



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, MARK GOSCHE, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *18th* day of *December* 2001

by **MARK GOSCHE**

A handwritten signature in black ink, appearing to read 'Mark Gosche'.

Minister of Transport

Civil Aviation Rules

Part 47 – Re-issue

Aircraft Registration and Marking

Docket 00/CAR/1346

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OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

Part 47 Notice of Proposed Rulemaking NPRM 00-1 under Docket 00/CAR/1346, issued on 12 May 2000, was developed by the rules development team after problems with the rule were identified and analysed from routine monitoring of the exemption process, a petition for rule change, and issues raised during a CIRAG (CAA / Industry Rules Advisory Group) technical study relating to the operation and maintenance of warbird and vintage aircraft.

The objective of the re-issue of Part 47 is to clarify the requirements for registration and marking of aircraft, and to prescribe requirements for police marks and unique schemes and markings currently covered by exemptions.

Provision for the use of *Police Marks* has been made to protect the identity of those operators assisting in bona fide police operations authorized by the Commissioner of Police. Provision has also been made to allow aircraft operators to register their aircraft's unique and identifiable paint scheme and markings. This is primarily for historic and warbird type aircraft operators wishing to maintain the aircraft's historical markings. The size of markings for aeroplanes and rotorcraft vary, and depend on whether they are located on the side or underneath of the aircraft. The rule prescribes a minimum size of mark irrespective of location but still provides exceptions for those aircraft that do not have the surfaces to which full size marks can be affixed. Consequential amendment to Part 1 clarifies the meaning of "*New Zealand registered aircraft*" and "*Three-view*" and forms a part of this package.

The publication of this Notice of Proposed Rulemaking (NPRM) was advertised in the daily newspapers in the five main provincial centres and in the New Zealand Gazette on 18 May 2000. The NPRM was mailed to 61 organisations and members of industry, who were considered likely to have an interest in the proposal, including current holders of exemptions for aircraft markings. A pre-prepared response sheet was included with the NPRM, which categorised responses into four groups and aimed to encourage industry participation in the consultative process.

Summary of comments

From the 14 submissions received, 3 commenters accepted the NPRM without change, 2 had strong objection to proposals with respect to the size of markings while the remaining commenters made a variety of suggestions for clarity and consistency.

Details of the submissions and the CAA comments on them are included in the consultation details annexed to the attached re-issue of Part 47, in accordance with the requirements of section 32(1)(b) of the Act.

The submissions and verbal comments were considered and where appropriate the proposed rules were amended to take into account the comments made, and reconstructed for clarity and easy use.

Examination of comments

Comments may be examined by application to the Docket Clerk at Aviation House between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Re-issue

The re-issue of Part 47 is reflected by the revocation of the existing Part and insertion of the re-issued Part.

Effective date of rule

The re-issued Part 47, comes into force on 24 January 2002.

Availability of rules

Civil Aviation Rules are available from–

CAA web site: <http://www.caa.govt.nz>

or from:

Freephone: 0800 GET RULES (0800 438 785)

Part 47 is revoked and this new Part 47 is inserted.

Subpart A — General

47.1 Purpose

This Part prescribes rules governing -

- (1) the registration of aircraft in New Zealand; and
- (2) the allocation of nationality and registration marks for New Zealand registered aircraft; and
- (3) the display of marks on New Zealand registered aircraft.

47.3 Reserved

Subpart B — Aircraft Registration and Certificate of Registration

47.51 Requirement for aircraft registration and certificate

(a) Except as provided in paragraph (b), every person lawfully entitled to the possession of an aircraft for 28 days or longer must, if the aircraft flies to, from, within, or over New Zealand territory, register that aircraft and hold a valid certificate of registration for that aircraft from—

- (1) the Director; or
 - (2) the appropriate aeronautical authorities of a contracting State of ICAO; or
 - (3) the appropriate aeronautical authorities of another State that is party to an agreement with the Government of New Zealand or the Civil Aviation Authority of New Zealand which provides for the acceptance of each other's registrations.
- (b) Paragraph (a) does not apply to –
- (1) an aircraft manufacturing organisation certificated under Part 148, conducting flight testing of a new production aircraft for which a special flight permit has been issued under Part 21; or

- (2) a person operating aircraft or equipment in accordance with Parts 101, 105, or 106.
- (c) No aircraft may be registered in New Zealand, if it is registered in any other country.

47.53 Application for registration and grant of certificate

- (a) An application for the registration of an aircraft and for the grant of a New Zealand certificate of registration must be made by, or on behalf of—
 - (1) the person who is lawfully entitled to the possession of the aircraft for 28 days or longer; or
 - (2) the person who, on a date specified in the application, will be lawfully entitled to the possession of the aircraft for 28 days or longer.
- (b) The applicant must complete form CAA 24047/01, which requires—
 - (1) the manufacturer, model and serial number of the aircraft; and
 - (2) the name and address for service in New Zealand of the person specified in paragraph (a)(1) or (2); and
 - (3) such further particulars relating to the aircraft and the person specified in paragraph (a)(1) or (2) as may be required by the Director as indicated on the form—

and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act.

- (c) The Director may require the applicant, or the person on whose behalf the application is made, to produce all or any of the following, as may be reasonable in the circumstances:
 - (1) evidence of the manufacturer, model and serial number of the aircraft:
 - (2) evidence of the identity of the person specified in paragraph (a)(1) or (2):

- (3) a statutory declaration by the person specified in paragraph (a)(1) or (2) that that person is, or on a date specified in the application will be, lawfully entitled to the possession of the aircraft for 28 days or longer.

47.55 Registration and grant of certificate

(a) An applicant is entitled to have an aircraft registered, and is entitled under section 9 of the Act, to the grant of a New Zealand certificate of registration if the Director is satisfied that—

- (1) in accordance with section 6 of the Act the aircraft is not registered in any other country; and
- (2) the applicant satisfies the applicable requirements of 47.53(b); and
- (3) the evidence and statutory declaration that may be required under paragraph 47.53 (c) is acceptable; and
- (4) the person lawfully entitled to the possession of the aircraft for 28 days or longer is a fit and proper person; and
- (5) the granting of the certificate is not contrary to the interests of aviation safety.

(b) If the Director is satisfied that a certificate of registration may be granted in accordance with paragraph (a), the Authority must enter in the New Zealand Register of Aircraft—

- (1) the date of registration; and
- (2) the description of the aircraft given in the application; and
- (3) the name and address for service of the person lawfully entitled to the possession of the aircraft for 28 days or longer; and
- (4) the registration mark allocated to the aircraft by the Director under 47.103; and
- (5) where applicable, the description of the identifiable paint scheme and markings approved under 47.104.

47.57 Change of possession of aircraft

(a) If the holder of a New Zealand certificate of registration ceases to have lawful entitlement to possession of the registered aircraft for a period of 28 days or longer, the certificate expires on the date the certificate holder ceases to have lawful entitlement to possession of the aircraft.

(b) The certificate holder whose certificate expires in accordance with paragraph (a) must—

(1) within 14 days after the date of such expiry, ensure the completion of—

(i) the form printed on the reverse side of the New Zealand certificate of registration; or

(ii) form CAA 24047/03—

and submit the form to the Director with a payment of the appropriate fee prescribed by regulations made under the Act; or

(2) where applicable, notify the Director in accordance with 47.67(b).

47.59 Operation of aircraft after expiry of certificate

(a) Notwithstanding 47.51(a), a person lawfully entitled to the possession of an aircraft which flies to, from, within, or over New Zealand territory, is not required to hold a valid New Zealand certificate of registration for a period of 28 days from the date of expiry of the certificate under 47.57(a).

(b) After 28 days have elapsed from the expiry of a New Zealand certificate of registration under 47.57(a), the aircraft must not be operated until such time as the Director grants a certificate of registration for the aircraft.

47.61 Currency of information in certificate

(a) The holder of a New Zealand certificate of registration must notify the Director, as soon as practicable, of any change that affects the currency of any information contained in the certificate.

(b) If, after receiving a notification under paragraph (a), the Director amends or revokes the certificate of registration and issues a new certificate in its place in accordance with section 20 of the Act, the Authority must update the relevant particulars in the New Zealand Register of Aircraft.

47.63 Replacement of certificate

(a) The holder of a New Zealand certificate of registration may apply for a replacement certificate if the certificate is—

- (1) lost, stolen, or destroyed; or
- (2) so damaged that particulars are no longer clearly legible.

(b) The applicant for a replacement certificate must complete form CAA 24047/01 and submit it to the Director with—

- (1) a payment of the appropriate application fee prescribed by regulations made under the Act; and
- (2) where applicable, the damaged certificate.

47.65 Duration of certificate

(a) A New Zealand certificate of registration remains valid until—

- (1) it expires under 47.57(a); or
- (2) it is suspended or revoked by the Director.

(b) The holder of a New Zealand certificate of registration that is suspended must immediately produce the certificate to the Director for appropriate endorsement.

(c) The holder of a New Zealand certificate of registration that is revoked must immediately surrender the certificate to the Director.

47.67 Destruction, loss, theft, withdrawal from use, or foreign registration of aircraft

(a) The holder of a New Zealand certificate of registration must notify the Director in accordance with paragraph (b)—

- (1) within 14 days after becoming aware that the aircraft is—

- (i) destroyed, lost or stolen; or
 - (ii) permanently withdrawn from use; or
- (2) immediately upon the application for registration of the aircraft on the aircraft register of any other country.
- (b) Notification under paragraph (a) must—
 - (1) be made in writing; and
 - (2) be signed by the certificate holder; and
 - (3) set out the circumstances of what has occurred; and
 - (4) be accompanied by the certificate of registration.

47.69 Cancellation of registration

- (a) An aircraft remains registered until—
 - (1) the holder of a certificate of registration requests the Director to revoke the certificate for the aircraft and the Director revokes the certificate; or
 - (2) the Director is satisfied that—
 - (i) the aircraft is destroyed, lost, or stolen; or
 - (ii) the aircraft is permanently withdrawn from use; or
 - (iii) a person lawfully entitled to possession of the aircraft for 28 days or longer has applied to register the aircraft in another country; or
 - (iv) the aircraft is registered in a country other than New Zealand—
and the Director revokes the certificate of registration; or
 - (3) the Director otherwise revokes the certificate of registration in accordance with the Act; or

- (4) the Director—
 - (i) is satisfied that the certificate of registration has expired under 47.57(a); and
 - (ii) has not received an application under 47.53 within 14 days after the date on which the Director was satisfied the certificate had so expired.
- (b) The Authority must cancel the entry for the aircraft in the New Zealand Register of Aircraft if the Director—
- (1) revokes the certificate of registration of an aircraft in accordance with paragraph (a)(1), (2), or (3); or
 - (2) is satisfied of the matters in paragraph (a)(4).

47.71 Nationality of aircraft

An aircraft registered by the Director in accordance with 47.55(a) has New Zealand nationality.

Subpart C — Aircraft Marking

47.101 Requirement for aircraft marking

- (a) Except as provided in paragraphs (b), (c), (d) and (e) the holder of a New Zealand certificate of registration must ensure that the aircraft associated with that certificate—
- (1) displays the registration mark allocated under 47.103, and the nationality mark, in accordance with the requirements of 47.109 to 47.117; and
 - (2) displays an identification plate in accordance with the requirements of 47.119.
- (b) The following types of New Zealand registered aircraft are not required to display the nationality mark when operating within New Zealand:
- (1) aeroplanes with an MCTOW of 5700 kg or less:

- (2) rotorcraft:
 - (3) gliders and powered gliders:
 - (4) manned balloons:
 - (5) aeroplanes operating pursuant to a special category airworthiness certificate issued under Part 21, Subpart H:
- (c) The following types of New Zealand registered aircraft are not required to display the first letter of their registration mark when operating within New Zealand:
- (1) helicopters, where the first letter of their registration mark is H:
 - (2) gliders and powered gliders:
 - (3) manned balloons, where the first letter of their registration mark is F.
- (d) A New Zealand registered aircraft operating within New Zealand on a police operation authorised by the Commissioner of Police is not required to display its nationality mark or registration mark allocated under 47.103, if the aircraft displays a police mark allocated under 47.102.
- (e) A New Zealand registered aircraft operating within New Zealand is not required to display its nationality mark or registration mark allocated under 47.103, if the aircraft displays an identifiable paint scheme and markings approved under 47.104.
- (f) The holder of a certificate of registration for an aircraft that displays an approved identifiable paint scheme and markings under paragraph (e), must ensure that the aircraft continues to display the paint scheme and markings in accordance with 47.109.

47.102 Police marks

A police mark for display on a New Zealand registered aircraft must comprise–

- (1) The word **POLICE** followed by a number allocated by the Commissioner of Police; or

- (2) A group of three letters reserved by the Director for allocation by the Commissioner of Police.

47.103 Nationality and registration marks

(a) The nationality mark of a New Zealand registered aircraft must be the capital letters ZK.

(b) The registration mark of a New Zealand registered aircraft must—

- (1) be allocated to the aircraft by the Director; and
- (2) be a group consisting of 3 letters appearing after and separated from the nationality mark by a hyphen.

47.104 Approval of identifiable paint scheme and markings

(a) The holder of the certificate of registration for an aircraft that is issued with a special category experimental airworthiness certificate under Part 21 subpart H, may apply to the Director for approval to display an identifiable paint scheme and markings on the aircraft as an alternative to the display of the nationality and registration marks allocated under 47.103.

(b) The holder of a certificate of registration for a microlight aircraft, or an aircraft issued with a standard or restricted category airworthiness certificate under Part 21 subpart H, may for historical reasons, apply to the Director for approval to display an identifiable paint scheme and markings on the aircraft as an alternative to the display of the nationality and registration marks allocated under 47.103.

(c) The applicant for the approval of an identifiable paint scheme and markings must complete form CAA24047/04, which requires—

- (1) the nationality and registration mark allocated to the aircraft by the Director; and
- (2) a written description of the proposed identifiable paint scheme and markings of the aircraft; and
- (3) a three-view set of colour drawings, photographs, sketches, or similar means of clearly depicting the proposed identifiable paint scheme and markings of the aircraft; and

- (4) such further particulars as may be required by the Director or as indicated on the form regarding the aircraft or the holder of the certificate of registration—

and submit it to the Director with the payment of any applicable fees or charges prescribed by regulations made under the Act.

(d) The Director may approve the display of an identifiable paint scheme and markings, applied for under paragraph (a), if satisfied that the paint scheme and markings are sufficiently clear so as to distinguish the aircraft from other aircraft of the same or similar type and model.

(e) The Director may approve the display of an identifiable paint scheme and markings, applied for under paragraph (b), if satisfied that the paint scheme and markings are appropriate for historical or other special reasons, and are sufficiently clear so as to distinguish the aircraft from other aircraft of the same or similar type and model.

(f) The holder of a certificate of registration for an aircraft that has an identifiable paint scheme and markings approved under paragraph (d) or (e) on the basis of drawings or sketches, must provide the Director with a three-view set of photographs of the aircraft displaying the approved identifiable paint scheme and markings.

47.105 Registration of identifiable paint scheme and markings

(a) The identifiable paint scheme and markings approved under 47.104 must be entered in the New Zealand Register of Aircraft in accordance with 47.55(b).

47.106 Change of identifiable paint scheme and markings

(a) The holder of a certificate of registration for an aircraft displaying an identifiable paint scheme and markings approved under 47.104, who intends to change the paint scheme or markings, must apply for approval of a new paint scheme and markings in accordance with 47.104.

(b) The holder of a certificate of registration for an aircraft displaying an identifiable paint scheme and markings approved under 47.104, who intends to discontinue the display of the paint scheme and markings must—

- (1) notify the Director in writing accordingly; and

- (2) mark the aircraft in accordance with 47.101.

47.107 Reservation of registration mark

(a) A person who intends to register an aircraft in the New Zealand register of aircraft may, on payment of any applicable fees or charges prescribed by regulations made under the Act, request the Director to reserve a registration mark.

(b) Upon receipt of a request under paragraph (a), the Director may reserve a registration mark for a period not exceeding 24 months if—

- (1) the mark has not already been allocated or reserved; and
- (2) the Director considers that the use of the mark would not be undesirable.

(c) A registration mark that has been reserved under paragraph (b) must not, while reserved, be allocated to an aircraft as a registration mark otherwise than at the request of the person on whose request the registration mark was reserved.

47.108 Change of registration mark

(a) The holder of a New Zealand certificate of registration may apply to the Director for a new registration mark to replace the mark allocated to the aircraft specified in the certificate.

(b) The applicant for a change of registration mark must apply in writing and submit to the Director—

- (1) the certificate of registration; and
- (2) the registration mark sought; and
- (3) a payment of the appropriate fee prescribed by regulations made under the Act.

(c) On receiving an application under paragraph (b), the Director may withdraw the registration mark allocated to the aircraft and allocate the new registration mark.

(d) On allocation of a new registration mark under paragraph (c), the Authority must enter in the New Zealand Register of Aircraft the particulars of the new registration mark allocated to the aircraft.

47.109 Display of marks

(a) The nationality and registration marks required to be displayed under 47.101, or the identifiable paint scheme and markings approved under 47.104 must—

- (1) be painted on the aircraft or affixed by any other means ensuring a similar degree of permanence; and
- (2) be displayed to the best possible advantage having regard to the construction or features of the aircraft; and
- (3) be kept clean and visible at all times.

(b) The letters and hyphen of the nationality and registration mark must be of one colour that contrasts clearly with the background on which they are painted or otherwise affixed.

(c) Police marks must be affixed to the aircraft by a means that will ensure the marks are displayed in accordance with the other requirements of this subpart for the duration of the police operation authorised by the Commissioner of Police.

47.111 Location of marks – lighter-than-air aircraft

(a) Airships must display the marks required under 47.101(a)—

- (1) lengthwise on each side of the hulls near the maximum cross section of the airship and on the upper surface on the line of symmetry; or
- (2) on the following stabilisers:
 - (i) the horizontal stabiliser, on the right half of the upper surface and on the left half of the lower surface with the tops of the letters towards the leading edge;
 - (ii) the vertical stabiliser, on each side of the bottom half stabiliser, with the letters placed horizontally.

(b) Spherical balloons must display the marks required under 47.101(a) in 2 places diametrically opposite and located near the maximum horizontal circumference of the balloon.

(c) Non-spherical balloons must display the marks required under 47.101(a) on each side, located near the maximum cross-section of the balloon and immediately above the rigging band or the points of attachment of the basket suspension cables.

47.113 Location of marks – heavier-than-air aircraft

(a) Except as provided in paragraphs (c) and (d), aeroplanes, gliders, and powered gliders must display the marks required under 47.101(a)—

- (1) once, on the lower surface of the wing structure. If the marks are confined to the outer half of the wing structure they must be located on the left lower surface. The tops of the letters must be towards the leading edge of the wing and so far as is possible, be equidistant from the leading and trailing edges of the wing; and
- (2) horizontally on both sides of the fuselage between the wings and tail surfaces, or horizontally on the upper halves of the vertical tail surfaces. Marks on a single vertical tail surface must appear on both sides. Marks on multi-vertical tail surfaces must appear on the outboard sides of the outer surfaces.

(b) Except as provided in paragraph (d), rotorcraft must display the marks required under 47.101(a)(1) in a prominent place not obscured in normal use—

- (1) on the bottom surface of the fuselage or cabin; and
- (2) symmetrically on both sides of the rotorcraft.

(c) Aeroplanes, gliders, and powered gliders, which operate exclusively within New Zealand, are not required to display marks on the lower surface of the wing structure.

(d) If an aeroplane, glider, powered glider, or rotorcraft—

- (1) does not possess parts corresponding to those mentioned in the applicable paragraph of this rule; or

- (2) the surface required to be marked in accordance with this rule is not large enough to accommodate the size of marks specified in 47.117—

the Director may approve marks, to be located elsewhere on the aircraft if—

- (1) the marks are placed in a prominent place not obscured in normal use; and
- (2) the marks can be readily identified.

47.115 Specification of marks

- (a) The nationality and registration marks must consist of capital letters in Roman characters without ornamentation.
- (b) The width of each letter (except the letter "I") and the length of the hyphen must be two-thirds of the height of the letter.
- (c) Each letter must be separated from the letter which immediately precedes or follows it by a space not less than one-quarter the height of the individual letters, the hyphen being regarded as a letter for this purpose.
- (d) The lines forming the letters and hyphen must be solid and the thickness of those lines must be one-sixth of the height of the letter.

47.117 Measurement of marks

- (a) The nationality and registration marks displayed must be formed of letters of equal height, and must be placed to leave a margin of at least 50 mm along each edge of any surface to which they are affixed.
- (b) Except as provided in paragraph (c), the height of the marks on aircraft must not be less than 250 mm.
- (c) The Director may approve marks smaller than 250mm, but not less than 150mm in height, to be displayed on heavier-than-air aircraft if the aircraft does not have a surface large enough to accommodate marks 250mm in height.

47.119 Identification plate

- (a) The identification plate required to be displayed under 47.101(a) must be etched, stamped, or engraved with the allocated nationality and registration marks.
- (b) The identification plate must—
- (1) be made of fireproof metal or other fireproof material of suitable physical properties; and
 - (2) be affixed to the aircraft in a prominent position near the main point of entrance to the aircraft.

47.121 Obscuring identification

A person must not place on any New Zealand registered aircraft any mark or symbol that modifies or obscures the nationality or registration marks, the approved identifiable paint scheme and markings, or the police mark, that are required to be displayed on the aircraft under this Part.

Appendix A**Transitional arrangements**

- (a) Any holder of a certificate of registration who, prior to the coming into effect of Amendment 2 to Part 47, holds an exemption granted in accordance with section 37 of the Act to display an identifiable paint scheme and markings instead of the registration marks required under 47.101, is deemed to have that identifiable paint scheme and markings approved under 47.104(d) or (e) as appropriate.
- (b) A holder of a certificate of registration who holds an exemption referred to in paragraph (a) must, in accordance with 47.104(f), provide the Director with a three-view set of photographs of the aircraft displaying the approved identifiable paint scheme and markings within 120 days of this Amendment coming into effect.
- (c) Any holder of a certificate of registration, whose aircraft did not display the nationality mark and registration mark in the manner prescribed in 47.111 to 47.117 on 9 January 1998, must ensure that the marks displayed on the aircraft meet the requirements of 47.111 to 47.117 when the aircraft is painted, repainted or remarked.

CONSULTATION DETAILS

(This statement does not form part of the rules contained in Part 47. It provides details of the consultation undertaken in making the rules.)

Notice of Proposed Rule Making

To provide public notice of, and the opportunity for comment on the proposed new rules for aircraft registration, Notice of Proposed Rule Making 00-1 was issued under Docket Number 00/CAR/1346 on 12 May 2000. This Notice clarifies the definition of *New Zealand registered aircraft* and inserts provision for the display of an identifiable paint scheme and markings.

Summary of Comments received on Docket Number 1346 NPRM

1. General Comments on the NPRM

In reviewing the comments raised CAA concluded that further clarification was needed with respect to the requirements and process by which holders of a certificate of registration may obtain approval to display an alternative identifiable paint scheme and markings for aircraft operated in New Zealand. This necessitated splitting Rule 47.104 published in the NPRM into two parts, resulting in a new rule paragraph 47.105. There are two distinct stages required to facilitate display of an alternative to the allocated registration marks, the application and approval of a scheme, and the entry of the scheme into the database.

It was also apparent that the descriptor for aircraft eligible to display an identifiable scheme did not encompass all the aircraft for which the scheme was intended. The definition of production non-type certificated aircraft has been removed and 47.101(c) and (d) describes the aircraft types for which an application to display a scheme may be approved.

Operation of such aircraft outside of New Zealand must have the approval of the aviation authority concerned and will require an exemption issued in accordance with section 37 of the Act, copies of which will be kept on the aircraft's New Zealand file.

Several minor changes in keeping with current legal drafting style have been included: changing “*shall*” to “*must*” or “*may*” and “*each*” to “*A*”, “*An*” or “*Any*” where applicable. Further consequential corrections were

made to incorporate the correct references to the Act and to improve grammar and readability of the rule.

The word “*obstructed*” in reference to the markings has been replaced by “*obscured*”, being the more correct terminology for the context of this rule.

References to “*helicopter*” have been reviewed and where applicable replaced with “*rotorcraft*” as the same registration requirements are applicable to gyrocopters.

47.55 Registration and grant of certificate

Incorporation of the relevant Act references and clarification that the applicant must also meet the relevant requirements prescribed before a certificate can be granted.

47.101 Requirement for aircraft marking

Due to the number of manned balloons on the New Zealand register it has become necessary to issue registrations other than FA* or FB*. As these balloons did not have to display the first letter of their registration previously, it is necessary to clarify that other registrations issued must display the three letters allocated so as not to create confusion.

47.102 Police marks

The definition for police mark has been removed from the Part 1 definitions and has been more correctly incorporated into the rule as a new subpart which clearly prescribes the police mark in a manner similar to that prescribed for other marking requirements.

47.106 Change of identifiable paint scheme and markings

A new rule subparagraph has been included to clearly describe the requirements for alteration or repainting of an aircraft with such a scheme, or for reverting to the display of nationality and allocated registration marks. Subparagraphs 47.106 and 107 have been renumbered accordingly.

2. Specific Comment on the NPRM

Part 1 and 47.3 Definitions

The definition for “*Production non-type certificated*” is no longer considered appropriate and has been removed. The descriptors for aircraft that are eligible to apply for approval to display an identifiable paint scheme and markings is now contained in 47.101(c) and (d) and allows such aircraft as the Tiger Moth or replica microlight aircraft to display such schemes.

The definition of “*Police Mark*” has been removed. Requirements are prescribed in 47.102 are essentially the same as those scribed in the previously published definition.

The definition of “*three-view*” has been redefined for clarity and refers to the meaning of three-view only. In 47.104(b)(3) the rule has been expanded to clarify that drawings, photographs or similar means of accurately depicting the scheme are to be provided as part of the approval process.

47.101 Requirement for aircraft marking

One commenter suggested that the ability to register aircraft with specific schemes and markings be widened to include not just “special category” aircraft, but also those vintage “standard category” aircraft which wish to display a historically accurate paint scheme e.g. chipmunks, tiger moths etc.

CAA Response: Paragraph 47.101(c) and (d) now provides an exception from the requirement to display nationality and registrations marks. CAA has concluded that the descriptor “*Production non-type certificated aircraft*” as defined in the NPRM, did not accurately define or encompass the category of aircraft that are intended to be eligible to display an identifiable paint scheme and marks.

47.104 Identifiable paint scheme and markings (Final Rule 47.104 and 47.105)

One commenter suggested that the proposed paint scheme and markings for an aircraft should be able to be presented to the Director in the form of an artist’s rendition or a computer generated model instead of photographs.

CAA Response: Rule 47.104 Identifiable paint schemes and markings has been reconstructed to clearly define the two phases required should a holder of a certificate of registration wish to take advantage of the exception provided from the requirement to display the aircrafts allocated registration mark.

There are two stages; the approval of a proposed scheme and marking; and the registration of that scheme and marking. The approval stage requires an accurate depiction of the proposed scheme so it can be compared against other registered schemes and markings to ensure that it is significantly different from that of similar schemes and from that of aircraft of the same type. For the purpose of approval, an artist's impression, computer generated images or similar would be acceptable.

The entry of the of the scheme and markings into the New Zealand register of aircraft must be completed by the Authority and requires a three-view set of colour photographs to be submitted by the holder of the certificate of registration for that aircraft, on completion of the painting and marking of the aircraft.

One commenter expressed concern as to whether the information on identifiable paint schemes would be accessible enabling identification of an aircraft owner and their details; and whether the schemes permitted would be distinct enough to enable identification.

CAA Response: The approval of a scheme and markings requires drawings, sketches or similar to enable the CAA to compare the proposed scheme and markings with other aircraft registered to ensure it is unique and readily identifiable. Once the aircraft is complete, colour photographs must be provided so that the scheme and markings can be registered.

The current database is being modified to enable users to search for an aircraft using criteria such as aircraft registration, aircraft make or model, aircraft owner, predominant colour, predominant, marking, military markings (country, type of force, camouflage) and will result in either a set of preview images, a full size image, or an aircraft registration and owner/operator details being accessed.

47.113(a) Location of marks – heavier-than-air aircraft

Two commenters suggested that heavier-than-air aircraft be permitted to affix marks to the dorsal fin as part of the tail surface rather than being

limited to the upper halves of the vertical tail surfaces. The dorsal fin being a more prominent place than the fuselage and is clear of company branding and colour schemes.

CAA Response: CAA agrees that if the dorsal fin, as part of the fuselage, is able to accommodate full size marks it may provide a location acceptable to the Director that is not obscured and ensures the aircraft is identifiable. The wording remains the same, as this is an ICAO requirement.

47.113(b)(2) Location of marks – heavier-than-air aircraft

Two commenters suggested that the marks required by 47.101 for rotorcraft be permitted to be displayed on the vertical stabilizer in a similar manner to that permitted for other heavier-than-air aircraft.

One commenter noted that tailboom was referred to in 47.113 for location of marks but not in 47.117 when discussing size of marks.

CAA Response: Rotorcraft typically have difficulty in meeting the requirement as currently prescribed. CAA has concluded that it is not necessary to specify the requirements to such detail. Rather than name corresponding Rotorcraft parts to which marks are to be affixed, it is sufficient to require them to be visible symmetrically on both sides, and underneath the rotorcraft. Therefore it is acceptable to affix registration marks to the vertical tail surfaces. 47.117(c) also provides for the Director to exercise discretion where difficulties in compliance may be encountered.

47.117 Measurement of marks

One commenter suggested that subparagraphs (b) and (c) be replaced with a simplified sentence.

CAA Response: The aim of this amendment is to simplify the requirements with respect to markings and provide a minimum standard size of 250mm irrespective of location or aircraft type. CAA agrees that the subparagraphs can be combined to form one simple requirement for all aircraft. An exception has been retained to allow the Director to exercise discretion in approving marks of a lesser size for heavier-than-air aircraft provided they are not less than 150mm. For example, most amateur built type aircraft do not have the surfaces to affix full size marks. Marks should still be as large as practicable to ensure the aircraft can be readily identified.

One commenter suggested that as meeting the requirement for full size marks of 250mm on the sides of small helicopters was difficult to achieve, and that the clause permitting marks of a lesser size down to 150mm should be retained.

CAA Response: This concern has been addressed by providing clause 47.113(d) allowing the Director to exercise discretion to approve the display of marks in a location other than that prescribed in 47.113(a),(b) and (c). Clause 47.117(c) allows the Director to exercise discretion to approve marks of a lesser size than prescribed in 47.117(a) and (b) should a situation arise where an aircraft does not have the corresponding parts required. This discretion will only apply for New Zealand registered aircraft operated in New Zealand.

One commenter objects to the minimum size of marks on helicopters being 250mm, claiming that 150mm is adequate and would therefore be aligned with the Australian Regulations.

CAA Response: The ICAO standard for minimum size for markings are either 300mm or 500mm depending on location and aircraft type. As an ICAO contracted state New Zealand adheres as close as practicable to the internationally agreed standards especially in the case of New Zealand registered aircraft operating internationally.

CAA recognizes that it may be difficult for some aircraft to accommodate marks of this size in a location where they are not obscured e.g. in the case of helicopters with lifting equipment. The Director has previously granted exemptions to permit the display of lesser size marks of not less than 250mm. Marks of this size ensure that the aircraft remains readily identifiable. The CAA is prepared to file a difference in order to prescribe a minimum standard for marks of 250mm as this has proven to be acceptable for most aircraft irrespective of type or location of the mark. The Australian regulations Part 45 prescribes a minimum size mark for helicopters of 300mm and 500mm for all aircraft other than gliders.

One commenter objects to changing the size of marks on the sides of their fleet of helicopters because of the expense involved with no safety advantage.

CAA Response: Appendix A provides transitional arrangements to allow operators to bring their aircraft into compliance when the aircraft is painted,

re-registered or repainted. Compliance is therefore at no additional cost to the operator.

47.119 Identification Plate

Two commenters suggested that the requirement for an identification plate with the nationality and registration mark be reviewed as aircraft fitted with a manufacturers stainless steel plate, giving the aircrafts serial number and therefore provides sufficient traceability for identification should the aircraft be destroyed by fire.

One commenter believed that the identification plate was no longer required by the FAA.

One commenter suggests that it is unnecessary to have an identification plate installed if the aircraft already has a manufacturers identification plate and that it is an expense with slim or nil benefit.

CAA Response: Not all aircraft operated in New Zealand have a manufacturers identification plate. The requirement to have an identification plate is in keeping with the ICAO International Standard in Annex 7, section 8, and the Federal Aviation Regulations Part 45, Subpart B, Identification of Aircraft and Related Products and therefore remains substantially unchanged.