



WELLINGTON NEW ZEALAND

PURSUANT to Section 30 of the Civil Aviation Act 1990

I, WILLIAM ROBSON STOREY, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

this 7th day of February 1993

by WILLIAM ROBSON STOREY

Minister of Transport

A handwritten signature in black ink, appearing to read 'William Robson Storey', written over the printed name.

Civil Aviation Rules

Part 103

Microlight Aircraft - Certification and Operating Rules

Docket Nr. 1026

**Civil Aviation Rules
Part 103**

**MICROLIGHT AIRCRAFT —
CERTIFICATION AND OPERATING RULES**

CONSULTATION

The objective of Part 103 is to define a regulatory safety boundary for persons wishing to operate microlight aircraft. This boundary relates to both certain classes of aircraft and to pilots of microlight aircraft.

In May 1990 the Air Transport Division of the Ministry of Transport published a notice of intention to carry out a complete review of the aviation regulatory system. This notice, in Civil Aviation Information Circular Air 3, listed the areas in which rules would be made and invited interested parties to register their wish to be part of the consultative process. This register was identified as the Regulatory Review Consultative Group. Some 30 organisations registered their wish to be consulted in the development of rules for microlight aircraft.

A draft document was developed by the rules rewrite team in consultation with members of the consultative group. An informal draft was distributed in October 1991. After some informal consultation with interested bodies, a Notice of Proposed Rule Making (NPRM) 91-7 under Docket Number 1026 NR was published on 27 November 1991.

The publication of this notice was advertised in the daily newspapers in the five main provincial centres on Wednesday 27 November 1991. The notice was mailed to all interested members of the Regulatory Review Consultative Group and other interested parties, including overseas Aviation Authorities and organisations, who were considered likely to have an interest in the proposal.

A period of sixty days was allowed for comment on the proposed rules. Twelve written submissions were received in response to the NPRM. A further meeting was held with the Microlight Aircraft Association of New Zealand (Inc) to address their concerns and to discuss proposed remedies. These submissions and discussions were considered and where appropriate the proposed rules amended to take account of the concerns raised. Those rules as amended were then referred to and signed by the Minister of Transport.

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Subpart A — General

103.1 Applicability

This Part prescribes —

- (1) rules governing the certification and operation of microlight organisations; and
- (2) rules governing the operation of microlight aircraft by persons who are members of an organisation certificated under this Part; and
- (3) rules governing the operation of microlight aircraft by persons who are not members of an organisation certificated under this Part.

103.3 Definitions

In this Part —

Class 1 microlight aircraft means a microlight aircraft designed and equipped to carry the pilot only:

Class 2 microlight aircraft means a microlight aircraft other than a Class 1 microlight aircraft:

MAANZ means the Microlight Aircraft Association of New Zealand (Inc):

Microlight aircraft means a basic low performance aircraft designed to carry not more than two persons which meets low momentum parameters that are acceptable to the Director.

Subpart B — Microlight Organisations — General

103.5 Requirement for Certificate and Delegations

- (a) No person shall engage in the administration or control of persons operating microlight aircraft except under the authority of, and in accordance with the provisions of, a microlight organisation certificate issued under this Part.
- (b) Every person who grants, renews, amends, suspends or imposes conditions on a document authorising a person to fly a microlight aircraft or a document certifying the airworthiness of a microlight aircraft must be acting under a valid delegation from the Director.
- (c) Paragraph (a) shall not apply to the Authority or employees of the Authority.

103.7 Application and Issue

- (a) An application for the grant of a microlight organisation certificate shall be made on form CAA 24103/01 and submitted to the Director with the exposition required by 103.57.
- (b) An applicant is entitled to a microlight organisation certificate if —
 - (1) the applicant and the applicant's senior person or persons required by 103.51(a)(1) and (2) are fit and proper persons; and
 - (2) the applicant pays any applicable fees or charges prescribed by regulations made under the Act; and
 - (3) the applicant provides an exposition that is acceptable to the Director and the applicant meets all other requirements of Subpart C; and
 - (4) the granting of the certificate is not contrary to the interests of aviation safety.

103.9 Scope of Certificate

- (a) The microlight organisation certificate specifies the activities that the certificate holder is authorised to carry out.
- (b) A microlight organisation may be certificated to carry out all or any of the following activities:
 - (1) establishing and certifying competency of persons flying microlight aircraft by:
 - (i) prescribing examination syllabi;
 - (ii) conducting examinations;
 - (iii) prescribing flight test standards and criteria;
 - (iv) conducting flight tests;
 - (2) establishing and certifying suitability of microlight aircraft and equipment by:
 - (i) prescribing maintenance and inspection procedures and requirements;
 - (ii) approving modifications;
 - (iii) accepting design changes;
 - (iv) investigating defects;
 - (v) issuing safety advice in an appropriate form;
 - (3) appointing employees or members to positions of responsibility to oversee the safety aspects of the conduct of their members' operations.

103.11 Display of Certificate

The holder of a microlight organisation certificate shall display the certificate in a prominent place, generally accessible to the public, at the holder's principal place of operation and shall produce the certificate to the Director upon request. However, if the principal place of operation is a place not normally accessible to the public, the organisation shall hold the document at a nominated location which is acceptable to the Director.

103.13 Duration of Certificate

- (a) A microlight organisation certificate may be granted or renewed for a period of up to 5 years.
- (b) A microlight organisation certificate remains in force until it expires or is suspended or revoked by the Director.
- (c) The holder of a microlight organisation certificate that expires or is revoked shall forthwith surrender the certificate to the Director.
- (d) The holder of a microlight organisation certificate that is suspended shall forthwith produce the certificate to the Director for appropriate endorsement.

103.15 Renewal of Certificate

- (a) An application for the renewal of a microlight organisation certificate shall be made on form CAA 24103/01.
- (b) The application shall be submitted to the Director before the application renewal date specified in the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

103.17 Safety Inspections and Audits

Each holder of a microlight organisation certificate is required under the Act to permit persons duly authorised by the Director to carry out inspections and audits of the holder's facilities, documents and records in accordance with the Act, to determine compliance with Subparts B, C, and D.

103.19 Exemptions from Subparts B, C or D

The Director may exempt the holder of a microlight organisation certificate from any requirement in Subparts B, C or D in accordance with the Act.

Subpart C — Microlight Organisations — Certification Requirements

103.51 Personnel Requirements

- (a) Each applicant for the grant of a microlight organisation certificate shall have available the services of, or in their employment, the following personnel:
- (1) a senior person identified as the Chief Executive who is acceptable to the Director, and who has the authority within the applicant's organisation to ensure all activities undertaken by the organisation can be financed and carried out in accordance with the requirements prescribed by Subparts B, C, and D:
 - (2) a senior person or group of senior persons who are acceptable to the Director, and who are responsible for ensuring that the applicant's organisation complies with the requirements of Subparts B, C, and D. Such nominated person or persons shall be ultimately responsible to the Chief Executive:
 - (3) sufficient adequately qualified and trained personnel to plan, perform, supervise, inspect and otherwise provide the activities for which certification is sought.
- (b) The applicant shall —
- (1) establish a procedure to initially assess the competence of personnel performing the activities specified in the certificate; and
 - (2) establish a procedure to maintain the competence of those authorised personnel; and
 - (3) provide those authorised personnel with written evidence of the scope of their authorisation.
- (c) The applicant shall establish a procedure to ensure that those of its personnel performing activities for which a document is required under this Part or any other civil aviation rule or regulation hold the appropriate document.

103.53 Resource Requirements

- (a) Each applicant for the grant of a microlight organisation certificate shall provide resources that enable the satisfactory provision of the activities for which certification is sought. Such resources shall, where appropriate, include —
- (1) accommodation, offices, workshops, hangars, and buildings; and
 - (2) equipment, tools, material, training aids, data and documentation.
- (b) The applicant shall ensure that the environment it provides is appropriate for the tasks to be performed. In particular, the applicant shall ensure protection from weather elements and compliance with any special requirements specified within applicable airworthiness data and compliance with other special requirements considered applicable by the Director.

103.55 Internal Quality Assurance

- (a) Each applicant for the grant of a microlight organisation certificate shall establish internal quality assurance procedures to ensure compliance with, and the adequacy of, the procedures required by Subparts C and D.
- (b) The senior person who has the responsibility for internal quality assurance shall have direct access to the Chief Executive on matters affecting internal quality assurance.

103.57 Exposition Requirements

- (a) An applicant for the grant of a microlight organisation certificate shall provide the Director with an exposition which shall contain —
- (1) a statement signed by the Chief Executive on behalf of the applicant's organisation confirming that the exposition and any included manuals —
 - (i) define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and
 - (ii) will be complied with at all times; and

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- (2) the titles and names of the senior person or persons required by 103.51(a)(1) and (2); and
 - (3) the duties and responsibilities of the senior person or persons specified in paragraph (a)(2) including matters for which they have responsibility to deal directly with the Director or the Authority on behalf of the organisation; and
 - (4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2) and extending to each location listed under paragraph (a)(5); and
 - (5) details of those locations where members or employees of the organisation are to exercise functions or powers delegated by the Director; and
 - (6) a summary of the resources at and the scope of activity to be conducted at each location listed under paragraph (a)(5); and
 - (7) details of the organisation's procedure for recording which of its members and employees hold authorisations granted by the organisation or delegations of the Director's functions or powers, or both, including the extent and scope of those authorisations and delegations; and
 - (8) details of the procedures required by —
 - (i) 103.51(b) regarding the competence of personnel; and
 - (ii) 103.51(c) regarding the licensing of personnel; and
 - (iii) 103.55 regarding internal quality assurance of the organisation; and
 - (iv) 103.77 regarding reporting of defects or unsafe conditions; and
 - (9) procedures to control, amend and distribute the exposition.
- (b) The applicant's exposition must be acceptable to the Director.

Subpart D — Microlight Organisations — Operating Requirements

103.71 Continued Compliance

Each holder of a microlight organisation certificate shall —

- (1) hold at least one complete and current copy of their exposition at each location specified in their exposition; and
- (2) comply with all procedures detailed in their exposition; and
- (3) make each applicable part of their exposition available to personnel who require those parts to carry out their duties; and
- (4) continue to meet the standards and comply with the requirements of Subpart C prescribed for microlight organisation certification under this Part.

103.73 Records — Personnel

- (a) Each holder of a microlight organisation certificate shall maintain a record of each member or employee exercising any —
 - (1) delegations of the Director's functions or powers; or
 - (2) authorisations granted by the organisation.
- (b) The record shall include details of the member's or employee's experience, qualifications, training and current delegations and authorisations.
- (c) The record shall be retained for one year from the date that the member or employee ceases to exercise all of his or her delegations and authorisations.

103.75 Records — Facilities, Equipment, Tools and Material

Each holder of a microlight organisation certificate shall record details of testing, checking and calibration of any safety-critical facilities, equipment, tools and material used in carrying out any of the activities specified in the certificate.

103.77 Reporting of Defects or Unairworthy Conditions

- (a) Each holder of a microlight organisation certificate shall establish a procedure for reporting any defect or condition of a microlight aircraft operated by a member of the holder's organisation that could jeopardise the safe operation of the aircraft.
- (b) Any such defects or conditions shall be reported to the Director.

103.99 Changes to Certificate Holder's Organisation

- (a) Each holder of a microlight organisation certificate shall ensure that their organisation exposition is amended so as to remain a current description of the holder's organisation.
- (b) The certificate holder shall ensure that any amendments made to the holder's exposition meet the applicable requirements of this Part and comply with the amendment procedures contained in the holder's exposition.
- (c) The certificate holder shall provide the Director with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition.
- (d) Where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the Director is required:
 - (1) the Chief Executive;
 - (2) the listed senior persons;
 - (3) the location or locations at which the members or employees of the organisation exercise functions and powers delegated by the Director;
 - (4) the scope of activities covered by the certificate.
- (e) The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).

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- (f) Where any of the changes referred to in this rule requires an amendment to the certificate, the certificate holder shall forward the certificate to the Director as soon as practicable.
- (g) The certificate holder shall make such amendments to the holder's exposition as the Director may consider necessary in the interests of aviation safety.

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Subpart E — Microlight Aircraft — General

103.105 Exemptions

In order to facilitate the flying of microlight aircraft, exemptions are granted under Civil Aviation Safety Order Nr 19 (issued pursuant to regulations 8A and 19C of the Civil Aviation Regulations 1953) to members of MAANZ from the following provisions of the Civil Aviation Regulations 1953:

- (1) **General Conditions of Flying**
Regulation 19(1)(b) for Class 1 (single-seat) microlight aircraft and Regulation 19(1)(c), (d) and (f) for all microlight aircraft:
- (2) **Load Sheets**
Regulation 28:
- (3) **Records to be Maintained in Flight**
Regulation 29:
- (4) **Dropping of Articles**
*Regulation 32:
[Rule 103.151 prescribes the minimum requirement applying to dropping of articles from microlight aircraft]*
- (5) **Test Pilots**
Regulation 47 provided that the pilot has been approved by MAANZ as a Microlight Test Pilot in accordance with the requirements and procedures of the MAANZ Procedures and Operations Manual:
- (6) **Planning of Flights**
Regulation 62(2):
- (7) **Operation of Aircraft Controls**
Regulation 66(1) provided that the person holds a valid MAANZ Pilot Certificate:
- (8) **Fuel and Oil Requirements**
Regulation 86(2), (3), and (4):
- (9) **Aerodrome Traffic Rules**
Regulation 91(8) for microlight gyroplanes which are conducting circuit training below 500 feet:
- (10) **Basic Instruments and Equipment**
Regulation 104, except that the requirements of paragraph (b) shall apply on all occasions, paragraphs (e) and (v) shall apply as stated and paragraph (g) shall apply for flights above 3000 feet above mean sea level:

- (11) **Registration Marking**
*Regulation 158(3)(a) except that microlight aeroplanes shall display the registration marks on the lower surface of either mainplane, and
Regulation 158(3)(b) except that microlight rotorcraft shall display the registration marks on both sides of a single fin or rudder or both, and on the outer sides where there is more than one fin or rudder or both:*
- (12) **Airworthiness Requirements**
*Regulations 161 to 178:
[The airworthiness requirements of Subpart G of this Part must be met]*
- (13) **Logbook Requirements**
Regulations 194 to 199.

103.107 Registration

Microlight aircraft are required to be registered under Section 6 of the Act and Part 47 of these rules.

[Until Part 47 comes into force, microlight aircraft remain subject to the registration requirements contained in regulations 151 to 154 of the Civil Aviation Regulations 1953 (in addition to the general requirements in section 6 of the Act)]

103.111 Pilot-in-command Requirements

- (a) No person shall act as pilot-in-command of a microlight aircraft unless that person —
 - (1) is the holder of an appropriate current microlight pilot certificate granted or renewed by a person acting pursuant to a valid delegation from the Director; or
 - (2) is operating under the direct supervision of the holder of a microlight pilot instructor certificate granted or renewed by a person acting pursuant to a valid delegation from the Director; or
 - (3) is the holder of a current private pilot licence (aeroplane) or higher category flight crew licence (aeroplane) issued by the Director and has demonstrated competence to a flight instructor in the piloting of a microlight aircraft.

[A person who holds an appropriate current microlight pilot certificate issued by MAANZ under Civil Aviation Safety Order Nr. 19 within 12 months following the date that this Part comes into force is deemed to have complied with paragraph (a)(1)]

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[A person who holds a microlight pilot instructor certificate issued by MAANZ under Civil Aviation Safety Order Nr. 19 within 12 months following the date that this Part comes into force is deemed to be acceptable as an instructor for the purposes of paragraph (a)(2)]

[Persons who have logged a minimum of 2 hours flight time on microlight aircraft on the date this Part comes into force are considered to have demonstrated competence to a microlight pilot instructor for the purposes of paragraph (a)(3)]

[A person who holds a private pilot licence (aeroplane) or higher category flight crew licence (aeroplane) issued by the Secretary for Transport and who has demonstrated competency to a flight instructor in the piloting of a microlight aircraft is deemed to have complied with paragraph (a)(3)]

- (b) The requirements, standards and application procedure for microlight pilot certificates are specified by persons granting or renewing microlight pilot certificates under a delegation or by organisations of which those persons are members.
- (c) Microlight pilot certificates may be issued for the lifetime of the holder.

103.113 Flight Instruction

No person shall give flight instruction in the piloting of microlight aircraft unless that person holds a microlight pilot instructor certificate granted or renewed by a person acting pursuant to a valid delegation from the Director.

[Persons giving microlight aircraft flight instruction who hold a microlight pilot instructor certificate issued by MAANZ under Civil Aviation Safety Order Nr. 19 within 12 months following the date that this Part comes into force are deemed to be complying with this rule provided they comply with the applicable MAANZ qualifications and currency requirements]

103.115 Placard

Every Class 2 microlight aircraft shall have a legible placard installed in clear view of the seated passenger which states that the aircraft has not been shown to meet a standard for the issue of a certificate of airworthiness. A placard worded in the manner of, but not necessarily identical in layout to, either of the following placards will comply with this rule:

<p>WARNING</p> <p>THIS IS NOT A CERTIFICATE OF AIRWORTHINESS AIRCRAFT</p>

<p>PASSENGER WARNING</p> <p>THIS AIRCRAFT DOES NOT REQUIRE A CERTIFICATE OF AIRWORTHINESS</p>

Subpart F — Microlight Aircraft — Additional Operating Criteria

103.151 Hazardous Operations

- (a) No person shall operate any microlight aircraft in a manner that creates a hazard to other persons or property.
- (b) No person shall allow any object or substance to be dropped or dispensed from a microlight aircraft if such action creates a hazard to other persons or property.

103.153 Minimum Heights

Under Civil Aviation Safety Order Nr 19, approval has been given by the Director (pursuant to regulation 38(3)(b) of the Civil Aviation Regulations 1953) for —

- (1) low flying for the purpose of microlight gyroplane circuit training provided such operations are carried out no lower than 200 feet above the ground and not over any congested area of a city, town or settlement

[The circuit height for microlight aircraft will normally be 500 feet above ground level]; and

- (2) low flying for the purpose of practice for and participation in microlight aircraft competition flying provided such operations are —
 - (i) conducted with the knowledge and approval of MAANZ; and
 - (ii) carried out in accordance with any conditions imposed by MAANZ; and
 - (iii) carried out no lower than 200 feet above the ground and not over any congested area of a city, town or settlement.

103.155 Flight Criteria

- (a) All operations by microlight aircraft shall be conducted —
 - (1) between morning civil twilight (MCT) and evening civil twilight (ECT); and
 - (2) in meteorological conditions equal to or better than those prescribed as suitable for VFR flight; and
 - (3) beneath any cloud ceiling.
- (b) No operations by microlight aircraft shall be conducted —
 - (1) over any congested area of a city, town or settlement; or
 - (2) any closer than 3 nautical miles (5.5 km) from any aerodrome certificated under Part 139 of these rules or licensed under the Civil Aviation Regulations 1953 when the pilot does not hold a current flight crew licence unless authorisation has been obtained from the holder of either a Category C, B, or A flight instructor rating or a microlight pilot instructor certificate.

Subpart G — Microlight Aircraft — Airworthiness and Maintenance

103.201 Certification and Flight Authorisation

- (a) No person shall fly a Class 2 microlight aircraft unless there is in force for that aircraft a permit to fly granted or renewed under regulation 161A of the Civil Aviation Regulations 1953 or a flight permit granted or renewed under this Part.
- (b) An applicant for a flight permit shall provide the Director with —
 - (1) satisfactory evidence that the aircraft complies with all applicable requirements prescribed under this or any other Part of these rules; and
 - (2) such documents relating to the design, manufacture, maintenance and operation of the aircraft as the Director may require; and
 - (3) a statement of hours flown by the aircraft both in total and since any previous flight permit or equivalent document was issued; and
 - (4) a statement that any inspection, replacement, overhaul or other maintenance of the microlight aircraft or its engine or engine components that is considered mandatory by the manufacturer has been complied with.
- (c) Flight permits may be issued for the life of the aircraft.

103.203 Type Acceptance

- (a) A Class 2 microlight aircraft is eligible for the grant of a flight permit if evidence is provided that —
 - (1) a flight permit or equivalent document acceptable to the Director has been issued for the type by the Civil Aviation Authority of a Contracting State to the Convention; or
 - (2) the aircraft conforms to a type design which complies with one of the following standards:
 - (i) British Civil Airworthiness Requirements Section S (CAP 482 dated March 1983) issued by the United Kingdom Civil Aviation Authority;

(ii) Civil Aviation Orders 95.32 (Issue 1 dated 28 February 1990 and Amendment 57 dated 1 August 1990) and 101.55 (Issue 1 dated 7 January 1988 and amendment 90 dated 28 August 1991) issued by the Australian Civil Aviation Authority;

(iii) Document TP10141 E issued by Transport Canada;

(iv) any other standard acceptable to the Director as an equivalent; or

(3) aircraft of the type have achieved a satisfactory airworthiness history over a total of at least 150 flight hours on 6 or more aircraft including at least 50 flight hours on one aircraft; and the aircraft has been inspected by a person authorised by an organisation certificated under this Part or appointed by the Director to perform such inspections and no obviously hazardous design features have been found.

(b) A Class 2 microlight aircraft for which evidence has not or cannot be provided under paragraph (a) is eligible for the issue of a special flight permit granted under regulation 19(2) of the Civil Aviation Regulations 1953, in order to demonstrate a satisfactory airworthiness history as provided in paragraph (a)(3), subject to such requirements as the Director considers appropriate.

[The minimum requirements shall comprise a wing static load test and a landing gear drop test]

103.205 Modification

Every Class 2 microlight aircraft that is modified in any manner that may affect the airworthiness of the aircraft shall be reinspected and reassessed for compliance with 103.203.

103.207 Airworthiness or Safety Directives

- (a) The operator of a microlight aircraft shall comply with the instructions contained in any applicable Airworthiness or Safety Directive issued by the Director.
- (b) A microlight aircraft that is not in compliance with an applicable airworthiness or safety directive shall not be flown.

103.209 Maintenance and Inspection Requirements

- (a) The pilot-in-command of a microlight aircraft shall ensure the airworthiness of the aircraft before each flight.
- (b) The owner of a microlight aircraft shall take such action as is necessary to ensure the continuing airworthiness of that aircraft.
- (c) The owner of a Class 2 microlight aircraft shall cause that aircraft to undergo an inspection every 12 months. The inspection shall —
 - (1) be performed by a person authorised by an organisation certificated under this Part to perform annual inspections or by a person appointed by the Director to perform such inspections; and
 - (2) include, where applicable, the items and components listed in Part 43 Appendix 1.

[Until Part 43 comes into force, reference shall be made to NZCARF.6 Appendix 1]

- (d) Where an aircraft inspected under paragraph (c) is found to be airworthy, a certification to that effect shall be made on a form designed for that purpose. The organisation on whose behalf the certification was made shall retain the form as a record of that certification.
- (e) Where an aircraft inspected under paragraph (c) is found to be unairworthy, the aircraft shall not be flown until certified as airworthy.

**Subpart H — Microlight Aircraft
Operated By Persons Other Than
Members of a Certificated Microlight
Organisation.**

**103.251 Rules applicable to persons other
than members of a certificated microlight
organisation**

- (a) Subject to paragraph (b), no microlight aircraft shall be operated by any person who is not a member of an organisation certificated under this Part unless that person —
 - (1) has the prior written approval of the Director; and
 - (2) complies with any conditions that the Director may prescribe.
- (b) Members of MAANZ are exempt from paragraph (a) for a period of one year from the date on which this Part comes into force.

[Paragraph (b) will be revoked without consultation after the period specified in that paragraph has elapsed]

Consultation Details and Transitional Arrangements

This statement does not form part of the rules contained in Part 103. It provides details of consultation undertaken in making the rules and explains the transitional arrangements.

Background to the Rules

In April 1988 the Swedavia - McGregor Report on Civil Aviation Regulation in New Zealand was completed. This report concluded that aviation safety should be a joint responsibility of both the Authority and the participants in the civil aviation system. There was widespread agreement that a complete overhaul of the civil aviation regulatory system was necessary. As a result, the Government enacted the Civil Aviation Act 1990 to implement the first stage of the report's recommendations. To implement the remaining recommendations of the report the Air Transport Division of the Ministry of Transport is undertaking a complete review and rewrite of all existing civil aviation legislation.

Considerable research was carried out to decide the format for the new legislation. The Authority decided that the most suitable legislative framework should incorporate the advantages from the system being developed by the European Joint Aviation Authorities (JAA) and from the existing United States of America Federal Aviation Administration (FAA) system. The European Joint Aviation Requirements (JAR) are being structured similarly to the Federal Aviation Regulations (FAR) of the FAA and aim to achieve maximum harmonisation while allowing for national variations.

New Zealand's revised requirements will be published, in several Parts, as Civil Aviation Rules (CAR). Each Part will set out a series of individual rules that relate to a particular aviation activity.

Accompanying each Part of the CAR will be at least one associated Advisory Circular (AC). These will expand, in an informative way, specific requirements of the CAR Part and show an acceptable means of compliance. For example, an AC will contain the minimum acceptable practice or practices that will be necessary to meet the rules.

The CAR numbering system is based on the FAR Part numbering system. As a general principle the subject matter of a CAR Part will harmonise with the FAR, although the title may differ to suit New Zealand terminology. Where a proposed CAR Part does not readily equate with a FAR number code, a number has been selected that does not conflict with any existing FAR Part.

The FAR has been used as the start point for the development of many CAR, but there are likely to be significant differences in the content of each Part of the Rules. The structure and content of Part 103 generally follows the content of the FAR. Changes have been made to conform to New Zealand legal practices and terminology.

The Swedavia - McGregor Report concluded that the objective of the new rules system must be to strike a balance of responsibility between the state authority and those who provide services and exercise privileges in the civil aviation system. This balance must enable the state authority to maintain continuing regulatory control and supervision while providing the maximum flexibility for participants to develop their own means of compliance.

Section 7 of the Civil Aviation Act 1990 (the Act) allows the Civil Aviation Rules to require participants to hold an aviation document to carry out particular civil aviation activities. Section 12 of the Act requires the holders of documents to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices.

Notice of proposed Rule making

To provide public notice of, and opportunity for comment on, the proposed new rules, the Authority, on 27 November 1991, issued Notice of Proposed Rule Making 91-7 under Docket Number 1026 NR. This Notice proposed the introduction of Civil Aviation Rules Part 103 to provide a regulatory safety boundary enabling the delegation of State authority and for the operation of microlight aircraft.

Supplementary information

All comments made on the Notice of Proposed Rule Making are available in the rules docket for examination by interested persons. A report summarising each substantive contact with the Air Transport Division contact person concerning this rule making has been filed in the docket.

Summary of comment to Docket Number 1026 NR NPRM

There were twelve responses to the NPRM, raising a total of 18 specific points besides general comment on the volume, layout and presentation of the rule and advisory circular.

Several commenters expressed support for the general direction being taken by the Air Transport Division (now the Civil Aviation Authority of New Zealand (CAA)) in endeavouring to give more self-determination to the sport and recreation aviation fraternity.

The specific points raised were:

1. 103.13 Duration of Certificate

The view was expressed that, as provision was made for suspension or revocation of the certificate, it should be nonterminating. It was pointed out that CAA was planning to move in this direction for personnel licensing.

CAA response: The "Life-Cycle" approach of issuing and periodically renewing the aviation document of a certificated organisation is one basic principle adopted from the Swedavia - McGregor Report (Chapter 13). In a reverse approach but with reasoning justified by a cost-benefit analysis, the Swedavia - McGregor Report recommended the principle of lifetime licences (Refer to the 'Conclusion' in section 11.4.2 on page 107). The rule will therefore remain as proposed.

2. 103.15 Renewal of Certificate

Further to the comment above, if the certificate was made nonterminating, this rule would not be required.

CAA response: As the certificate will be terminating, as explained and justified above, this rule will remain as proposed.

3. 103.53 Resource Requirements

The only commenter expressed the view that, as the structure of their organisation is such that the facilities will never be required, the rule is superfluous.

CAA response: As the commenter correctly guessed, this rule could be applied to a variety of organisations. Tailoring the rule for each particular organisation would require considerable time, effort and consultation. The Civil Aviation Authority simply does not have these resources available. Further, should the organisation change its structure and direction in the future, then this eventuality is provided for. The rule will therefore remain as proposed.

4. 103.57 Exposition Requirements

Two commenters interpreted that subparagraphs (5) and (6) of this rule required details of all their constituent clubs or branches and the activities at those locations. They suggested that one address for the organisation should suffice.

CAA response: The initial interpretation of this rule was incorrect.

Although the Advisory Circular (AC) said that only "the locations at which the certificated functions were carried out" had to be detailed, the AC will be reworded to clarify the situation.

5. 103.57 Exposition Requirements

Similarly to the statement above, again a commenter said that the rule in subparagraph (10)(v) of the NPRM would never be applicable to their organisation and should be removed.

CAA response: The rule to which this paragraph referred has been amended and this rule has therefore also been amended.

**6. 103.71 Continued Compliance with Certification Requirements
103.73 Records - Personnel and
103.75 Records - Facilities, Tools, Material and other Equipment**

One commenter suggested that these rules should, for simplification, be combined with others under one Subpart titled 'Organisation Certification and Operating Requirements'.

CAA response: While there is some justification for this comment regarding the rule as it affects a particular organisation, CAA feels that there should remain a significant degree of commonality between all the rules governing the certification of organisations. Further, the rules in Subpart C (regarding the initial certification of the organisation) will be administered by the Aviation Approvals Branch of the Authority while the rules in Subpart D (about continuing operation) will be administered by the Aviation Safety Monitoring Branch. The layout is also supported by the Swedavia "Life-Cycle" approach of entry, continued operation and exit. The rules will therefore remain as proposed.

7. 103.77 Reporting of Defects

One commenter suggested that this rule was both adequately covered in their own manual and by 103.57(10)(vi) of the NPRM. Further comment was made that their organisation had been operating for some time with an exemption from Regulation 177 of the Civil Aviation Regulations 1953 with no adverse effect on safety.

CAA response: This comment was probably made due to a misunderstanding of the rule. Rule 103.77 requires the reporting of defects and 103.57(10)(vi) of the NPRM requires that the exposition or manual contain a procedure for the reporting of defects. In other words, 103.77 is a requirement and 103.57(10)(vi) requires an explanation of how you are going to do it. The requirement for reporting defects is necessary to enable the CAA to carry out its function of regulating and monitoring. Without reports, CAA does not know what is happening and that situation is not acceptable. The method of reporting has been agreed with MAANZ and is given in the AC. The rule will therefore remain as proposed.

8. 103.99 Changes to a Certificate Holder's Organisation

Two commenters expressed the view that, for an organisation with democratically elected office-bearers, there could be problems with prior notification of possible or proposed personnel changes. [Emphasis is editorial]

CAA response: This matter has been raised regarding an identical requirement in other rules for organisational certification. To allow for a suitable arrangement to be made to cover any transition period, a further paragraph, similar to that in other rules, will be added to this rule. It now reads "The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d)". This will allow the organisation to advise the Director, before an election, that there "may" [emphasis is editorial] be changes and that, pending acceptance of any changes, the current nominees will retain their authority. This procedure will meet the intent of the rule and it will therefore remain as proposed.

9. 103.105 Exemptions

Two commenters expressed the view that "subparagraph (9) Basic Instruments and Equipment" should, concerning Regulation 104(e), allow an exemption for microlights from the requirement to carry maps on local flights.

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CAA response: Current CAA interpretation of Regulation 104(e), which requires the carriage of maps or charts "appropriate to the route to be flown", is that maps are not necessary on circuits or very local flights well clear of controlled or restricted airspace. It could, for example, be considered imprudent to fly without a Visual Terminal Chart near Auckland or Wellington. However, there probably would be no real problem, in good weather, flying up to 20 or 30 miles from Kaitaia without a map. The rule will therefore remain as proposed, but the Advisory Circular will be amended to better reflect acceptable means of compliance.

10. 103.105 Exemptions

There were two comments on the proposed requirement, in subparagraph (13), for logbooks for Class 2 Microlight aircraft. One commenter said that, with an exemption from such a requirement existing to date, there have been no safety related effects from this. It was pointed out that microlight aircraft have no time or lifed components and that as airworthiness is based on owner maintenance, there could be no proof of accuracy for logbook entries. Many Class 2 aircraft do have logbooks, kept voluntarily. Should there be a mandatory requirement, then the logbook might only reflect the minimum required or even false entries, thus hampering safety. The other commenter said that, personally, he had found it very important to keep a logbook record of the aircraft hours, repairs and maintenance.

CAA response: In the early days of microlight aircraft operation, there were very few instructions or recommendations from the manufacturers of the aircraft or their components regarding inspections or overhaul. There have been, and continue to be, significant changes in this area since then. Many manufacturers of both microlight engines and airframes are now producing maintenance schedules. Some of these schedules are called up as frequently as every 25 hours, reflecting the manufacturers' concern regarding proper maintenance. Some components have a "life" as short as 150 hours before replacement. The list of manufacturers includes Rotax, Shadow, Thruster, Solar Wings, Eipper, Quad City Ultralight and several others. When a manufacturer says "The importance of regular maintenance, inspection and lubrication cannot be stressed enough - someone's life depends on it!!", the Civil Aviation Authority would be failing to protect the interests of a passenger if it did not act to ensure that such maintenance can be, and be shown to be, done satisfactorily. There will therefore be a requirement for the recording of the hours flown by Class 2 microlights (those that can carry a passenger). The AC will detail an acceptable means of compliance.

11. 103.109 (in the NPRM - now 103.209) Inspection Requirements

Two commenters expressed the view that it was impractical to require both the owner and the operator to ensure airworthiness. While mostly the owner would also be the operator, the responsibility should rest with the operator.

CAA response: The use of the term "owner" here is justified by the definition as given in the Civil Aviation Act 1990. The comment "that the owner cannot be held responsible if another pilot is flying the aircraft away from base on a cross-country flight" describes a situation that exists in many other operations, including air transport operations. However, to clarify the situation, the wording will be slightly modified to reflect that owners, as defined in the Act, have a responsibility for the continuing airworthiness of their aircraft. The revised wording is —

- (a) The pilot-in-command of a microlight aircraft shall ensure the airworthiness of the aircraft before each flight.
- (b) The owner of a microlight aircraft shall take such action as is necessary to ensure the continuing airworthiness of that aircraft."

The rule has been transferred to Subpart G, Airworthiness and Maintenance.

12. 103.111 Pilot-in-command Requirements

One commenter suggested that the inclusion of the words "without any cross-country restrictions" was unnecessary.

Two commenters further suggested that the requirements of subparagraphs (3) and (4) could be adequately met by taking instruction from and to the satisfaction of a MAANZ instructor. They suggested that the wording of CASO 19 was satisfactory.

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CAA response: The Authority accepts the first comment and has amended the wording of the rule accordingly.

The Authority has also amended the remaining wording to facilitate microlight flying, eliminate the need for holders of Flight Crew licences to pass written examinations and receive instruction for a specified minimum period. The revised wording is —

“(3) is the holder of a current private pilot licence (aeroplane) or higher category flight crew licence (aeroplane) issued by the Director and has demonstrated competence to a flight instructor in the piloting of a microlight aircraft.”

13. 103.115 Placard

There were three comments on this rule. It was pointed out that originally there was no such requirement. There could be difficulty in meeting the requirement (of the placard being “in clear view of the seated passenger”) in some “wire and tube” type microlights, and some objection was expressed to the proposed and current wording of the placard. Indeed, it was thought that many passengers would not understand the implications or significance of a placard. It was also felt that, while there was some justification for such a placard, the wording could be specified in the organisation’s manual.

CAA response: When the first microlights were introduced, they were single seat machines and there was, obviously, no need for any placard. The need arose with the introduction of passenger carrying microlights.

The placard is required to bring to the passenger’s attention the fact that microlight aircraft safety standards are different from those for certificated aircraft. While occasionally the passenger may not fully comprehend the wording, the wording should be enough to alert them to the intent of the placard.

It is usually relatively easy to find a suitable location for the placard in “wire and tube” type microlights. It has been done quite satisfactorily in the Eipper Quicksilver, for example, and a little thought and ingenuity will solve the problem for others. There are two options for the wording in the rule; the first is the existing requirement and this has been retained so that, unless the owner so wishes, change is not necessary. The second is considered an acceptable alternative. The rule will therefore remain as proposed.

14. 103.151 Hazardous Operations

The one commenter suggested that, for operations under the provision of paragraph (b), it would be advisable for microlight aircraft competing in “flour-bombing” or similar competitions to descend to 200 feet on their “bombing” run. This would achieve greater accuracy and reduce the risk of a hazard to persons or property.

CAA response: While there is some justification for the “lower is more accurate and therefore safer” argument, just how low does one go? The Authority view is that the aircraft should not be so low as to remove a reasonable margin for recovery in the event of an abnormal or emergency situation occurring. It is considered that 200 feet is acceptable for competition dropping and 103.153 will be amended to include this dispensation. It should be noted, however, that aircraft on such operations may not be flown closer than 500 feet to any person not directly connected with the operation. The judges of the dropping accuracy, for example, are considered to be directly connected.

15. 103.153 Minimum Heights

There were three commenters on the provision allowing microlight gyroplanes to fly circuits at 200 feet, although the reasoning was different. One commenter suggested that aircraft descending from 500 feet would descend on the microlight gyroplanes. Another felt that training at 200 feet could lead pilots to conduct, habitually, other operations at low height, with enhanced nuisance and risk. The third commenter felt that microlight gyroplanes should not be granted special conditions at a time when they are joining the microlight system, they could be mixing with topdressing aircraft, and, if that can be justified, then they should have a strobe light.

CAA response: Regarding the first comment, a similar situation does occur in many other situations. Any aircraft descending from 1500 feet to circuit height on the dead side of the circuit would be in a similar situation. The solution is to maintain a good scan for any other traffic. The concept of "see and avoid" is one of the best safety measures available. The response to the second comment is that the matter should, and will, be addressed by both the clear wording of the rule and advisory circular and by pilot education during their training. While the gyroplanes are being granted some "special conditions", there are also variations in the requirements for different types of microlights. Single seat machines do not require a placard, flight authorisation documents or logbooks. Different aircraft also have significantly different characteristics that justify different conditions. An increasing number of microlights are fitting strobe or similar lights and such action is highly recommended. The rule is, however, now written as a reference to CASO 19 which is amended to effect a low flying approval under regulation 38(3)(b) of the civil aviation regulations 1953. This mechanism is being used temporarily to make these height exceptions legally valid pending the transfer of regulation 38 to Part 91 of the new civil aviation rules.

16. 103.155 Flight Criteria

Four commenters requested that microlight operations be permitted, as now, between the start of morning civil twilight (MCT) and the end of evening civil twilight (ECT). The justification was that these periods were usually of ideal conditions for microlight operations and that other aircraft are permitted the same criteria.

CAA response: The comment is justified and the rule modified accordingly. Another criterion that was omitted from the draft rules, although included in the MAANZ manual, is the restriction on flight over built-up or populous areas. A rule restricting such flights is therefore included but the wording is now similar to the less restrictive requirements of the US Federal Aviation Regulations.

17. 103.201 Type Acceptance

The one commenter suggested that all Class 2 microlight aircraft should conform to the British Civil Airworthiness Requirements Section 'S'.

CAA response: While the British standard is one with a reasonably high degree of safety, it is not the only standard in existence. The other standards quoted are equally acceptable. It is not the Authority's intention to limit the scope of microlight operations by imposing requirements that limit the scope of the individual to make a free choice, provided basic safety standards can be observed. The rule will therefore remain as proposed.

18. Advisory Circular explanation of 103.3 Definitions

There were three commenters on this section of the Advisory Circular.

One asked the justification for different weights for single and two seat aircraft.

Another made the point that many microlight gyroplanes two seat aircraft are above the weight limits quoted and sought relief from the problem.

The third commenter questioned the method of demonstrating the minimum speed and queried the associated calculations.

CAA response: Regarding the first comment, it is standard international practice for two-seat microlight aircraft to be permitted to operate at higher weights than single-seaters. This is reflected in, for example, the USA, Australia, Canada and through the Federation Aeronautique Internationale. The practice will continue in New Zealand.

It is accepted that the different design and construction requirements of gyroplanes (as distinct from other microlights) could justify modification of the wording in the Advisory Circular of the definition of a microlight aircraft in regard to weight. This change has been put in place for the final documentation.

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Regarding the third comment, it was suggested that the wording of the Advisory Circular was deficient in the acceptable method of determining the minimum speed of a microlight. It was suggested that operating with a significant wind component along the course could produce a result other than that intended. The example was given that, with a 20 km per hour wind along the course, ground speed of a machine flying at 40 km per hour airspeed would be 20 km per hour one way and 60 km per hour the other. These figures would result in an average speed over the course of about 30 km per hour and not reflect the true airspeed. This is accepted. The rule, however, does not require the determination of the average speed over the course but "the average of the timed speed in each direction". This figure is, in this case, the numerical average of 20 and 60 which is 40. Thus the wording of the rule is different to the example given. The wording of the rule does meet the required intent and will therefore remain as proposed.

Conclusion

We conclude that, in the light of comments received, most microlight owners, pilots and organisations favour the general direction and content of the new rules. Specific issues that have been identified in the comments have been addressed and, where appropriate, changes have been made to meet the concerns raised. The comments and all background material used in formulating the rules are held on the docket file and are available for public scrutiny. Persons wishing to view the docket file should call at Aviation House, 1 Market Grove, Lower Hutt and ask for Docket file 1026.

Implementation

The rules will come into force 28 days after their notification in the New Zealand Gazette.

Transitional Arrangements

The Microlight Aircraft Association of New Zealand (Inc) may continue to issue and renew microlight pilot and instructor certificates as it has in the past. This may be done, pending certification under this Part, under the provisions of Civil Aviation Safety Order 19 for up to twelve months from the date on which this Part comes into force. It is intended that CASO 19 will be amended soon without further notification or consultation to remove those sections or parts that have been superseded by Part 103. Notification of the availability of the revised CASO will be given through the normal process of advice by Aeronautical Information Circular.

All the requirements of New Zealand Civil Airworthiness Requirement Section K.1 Airworthiness Standards — Microlight Aeroplanes have been incorporated in Part 103 and that section will be cancelled on the effective date of Part 103.

Before the end of the twelve-month period, the Microlight Aircraft Association of New Zealand (Inc) will be required to submit all documentation needed to show compliance for certification. Any other Associations wishing to engage in the control or administration of microlight operators must gain certification before commencing. In each case an assessment will be made of the organisation's documentation including the exposition required by this Part. If the documentation complies with the rules, arrangements will then be made to schedule a meeting and an entry control inspection to assess the organisation's facilities against the submission.

If the inspection is satisfactory, then a certificate will be issued, initially for a period not exceeding twelve months. An audit programme will be agreed between the organisation and the Authority at this time. Then, subject to satisfactory performance throughout the period, the document will be renewed for a further period not exceeding five years.

Once certificated, the organisation may request delegation of the authority to issue or renew, as appropriate, aviation documents. These may include pilot or instructor certificates and permits-to-fly or flight permits. The delegation of this function of the Director will be conditional on the organisation remaining a certificated organisation under this Part. It should be noted that, in accordance with the provisions of the Act, the certification or the delegation(s), or both, may be suspended or revoked if considered necessary in the interests of safety.

Regulatory Evaluation

Subject to any fine tuning necessary to satisfy legal requirements, the following action will occur at the time of commencement of this Part:

1. New Zealand Civil Airworthiness Requirement Section K.1 will be cancelled;
2. Regulation 4(1) will be amended by the substitution of the definition of "Microlight aircraft" for "Microlight aeroplane";
3. Regulation 19C will be amended by:
 - (a) the substitution, in six places of "microlight aircraft" for "microlight aeroplane" in the title and subclauses (1) and (2); and
 - (b) the deletion of subclause (3);

[This will allow the retention of that part of CASO 19 governing the grant and renewal of microlight pilot certificates pending the certification of an organisation under Part 103.]
4. Regulation 109(1) will be amended by the substitution of "microlight aircraft" for "microlight aeroplane".
5. Regulation 136A(8)(g) will be amended by the substitution of "microlight aircraft" for "microlight aeroplane".
6. Regulation 161A will be amended to remove microlight aircraft from its application. Documents certifying the airworthiness of Class 2 microlight aircraft will now be issued under Part 103 as "flight permits".
7. Civil Aviation Safety Order 19 will be amended and reissued. It will only contain those parts or sections necessary pending the certification of an organisation under Part 103 or necessary to give effect to civil aviation regulations.

Legislation will be introduced at an appropriate date to revoke the amended Regulation 19C and cancel what remains of CASO 19.