

BHUTAN CIVIL AVIATION REQUIREMENTS



BCAR - Aircraft Nationality and Registration Marks

Issue 1

October 2010

BCAR - Aircraft Nationality and Registration Marks

Note: - For the purpose of assuring compatibility with international safety standards and to fulfill Bhutan's obligations as an ICAO Member State, this BCAR- Aircraft Nationality and Registration Marks is comparable with ICAO Annex 7 Aircraft Nationality and Registration Marks.

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1. DEFINITIONS

When the following terms are used in this Part, they have the following meanings:

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. (See Table 1, Classification of aircraft.)

Airship. A power-driven lighter-than-air aircraft.

Balloon. A non-power-driven lighter-than-air aircraft.

DCA. Department of Civil Aviation in Bhutan.

Fireproof material. A material capable of withstanding heat as well as or better than steel when the dimensions in both cases are appropriate for the specific purpose.

Glider. A non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Gyroplane. A heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors which rotate freely on substantially vertical axes.

Heavier-than-air aircraft. Any aircraft deriving its lift in flight chiefly from aerodynamic forces.

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Lighter-than-air aircraft. Any aircraft supported chiefly by its buoyancy in the air.

Ornithopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on planes to which a flapping motion is imparted.

Rotorcraft. A power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

2. NATIONALITY AND REGISTRATION MARKS TO BE USED

- 2.1 The nationality and registration mark consists of a group of characters.
- 2.2 The nationality mark shall precede the registration mark and as the first character of the registration mark is a letter, it shall be preceded by a hyphen.
- 2.3 The nationality mark for Bhutan is A5.
- 2.4 Intentionally left blank.
- 2.5 The registration mark in Bhutan is a combination of three letters assigned by the registering authority, the DCA.
- 2.6 Combinations of letters shall not be used which might be confused with the five-letter combinations used in the International Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT.

Note.— For reference to these codes, see the currently effective International Telecommunications Regulations.

3. LOCATION OF NATIONALITY AND REGISTRATION MARKS

3.1 General

The nationality and registration mark shall be painted on the aircraft or shall be affixed by any other means ensuring a similar degree of permanence. The marks shall be kept clean and visible at all times.

3.2 Lighter-than-air aircraft

- 3.2.1 *Airships*. The marks on an airship shall appear either on the hull or on the stabilizer surfaces. Where the marks appear on the hull, they shall be located lengthwise on each side of the hull and also on its upper surface on the line of symmetry. Where the marks appear on the stabilizer surfaces, they shall appear on the horizontal and on the vertical stabilizers; the marks on the horizontal stabilizer shall be located on the right half of the upper surface and on the left half of the lower surface, with the tops of the letters and numbers toward the leading edge; the marks on the vertical stabilizer shall be located on each side of the bottom half stabilizer, with the letters and numbers placed horizontally.
- 3.2.2 *Spherical balloons (other than unmanned free balloons)*. The marks shall appear in two places diametrically opposite. They shall be located near the maximum horizontal circumference of the balloon.
- 3.2.3 *Non-spherical balloons (other than unmanned free balloons)*. The marks shall appear on each side. They shall be located near the maximum cross-section of the balloon immediately above either the rigging band or the points of attachment of the basket suspension cables.
- 3.2.4 *Lighter-than-air aircraft (other than unmanned free balloons)*. The side marks shall be visible both from the sides and from the ground.
- 3.2.5 *Unmanned free balloons*. The marks shall appear on the identification plate (see Section 8).

3.3 Heavier-than-air aircraft

3.3.1 *Wings.* On heavier-than-air aircraft, the marks shall appear once on the lower surface of the wing structure. They shall be located on the left half of the lower surface of the wing structure unless they extend across the whole of the lower surface of the wing structure. So far as is possible, the marks shall be located equidistant from the leading and trailing edges of the wings. The tops of the letters and numbers shall be toward the leading edge of the wing.

3.3.2 *Fuselage (or equivalent structure) and vertical tail surfaces.* On heavier-than-air aircraft, the marks shall appear either on each side of the fuselage (or equivalent structure) between the wings and the tail surface or on the upper halves of the vertical tail surfaces. When located on a single vertical tail surface, they shall appear on both sides. When located on multivertical tail surfaces, they shall appear on the outboard sides of the outer surfaces.

3.3.3 *Special cases.* If a heavier-than-air aircraft does not possess parts corresponding to those mentioned in 3.3.1 and 3.3.2, the marks shall appear in a manner such that the aircraft can be identified readily.

4. MEASUREMENTS OF NATIONALITY AND REGISTRATION MARKS

The letters and numbers in each separate group of marks shall be of equal height.

4.1 Lighter-than-air aircraft

4.1.1 The height of the marks on lighter-than-air aircraft other than unmanned free balloons shall be at least 50 centimetres.

4.1.2 The measurements of the marks related to unmanned free balloons are determined by the DCA, taking into account the size of the payload to which the identification plate is affixed.

4.2 Heavier-than-air aircraft

4.2.1 *Wings.* The height of the marks on the wings of heavier-than-air aircraft shall be at least 50 centimetres.

4.2.2 *Fuselage (or equivalent structure) and vertical tail surfaces.* The height of the marks on the fuselage (or equivalent structure) and on the vertical tail surfaces of heavier-than-air aircraft shall be at least 30 centimetres.

4.2.3 *Special cases.* If a heavier-than-air aircraft does not possess parts corresponding to those mentioned in 4.2.1 and 4.2.2, the measurements of the marks shall be such that the aircraft can be identified readily.

5. TYPE OF CHARACTERS FOR NATIONALITY AND REGISTRATION MARKS

5.1 The letters shall be capital letters in Roman characters without ornamentation. Numbers shall be Arabic numbers without ornamentation.

5.2 The width of each character (except the letter l) and the length of hyphens shall be two-thirds of the height of a character.

5.3 The characters and hyphens shall be formed by solid lines and shall be of a colour contrasting clearly with the background. The thickness of the lines shall be one-sixth of the height of a character.

5.4 Each character shall be separated from that which it immediately precedes or follows, by a space of not less than one-quarter of a character width. A hyphen shall be regarded as a character for this purpose.

Table 1. Classification of aircraft

AIRCRAFT	Lighter-than-air aircraft	Non-power-driven	Free balloon	Spherical free balloon Non-spherical free balloon	
			Captive balloon	Spherical captive balloon Non-spherical captive balloon ¹	
		Power-driven	Airship	Rigid airship Semi-rigid airship Non-rigid airship	
		Heavier-than-air aircraft	Non-power-driven	Glider	Land glider
	Kite ⁴			Sea glider ²	
	Power-driven		Aeroplane	Landplane ³ Seaplane ² Amphibian ²	
			Rotorcraft	Gyroplane	Land gyroplane ³ Sea gyroplane ² Amphibian gyroplane ²
				Helicopter	Land helicopter ³ Sea helicopter ² Amphibian helicopter ²
	Ornithopter		Land ornithopter ³ Sea ornithopter ² Amphibian ornithopter ²		

1. Generally designated "kite-balloon".
 2. "Float" or "boat" may be added as appropriate.
 3. Includes aircraft equipped with ski-type landing gear (substitute "ski" for "land").
 4. For the purpose of completeness only.

6. REGISTER OF NATIONALITY AND REGISTRATION MARKS

The DCA maintains a current register showing for each aircraft registered the information recorded in the certificate of registration (see Section 7). The register of unmanned free balloons shall contain the date, time and location of release, the type of balloon and the name of the operator.

7. CERTIFICATE OF REGISTRATION

7.1 The certificate of registration, in wording and arrangement, shall be a replica of the certificate shown in Figure 1 and issued in the English language. The size of the form is at the discretion of the DCA.

7.2 The certificate of registration shall be carried on board every aircraft engaged in domestic and international air navigation.

8. IDENTIFICATION PLATE

An aircraft shall carry an identification plate inscribed with at least its nationality and registration mark. The plate shall be made of fireproof metal or other fireproof material of suitable physical properties and shall be secured to the aircraft in a prominent position near the main entrance or, in the case of an unmanned free balloon, affixed conspicuously to the exterior of the payload.

9. GENERAL

The provisions of this Part shall not apply to meteorological pilot balloons used exclusively for meteorological purposes or to unmanned free balloons without a payload.

Figure 1. Certificate of Registration

*	State <i>or</i> Common mark registering authority Ministry Department or Service	*
CERTIFICATE OF REGISTRATION		
1. Nationality or common mark and registration mark 	2. Manufacturer and manufacturer's designation of aircraft 	3. Aircraft serial no.
4. Name of owner		
5. Address of owner		
6. It is hereby certified that the above described aircraft has been duly entered on thein accordance with the Convention on International Civil (name of register) Aviation dated 7 December 1944 and with the (†)		
(Signature)		
Date of issue		
(†) Insert reference to applicable regulations.		
*		

* For use by the State of Registry or common mark registering authority.

For the Department of Civil Aviation, Bhutan



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