and no consideration was given to the different types of Part 115 operations. There are a number of other safety checks in the maintenance and aviation systems which provide a sufficient minimum level of safety for balloon maintenance.

3.5.2 The inclusion of large balloons operating under a Part 115 certificate in rule 43.54(a) requiring them to obtain their maintenance from a Part 145 certificated organisation poses a regulatory burden on operators of these balloons for no additional safety benefit. This burden is currently mitigated by an exemption issued in 2014, but this is not considered a reasonable long-term solution.

3.5.3 The rule amendments in this NPRM proposes changes to permit maintenance of large balloons to be carried out by Part 66 licensed aircraft maintenance engineers in the lighter than air aircraft category. This will remove the need for the existing exemption of 2014.

3.5.4 Maintenance standards will continue to be as established in Part 43. Large balloons are not necessarily more complex to maintain than smaller balloons. Because large balloons are required to be maintained according to Part 43 requirements and this can be sufficiently audited and checked through the Part 115 scheme, the need for large balloons to be maintained by a Part 145 certificated organisation is considered a regulatory burden that provides no additional safety benefits. There would be cost saving benefits to operators where they can more easily access maintenance providers.

3.6 Extended Diversion Time Operations (EDTO) requirements (Part 121 Subpart N)

3.6.1 EDTO and threshold time requirements are important safety measures to ensure an aircraft can land at an alternate airport if required, particularly for New Zealand aircraft that operate long distances over water. Due to some late amendments from ICAO to Annex 6 Part 1, there are now minor differences between international requirements and New Zealand's EDTO rules in Part 121, Subpart N.

3.6.2 Because Annex 6 Part 1 applies to international commercial air transport operations, the misalignment could have implications for New Zealand's international reputation as a responsible regulator for EDTO requirements. There is no reason not to align the Civil Aviation Rules with ICAO's standards for EDTO.

3.6.3 The rule amendments in this NPRM propose to bring Part 121 Subpart N into full alignment with ICAO requirements in Annex 6 Part 1 of the Convention. This will create a new requirement for a safety risk assessment that demonstrates how an equivalent level of safety will be maintained before the CAA will approve operations beyond the time limits of the most time-limited system of the aircraft in question. This assessment would include considerations of the:

- capabilities of the operator
- overall reliability of the aeroplane
- reliability of each time-limited system
- relevant information from the aeroplane manufacturer, and
- specific mitigation measures.

3.6.4 This proposed amendment also requires an additional change to Part 1 *Definitions and Abbreviations* to bring EDTO definitions into alignment with ICAO requirements. Specifically, to add definitions for:

- "EDTO critical fuel" and
- "Point of no return".

3.7 Landing distance assessment (rules 121.221, 121.223, 125.233, 125.235, 135.233, 135.235)

3.7.1 The current rules set out a method for the calculation of safe landing distances, focused on wet or dry runways only and with reasonably wide margins of error. The calculations do not take into account the range of factors that affect braking distance, nor the behaviour of different aircraft when exposed to these factors.

3.7.2 The current regime is resulting in lower safety in some circumstances compared to safety that could be achieved using recognised best practice. For example, the current regime does not adequately calculate landing distances on runways where ice or snow is present on the surface.

3.7.3 In other cases, a landing distance margin of error that is greater than it needs to be results in greater operating costs for airlines when they have to divert even though it would have been safe to land on the planned runway. This will result in additional operating costs compared to the practice adopted in other jurisdictions.

3.7.4 Attempts by New Zealand operators to implement procedures based on the take-off and landing performance assessment (TALPA) methodology developed by the FAA that align with the revised manufacturer's performance data and international practice are failing due to the conflict with the current rules. This is resulting in a reputational risk to the CAA from not implementing internationally recognised good practice.

3.7.5 The rule amendments in this NPRM seek to enable a performance-based set of options for determining landing distance calculation procedures (TALPA or another acceptable method) subject to approval from the Director. The Director will need to consider a range of factors when making the decision. Airlines may use either the current permitted procedure or obtain approval from the Director to use an alternative permitted procedure for calculation taking into account various factors. This will create a future-proofed rule, enabling TALPA-based and future landing distance procedures to be used without the need for further rule amendments, and will allow consistency with expected ICAO standards, where appropriate (e.g. for international operations).

3.7.6 The rule will apply to Part 121, 125 and 135 operators. As it will be a discretionary option for operators, it will come into force when the rule is signed. The aim of the rule design is to future-proof the rule so that future methods of calculation are enabled, not only the TALPA landing distance procedure.

3.8 Leaving helicopters unattended with rotors turning under power (rule 91.120 (new) and 135.67 (new))

3.8.1 There is evidence that pilots are leaving helicopter controls unattended when the engine is still running, which has the potential to cause serious harm when a gust of wind, a displacement or decrease in weight, incorrect parking, or an uneven landing surface moves the collective control up. This increases both pitch and throttle, allowing the helicopter to lift off the ground and roll out of control.

3.8.2 CAA accident data and anecdotal evidence indicates the problem is the result of a range of factors, including environmental, human, economic drivers, organisational culture and concerns about passenger behaviour. This contributes to a varied approach to identifying and mitigating this risk, and a level of safety that is less than what is intended in the rules.

3.8.3 The current rules do not provide operators with clear or sufficient requirements on this issue. The reference to flight manuals results in different practices depending on the aircraft rather than the actual safety risks. Without rule changes, these factors are likely to continue overriding good and safe practice, and operators are not required to demonstrate that they have considered and mitigated the associated risks.

3.8.4 The rule amendments in this NPRM propose to require the operator to include procedures for leaving helicopters unattended in their standard operating procedures (SOPs) or equivalent. This proposal would also improve New Zealand's compliance with ICAO SARPs.

3.8.5 Regulation is necessary to deal with safety risks as there is a relatively high accident rate (one per year) and there is potential for a severe accident to occur. Among comparable regulators, such as those for Australia, the United States, Canada and the United Kingdom, New Zealand is the only jurisdiction that has not made either regulatory or non-regulatory changes to address the problem. Additionally, economic drivers for operators mean that the incentives to continue the practice may result in it not being adequately addressed. Regulatory intervention will create a consistent standard for all relevant operators.

3.8.6 A performance-based rule in which the SOPs consider the type of helicopter used and the nature of the operation would mean that in some circumstances in which certain standards and conditions are met, turning rotors could be left unattended. This would reduce the financial impost of shutting the engine down. For example, it may be acceptable for a pilot to leave the aircraft unattended with the rotors running if there are no other passengers or people near the aircraft, a collective control lock is installed and applied, wind speed is minimal, and the landing area is flat. However, when these conditions cannot be met, or the aircraft flight manual advises to never leave the aircraft controls unattended with the engine running, leaving the helicopter unattended with the engine running would not be acceptable.

3.9 Emergency electrical supply requirements for single engine aircraft (rule 125.361)

3.9.1 Current requirements for the emergency electrical supply for single engine instrument flight rules (SEIFR) aircraft require something that is not technically possible under the conditions most SEIFR operations operate under in New Zealand.

3.9.2 The route restrictions for these operations serve to mitigate risks to safety; however, they place an undue burden on operators where risks can be effectively mitigated through alternative, performance-based standards.

3.9.3 The rule amendments in this NPRM propose to require operators to have an emergency electrical supply system with sufficient capacity for any particular operation to enable them to safely complete a landing.

3.9.4 The rule change will focus on creating a more appropriate requirement where the parties involved in developing the exposition will take into account the specifics of the operation in question.

3.9.5 The rule amendment creates a more resilient, performance-based rule. It will also be more in line with the ICAO standards (Annex 6, Part 1 Appendix 3) and the approach taken by other countries.

3.10 Requirements for Training, Operation and Use of Aircraft following a Safety Review (Part 61 Subpart I (new))

3.10.1 The Civil Aviation Rules as currently drafted do not enable the Director to require special training and impose certain conditions on type ratings on the operation of aircraft in circumstances where an immediate threat to safety emerges.

3.10.2 In 2015, the high accident rate for Robinson R22 and R44 helicopters together with recommendations from the Transport Accident Investigation Commission, prompted the CAA to seek an urgent solution by addressing problems associated with potential mishandling and exceeding the limits of the helicopter. CAR Part 61 did not enable the CAA to take urgent action to address the immediate threat posed by the manner in which R22 and R44 helicopters were being used. As a result, the most appropriate option for the CAA was to apply to the court for a warrant pursuant to section 21 of the Civil Aviation Act that would allow the CAA to mandate Robinson-specific training, minimum requirements for those conducting the training and examinations, minimum flight hours, and a prohibition on demonstrating or practicing low-g manoeuvres.

3.10.3 The section 21 warrant and conditions applicable to Robinson helicopters are only temporary measures and do not provide a lasting solution to the problem, nor would they apply to other aircraft or safety risks should this eventuate. Furthermore, in order to make any changes to the conditions, the CAA would need to reapply to the Court for an amendment to the warrant.

3.10.4 The wide range of operations in which the R22 and R44 are used, combined with the spread of occurrences across the operating sectors, indicates that the risks associated with Robinson helicopters are not limited to a particular class of helicopter licence holder, and also includes students.

3.10.5 The rule amendments in this NPRM propose to enable the Director to impose requirements or conditions through the use of a CAA Notice where the risks to safety warrant this. The draft rule is not specific to Robinson helicopters, but is supported by a CAA Notice specific to the R22 and R44 models.

3.10.6 Section 28(5) of the Act allows the rules to provide for a matter to be determined, undertaken or approved by the Director; or empower the Director to impose requirements or conditions on the performance of any activity, including any procedures to be followed. This proposed rule amendment, in line with section 28(5), would ensure that the benefits of the current Robinson safety training conditions are realised while allowing the Director to capture other aircraft types where necessary, and amend the current R22 and R44 conditions if appropriate in the future. The details of the conditions would be reproduced in a supporting document, a CAA Notice, that is easier to amend in response to changing information and circumstances. The draft CAA Notice for this particular issue is included in this NPRM for comment.

3.11 Reporting of tonnage carried on cargo-only flights (rule 12.151)

3.11.1 Civil Aviation Rule Part 12 requires certain operators to submit some specified operating data to the CAA for statistical purposes. Required data include levels of aviation activity, the number of hours flown and the number of flights with passengers or freight.

3.11.2 A requirement of the CAA's final proposal from Triennial Funding Review is the introduction of activity-based levies on commercial operations to ensure that all operators make a more equitable contribution towards the regulatory oversight of the aviation system. All of the information required to charge these levies accurately is already collected under the current rules, except for the tonnes of cargo carried on freight-only operations.

3.11.3 It is proposed to amend Part 12 to introduce a requirement for cargo-only operators to provide data to the CAA showing the tonnage of freight carried by the operator. The requirement would apply to operators of New Zealand registered aircraft being operated on domestic and international air operations, and of non-New Zealand registered aircraft departing from and/or operating within New Zealand on cargo-only air operations. The impost on these operators is expected to be minimal as they already collect this data for operational purposes.

3.11.4 This proposal is a result of the CAA's Triennial Funding Review, the outcome of which is currently being considered by Government. The proposed amendment would come into force at the same time as the changes resulting from that Review, should they be approved.

3.11.5 Data about aviation freight volumes would be a source of information about economic activity for the Government. The New Zealand Transport Domain Plan, released by the Government in July 2016, includes a recommended initiative to improve collection of and access to data on domestic air freight. An understanding of the freight services that allow New Zealand to trade goods with the rest of the world is an important starting point for decisions about how to maximise the value of exports to the economy. It is also important to understand the characteristics of domestic freight services because they provide links between ports, firms and final customers. This requires information about the contributions respective modes make to moving freight for different industries.

3.12 ICAO SARPS and Level of Risk to NZ Aviation Safety

The proposed rule amendments are intended to align, where practicable, with ICAO's annexes and are written in consultation with the following annexes:

- Annex 1 – Personnel Licensing
- Annex 2 – Rules of the Air
- Annex 6 – Operation of aircraft

3.13 Compliance Costs

The proposed amendments are not likely to introduce additional compliance costs to the industry, and in some cases may reduce the cost of compliance.

4. Summary of Changes

4.1 Part 1 Definitions and Abbreviations

4.1.1 Rule 1.1: Insert or amend the following definitions:

4.1.2 Insert a definition of "**CAA notice**" as outlined in the rule amendment section.

4.1.3 Insert a definition of "**EDTO critical fuel**" as outlined in the rule amendment section.

4.1.4 Amend the definition of "**Major modification**" as outlined in the rule amendment section.

4.1.5 Amend the definition of "**Major repair**" as outlined in the rule amendment section.

4.1.6 Insert a definition of "**Manipulation of controls**" as outlined in the rule amendment section.

4.1.7 Insert a definition of "**Point of no return**" as outlined in the rule amendment section.

4.1.8 Insert a definition of "**TALPA procedures**" as outlined in the rule amendment section.

4.1.9 Rule 1.3: Insert the following abbreviations:

"TALPA" as outlined in the rule amendment section.

"TALPA ARC" as outlined in the rule amendment section.

4.2 Part 12 Accidents, Incidents and Statistics

4.2.1 Rule 12.151: Replace with the rule set out in the rule amendment section.

4.3 Part 21 Certification of Products and Parts

4.3.1 Rule 21.31: Add to subparagraph (1)(i) and (1)(iv) after the word "Appendix C " and before the words "or any later amendment of that standard as selected by the applicant; and" the words, "effective at the date of application".

4.3.2 Insert rule 21.102 as outlined in the rule amendment section.

4.3.3 Insert rule 21.118 as outlined in the rule amendment section.

4.3.4 Rule 21.505: Replace subparagraph (a)(6)(i) with subparagraphs (a)(6)(i) and (ii) as set out in the rule amendment section and renumber remaining subparagraphs.

4.3.5 Rule 21.505(b): Revoke.

4.4 Part 43 General Maintenance Rules

4.4.1 Rule 43.54(a)(1)(ii): Add the following words after the words "Part 115" "excluding hot air balloons"

4.4.2 Rule 43.155 (c): Adding the words "or paragraph (aa)" after the words "paragraph (a)" and "rule 91.615(a)(1)"

4.5 Part 61 Pilot Licences and Ratings

4.5.1 Amend rules 61.105, 61.153, 61.155, 61.203, 61.205, 61.255, 61.355 and 61.357 and insert 61.311 as outlined in the rule amendment section. These amendments are consequential to the changes made by new Subpart I.

4.5.2 Insert new 'Subpart I – Requirements for Training, Operation and Use of Aircraft Following a Safety Review' as outlined in the rule amendment section.

4.5.3 Insert rule 61.911 as outlined in the rule amendment section. This amendment is consequential to the changes made by new Subpart I

4.6 Part 91 General Operating and Flight Rules

4.6.1 Rule 91.120: Insert rule 91.120 as outlined in the rule amendment section.

4.6.2 Rule 91.615(a)(1)(i): Replace with "(i) the preceding 12 months; or".

4.6.3 Rule 91.615(a)(1)(ii): Replace with "(ii) for an aircraft that is not operated for hire or reward, the preceding 24 months; or".

4.6.4 Rule 91.615(a):Insert as paragraph (2) the following:

"(2) The aircraft has been issued with an airworthiness certificate in accordance with Part 21 within the preceding 12 months."

4.6.5 Rule 91.615: Insert as paragraph (aa) the following:

"(aa) A review of airworthiness may be required more frequently than the period specified in paragraph (a)(1)(ii) in a particular case, if the Director is satisfied that it is in the interests of aviation safety to do so."

4.7 Part 115 Adventure Aviation, Initial Issue – Certification and Operations

4.7.1 Rules 115.215: Replace with rule 115.215 as outlined in the rule amendment section.

4.7.2 Rule 115.613: Revoke.

4.7.3 Rule 115.667: Revoke.

4.7.4 Rule 115.759: Revoke.

4.8 Part 121 Air Operations – Large Aeroplanes

4.8.1 Rule 121.221: Omit the word "dry" in the heading.

4.8.2 Rule 121.223: Revoke paragraphs (b) to (e) and replace with the paragraphs and subparagraphs as outlined in the rule amendment section.

4.8.3 Rule 121.225: Revoke.

4.8.4 Rule 121.951: Revoke and replace with the paragraphs outlined in the rule amendment section.

4.8.5 Rule 121.953(b)(13)(ii): Replacing "." With ":".

4.8.6 Rule 121.953(b): Adding the following paragraph after (13):

"(14) details of the point of no return for the aeroplane (if known)."

4.8.7 Rule 121.975(a)(1)(iii): Adding the word "or" after ";".

4.8.8 Rule 121.975(a)(1): Adding the following subparagraph after (iii):

"(iv) EDTO critical fuel for the aeroplane:"

4.8.9 Part 121: Insert Appendix D as outlined in the rule amendment section

4.9 Part 125 Air Operations – Medium Aeroplanes

4.9.1 Rule 125.233: Omit the word "dry" in the heading.

4.9.2 Rule 125.233: Revoke paragraphs (b) to (e) and replace with the following paragraphs and subparagraphs as outlined in the rule amendment section.

4.9.3 Rule 125.235: Revoke.

4.9.4 Rule 125.361(c)(4): Omit from subparagraph (i), the words and expression "either of the following whichever requires higher electrical load –" and at the end the expression and word "; or".

4.9.5 Rule 125.361(c)(4): Revoke subparagraph (ii).

4.9.6 Part 125: Insert Appendix D as outlined in the rule amendment section.

4.10 Part 135 Air Operations – Helicopters and Small Aeroplanes

4.10.1 Part 135: Insert rule 135.67 as outlined in the rule amendment section.

4.10.2 Rule 135.233: Revoke paragraphs (b) to (e) and replace with the following paragraphs and subparagraphs as outlined in the rule amendment section.

4.10.3 Rule 135.235: Revoke.

4.10.4 Part 135: Insert Appendix D as outlined in the rule amendment section.

5. Legislative Analysis

5.1 Power to Make Rules

The Minister may make ordinary rules under sections 28, 29, 29A, 29B and 30 of the Civil Aviation Act 1990, for various purposes including implementing New Zealand's obligations under the Convention, assisting aviation safety and security, and any matter contemplated under the Act.

These proposed rules are made pursuant to:

(a) Section 28(1)(a) which allows the Minister to make rules for the purpose of the implementation of New Zealand's obligations under the Convention:

(b) Section 28(1)(c) which allows the Minister to make rules for the purpose of assisting aviation safety and security, including (but not limited to) personal security:

(c) Section 28(5) which allows the Minister to make rules which provide for matters to be determined or approved by the Authority, the Director or any other person or empower the Authority, the Director or any other person to impose requirements, or conditions on the performance of any activity including but not limited to procedures to be followed:

(d) Section 29(b)(i) which allows the Minister to make rules providing for the use of aerodromes and other aviation related facilities, including the provision of identification procedures for persons, aircraft, and any other aviation related things:

(e) Section 29(c) which allows the Minister to make rules providing for general operating rules, air traffic rules, and flight rules, including but not limited to the following:

(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 aircraft endangering persons or property:

(f) Section 29(d)(ii) which allows the Minister to make rules providing for the control of things likely to be hazardous to aviation safety, including but not limited to the construction, use, or operation of anything likely to be hazardous to aviation safety:

(g) Section 29B which allows the Minister to make rules prescribing flight rules, flight paths, altitude restrictions, and operating procedures for the purposes of noise abatement in the vicinity of aerodromes:

(h) Section 30(a) which allows the Minister to make rules for the designation, classification, and certification of all or any of the following:

i. aircraft:

ii. air traffic service personnel:

iii. air services:

iv. air traffic services:

v. aerodromes and aerodrome operators:

vi. aircraft design, manufacture, and maintenance organisations:

vii. aeronautical procedures:

viii. aviation security services:

ix. any other person who provides services in the civil aviation system, and any aircraft, aeronautical products, aviation related services, facilities, and equipment operated in support of the civil aviation system, or classes of such persons, aircraft, aeronautical products, aviation related services, facilities, and equipment operated in support of the civil aviation system:

(i) Section 30(b) which allows the Minster to make rules for the setting of standards, specifications, restrictions, and licensing requirements for all or any of those persons or things specified in paragraph 30(a), including but not limited to the following:

i. the specification of standards of design, construction, manufacture, maintenance, processing, testing, supply, approval, and identification of aircraft and aeronautical products:

ii. the provision of information to the Authority or the Director by applicants for or holders of aviation documents:

(j) Section 30(d) which allows the Minister to make rules providing 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 take into account the matters under section 33 of the Act that the Minister must take into account when making ordinary rules including the following:

ICAO Standards and Recommended Practices

The proposed rule amendments comply with applicable sections of the following ICAO's Annexes:

- Annex 1 – Personnel Licencing
- Annex 2 – Rules of the Air
- Annex 6 – Operation of aircraft

Assisting Economic Development

Generally, the proposed rule amendments will have no detrimental impact on economic development, and in some cases will reduce costs incurred by the aviation industry. In relation to the proposed amendments to Part 12, the reporting of freight tonnage will contribute to the New Zealand Transport Domain Plan, an important starting point for decisions about how to maximise the value of exports to the economy.

Assisting Safety and Personal Security

The proposed rule amendments will improve aviation safety by making the rules easier to understand, addressing safety risks and by aligning with ICAO standards and recommended practices where applicable.

Improving Access and Mobility

The proposed rule amendments will have no impact on access and mobility.

Protecting and Promoting Public Health

The proposed rule amendments will have no impact on protecting and promoting public health.

Ensuring Environmental Sustainability

The proposed rule amendments will have no impact on environmental sustainability.

5.3 Incorporation by reference

The proposed rule amendments will incorporate the TALPA ARC performance data and criteria developed by the FAA Advisory and Rulemaking Committee (ARC).

5.4 Civil Aviation (Offences) Regulations

Schedule 1 of the Civil Aviation (Offences) Regulations is made by the Governor General pursuant to section 100 of the Civil Aviation Act 1990 and contains a list of summary and infringement penalties associated with offences against various civil aviation rules.

There are some amendments to the Offence Regulations as detailed in the Appendix.

6. Submissions on the NPRM

6.1 Submissions are invited

The CAA using guidelines and advice available from regulatory authorities, aviation organisations, and individuals has developed this proposal. 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 rule making 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. A pre-prepared response sheet is available on the CAA web site at http://www.caa.govt.nz/rules/nprms-2/ to assist with submissions.

6.2 Examination of Submissions

All submissions will be available in the rules docket for examination by interested persons both before and after the closing date for submissions. A consultation summary of submissions 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 application to 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.

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 at Asteron Centre.

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.

6.4 How to make a submission

A pre-prepared response sheet is available on the CAA web site at http://www.caa.govt.nz/rules/nprms-2/ to assist with submissions.

Submissions may be sent by the following methods:

by mail: Docket Clerk (NPRM 17-02)
Civil Aviation Authority
PO Box 3555
Wellington 6140
New Zealand

delivered: Docket Clerk (NPRM 17-02)
Civil Aviation Authority
Asteron House
Level 15
55 Featherston Street
Wellington 6011

e-mail: docket@caa.govt.nz and marked NPRM 17-02

6.5 Final date for submissions

Comments must be received before Monday 13 March 2017.

6.6 Availability of the NPRM:

Any person may obtain a copy of this NPRM from–

CAA web site: www.caa.govt.nz;

Or from:

Docket Clerk
Civil Aviation Authority
Asteron House
Level 15
55 Featherston Street
Wellington 6011
Phone: 64–4–560 9640:

6.7 Further information

For further information contact:

Tracy Lamb
Rules Drafter
Email: tracy.lamb@caa.govt.nz

7. Proposed rule amendments

New wording changes from the existing rules are highlighted in grey.

Part 1 Definitions and Abbreviations

1.1 General Definitions

CAA notice means a notice that—

(1) is issued by the Director, the Authority, or another person under a specific rule which gives the power to issue this type of notice; and
(2) contains mandatory requirements:

EDTO critical fuel means the fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most time-limiting system failure:

Major modification means a modification that might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, instrumentation, navigation systems, communication systems, electrical loads ~~,~~ or other qualities affecting airworthiness:

NOTE- Guidance on "appreciably" will be given in the CAA's advisory circular."

~~that could potentially affect the safety of an aircraft or its occupants where, as a result of its embodiment, one or more of the following incidents may occur:~~

~~(1) structural collapse:~~

~~(1) loss of control:~~

~~(2) failure of motive power:~~

~~(3) unintentional operation of, or inability to operate, any systems or equipment essential to the safety or operational function of the aircraft:~~

~~(4) incapacitating injury to any occupant:~~

~~(5) unacceptable unserviceability or maintainability:~~

Major repair means a repair that, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, instrumentation, navigation systems, communication systems, electrical loads or other qualities affecting airworthiness:

NOTE- Guidance on "appreciably" will be given in the CAA's advisory circular."

~~tthat could potentially affect the safety of an aircraft or its occupants where, as a result of its embodiment, one or more of the following incidents may occur:~~

~~(1) structural collapse:~~

~~(1) loss of control:~~

~~(2) failure of motive power:~~

~~(3) unintentional operation of, or inability to operate, any systems or equipment essential to the safety or operational function of the aircraft:~~

~~(4) incapacitating injury to any occupant:~~

~~unacceptable unserviceability or maintainability:~~

Point of no return means the last possible geographic point at which an aeroplane can proceed to the destination aerodrome as well as to an available en-route alternate aerodrome for a given flight:

Manipulation of controls means manipulate the flight controls to alter the heading, altitude, speed, or other flight parameter of an aircraft and "manipulate the controls" has the same meaning:

TALPA procedures means a standardised approach, developed by the Federal Aviation Administration Takeoff and Landing Performance Assessment Advisory and Rulemaking Committee for assessing the condition of runways and determining the length of runways required for landing and data and systems to support that:

1.3 Abbreviations

TALPA means Takeoff and Landing Performance Assessment:

TALPA ARC means Takeoff and Landing Performance Assessment Advisory and Rulemaking Committee:

Part 12 Accidents, Incidents and Statistics

12.151 Aircraft operating statistics

(a) Except for gliders that are not being operated for hire or reward, an operator of an aircraft must provide the statistical data and information for each aircraft in accordance with Table 1, and in accordance with the frequency and due dates listed in Table 2 for an aircraft being operated for hire or reward, and Table 3 for aircraft that are not being operated for hire or reward.

Table 1 – Statistical data and information required for each type of aircraft operation:

Aircraft Operation	Statistical Data and Information
New Zealand registered aircraft operated on air operations to, from, and within countries outside New Zealand	· aircraft registration marking · the hours flown · the number of flights carrying passengers · the number of flights carrying cargo only · the total tonnage of cargo carried on all cargo-only flights
New Zealand registered aircraft operated on domestic air operations	· aircraft registration marking · the hours flown · the number of flights carrying passengers between 2 different aerodromes · the number of flights carrying passengers originating and ending at the same aerodrome without an intermediate landing · the number of flights carrying cargo only · the total tonnage of cargo carried on all cargo-only flights
Non-New Zealand registered aircraft operated on cargo-only air operations from, and within New Zealand	· aircraft registration marking · the number of flights carrying cargo only flights
Aircraft operated on an adventure aviation operation (other than parachutes)	· aircraft registration marking or aircraft identification markings if the aircraft is not required to be registered in accordance with Part 47 · the hours flown · the number of flights carrying passengers

Parachutes used on an adventure aviation operation	· the parachute identification marking · the number of tandem parachute descents
New Zealand registered aircraft issued with a *standard category* airworthiness certificate or a *restricted category* airworthiness certificate used on other operations not listed above.	· aircraft registration marking · the hours flown

Table 2 – Reporting periods for aircraft that perform any hire or reward operations:

Report	Period Covered	Due Date
1st Quarter	1 Jan through 31 Mar	1 May
2nd Quarter	1 Apr through 30 Jun	1 Aug
3rd Quarter	1 Jul through 30 Sep	1 Nov
4th Quarter	1 Oct through 31 Dec	1 Feb

Table 3 – Reporting periods for aircraft that do not perform any hire or reward operations:

Report	Period Covered	Due Date
Annual	1 Jan through 31 Dec	1 Feb

(b) The reports required by paragraph (a) must be submitted—

(1) on form CAA605; or

(2) by electronic or other means acceptable to the Director.

(c) To avoid doubt, an operator of an aircraft that has not flown during the reporting period specified in either Table 2 or Table 3 must continue to submit aircraft operating statistics for that aircraft.

Part 21 Certification of Products and Parts

21.31 Airworthiness requirements

An applicant for the grant of a type certificate for a product type must provide the Director with evidence that—

(1) except as provided in paragraph (2), the product type design complies with—

(i) the applicable airworthiness design standard specified in Appendix C effective at the date of application or any later amendment of that standard as selected by the applicant; and

(ii) any special conditions prescribed by the Director under 21.23; and

(iii) any other airworthiness requirement the Director considers to be relevant; and

(iv) the applicable aircraft noise and engine emission standards specified in Appendix C effective at the date of application or any later amendment of those standards as selected by the applicant; and

(2) any airworthiness requirement not complied with is compensated for by factors providing an equivalent level of safety; and

(3) no feature or characteristic of the product type makes it, when operated in accordance with the correctly amended flight manual or other prescribed limitations, unsafe for the intended use.

21.102 Designation of Applicable Requirements

Applicants for the approval of a change to a type certificate must demonstrate that the changed product complies with the applicable requirements specified in rule 21.118.

21.118 Designation of Applicable Requirements

(a) Except as provided in paragraph (b), an applicant for a supplemental type certificate or a change to a supplemental type certificate must demonstrate that the changed product complies with:

(1) the airworthiness requirements of rule 21.31; and

(2) the applicable additional airworthiness requirements prescribed in Part 26; and

(3) the applicable aircraft noise and engine emission requirements prescribed in rule 21.32 –

applicable at the date of the application for the supplemental type certificate or the change to the supplemental type certificate.

(b) Despite paragraph (a), an applicant may demonstrate that the changed product complies with an earlier amendment of the airworthiness requirements required by paragraph (a), but does not precede the airworthiness, aircraft noise and engine emission requirements incorporated by reference in the type certificate, for any of the following:

(1) a change that the Director finds not to be significant; or

(2) each area, system, part or appliance that the Director finds is not affected by the change; or

(3) each area, system, part or appliance that is affected by the change, for which the Director finds that compliance with an airworthiness requirement described in paragraph (a) would not contribute materially to the level of safety of the changed product or would be impracticable.

(c) In determining whether a specific change is significant for the purposes of subparagraph (b)(1), the Director must consider the change in context with all previous relevant design changes and all related revisions to the applicable certification requirements incorporated in the type certificate for the product.

(d) A change that meets one of the following criteria is deemed to be significant for the purposes of subparagraph (b)(1)—

(1) the general configuration or the principles of construction are not retained; or

(2) the assumptions used for certification of the product to be changed do not remain valid.

21.505 Form CAA 337 – approval of technical data

(a) Except as provided in paragraphs (b) and (c), an applicant for the approval of technical data must complete form CAA 337, and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act and provide the Director with—

(1) the name and address for service in New Zealand of the applicant; and

(2) any documentation necessary to define the data; and

(3) a description of any design change including—

(i) sufficient data to identify the change; and

(ii) the identification of every part of a product, component, or appliance affected by the change; and

(4) for a product, component, or appliance to be changed in accordance with the data,—

(i) details of any investigation, test or analysis that may be necessary to show compliance with the applicable airworthiness requirements; and

(ii) adequate maintenance and operating data to ensure the product, component, or appliance can be properly maintained and operated; and

(5) any further particulars relating to the applicant, the technical data, and any design change, if required by the Director as indicated in the form; and

(6) one of the following:

(i) In the case of a major modification (but not a repair), a statement of compliance provided by a design organisation certificated in accordance with Part 146 stating that the technical data meets:

(A) the airworthiness requirements of rule 21.31; and

(B) the applicable additional airworthiness requirements prescribed in Part 26; and

(C) the applicable aircraft noise and engine emission requirements prescribed in rule 21.32; and

(D) that the associated design change is fit for embodiment

— applicable at the date of application for the modification:

(ii) In the case of any other modification or a repair including a major repair, a statement of compliance provided by a design organisation certificated in accordance with Part 146 stating that the technical data meets:

(A) the airworthiness requirements of rule 21.31; and

(B) the applicable additional airworthiness requirements prescribed in Part 26; and

(C) the applicable aircraft noise and engine emission requirements prescribed in rule 21.32; and

(D) that the associated design change is fit for embodiment.

(iii) a statement equivalent to that required by paragraph (a)(6)(i) or (ii) issued in accordance with the requirements of an appropriate foreign authority:

(iv) a written request that a statement of compliance be provided during the technical data approval process.

(b) [*Revoked*]

(c) An aircraft design organisation certificated in accordance with Part 146 may use a document other than form CAA 337 to record the information required under paragraph (a).

(d) The Director may approve technical data and an applicant is entitled to the approval of technical data if the Director is satisfied that—

(1) the applicant meets the applicable requirements under paragraph (a); and

(2) the approval of the data is not contrary to the interests of aviation safety; and

(3) any airworthiness requirement that is not complied with is compensated for by a factor that provides an acceptable level of safety; and

(4) there is no feature or characteristic of a product, component, or appliance that makes it unsafe for its intended use when the product, component, or appliance is—

(i) changed in accordance with the data; and

(ii) operated in accordance with the correctly amended flight manual or other specified limitations.

(e) Despite ~~Notwithstanding~~ paragraph (d)(1), the Director may approve technical data without the applicant meeting every requirement of paragraph (a) if—

(1) the application is limited to an individual product, component, or appliance; and

(2) the technical data for an aircraft that holds a special category airworthiness certificate meets the standards that applied for the issue of the airworthiness certificate; and

(3) the data provided by the applicant is sufficient to identify the associated design change.

Part 43 General Maintenance Rules

43.54 Maintenance required under Part 145

(a) A person must not (except under the authority of a maintenance organisation certificate issued by the Director under the Act and Part 145) perform maintenance on, or certify for release-to-service,—

(1) an aircraft that has a MCTOW of more than 5700 kg or a certificated passenger seating configuration, excluding any required crew member seat, of 10 seats or more if the aircraft is used to perform—

(i) air operations under the authority of an air operator certificate issued by the Director under the Act and Part 119; or

(ii) adventure aviation operations under the authority of an adventure aviation operator certificate issued by the Director under the Act and Part 115 excluding hot air balloons; or

(2) a component fitted or intended to be fitted to an aircraft referred to in paragraph (1).

(b) Except as provided in paragraph (c), a person must not (except under the authority of a maintenance organisation certificate issued by the Director under the Act and Part 145) perform any of the following kinds of maintenance on an aircraft or component, or certify the aircraft or component for release-to-service after the maintenance:

(1) overhaul of a component:

(2) maintenance on an aircraft or component if the relevant instructions for continued airworthiness require the use of a jig that is approved or certified by the manufacturer or that is approved by the Director:

(3) maintenance on a component if the maintenance involves the disturbance of any part of the component that is supplied as a bench tested unit, except if—

(i) the disturbance is for the replacement or adjustment of a part normally replaceable or adjustable in service; and

(ii) subsequent functioning of the part disturbed can be demonstrated without the use of test apparatus that is additional to the test apparatus used for normal functioning checks:

(4) maintenance on an aircraft engine if the maintenance involves—

(i) dismantling and reassembly of a piston engine, except where the dismantling and reassembly is to obtain access to the piston or cylinder assembly; or

(ii) dismantling and reassembly of a main casing or main rotating assembly of a turbine engine, except if the dismantling and reassembly is for the replacement of a main casing or rotating assembly and the instructions for continued airworthiness for the engine provides instructions for the replacement, and the replacement of the main casing or rotating assembly of the engine is achieved solely by disconnecting the flanges of main casings; or

(iii) disturbance of reduction gear:

(5) aircraft propeller balancing other than in situ dynamic propeller balancing in accordance with the aircraft manufacturer's instructions:

(6) maintenance on a helicopter if the maintenance involves the dismantling of any transmission gearbox, except if the dismantling is for separation of casings to obtain access for the purpose of internal inspection in accordance with the helicopter manufacturer's instructions.

(c) Except for an aircraft that is operated on an adventure aviation operation, paragraph (b) does not apply to—

(1) an aircraft that has a *special category* airworthiness certificate issued by the Director under the Act and Subpart H of Part 21; or

(2) a microlight aircraft: or

(3) a glider or powered glider; or

(4) a hot air balloon.

43.155 Certifying review

(a) Subject to paragraph (b), a person who performs a review of airworthiness for an aircraft must, on completion of the review—

(1) certify that the review has been completed by entering the following statement in the appropriate maintenance logbook:

"I certify that an (annual)*(biennial)* review of airworthiness has been carried out on this aircraft and that the requirements of Civil Aviation Rule 43.153(a) have been complied with"; and

* delete as applicable

(2) adjacent to that statement, enter—

(i) the person's name; and

(ii) the person's signature except if the maintenance logbook is in electronic format; and

(iii) the person's inspection authorisation number; and

(iv) the date that the review was completed; and

(3) in accordance with paragraph (c), enter the due date for the next review of airworthiness in the technical log; and

(4) forward a report of the review to the Director in a form acceptable to the Director—

(i) within 7 days from the date of completing and certifying the review in accordance with paragraphs (a)(1) and (a)(2); or

(ii) if the review is not completed and certified in accordance with paragraphs (a)(1) and (a)(2), within 7 days from the expiry of the 30 day period specified in rule 43.153(a) for completing the review.

(b) Except for instruments and equipment that are permitted to be inoperative in accordance with rule 91.537, a person who performs a review of airworthiness for an aircraft must not certify the review as being

complete unless every defect has been rectified and the aircraft certified for release-to-service in accordance with Subpart C.

(c) The next review of airworthiness must not be more than 1 year or 2 years, as specified in rule 91.615(a)(1) or (aa), after—

(1) the date that the review is certified under paragraph (a) or (aa); or

(2) the beginning of the extension period if the due date for the review has been extended under rule 91.615(c)(1).

Part 61 Pilot Licences and Ratings

Subpart C – Student Pilots

61.105 Solo flight requirements

(a) A person who does not hold a current pilot licence issued or validated in accordance with this Part must not fly an aircraft solo unless—

(1) the person is at least 16 years of age; and

(2) the person holds—

(i) at least a current class 2 medical certificate issued by the Director under the Act; or

(ii) a medical certificate, issued in accordance with rule 44(1) of the Land Transport (Driver Licensing) Rule 1999, that is applicable for a Class 2, 3, 4 or 5 driver licence with passenger endorsement which—

(A) was issued within the previous 5 years; or

(B) if the person is 40 years of age or older, was issued within the previous 24 months; and

(3) the person is complying with all the conditions, restrictions and endorsements on the medical certificate; and

(4) the person has sufficient ability in reading, speaking, understanding and communicating in the English language to enable them to adequately carry out the responsibilities of a pilot-in-command of an aircraft; and

(5) the flight is authorised by the holder of a current Category A, B, or C flight instructor rating, except for a first solo flight by day or by night which must be authorised by the holder of a Category A or B flight instructor rating; and

(6) except as provided in paragraph (c), the holder of a current Category A or B flight instructor rating has certified in the person's pilot's logbook that they have received instruction and demonstrated competence in the following:

(i) preparation for flight:

(ii) starting and run-up procedures:

(iii) taxiing:

(iv) straight and level flight:

(v) climbing and descending:

(vi) level, climbing and descending turns:

(vii) take-off, circuit and landing in that type of aircraft:

(viii) practical flight radiotelephony:

(ix) go around procedures:

(x) in the case of an aeroplane, stall recognition and recovery in that aeroplane type:

(xi) in the case of an aeroplane, emergency procedures in the event of engine failure during and after take-off:

(xii) in the case of a helicopter, hovering upwind, downwind, and crosswind:

(xiii) in the case of a helicopter, emergency procedures, (including autorotative approach and landing) in that type of helicopter; and

(7) the person has received dual instruction within the last 5 hours of flight experience unless otherwise authorised by the holder of a current Category A or B flight instructor rating; and

(8) the person has had piloting experience in appropriate aircraft within the immediately preceding 30 days; and

(9) if the flight is a solo cross country flight,—

(i) the flight is authorised by the holder of a current Category A or B flight instructor rating; and

(ii) the person holds a valid written examination credit for a private pilot licence~~.~~; and

(10) if applicable, that ~~the~~ person has complied with all the requirements of a CAA notice issued under Subpart I of this Part.

(b) The flight instructor who authorises the solo flight specified in paragraph (a)(4) must monitor the actions of the pilot during the solo flight.

(c) In the case of a first solo flight by day, the certification in the person's pilot's logbook required under paragraph (a)(5) may be made after the completion of the first solo flight if the flight instructor is satisfied that the requirements in paragraphs (a)(5)(i) to (xiii) have been met.

Subpart D –Private Pilot Licences

61.153 Eligibility requirements

(a) Except as provided in paragraphs (b) and (c), to be eligible for the issue of a private pilot licence a person must—

(1) be at least 17 years of age; and

(2) hold at least a current class 2 medical certificate issued under the Act; and

(3) have the minimum of—

(i) 50 hours flight time experience as a pilot in the appropriate category of aircraft comprising solo flight time, dual flight time, instrument time, and cross-country flight time acceptable to the Director; or

(ii) if the person is not seeking to exercise private pilot privileges on a cross-country flight, 40 hours flight time experience as a pilot in the appropriate category of aircraft comprising solo flight time, instrument time, and dual flight time acceptable to the Director; and

(4) if the person seeks to exercise private pilot privileges during the night, have night flight experience acceptable to the Director; and

(5) if the person seeks to exercise private pilot (helicopter) privileges in the carriage of sling loads, have flight training on the carriage of sling loads acceptable to the Director; and

(6) have a valid written examination credit, or approved equivalent, that covers the following private pilot licence subject areas:

(i) air law:

(ii) air navigation and flight planning:

(iii) meteorology:

(iv) aircraft technical knowledge (Aeroplane or Helicopter), as appropriate:

(v) human factors:

(vi) flight radiotelephony; and

(7) have successfully demonstrated the following to a flight examiner in a flight test:

(i) knowledge in the ground examination subjects specified in paragraph (a)(6), including those detailed in the examination knowledge deficiency reports:

(ii) knowledge of the privileges and limitations of a private pilot licence:

(iii) technical and operational knowledge relevant to the aircraft type to be used in the flight test:

(iv) competence to operate the aircraft within its performance capabilities and limitations in accordance with the aircraft flight manual in all normal, abnormal, and emergency conditions and procedures while exercising appropriate levels of judgement and command:

(v) competence in radiotelephony (RTF) procedures and phraseology:

(vi) control of the aircraft at all times in a manner that ensures the successful outcome of a procedure or manoeuvre is never in doubt~~.~~; and

(8) if applicable, ~~that the person has complied~~comply with all the requirements of a CAA notice issued under Subpart I of this Part.

(b) In accordance with section 9 of the Act, a person who holds a current pilot licence and associated medical certificate issued by an ICAO Contracting State may have the licence and medical certificate recognised by the Director for the purpose of the Director issuing a private pilot licence to the person, for the same category of aircraft.

(c) A person who holds a current glider pilot certificate issued by a gliding organisation under delegated authority from the Director is eligible for the issue of a private pilot licence (Glider) if the person—

(1) is at least 17 years of age; and

(2) holds a flight radiotelephony examination credit; and

(3) holds at least a current class 2 medical certificate issued under the Act.

(d) Qualifications held by a member of the New Zealand Defence Force who is in current flying practice as a first or second pilot may be accepted by the Director as meeting the requirements in—

(1) paragraph (a)(6), if the person has passed the appropriate air law examination in the 5 years prior to applying for the issue of the private pilot licence; and

(2) paragraph (a)(7).

61.155 Privileges and limitations

(a) Subject to paragraph (b)(3), the holder of a current private pilot licence may—

(1) act as pilot-in-command of an aircraft of the category for which the pilot licence is granted and for which the pilot holds an aircraft type rating, and may carry passengers in the aircraft; and

(2) act as a co-pilot of an aircraft of the category for which the pilot licence is granted and for which the pilot holds an aircraft type rating, and which is required to be operated with a co-pilot.

(b) The holder of a private pilot licence must not act as pilot-in-command or as co-pilot of an aircraft—

(1) for remuneration; or

(2) if the aircraft is being operated for hire or reward; or

(3) if the aircraft is—

(i) being operated at night; or

(ii) being operated on a cross country flight; or

(iii) a helicopter carrying a sling load—

unless an appropriately qualified flight instructor has certified in the holder's logbook that the holder has satisfactorily completed the flight training required to perform that activity; or

(4) if applicable, unless the holder has complied with all the requirements of a CAA notice issued under Subpart I of this Part..

(c) Despite paragraph (b)(2), the holder of a current private pilot licence may act, but not for remuneration, as pilot-in-command or as a co-pilot of an aircraft that is operated for hire or reward to tow a glider in flight, but only if the operation is under the direct control of a gliding organisation, or under the authority of an adventure aviation operator certificate issued by the Director under the Act and Part 115.

Subpart E – Commercial Pilot Licenses

61.203 Eligibility requirements

(a) To be eligible for a commercial pilot licence, a person must—

(1) be at least 18 years of age; and

(2) in the case of an aeroplane and helicopter, hold a current private pilot licence for the appropriate category of aircraft; and

(3) hold a current class 1 medical certificate issued under the Act; and

(4) have the following minimum general flight time experience as a pilot comprising specific flight experience that is acceptable to the Director for the appropriate category of aircraft:

(i) in the case of an aeroplane, 200 hours or, if undertaking a course of approved training, 150 hours:

(ii) in the case of a helicopter, 150 hours or, if undertaking a course of approved training, 125 hours:

(iii) in the case of a glider, 150 hours:

(iv) in the case of a balloon, 50 hours; and

(5) if the person seeks to exercise commercial pilot privileges during the night, have night flight time experience acceptable to the Director; and

(6) have a valid written examination credit, or approved equivalent, that covers the following commercial pilot licence subject areas:

(i) air law:

(ii) flight navigation general:

(iii) meteorology:

(iv) principles of flight and aircraft performance (Aeroplane), (Helicopter), or (Glider), as appropriate:

(v) general aircraft technical knowledge (Aeroplane), (Helicopter), or (Glider), as appropriate:

(vi) balloon technical knowledge and aerostatics, (Balloon):

(vii) human factors; and

(7) have successfully demonstrated the following to the Director in a flight test:

(i) knowledge in the ground examination subjects specified in paragraph (6), including those detailed in the examination knowledge deficiency reports:

(ii) knowledge of the privileges and limitations of a commercial pilot licence:

(iii) technical and operational knowledge relevant to the aircraft type to be used in the flight test:

(iv) competence to operate the aircraft within its performance capabilities and limitations in accordance with the aircraft flight manual in all normal, abnormal and emergency conditions and procedures while exercising appropriate levels of judgement and command:

(v) competence in radiotelephony (RTF) and phraseology:

(vi) control of the aircraft at all times in a manner that ensures the successful outcome of a procedure or manoeuvre is never in doubt~~.~~; and

(vii) if applicable, ~~that the person complies~~comply with all the requirements of a CAA notice issued under Subpart I of this Part.

(b) Qualifications held by a member of the New Zealand Defence Force who is in current flying practice as a first or second pilot may be accepted by the Director as meeting the requirements in—

(1) paragraph (a)(2); and

(2) paragraph (a)(6), if the person has passed the appropriate air law examination in the 5 years prior to applying for the issue of a commercial pilot licence; and

(3) paragraph (a)(7).

61.205 Privileges and limitations

(a) Subject to paragraph (b), a current commercial pilot licence authorises the holder to exercise the following privileges in aircraft of the same category for which the pilot licence is granted and for which the pilot holds an aircraft type rating:

(1) any of the appropriate privileges of a private pilot licence:

(2) act as pilot-in-command of an aircraft that is certificated for single pilot operation and engaged on an operation for hire or reward:

(3) act as pilot-in-command of an aircraft that is certificated for multi-pilot operation and engaged on an operation for hire or reward, that is not an air transport operation:

(4) act as co-pilot of an aircraft that is certificated for multi-pilot operation and engaged on an operation for hire or reward.

(b) The holder of a commercial pilot licence must not act as pilot-in-command or as co-pilot of an aircraft at night, unless—

(1) an appropriately qualified flight instructor has certified in the holder's logbook that the holder has satisfactorily completed the required night flight training; and

~~(1)~~(2) if applicable, that ~~the~~ person complies with all the requirements of a CAA notice issued under Subpart I of this Part..

Subpart F – Airline Transport Pilot Licences

61.253 Eligibility requirements

(a) To be eligible for an airline transport pilot licence, a person must—

(1) be at least 21 years of age; and

(2) hold a current commercial pilot licence for the appropriate category of aircraft; and

(3) hold a current instrument rating; and

(4) have the following minimum general flight time experience as a pilot comprising specific flight experience that is acceptable to the Director for the appropriate category of aircraft:

(i) in the case of an aeroplane, 1500 hours:

(ii) in the case of a helicopter, 1000 hours; and

(5) have a valid written examination credit, or approved equivalent, that covers the following airline transport pilot licence subject areas:

(i) air law:

(ii) flight navigation general:

(iii) flight planning (Aeroplane or Helicopter as appropriate):

(iv) meteorology:

(v) instruments and navigation aids (Aeroplane only):

(vi) human factors:

(vii) advanced aerodynamics, performance, and systems knowledge (Aeroplane only):

(viii) aerodynamics and aircraft systems (Helicopter only):

(ix) performance and loading (Helicopter only); and

(6) subject to paragraph (b), have successfully demonstrated the following in a flight test to the Director, or an appropriately authorised flight examiner operating under the authority of an airline air operator certificate issued in accordance with Part 119, or an aviation training organisation certificate issued in accordance with Part 141, if the certificate authorises the holder to conduct the flight tests:

(i) knowledge in the ground examination subjects specified in paragraph (a)(5), including those detailed in the examination knowledge deficiency reports:

(ii) knowledge of the privileges and limitations of an airline transport pilot licence:

(iii) technical and operational knowledge relevant to the aircraft type used in the flight test:

(iv) competence to operate the aircraft within its performance capabilities and limitations in accordance with the aircraft flight manual in all normal, abnormal and emergency conditions and procedures whilst exercising appropriate levels of judgement and command:

(v) competence in ATS procedures and phraseology:

(vi) control of the aircraft at all times in a manner that ensures the successful outcome of a procedure or manoeuvre is never in doubt~~.~~; and

(vii) if applicable, comply with all the requirements of a CAA notice issued under Subpart I of this Part.~~if applicable, that the person has met all the determinations, requirements, conditions or procedures under Subpart I of this Part.~~

(b) The flight test required under paragraph (a)(6) must be a cross country flight conducted under IFR in an aircraft that is—

(1) a multi-engine aircraft with a MCTOW of 5700 kg or more; or

(2) a multi-engine aircraft acceptable to the Director; or

(3) a synthetic flight trainer that is approved for airline transport pilot licence issue flight tests.

(c) Qualifications held by a member of the New Zealand Defence Force who has within the immediately preceding 12 months logged flight time with the New Zealand Defence Force as first pilot day/night level in an appropriate category of 2 pilot aircraft, may be accepted by the Director as meeting the requirements in—

(1) paragraph (a)(2); and

(2) paragraph (a)(3), if the person has passed a New Zealand Defence Force instrument flight assessment within the 3 months prior to applying for the issue of an airline transport pilot licence; and

(3) paragraph (a)(5), if the person has passed the appropriate air law examination in the 5 years prior to applying for the issue of an airline transport pilot licence; and

(4) paragraph (a)(6).

61.255 Privileges

A current airline transport pilot licence authorises the holder to exercise the following privileges in an aircraft of the same category for which the pilot licence is granted and for which the pilot holds an aircraft type rating:

(1) any of the privileges of a private and commercial pilot licence:

(2) act as pilot-in-command of an aircraft that is required to be operated with a co-pilot and is engaged on an air transport operation or an operation for hire or reward: —

provided that, if applicable, the person complies with all the requirements of a CAA notice issued under Subpart I of this Part.

Subpart G – Flight Instructor Ratings

61.311 Flight instructor to implement additional training under Part 61 Subpart I

(a) Before either issuing a type rating under this Part or authorising a student pilot to fly an aircraft solo under rule 61.105, an appropriately qualified flight instructor must:

(1) consider whether the Director has issued a CAA notice under Subpart I of this Part in respect of an aircraft for which the type rating is to be issued, or the aircraft that the student pilot is to fly solo, as the case may be; and

(2) if the Director has issued a CAA notice under subpart I of this Part, apply and test the additional training required before issuing the rating or authorising the solo flight.

Subpart H – Recreational Pilot Licence

61.355 Eligibility requirements

(a) Except as provided for in paragraph (b), to be eligible for the issue of a recreational pilot licence (aeroplane or helicopter) a person must—

(1) be at least 17 years of age; and

(2) hold a medical certificate, issued in accordance with rule 44(1) of the Land Transport (Driver Licensing) Rule 1999, that is applicable for a Class 2, 3, 4 or 5 driver licence with passenger endorsement which—

(i) was issued within the previous 5 years; or

(ii) if the person is 40 years of age or older, was issued within the previous 24 months; and

(3) have a minimum of—

(i) 50 hours flight time experience as a pilot in the appropriate category of aircraft comprising of solo flight time, dual flight time, instrument time, and cross-country flight time acceptable to the Director; or

(ii) if the person is not seeking to exercise recreational pilot privileges on a cross-country flight, 40 hours flight time experience as a pilot in the appropriate category of aircraft comprising solo flight time, instrument time, and dual flight time acceptable to the Director; and

(4) have a valid written examination credit, or approved equivalent, in the subjects contained in rule 61.153(a)(6); and

(5) have completed terrain awareness training that is acceptable to the Director; and

(6) have passed a flight test for the issue for a private pilot licence in accordance with rule 61.153(a)(7) except that the person must have demonstrated knowledge of the privileges and limitations of a recreational pilot licence~~.~~; and

(7) if applicable, ~~that the person complies~~comply with all the requirements of a CAA notice issued under Subpart I of this Part.

(b) A person who holds a valid private pilot licence, commercial pilot licence, or an airline transport pilot licence, is eligible for the issue of a recreational pilot licence for the appropriate category of aircraft, if the person—

(1) holds a medical certificate as required by paragraph (a)(2); and

(2) has not met the requirements of rule 61.39 for a period of 5 years or more; and

(3) has passed the written examination for PPL air law.

(c) Cross country flight experience in a helicopter or aeroplane under paragraph (a)(3)(i) may be accepted by the Director as cross country flight time in the other category of aircraft.

61.357 Privileges and limitations

(a) Subject to paragraph (b), the holder of a current recreational pilot licence may—

(1) act as pilot-in-command of a single engine non-pressurised aeroplane with a MCTOW of 2000kg or less, for which the pilot holds an aircraft type rating; or

(2) act as pilot-in-command of a single engine helicopter with a MCTOW of 1500kg or less, for which the pilot holds an aircraft type rating; or

(3) carry a passenger, provided the passenger has been informed that the pilot does not hold a medical certificate issued under the Act.

(b) The holder of a recreational pilot licence must not act as pilot-in-command or as co-pilot of an aircraft—

(1) operating outside New Zealand; or

(2) for remuneration; or

(3) carrying more than one passenger; or

(4) if the aircraft is being operated—

(i) for hire and reward; or

(ii) at night; or

(iii) under instrument flight rules; or

(iv) into or out of a controlled aerodrome unless the licence holder has provided the Director with evidence of a successful colour vision screening test that is acceptable to the Director; or

(v) over a congested area of a city or town, except for the purpose of take-off and landing; or

(5) if the aircraft is conducting—

(i) an air operation; or

(ii) a glider tow operation, where the glider is being operated for hire or reward; or

(iii) a parachute drop operation; or

(iv) an agricultural aircraft operation; or

(v) an aerobatic flight; or

(vi) a banner tow operation; or

(vii) a drogue tow operation; or

(viii) a sling load operation; and

(6) if applicable, unless that ~~the~~ person complies with all the requirements of a CAA notice issued under Subpart I of this Part.

Subpart I – Requirements for Training, Operation and Use of Aircraft Following a Safety Review

61.363 Purpose

The purpose of this subpart is to empower the Director to issue CAA notices in respect of flight training or persons performing an aircraft operation ~~-~~or aviation activity in an aircraft.

61.365 Director may issue a CAA notice in respect of training, operation and use of aircraft

(a) After complying with rule 61.367, the Director may issue a CAA notice under this subpart in relation to—

(1) the training required before a person can manipulate the controls, or fly an aircraft solo in a particular aircraft type-:

(2) a person performing a particular operation or aviation activity in an aircraft:

(3) the nature of training specified in subparagraph (a)(1) including minimum training, training syllabi and flight hours:

(4) the requirements for dual instruction, including the nature of dual instruction:

(5) the requirements for recording the required training in the pilot logbook:

(6) the persons who provides training specified in subparagraph (a)(1):

(7) the eligibility and other requirements for flight instructors to conduct the training specified in subparagraph (a)(1):

(8) the eligibility and other requirements for flight examiners to assess the training specified in subparagraph (a)(1).

(b) If a pilot with an existing type rating is required to undergo further instruction, training or assessment in relation to the type rating, the pilot cannot exercise the privileges of that type rating until the pilot has complied with the CAA notice.

(c) Any person specified in a CAA notice as having to comply with a requirement in the notice must comply with that requirement.

61.367 Process prior to issuing a CAA notice

(a) Before issuing a CAA notice- the Director must—

(1) conduct a safety review to assess the risk to aviation safety of the matter giving rise to particular safety concerns by taking into account—

(i) relevant safety information concerning the operation of a particular aircraft type or the operation of aircraft in particular conditions; and

(ii) information about how ICAO or other ICAO Contracting States are responding to the risk; and

(iii) any other information that the Director considers may be relevant; and

(2) consult with the aircraft manufacturer and organisations representing affected parties or any other party that the Director considers appropriate and consider—

(i) if the aircraft manufacturer or other party can mitigate or eliminate any identified risk to aviation safety; and

(ii) whether, if the actions identified under subparagraph (2)(i) are taken, the risks to aviation safety will be managed to a level the Director considers appropriate; and

(3) determine, after conducting the safety review, if a CAA notice should be issued because

(i) there is a significant risk to aviation safety with the matters listed in paragraph (b); and

(ii) the risk may be managed by the pilot of the aircraft undergoing instruction, training or assessment additional to those required under this Part before a student pilot is authorised to manipulate the controls of the aircraft or make a solo flight, or a pilot licence is endorsed with a type rating, or a pilot with an existing licence or type rating can fly an aircraft.

(b) The matters referred to in subparagraph (a)(3)(i) are:

(1) a particular make or model of aircraft; or

(2) the operation of any aircraft in particular conditions.

61.369 CAA notice to be published

The Director must, as soon as practicable after issuing a CAA notice under rule 61.365, publish on the CAA website—

(1) the CAA notice made under rule 61.365; and

(2) the date the CAA notice comes into effect; and

(3) the reasons for the CAA notice.

61.371 Effective date of CAA notice

(a) CAA notices made under rule 61.365 come into force on the date specified by the Director.

(b) In determining the date under paragraph (a) the Director must provide reasonable time for affected parties to be made aware of the CAA notice before it comes into force.

61.373 Amendment of CAA notice

(a) The Director may amend a CAA notice made under rule 61.365 at any time and the provisions of rules 61.367, 61.369 and 61.371, with the necessary modifications, apply to any amendment.

(b) Despite paragraph (a), rules 61.367 and 61.371(b) do not apply to any amendment that is minor and non-controversial.

61.375 Revocation of CAA notice

(a) The Director may revoke a CAA notice made under rule 61.365 at any time if the Director is satisfied that the provisions in rule 61.367 are no longer necessary.

(b) A revocation takes effect from the date specified by the Director.

61.379 Transitional Provisions

(a) The Robinson safety awareness training conditions issued under section 21 of the Act that are contained in a CAA nNotice are deemed to be requirements in a CAA notice made under rule 61.365 and to have met the requirements of rule 61.367.

(b) This rule will expire 3 years from [the commencement date].

Subpart S – Flight Examiner Ratings

61.911 Flight examiner to implement additional training under Part 61 Subpart I

Before conducting a flight test for which authorisation has been granted by the Director for the issue of pilot licences or for the issue or renewal of ratings, an appropriately qualified flight examiner must:

(1) consider whether the Director has issued a CAA notice under Subpart I of this Part in respect of an aircraft for which the licence or type rating is to be issued; and

(2) if the Director has issued a CAA notice under subpart I of this Part, apply and test the additional training required before issuing the rating.

Part 91 General Operating and Flight Rules

91.120 Requirements for leaving helicopter unattended

A pilot-in-command of a helicopter must not leave the helicopter unattended with the rotors turning under power unless the requirements authorised by the following are met—

(1) the aircraft flight manual; or

(2) an aircraft flight manual supplement; or

(3) an applicable standard operating procedure approved by the Director under rule 135.67.

91.615 Review of airworthiness

(a) Except as provided in paragraphs (b) and (c), a person must not operate an aircraft unless—

(1) a review of airworthiness for the aircraft has been certified as completed in accordance with Subpart D of Part 43 within—

(i) the preceding 12 months~~365 days~~; or

(ii) for an aircraft ~~that has a special category airworthiness certificate~~ that is not operated for hire or reward, the preceding 24 months~~730 days~~; or

(2) the aircraft has been issued with an airworthiness certificate in accordance with Part 21 within the preceding ~~365 days~~12 months.

(aa) A review of airworthiness may be required more frequently than the period specified in paragraph (a)(1)(ii) in a particular case, if the Director determines that this is in the interests of aviation safety.

(b) Paragraph (a) does not apply to an aircraft that is operated in accordance with the following Parts under the authority of an air operator certificate issued in accordance with Part 119:

(1) Part 121:

(2) Part 125:

(3) Part 135 if the aircraft is subject to a maintenance review in accordance with rule 135.415(a).

(c) A person may operate an aircraft after the date at which a review of airworthiness is required under paragraph (a) or paragraph (aa)—

(1) for a period of not more than 36 days to allow for maintenance planning purposes if a new extended date, within the 36 day period, for the review of airworthiness is recorded in the technical log; or

(2) if the sole purpose of operating the aircraft is to enable the review of airworthiness to be completed.

Part 115 Adventure Aviation, Initial Issue – Certification and Operations

115.215 Manipulation of controls

~~Except as provided in rules 115.613, 115.667 and 115.759, a holder of an adventure aviation operator certificate must ensure that a person does not manipulate the flight controls of an aircraft performing an adventure aviation operation under the authority of the certificate, unless the person is—~~

~~a flight crew member assigned for the flight; or~~

~~an authorised representative of the Director who—~~

~~(v) has the permission of the certificate holder and the pilot-in-command; and is performing a required duty~~

(a) This rule applies to the manipulation of controls in all aircraft operated under this Part.

(b) A holder of an adventure aviation operator certificate may permit a passenger to manipulate the controls of an aircraft if:~~—~~

(1) the purpose of the flight is to provide the passenger with a flight experience that requires the passenger to manipulate the flight controls; and

(2) no other passenger is carried on the flight; and

(3) the operator's exposition includes procedures for risk management concerning passenger manipulation of controls; and

(4) the passenger intending to manipulate the controls –

(i) has been provided with the ground instruction under the procedures required by paragraph (c)(1); and

(ii) has been assessed as competent to participate in the intended operation.

~~(a)~~(c) The holder of an adventure aviation operator certificate intending to permit a passenger to manipulate the controls of an aircraft under paragraph (b) must establish procedures for:

(1) providing the passenger with applicable ground instruction including—

(i) the intended flight manoeuvres; and

(ii) the functions the passenger will be permitted to perform during the flight; and

(iii) the applicable aircraft operating procedures; and

(iv) emergency procedures; and

(2) assessing the passenger's competency to participate in the intended operation.

(d) A holder of an adventure aviation operator certificate must not conduct an operation under the authority of the certificate that allows a passenger to manipulate the flight controls of the aircraft unless—

(1) the requirements prescribed in paragraph (b) are met; and

(2) the passenger intending to manipulate the flight controls—

(i) has been provided with the ground instruction under the procedures required by paragraph (c)(1); and

~~(i)~~(ii) has been assessed as competent to participate in the intended operation under the procedures required by paragraph (c)(2).

115.613 Manipulation of controls – glider [*Revoked*]

115.667 Manipulation of controls – hang glider and paraglider [*Revoked*]

115.759 Manipulation of controls – simulated military operation [*Revoked*]

Part 121 Air Operations – Large Aeroplanes

121.221 Landing distance - runways

(a) Each holder of an air operator certificate must ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing will not exceed the landing weight specified in the aeroplane flight manual.

(b) Each holder of an air operator certificate must use the permitted procedures for calculating the landing distance for aircraft on a runway:

(1) that have been approved under paragraph (c); or

(2) as provided in Appendix D.

(c) The Director may, after taking account of the following matters, approve an application by a holder of an air operator certificate for permitted procedures if satisfied—

(1) whether or not the aircraft proposed has performance data issued by the manufacturer supporting the permitted procedures that is available for use by the pilot or flight crew; and

(2) whether the operator has reliable access to either –

(i) accurate, real–time reporting on runway conditions that is appropriate for the permitted procedures to be used; or

(ii) data that enables the operator to identify equivalent conditions; and

(3) the margin of error that should be applied when calculating landing distance using the permitted procedures which must take into account:

(i) the implications of pilot technique on landing distance:

(ii) the implications of unexpected environmental conditions at the destination aerodrome:

(iii) whether the calculation is being undertaken at the dispatch stage or en-route:

(iv) whether the margin of error is supported by the reporting of the runway conditions; and

(4) whether all personnel involved in the reporting of runway conditions, calculation of data and operation of the flight have had appropriate training in the use of the permitted procedures.

121. 223 Landing distance – wet and contaminated runways [*Revoked*]

121.951 General

(a) Except as provided in rule 121.165(d), a holder of an air operator certificate must not operate an aeroplane on an EDTO unless—

(1) the certificate holder is authorised in accordance with this Subpart to conduct an EDTO; and

(2) the certificate holder's operations specifications required by rule 119.15—

(i) permits the intended EDTO; and

(ii) authorises the use of the airframe and engine combination for the EDTO; and

(3) procedures for meeting the requirements of this Subpart for EDTO are detailed in the certificate holder's exposition required by rule 119.81.

(b) The Director may, on application in writing for an EDTO by a holder of an air operator certificate, authorise air operations beyond the time limits of the most time-limited system for an aeroplane as specified in the flight manual if satisfied on the evidence of a safety risk assessment provided by the operator covering the following:

(1) the capabilities of the operator in conducting EDTOs; and

(2) the overall reliability of the aeroplane to be operated under the EDTO; and

(3) the reliability of each time-limited system of the aeroplane to be operated under the EDTO; and

(4) information from the aeroplane manufacturer relevant to an EDTO; and

~~(1)~~(5) any specific mitigation measures to be taken by the certificate holder.

121.953 Requirements for EDTO up to 180 minutes maximum diversion time — twin-engine aeroplanes

(a) A holder of an air operator certificate may apply in writing to the Director for an EDTO authorisation to operate an aeroplane with 2 turbine powered engines on an EDTO up to 180 minutes maximum diversion time.

(b) A holder of an air operator certificate applying for an EDTO authorisation under paragraph (a) must provide the Director with the following information at least 90 days, or a lesser period acceptable to the Director, before the proposed commencement of the EDTO:

(1) details of the particular airframe and engine combination of each aeroplane to be operated under the EDTO authorisation:

(2) details, and evidence of the type design approval and the operating limitation of the airframe and engine combination, proposed under paragraph (1), for operating the aeroplane on an EDTO of more than 60 minutes flight time from an adequate aerodrome:

(3) details of the CMP for the airframe and engine combination proposed under paragraph (1):

(4) the maximum diversion time proposed for the EDTO which must be not more than 180 minutes:

(5) the minimum altitudes applicable to the routes to be flown on the EDTO including any diversionary routes:

(6) details of the fuel policy required to meet the requirements of rule 121.975:

(7) details of the maintenance programme required to meet the requirements of rule 121.407:

(8) details of the training programme required under Subpart I and applicable to the EDTO and the maximum diversion time proposed under paragraph (4):

(9) details of the MEL relevant to the maximum diversion time proposed under paragraph (4):

(10) evidence that the aeroplane conforms to the fire detection and suppression limitations for cargo and baggage compartments prescribed in paragraph D.5(a)(2) of Appendix D to Part 26, or an equivalent standard acceptable to the Director:

(11) evidence that time limited system capability for the aeroplane plus a 15 minute allowance for holding, approach, and landing is not less than the maximum diversion time proposed under paragraph (4):

(12) details of every EDTO alternate aerodrome that is required for the routes to be flown and the maximum diversion time proposed under paragraph (4):

(13) details—

(i) to confirm that every EDTO alternate aerodrome that is detailed under paragraph (12) has facilities to ensure the safety of a full complement of passengers and crew members:

(ii) of the recovery plan for diversion to an EDTO alternate aerodrome that ensures the safety of a full complement of passengers and crew members at the aerodrome or in the immediate area until they are transported to another place that can provide for their safety:

(14) details of the point of no return for the aeroplane (if known).

121.975 EDTO fuel requirements

(a) A holder of an air operator certificate who is authorised in accordance with this Subpart to conduct an EDTO must not allow an aeroplane to be dispatched on an EDTO unless, in addition to the requirements of the certificate holder's fuel policy required by rule 121.75, the following requirements are met:

(1) the aeroplane must carry the greater of the following—

(i) sufficient fuel to fly to an en-route EDTO alternate aerodrome listed in the dispatch release assuming a rapid decompression at the most critical point followed by a descent to a safe altitude in compliance with rule 91.423, and rule 91.209 relating to the use of oxygen equipment, or

(ii) sufficient fuel to fly to an en-route EDTO alternate aerodrome listed in the dispatch release at the approved one engine inoperative cruise speed assuming a rapid decompression and a

simultaneous engine failure at the most critical point followed by a descent to a safe altitude in compliance with rule 91.423 and the oxygen requirements of rule 91.209; or

(iii) sufficient fuel to fly to an en-route EDTO alternate aerodrome listed in the dispatch release at the approved one engine inoperative cruise speed assuming an engine failure at the most critical point followed by a descent to the one engine inoperative cruise altitude; or

(iv) EDTO critical fuel for the aeroplane.

(2) the aeroplane, upon reaching the en-route EDTO alternate aerodrome must have sufficient fuel to hold for 15 minutes at 1,500 feet above the aerodrome elevation and then to conduct an instrument approach procedure and land.

(b) For the purposes of calculating the fuel required by paragraph (a), the certificate holder must take the following matters into account:

(1) if the certificate holder is using a wind forecast model acceptable to the Director, a 5% wind speed factor (i.e. as an increment to a headwind or as a decrement to a tailwind) must be added onto the actual or forecast wind used to calculate the fuel required by paragraph (a)(1) to account for errors in wind forecasting:

(2) if the certificate holder is not using a wind forecast model acceptable to the Director, the aeroplane must carry an additional 5% of the fuel required by paragraph (a)(1) to allow for errors in wind forecasting:

(3) if icing conditions are forecast for the planned EDTO, the fuel required by paragraph (a)(1) must compensate for the greater of—

(i) the effect of airframe icing during 10% of the time during which icing is forecast taking into account the fuel that would be used by the use of engine and wing anti-ice during the same period; or

(ii) the fuel used by use of engine anti-ice systems, and if appropriate the use of wing anti-ice systems for the entire time during which icing is forecast:

(4) the fuel required by paragraph (a)(1) must include—

(i) additional fuel, calculated in accordance with the certificate holder's performance deterioration allowance monitoring programme to compensate for any increase in the aeroplane's fuel consumption; or

(ii) if a performance deterioration allowance monitoring programme is not used for the aeroplane's fuel consumption, an additional 5% of the fuel required by paragraph (a)(1) to account for the deterioration in cruise fuel burn performance:

(5) if an APU is a required power source for operating the aeroplane on an EDTO, the fuel required by paragraph (a)(1) must include the APU fuel consumption during every phase of flight when the APU may be used:

(6) the fuel required by paragraph (a)(1) must include any additional fuel consumption caused by the use of an MEL or configuration deviation list item for any applicable phases of flight.

Appendix D — Landing Distance Assessments for Runways

D.1 Permitted landing distance assessments – Dry runway

The following is a permitted procedure under rule 121.221 for a holder of an air operator certificate for calculating the landing distance where a runway is **dry**:

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full stop landing on a dry runway from a point 50 feet above the threshold within—

(1) 60% of the landing distance available at the destination and at any alternate aerodrome for a turbojet or turbofan powered aeroplane; and

(2) 70% of the landing distance available at the destination aerodrome and at any alternate aerodrome for a propeller powered aeroplane; and

(b) When calculating the landing weight in accordance with paragraph (a), the certificate holder shall take account of—

(1) aerodrome elevation; and

(2) ambient temperature at the aerodrome; and

(3) the type of runway surface and the runway surface condition; and

(4) the runway slope in the direction of landing; and

(5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(c) The certificate holder shall, for dispatch of an aeroplane to land in accordance with paragraphs (a) and (b), assume that the aeroplane will land on the most favourable runway taking into account—

(1) the forecast meteorological conditions; and

(2) surrounding terrain; and

(3) approach and landing aids; and

(4) obstacles within the missed approach flight path.

(d) If the certificate holder is unable to comply with paragraph (d) for the destination aerodrome, the certificate holder may dispatch an aeroplane if an alternate aerodrome is designated that permits compliance with paragraphs (a), (b), and (c).

D.2 Permitted landing distance assessments – Wet or contaminated runway

The following is a permitted procedure under rule 121.221 for a holder of an air operator certificate for calculating the landing distance where a runway is **wet** or **contaminated**:

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates—

(1) when the appropriate weather reports or forecasts, or a combination thereof, indicate that the runway at the estimated time of arrival may be wet, the landing distance available is at least 115% of the landing distance required by D.1; and

(2) when the appropriate weather reports or forecasts, or a combination thereof, indicate that the runway at the estimated time of arrival may be contaminated, the landing distance available is at least—

(i) 115% of the landing distance required by D.1; or

(ii) the landing distance determined in accordance with contaminated-landing-distance data.

(b) A landing distance on a wet runway shorter than that required by paragraph (a), but not less than that required by D.1, may be used if performance data allows a shorter landing distance on wet runways.

D.3 TALPA procedures

The following is an alternate permitted procedure under rule 121.221 for a holder of an air operator certificate that provides for:

(a) calculation of the landing distance for a runway—

(1) utilising TALPA ARC performance data provided by the aircraft manufacturer to enable inflight calculation of landing performance by the flight crew in accordance with the manufacturer's recommendations; and

(2) utilising data on runway conditions.

Part 125 Air operations – Medium Aeroplanes

125.233 Landing distance – ~~d~~ry runways

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing will not exceed the landing weight specified in the aeroplane flight manual.

(b) Each holder of an air operator certificate must use the permitted procedures for calculating the landing distance for aircraft on a runway:

(1) that have been approved under paragraph (c); or

(2) as provided in Appendix D.

(c) The Director may approve an application by a holder of an air operator certificate for permitted procedures if satisfied of the following matters:

(1) whether or not the aircraft proposed has performance data issued by the manufacturer supporting the permitted procedures that is available for use by the pilot or flight crew; and

(2) whether the operator has reliable access to either –

(i) accurate, real time reporting on runway conditions that is appropriate for the permitted procedures to be used; or

(ii) data that enables the operator to identify equivalent conditions; and

(3) the margin of error that should be applied when calculating landing distance using the permitted procedures which must take into account the following:

(i) the implications of pilot technique on landing distance:

(ii) the implications of unexpected environmental conditions at the destination aerodrome:

(iii) whether the calculation is being undertaken at the dispatch stage or en-route:

(iv) whether the margin of error is supported by the reporting of the runway conditions; and

(4) whether all personnel involved in the reporting of runway conditions, calculation of data and operation of the flight have had appropriate training in the use of the permitted procedures.

125.235 Landing distance – wet and contaminated runway [*Revoked*]

125.361 Instrument flight rules

(a) Except as provided in paragraph (b), a holder of an air operator certificate must ensure that every aeroplane that is operated under IFR under the authority of the certificate is equipped with—

(1) the following that must be in addition to, and independent of, the instruments and equipment required under Subpart F of Part 91:

(i) a means of indicating airspeed, calibrated in knots, with a means of preventing malfunctioning due to either condensation or icing:

(ii) a means of indicating sensitive pressure altitude calibrated in feet; and

(2) spare bulbs for flight compartment instrument illumination; and

(3) spare fuses.

(b) An additional means of indicating aeroplane attitude, powered by a power source that is separate from the power source for the attitude indication required under Subpart F of Part 91, may be installed instead of the additional means of indicating air speed required by paragraph (a)(1)(i).

(c) A holder of an air operator certificate must ensure that each aeroplane that is used to conduct a SEIFR passenger operation under the authority of the certificate is equipped with an emergency electrical supply system with sufficient capacity for the following in the event that all engine-powered electrical generating systems fail:

(1) the extension of landing gear, if appropriate:

(2) the extension of flaps:

(3) the operation of those aeroplane systems essential for continued safe IFR flight and landing, including those required by paragraphs (d)(3), (d)(4), and (d)(5):

~~(4) either of the following whichever requires the higher electrical load —~~the descent of the aeroplane from maximum operating altitude to sea level, assuming the aeroplane is configured in the optimum gliding configuration and operated at the optimum still air range gliding speed for the descent, plus one attempt at engine restart~~; or~~

~~(5)~~(4) ~~the continuation of flight for a minimum of one hour~~.

(d) A holder of an air operator certificate must ensure that each aeroplane that is used to conduct a SEIFR passenger operation under the authority of the certificate is equipped with—

(1) an additional independent engine-powered electrical generating system capable of supplying adequate electrical power for all the required electrically operated instruments and systems and;

(2) an additional attitude indicator, powered by an independent source; and

(3) an area navigation system capable of being programmed with the positions of aerodromes and emergency landing sites en-route that is—

(i) certified for IFR by the navigation system manufacturer; and

(ii) permanently installed in the aeroplane; and

(iii) powered by the aeroplane's emergency electrical supply system; and

(4) a radar altimeter or radio altimeter that is powered by the aeroplane's emergency electrical supply system; and

(5) a landing light that is powered by the aeroplane's emergency electrical supply system; and

(6) for a pressurised aeroplane, sufficient additional oxygen for every occupant for the period that is required for the aeroplane to descend safely from its cruising level to a cabin altitude of 14,000 feet following engine failure assuming—

(i) the maximum cabin leak rate; and

(ii) the best range gliding speed for the aeroplane; and

(iii) the best gliding configuration for the aeroplane; and

(7) a powerplant installation that has been certificated by an ICAO Contracting State to FAR 33, Amendment 28, or equivalent airworthiness standards, and is equipped with—

(i) an ignition system that activates automatically, or is capable of being operated manually, for take-off and landing, and during flight in visible moisture and is designed to be capable of operation for the full duration of any flight; and

(ii) a magnetic particle detector system that monitors the engine and reduction gearbox lubrication systems, and includes a flight deck caution indicator; and

(iii) an engine control system that permits continued operation of the engine through a power range sufficient to allow diversion to a suitable aerodrome and landing in the event the fuel control unit fails or malfunctions; and

(iv) an engine fire warning system.

(e) If the magnetic particle detector system required by paragraph (d)(7)(ii) incorporates a method to remove detected particles without the removal of the particle detector from the engine or without examining the particles, the holder of the air operator certificate must ensure that each particle detection occurrence indicated by the particle detection system is recorded in the technical log as soon as practicable after the indication.

Appendix D — Landing Distance Assessments for Runways

D.1 Permitted landing distance assessments – Dry runway

The following is a permitted procedure under rule 125.233 for a holder of an air operator certificate for calculating the landing distance where a runway is **dry**:

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight of the aeroplane for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full-stop landing from 50 feet above the threshold within 70% of the landing distance available assuming that the aeroplane is landed.

(b) When calculating the landing weight in accordance with paragraph (a), the holder of an air operator certificate shall take account of—

(1) aerodrome elevation; and

(2) ambient temperature at the aerodrome; and

(3) the type of runway surface and the runway surface condition; and

(4) the runway slope in the direction of landing; and

(5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(c) For dispatch of an aeroplane to land in accordance with paragraphs (b) and (c), it shall be assumed that the aeroplane will land on the most favourable runway taking into account—

(1) the forecast meteorological conditions; and

(2) surrounding terrain; and

(3) approach and landing aids; and

(4) obstacles within the missed approach flight path.

(d) If the holder of an air operator certificate is unable to comply with paragraph (d) for the destination aerodrome, the aeroplane may be dispatched if an alternate aerodrome is designated that permits compliance with paragraphs (a), (b), and (c).

D.2 Permitted landing distance assessments – Wet or contaminated runway

The following is a permitted procedure under rule 125.233 for a holder of an air operator certificate for calculating the landing distance where a runway is **wet** or **contaminated**:

Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, when the appropriate weather reports or forecasts, or a combination of them, indicate that the runway at the estimated time of arrival of its aeroplane may be wet or contaminated, the landing distance available is at least 115% of the landing distance required by D.1.

D.3 TALPA procedures

The following is an alternate permitted procedure under rule 125.233 for a holder of an air operator certificate that provides for:

(a) calculation of the landing distance for a runway –

(1) utilising TALPA ARC performance data provided by the aircraft manufacturer to enable inflight calculation of landing performance by the flight crew in accordance with the manufacturer's recommendations; and

(2) utilising data on runway conditions.

Part 135 Air Operations – Helicopters and Small Aeroplanes

135.67 Requirements for leaving helicopter unattended

(a) A holder of an air operator certificate must ensure that a helicopter is not left unattended with the rotors turning under power unless the helicopter complies with standard operating procedures approved by the Director in the operator's exposition.

(b) In approving the procedures required by paragraph (a), the Director must have regard to the following:

(1) the type of operation:

(2) the risk of leaving the helicopter unattended:

(3) the aircraft flight manual including the manufacturer's recommendations.

135.233 Landing distance – ~~dry~~ runways

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight for the estimated time of landing will not exceed the landing weight specified in the aeroplane flight manual.

(b) Each holder of an air operator certificate may use the permitted procedures for calculating the landing distance for aircraft on a runway:

(1) that have been approved under paragraph (c); or

(2) as provided in Appendix D.

(c) The Director may approve an application by a holder of an air operator certificate for permitted procedures if satisfied of the following matters:

(1) whether or not the aircraft proposed has performance data issued by the manufacturer supporting the permitted procedures that is available for use by the pilot or flight crew; and

(2) whether the operator has reliable access to either –

(i) accurate, real-time reporting on runway conditions that is appropriate for the permitted procedures to be used; or

(ii) data that enables the operator to identify equivalent conditions; and

(3) the margin of error that should be applied when calculating landing distance using the permitted procedures which must take into account the following:

(i) the implications of pilot technique on landing distance:

(ii) the implications of unexpected environmental conditions at the destination aerodrome:

(iii) whether the calculation is being undertaken at the dispatch stage or en-route:

(iv) whether the margin of error is supported by the reporting of the runway conditions; and

(4) whether all personnel involved in the reporting of runway conditions, calculation of data and operation of the flight have had appropriate training in the use of the permitted procedures.

135.235 Landing distance – wet and contaminated runway [Revoked]

Appendix D — Landing Distance Assessments for Runways

D.1 Permitted landing distance assessments – Dry runway

The following is a permitted procedure under rule 135.233 for a holder of an air operator certificate for calculating the landing distance where a runway is **dry**:

(a) Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, the landing weight of the aeroplane for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full-stop landing from 50 feet above the threshold within 70% of the landing distance available assuming that the aeroplane is landed.

(b) When calculating the landing weight in accordance with paragraph (b), each holder of an air operator certificate shall take account of—

(1) aerodrome elevation; and

(2) ambient temperature at the aerodrome; and

(3) the type of runway surface and the runway surface condition; and

(4) the runway slope in the direction of landing; and

(5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(c) For dispatch of an aeroplane to land in accordance with paragraphs (a) and (b), it shall be assumed that the aeroplane will land on the most favourable runway taking into account—

(1) the forecast meteorological conditions; and

(2) surrounding terrain; and

(3) approach and landing aids; and

(4) obstacles within the missed approach flight path.

(d) If the holder of an air operator certificate is unable to comply with paragraph (c) for the destination aerodrome, the aeroplane may be dispatched if an alternate aerodrome is designated that permits compliance with paragraphs (a), (b), and (c).

D.2 Permitted landing distance assessments – Wet or contaminated runway

The following is a permitted procedure under rule 135.233 for a holder of an air operator certificate for calculating the landing distance where a runway is **wet** or **contaminated**:

Each holder of an air operator certificate shall ensure that, for each aeroplane it operates, when the relevant weather reports or forecasts, or a combination of them, indicate that the runway at the estimated time of arrival of its aeroplane may be wet or contaminated, the landing distance available is at least 115% of the landing distance required by D.1.

D.3 TALPA procedures

The following is an alternate permitted procedure under rule 125.233 for a holder of an air operator certificate that provides for:

(a) calculation of the landing distance for a runway –

(1) utilising TALPA ARC performance data provided by the aircraft manufacturer to enable inflight calculation of landing performance by the flight crew in accordance with the manufacturer's recommendations; and

(2) utilising data on runway conditions.

Advisory Circular AC and CAA Notice

There is no advisory circular associated with this NPRM but there is a draft CAA Notice attached below.

Notice of Requirement

CIVIL AVIATION AUTHORITY OF NEW ZEALAND Revision XXXX

Robinson Safety Awareness Training XXXX 2017

Preliminary

The Director of Civil Aviation issues the following requirements ("these requirements"), including conditions and restrictions specifying the training operation and use of Robinson R22 and Robinson R44 helicopters ("Robinson safety awareness training") under section 28(5) of the Civil Aviation Act 1990 and Civil Aviation Rule 61.365.

General

Civil Aviation Authority (CAA) Notices contain mandatory requirements including the detail about the approvals, standards, conditions, procedures and technical specifications that have been approved or determined by the Director under the Civil Aviation Rules. These requirements apply in particular circumstances to particular aviation document holders as specified in the Notice.

CAA Notices are issued under the Civil Aviation Rules made according to section 28(5) of the Civil Aviation Act. This section permits the Minister of Transport to make ordinary rules, on any terms and conditions specified in the rules:

- to require a matter to be determined, or undertaken or approved by the Authority, the Director or another person; or
- to empower the Authority, Director, or another person to impose requirements or conditions as to the performance of any activity, including (but not limited to any procedures to be followed.

Notices are a new tool used by the CAA to better support performance-based regulation, and improve flexibility and responsiveness. They will be used where performance-based regulation is particularly needed, for example, in circumstances where new technological changes or challenges require more flexibility than prescribing requirements in the rules (and rule making may get quickly out-dated), or where there is a need to respond to safety issues which the rules cannot do not adequately deal with. As such, they are likely to deal with specialist areas only.

The CAA will continue publishing advisory circulars where appropriate.

These requirements are mandatory and must be complied with.

Effective date

The date these requirements come into effect is [date].

Purpose

The requirements in this Notice address identified safety risks contributing to a higher accident rate for Robinson R22 and R44 helicopters than other types of helicopters.

Related Rules

Rule 61.365

Rules 61.367 to 61.375

Rule 61.379

CAA Notice Version

Initial version.

Robinson Safety Awareness Training

CIVIL AVIATION AUTHORITY OF NEW ZEALAND

1. Preliminary

The Director issues the following requirements ('these requirements') including conditions and restrictions specifying the training, operation and the use of Robinson R22 and Robinson R44 helicopters ("Robinson safety awareness training") under section 28(5) of the Civil Aviation Act 1990 and rule 61.365 of the Civil Aviation Rules.

2. Commencement Date

These requirements come into force on [commencement date].

3. Application

In accordance with rule 61.365, these requirements apply to:

(a) Any person acting as pilot-in-command of a Robinson R22 and R44 helicopter as -

(1) a student pilot:

(2) a holder of a recreational pilot licence (helicopter):

(3) a holder of a private pilot licence (helicopter):

(4) a holder of a commercial pilot licence (helicopter):

(5) a holder of an airline transport pilot licence (helicopter):

(b) A holder of –

(1) an aviation training organisation certificate under Part 141; or

(2) an air operator certificate under Part 119 - if the certificate authorises Robinson safety awareness training.

4. Student Pilots

The following requirements apply to a student pilot:

(a) A person must not manipulate the controls of a Robinson R22 or R44 helicopter unless the person has satisfactorily completed training in the relevant topics of the ground component of the Robinson safety awareness training syllabus specified in paragraph 6(c)(1) of these requirements.

(b) A person must not fly solo in a Robinson R22 helicopter unless the person-

(1) has satisfactorily completed the full ground and in-flight components of the Robinson safety awareness training specified in paragraph 6(c) of these requirements within the preceding 90 days; and

(2) has completed 20 hours of dual instruction in a Robinson R22 helicopter that –

(i) may include up to 10 hours of flight time in a Robinson R44 helicopter; and

(ii) must not include cross country flight time.

(c) A person must not fly solo in a Robinson R44 helicopter unless the person –

(1) has satisfactorily completed the full ground and in-flight components of the Robinson safety awareness training specified in paragraph 6(c) of these requirements within the preceding 90 days; and

(2) has completed 20 hours of dual instruction in a Robinson R44 helicopter that –

(i) may include up to 10 hours of flight time in a Robinson R22 helicopter; and

(ii) must not include cross country flight time.

5. Helicopter pilot licence holders

The following requirements apply to a holder of a recreational pilot licence (helicopter), private pilot licence (helicopter) commercial pilot licence (helicopter) or airline transport pilot licence (helicopter):

(a) To be eligible for a Robinson R22 or R44 helicopter type rating, a person must have –

(1) received at least 3 hours of dual instruction on the helicopter; and

(2) satisfactorily completed the full ground and in-flight components of the Robinson safety awareness training specified in paragraph 6(c) of these requirements.

(b) Before acting as pilot-in-command of a Robinson R22 or R44 helicopter, a person must have satisfactorily completed the full ground and in-flight components of the Robinson safety awareness training specified in paragraph 6 (c) of these requirements within the previous 24 months.

(c) Completion of the training required by paragraphs (a) and (b) must be endorsed in the pilot logbook by the instructor who conducted the training.

6. Robinson safety awareness training

(a) Robinson safety awareness training must be acceptable to the Director and conducted by –

(1) the holder of an air operator certificate or an aviation training organisation certificate if the certificate authorises such training; or

(2) the Robinson Helicopter Company.

(b) An instructor providing training under paragraph (a)(1) must –

(1) hold a category A or B instructor rating; and

(2) have at least 200 hours flight time experience on helicopters, of which at least 50 hours must have been a Robinson R22 or R44 helicopter; and

(3) be approved by a general aviation flight examiner who-

(i) operates under the authority of an air operator certificate or aviation training organisation certificate; and

(ii) the Director has determined can assess instructors conducting Robinson safety awareness training.

(c) Robinson safety awareness training consists of the following –

(1) The ground component which must cover the following topics:

(i) energy management:

(ii) mast bumping:

(iii) low rotor RPM blade (rotor) stall:

(iv) low G hazards:

(v) rotor RPM decay:

(vi) flight into turbulence:

(vii) review of RHC safety notices: and

(2) the in-flight component which must cover the following topics:

(i) enhanced training in auto- rotational procedures:

(ii) low rotor RPM recognition and recovery.

(d) Low G hazard training must not be demonstrated or practiced in flight.

Appendix

Table of Amendments to Civil Aviation (Offences) Regulations

The following amendments are proposed to the Civil Aviation (Offences) Regulations as a consequence of the proposed amendments to Parts 61, 115, 121, 125 and 135:

Provision	Brief Description	Fines and Fees ($)			
		Summary Conviction		Infringement Fees	
		Individual	Body Corporate	Individual	Body Corporate
Part 61 Pilot licences and Ratings					
Rule Number	Rule 61.365(c) – New offence needs to be created for a person who does not comply with ~~the Director's requirements~~a CAA Notice issued under 61.365.	5,000	30,000	2,000	12,000
Part 91 General Operating and Flight Rules					
Rule Number	Rule 91.120 – New offence to be created for leaving helicopter unattended with rotors turning under power unless prescribed requirements are met	5,000	30,0000	2,0000	12,000
Part 115 Adventure Aviation – Certification and Operations					
Rule Number	Rule 115.215(d) – New offence prohibiting manipulation of controls unless persons has received ground training and been assessed as competent – similar to 115.613(c), 115.667 and 115.759.	5,000	30,000	2,000	12,000
Rule Number	Rule 115.613(c) - revoked	5,000	30,000	2,000	12,000
Rule Number	Rule 115.667 - revoked	5,000	30,000	2,000	12,000
Rule Number	Rule 115.759 - revoked	5,000	30,000	2,000	12,000
Part 121 Air operations – Large Aeroplanes					
Rule Number	121.222(b)(1) – heading changes from (b) to (b)(1). Penalties stay the same.	2,500	15,000	1,000	6,000
Rule Number	121.223(a) offence is revoked as rule 121.223 is revoked.				
Part 125 Air Operations – Medium Aeroplanes					
Rule Number	125.233(b)(1) - heading changes from (b) to (b)(1) due to paragraph changes. Penalties stay the same.				
Rule Number	Rule 125.235(a) offence is revoked as rule 125.235 is revoked.				
Part 135 Air Operations – Helicopters and Small Aeroplanes					
Rule Number	Rule 135.67(b) – New offence needs to be created for new rule prohibiting practice of leaving helicopter unattended with rotors turning under power unless prescribed requirements are met.	5,000	30,000	2,000	12,000
Rule Number	Rule 135.233(b) – heading changes from (b) to (b)(1) due to paragraph changes. Penalties stay the same.				

Rule Number	Rule 135.235(a) offence is revoked as rule 135.235 is revoked.				