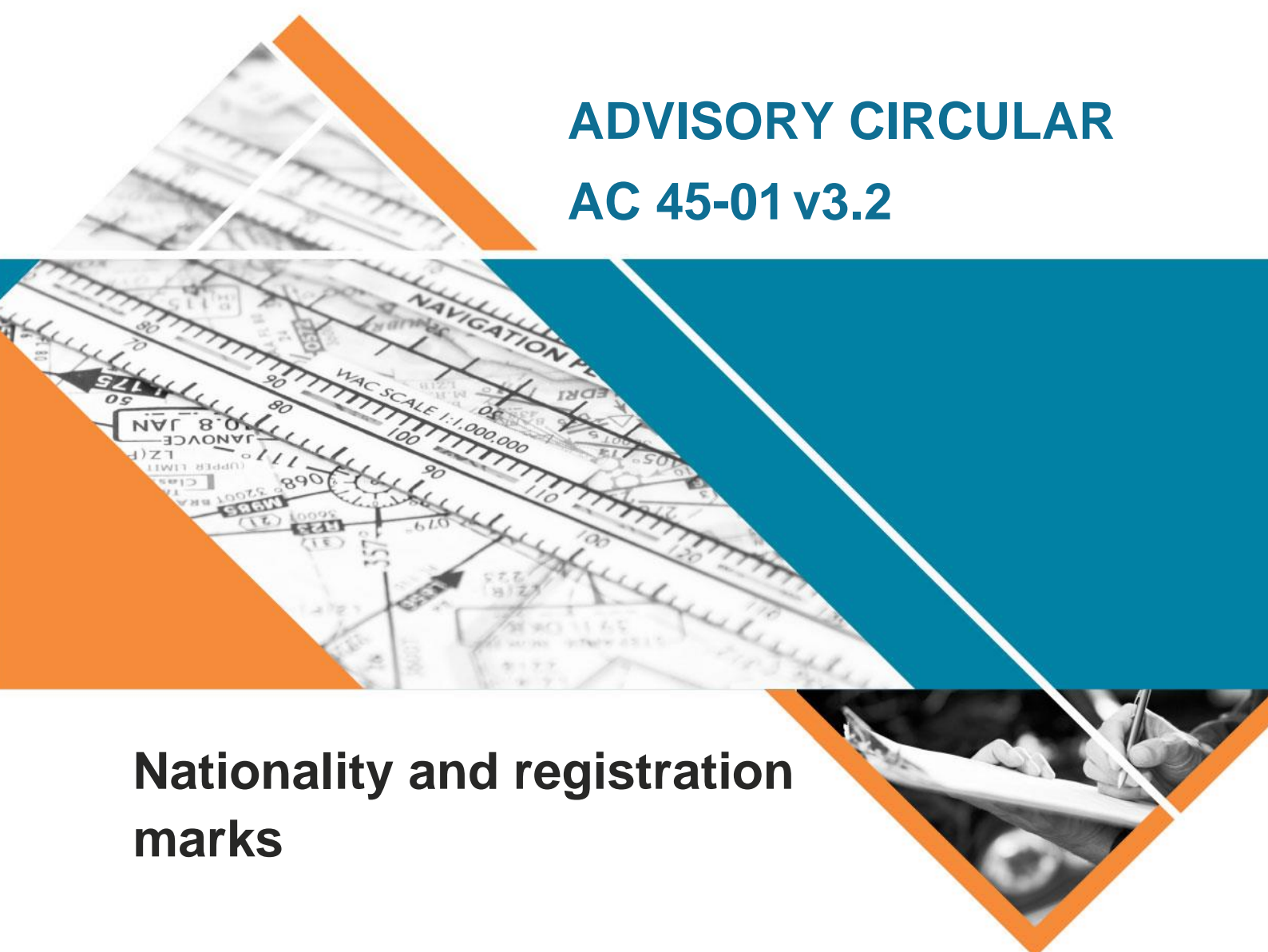




ADVISORY CIRCULAR

AC 45-01 v3.2



Nationality and registration marks

Date November 2022
File ref D22/468728

Advisory circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- aircraft registration holders
- owners/operators of aircraft
- maintainers of aircraft.

Purpose

This AC provides guidance and information concerning the registration marking of aircraft and the fireproof aircraft registration data plates.

For further information

For further information, contact CASA's Airworthiness and Engineering Branch (telephone 131 757).

Unless specified otherwise, all subregulations, regulations, Divisions, Subparts and Parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Status

This version of the AC is approved by the Branch Manager, Airworthiness and Engineering.

Note: Changes made in the current version are not annotated. The document should be read in full.

Version	Date	Details
v1.1	November 2022	Administrative review only.
(2.1)	March 2015	This second amendment of AC 45-01 (2.1) includes details of an exemption to some of the requirements of Part 45 of CASR 1998 - Display of nationality and registration marks and aircraft registration identification plates.
(2)	March 2010	This is the second amendment of this AC which includes details of an exemption to some of the requirements of CASR Part 45 Display of nationality and registration marks and aircraft registration identification plates.
(1)	March 2008	This is the first amendment of this AC which includes details of an exemption to some of the requirements of CASR Part 45 — Nationality and Registration Marks.
(0)	August 2000	Initial AC.

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1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	advisory circular
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
CAO	Civil Aviation Order

2 Background

- 2.1.1 Under the provisions of the Civil Aviation Act 1988 (the Act) and implementing CASRs, except as provided in regulation 47.175 of CASR 1998, a civil aircraft must be registered and identified before it may be operated as an Australian aircraft.
- 2.1.2 Part 45 of CASR 1998 contains provisions governing the display and description of nationality and registration marks on Australian aircraft and requirements for:
- nationality and registration marks of Australian aircraft
 - special marking rules for exhibition, antique and other aircraft
 - display, location and size of marks on aircraft
 - aircraft (nationality and registration) registration identification plate
 - marking of export aircraft
 - removal of marks following sale of the aircraft.

Note: Aircraft marked in accordance with CAR 1988 (prior to the commencement of Part 45) do not need to make any change to the markings to comply with Part 45 of CASR 1998 until the aircraft is repainted.

3 Exemption

- 3.1.1 Civil Aviation Safety Authority's (CASA's) Instrument number CASA EX16/15 'Exemption — Display of markings and carriage of identification plates' allows Australian fixed wing and rotorcraft with a maximum take off weight below 5,700 kg and operating wholly within Australian territory to be exempt from some of the requirements of Part 45 of CASR 1998 that cover the location and size of markings and the carrying of an aircraft registration identification plate.
- 3.1.2 Under the terms of the exemption, applicable aircraft will be exempt from:
- displaying markings on the undersurface of the wings, as required by subregulation 45.045 (1) of CASR 1998
 - displaying lateral markings of 300 mm, as required by subparagraph 45.065 (3) (b) (ii) and (c) item 1 — under the terms of the exemption the minimum height is 150 mm
 - carrying an aircraft registration identification plate, as required by subregulation 45.145 (1) of CASR 1998, provided the aircraft carries a fireproof manufacturer's data plate, as required by regulation 21.820 of CASR 1998. See Section 7.1.3 'Aircraft registration identification plate' for an explanation of the term 'fireproof'.
- 3.1.3 The exemption has been issued because the design of some new generation aircraft and technical limitations applying to the surfaces of composite materials used in newer aircraft means compliance with the requirements not possible.
- 3.1.4 The exemption is an interim measure until amendments to Part 45 of CASR 1998 can be introduced. CASA does not consider that the exemption will have a detrimental effect on the safety of air navigation.
- 3.1.5 The original exemption commenced on 1 February 2010. The current instrument stops having effect at the end of December 2015 or the date when the Civil Aviation Legislation Amendment (Part 45) Regulation 2015 commences.

4 Nationality and registration marks

4.1.1 The nationality mark for an Australian aircraft is 'VH'. The nationality mark is followed by a hyphen and registration mark of three characters. No emblem, symbol, or decoration may be placed between the 'VH' and the registration mark, or between any of the characters in the registration mark. The registration mark shall have been allocated for use by CASA or an agent of CASA.

Notes:

1. The Gliding Federation of Australia allocates registration marks for gliders and motor gliders under a CASR Part 47 delegation.
2. Recreational Aviation Australia Inc, the Hang Gliding Federation of Australia Inc and the Australian Sport Rotorcraft Association Inc allocate registration marks for other sport aviation aircraft under Civil Aviation Order (CAO) 95 — Exemptions from Provisions of the Civil Aviation Regulations.

4.1.2 If the registration holder's aircraft is in the 'restricted', 'limited', 'experimental' or 'Provisional' category or class, they will need to ensure that the words, as the case may be, are displayed on their aircraft, in accordance with regulation 45.125 of CASR 1998.

4.1.3 An acceptable means of securing the degree of permanence required for aircraft marking is to use paint of a kind that would require thinners or strippers to remove, or to affix the nationality and registration marks in the form of placards. The use of tape which can be peeled off or water-soluble paint, such as poster paint, does not provide an acceptable level of permanence.

4.1.4 Ornamentation and colour contrast may affect the legibility of the nationality and registration marks. For example, nationality and registration marks may contrast in colour with the background but still may not be legible if the background is highly decorated in some manner, such as checkering. To be legible, 500 mm marks should be clearly distinguishable without optical aid (e.g. binoculars) from a distance of 150 m, in a horizontal line, perpendicular to the side of the aircraft during daylight hours.

4.1.5 Marks may be computer generated and, as such, are designed to be optically true and at the same time aesthetically pleasing to the eye. CASA accepts the use of computer graphics for the generation of registration marks, and the use of laser cut adhesive backed tape. The only concern is that the final product must satisfy the criteria for permanency.

4.1.6 Further, subject to the application of professional sign-writing practice and the geometry of the aircraft, the nationality and registration marks may be skewed to an acceptable degree. It is not the intention to specify what constitutes 'an acceptable degree', but should not be more than 35 degrees from the perpendicular in order that the marks are still legible.

5 Display of marks

- 5.1.1 The standards for nationality and registration marks with respect to colour, legibility, permanence, location, and size are specified in Part 45 of CASR 1998.
- 5.1.2 Unless authorised by CASA, a person must not place a design, mark, or symbol on the aircraft that modifies or confuses the nationality, registration mark or any of the marks depicting the 'restricted', 'limited', 'experimental', 'amateur-built' or 'provisional' markings.
- 5.1.3 Aircraft that are exempt from registration under Part 47 of CASR 1998, but are required to be registered under CAO 95 must display the registration mark assigned by the appropriate recreational aviation administration organisation.
- 5.1.4 Any such Australian aircraft, including gliders registered under Part 47 of CASR 1998, operating outside Australian Territory must also display the Australian nationality letters 'VH-' as a prefix to their registration mark.
- 5.1.5 See Instrument number CASA EX10/10 'Exemption — Display markings and carriage of identification plates' at Appendix A for details of exemptions from requirements relating to the display of markings.

Note: Australian Territory means:

- a) the territory of Australia and of every external Territory
- b) the territorial sea of Australia and of every external Territory
- c) the airspace over any such territory or sea.

(Part 1 Section 3 of the Act)

6 Special marking rules

- 6.1.1 With respect to antique, restored or replica aircraft or when the aircraft is being operated for the purpose of exhibition (including motion pictures, television or air shows), the display of aircraft nationality and registration markings may be relaxed.
- 6.1.2 The relaxation is only permitted if the aircraft is:
- operated at the location of the exhibition
 - flying to and from the exhibition
 - CASA has been provided with a photograph (or drawing) of the aircraft.
- 6.1.3 Similar relaxation provisions with respect to the size and location of nationality and registration markings exist for Part 23 of CASR 1998 (or similar), certificated aircraft built at least 45 years ago, or Australian registered aircraft for which an experimental certificate has been issued, provided that the aircraft is not operated in a foreign country or operated for commercial purposes under Part 206 of CAR 1988.
- 6.1.4 Any special marking rules in place regarding amateur-built aircraft, previously specified in CAO 101.28 shall, at the time of introduction of the new legislation, continue. These aircraft are classified as aircraft under special configuration rules specified in regulation 45.105 of CASR 1998.

7 Aircraft registration identification plate

- 7.1.1 The aircraft registration holder is required to have a 'fire-proof' aircraft registration identification plate specifying the nationality and registration mark of the aircraft (suitably marked by etching, stamping, engraving or other approved method), and attached to an 'accessible location near an entrance' of the aircraft as prescribed in Subpart 45.D of CASR 1998. This is in addition to the manufacturer's aircraft identification data plate.
- 7.1.2 An 'accessible location near an entrance' for an aircraft registration identification plate may be either external or internal, and would be considered acceptable when it is visible to a person at, or within, the entrance to the aircraft. 'Accessible' does not mean that the aircraft registration identification plate must be visible from the outside or without opening the door, or that it must be visible without removing things such as baggage or carry-on items from the aircraft. For an aircraft with more than one door, the entrance most used by the flight crew would be considered the most appropriate location for the identification plate. If, under certain conditions, the plate is covered or enclosed in any manner, its accessibility would be considered acceptable if it can be revealed without the use of tools or removing aircraft components.
- 7.1.3 The term 'fireproof', as it relates to the nationality and registration identification plate to be affixed to the aircraft, is defined by regulation 21.810 of CASR 1998 to mean the capacity to withstand the heat associated with fire at least as well as steel in dimensions appropriate for the purpose for which they are used.
- 7.1.4 Subregulations 45.155 (1) and (2) of CASR 1998 prohibits any person from removing, installing or altering information on an aircraft registration identification plate without CASA approval. This requirement seeks to control the practice of building an aircraft from spare parts and installing an aircraft registration identification plate, or manufacturer's aircraft identification data plate from a scrapped or destroyed aircraft. A number of advertisements have been noticed in aviation magazines offering or seeking certain aircraft data plates. The purchasers of such plates, obtained as discussed above, would be in violation of Part 45 of CASR 1998 if they were to affix such an aircraft registration identification plate, without the prior approval of CASA.
- Note:** An offence against subregulations 45.155 (1) and (2) of CASR 1998 is an offence of strict liability (For strict liability, see section 6.1 of the Criminal Code).
- 7.1.5 The exception to paragraph 10.4 is the situation where aircraft maintenance is being carried out in accordance with methods, techniques, and practices acceptable to CASA. That is, where the plate may need to be removed in order to carry out maintenance followed by re-installing the data plate.

Note: For further information, see Part 61 of CAR — Removal of aircraft registration identification plates.

8 Marking of export aircraft

- 8.1.1 An aircraft manufacturer preparing an aircraft for sale overseas and subsequent registration in another country may display marks required by the country of registry. The manufacturer is not permitted to operate the aircraft in this country for purposes other than test or demonstration flights as part of the sales promotion.
- 8.1.2 This section applies when an aircraft intended for export is still Australian-registered but has had nationality and registration marks assigned to it from another country; that is, the ICAO 'State of Registry'. Accordingly, such aircraft may display the nationality and registration marks of the other country rather than the Australian marks, as follows:
- 8.1.3 An aircraft prepared by a manufacturer for export, which is already registered in its importing country, but that has not been issued with a Certificate of Airworthiness from the importing country, may not display Australian nationality and registration marks during operations in Australia. It is necessary to display the nationality and registration marks of the importing country and obtain a special flight authorisation under regulation 21.197 of CASR 1998 to operate these aircraft in Australia.
- 8.1.4 An aircraft manufacturer preparing an aircraft for export that is still registered in Australia may display the nationality and registration marks of the country of intended registry for test and demonstration flights, including 'photo flights', or while in transit to the purchaser.

9 Sale of aircraft – Removal of marks

- 9.1.1 If an aircraft is sold to someone other than an Australian citizen, a person who has been granted permanent residence in Australia or a purchaser intending to operate under the laws of Australia or any State thereof, the nationality and registration marks must be removed from the aircraft before delivery to the purchaser.
- 9.1.2 Any questions regarding aircraft registration should be resolved on an individual basis through consultation with the CASA's Civil Aircraft Registry Section, contact number 131-757 (local call cost).

Appendix A

CASA EX16/15 - Exemption - display of markings and carriage of identification plates



Australian Government
Civil Aviation Safety Authority

Instrument number CASA EX16/15

I, PETER REGINALD FEREDAY, Executive Manager, Industry Permissions Division, a delegate of CASA, make this instrument under regulation 11.160 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.


Peter Reginald Fereday
Executive Manager
Industry Permissions Division

27 January 2015

Exemption — display of markings and carriage of identification plates

1 Duration

This instrument:

- (a) commences on 1 February 2015; and
- (b) expires, as if it had been repealed by another instrument, at the earlier of:
 - (i) the end of December 2015; or
 - (ii) the date when the *Civil Aviation Legislation Amendment (Part 45) Regulation 2015* commences.

2 Application

This instrument applies to Australian fixed-wing aircraft and rotorcraft with maximum take-off weight of less than 5 700 kg operating wholly within Australian territory (the *aircraft*).

3 Exemption

The aircraft is exempt from compliance with the following requirements:

- (a) subregulation 45.045 (1) of CASR 1998 to the extent mentioned in Schedule 1;
- (b) subregulation 45.145 (1) of CASR 1998 subject to the condition mentioned in Schedule 2;
- (c) subparagraph 45.065 (3) (b) (ii) and item 1 of paragraph 45.065 (3) (c) of CASR 1998 subject to the condition mentioned in Schedule 3.

Schedule 1 Extent of exemption

The exemption extends only to display markings on the under surface of the port wing or across the under surface of both wings.

Schedule 2 Condition

The aircraft must carry a manufacturer's data plate as required by regulation 21.820 of CASR 1998.

Schedule 3 Condition

The minimum height must be 150 millimetres.



Explanatory Statement

Civil Aviation Safety Regulations 1998

Exemption — display of markings and carriage of identification plates

Legislation

Section 98 of the *Civil Aviation Act 1988* (the *Act*) empowers the Governor-General to make regulations for the Act and the safety of air navigation.

Regulation 45.045 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)* sets out the required number and location of sets of markings. Paragraph 45.045 (1) (a) provides that on a fixed-wing aircraft, 1 set of the markings may be either on the under surface of the port wing or across the under surface of both wings, in each case as set out in subregulation 45.045 (2).

Regulation 45.065 of CASR 1998 sets out the minimum height of the characters in a set of aircraft markings. Markings comprise the nationality and registration marks of an aircraft. In accordance with subparagraph 45.065 (3) (b) (ii) and item 1 of paragraph 45.065 (3) (c), the minimum height that would be applicable to the markings on the side of a fixed-wing aircraft and rotorcraft is 300 millimetres.

Regulation 45.145 of CASR 1998 provides that a person may only operate an Australian aircraft if an aircraft identification plate is attached to the aircraft.

Subregulation 11.160 (1) of CASR 1998 provides that, for subsection 98 (5A) of the Act, CASA may grant an exemption from a provision of the regulations in relation to a matter mentioned in that subsection. Under subregulation 11.160 (2), an exemption may be granted to a person, or to a class of persons, and may specify the class by reference to membership of a specified body or any other characteristic.

Under subregulation 11.205 (1) of CASR 1998, CASA may impose conditions on an exemption if this is necessary in the interests of the safety of air navigation. Under regulation 11.225 of CASR 1998, an exemption must be published on the Internet. Under subregulation 11.230 (1), an exemption ceases on the day specified within it (but no longer than 3 years after its commencement) or, if no day is specified, 3 years after commencement.

Background

Part 45 of CASR 1998, which deals with the display of nationality and registration marks and aircraft registration identification plates, commenced on 1 October 2000. A number of changes and requirements were restrictive and industry participants found it difficult to ensure compliance. The key difficulties related to the minimum height of lateral markings increasing from 150 millimetres to 300 millimetres, the variations in marking requirements depending on an aircraft's certification category, and technical limitations applying to the surfaces of composite materials used in some newer aircraft.

To address these issues, CASA issued an exemption on 27 January 2010 to provide some relief (CASA EX10/10 refers). CASA EX04/12 renewed the exemption on 1 February 2012 and will expire at the end of January 2015.

Marking requirements for aircraft are based on standards set by the International Civil Aviation Organization (*ICAO*) and are used for visual identification purposes. However, the exemption will not affect Australia's compliance with ICAO Annex 7 – Aircraft

Nationality & Registration Marks, since the exemption is limited to aircraft operating within Australian territory and does not apply to any Australian aircraft engaged in international air navigation.

CASA is nearing completion of a project to amend Part 45 of CASR 1998 to deal with the issues dealt with by the exemption. The *Civil Aviation Legislation Amendment (Part 45) Regulation 2015* is expected to be made in July 2015.

Instrument

CASA EX16/15 is a renewal of the exemption in the same terms, with the new expiry date being the earlier of, the end of December 2015 or the date of commencement of the *Civil Aviation Legislation Amendment (Part 45) Regulation 2015*.

CASA EX16/15 exempts Australian fixed-wing aircraft and rotorcraft with a maximum take-off weight of less than 5 700 kilograms operating in Australian territory from minimum character height requirements, carriage of an aircraft identification plate, and display of sets of markings on the aircraft. The exemptions are subject to conditions that require carriage of a manufacturer's data plate and that character height must be a minimum of 150 millimetres. The exemption from displaying sets of markings on the aircraft only extends to the display of markings on the under surface of the port wing or across the under surface of both wings.

Legislative Instruments Act

For subsection 98 (5A) of the Act, CASA may, by instrument, grant an exemption from compliance with a provision of the regulations or the Civil Aviation Orders. An instrument issued under paragraph 98 (5A) (a) of the Act is a legislative instrument if the instrument is expressed to apply to a class of persons or aircraft. The exemption applies generally to all fixed-wing aircraft and rotorcraft.

The exemption is, therefore, a legislative instrument and is subject to tabling and disallowance in the Parliament under sections 38 and 42 of the *Legislative Instrument Act 2003* (the *LIA*).

Consultation

CASA's policy on exempting certain aircraft from Part 45 requirements has not changed since initial industry consultations in 2010. The instrument is a renewal of an exemption that has continued since January 2010. It is CASA's view that it is not necessary or appropriate to undertake any further consultation under section 17 of the *LIA*.

Statement of Compatibility with Human Rights

A Statement of Compatibility with Human Rights is at Attachment 1.

Office of Best Practice Regulation (OBPR)

A Regulation Impact Statement (*RIS*) is not required because the instrument is covered by a standing agreement between CASA and OBPR under which a *RIS* is not required (OBPR id: 14507).

Making and commencement

The exemption has been made by a delegate of CASA, relying on the power of delegation under subregulation 11.260 (1) of CASR 1998.

The exemption commences on 1 February 2015 and expires at the end of December 2015 or the date of commencement of the *Civil Aviation Legislation Amendment (Part 45) Regulation 2015*, whichever is earlier.

[Instrument number CASA EX16/15]

Statement of Compatibility with Human Rights

*Prepared in accordance with Part 3 of the
Human Rights (Parliamentary Scrutiny) Act 2011*

Exemption — display of markings and carriage of identification plates

This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the legislative instrument

This legislative instrument exempts Australian fixed-wing aircraft and rotorcraft with a maximum take-off weight of less than 5 700 kilograms operating within Australian territory from various marking and identification plate requirements.

The exemption is subject to conditions that CASA considers necessary in the interests of aviation safety.

Human rights implications

This legislative instrument does not engage any of the applicable rights or freedoms.

Conclusion

This legislative instrument is compatible with human rights as it does not raise any human rights issues.

Civil Aviation Safety Authority