# MINISTRY OF DEFENSE AERONAUTICS COMMAND



### **AIR TRAFFIC**

ICA 100-3

AIRSPORT AIRCRAFT OPERATION

2018

### MINISTRY OF DEFENSE AERONAUTICS COMMAND DEPARTMENT OF AIRSPACE CONTROL



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# MINISTRY OF DEFENSE AERONAUTICS COMMAND AIRSPACE CONTROL DEPARTMENT

DECEA ORDER No 205/DGCEA, NOVEMBER 8th, 2018

Approves the reissue of the Instruction that deals with "Airsport Aircraft Operation".

THE GENERAL DIRECTOR OF THE AIR TRAFFIC CONTROL DEPARTMENT, in accordance with the provisions of the article 19<sup>th</sup>, subsection I of the Regimental Structure of the Aeronautical Command, approved by the decree n° 6.834, of April 30<sup>th</sup>, 2009, and considering the provisions of the article 10<sup>th</sup>, subsection IV, of DECEA's Regulation, approved by the Order n° 1.668/GC3, of September 16<sup>th</sup>, 2013, settles:

Art. 1<sup>st</sup> Approve the reissue of ICA 100-3 "Airsport Aircraft Operation" which with this one ceases.

Art.  $2^{nd}$  Assign the date of January  $1^{st}$  for the commencement of this publication.

Art. 3<sup>rd</sup> Revokes the DECEA Order N° 55/DGCEA, of October 28<sup>th</sup>, 2002, which approved the ICA 100-3, "Light Sport Vehicles Operation", published in the Internal Bulletin N° 206, of October 29<sup>th</sup>, 2002.

Ten Brig Ar JEFERSON DOMINGUES DE FREITAS General Director of DECEA

(Published in the BCA No 201, of November 20th, 2018)

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#### 1 PRELIMINARY PROVISIONS

#### 1.1 FINALITY

To establish rules and procedures of air traffic for the operation of airsport aircraft, in consonance with the ANAC Regulations.

#### **1.2** AMBIT

The rules and procedures contained in this Instruction are applied to the Pilots of aircraft in sport operation: ultralight vehicles, light sport aircraft, manned free balloon, sport experimental aircraft, parachutism, aerobatic flight and glider flight, as well as the Air Traffic Services and Aeronautical Information.

#### **1.3** ABBREVIATIONS

AFIS - Aerodrome Flight Information Service.

ANAC - National Civil Aviation Agency.

ATS - Air Traffic Service.

CINDACTA - Integrated Air Defense Center and Airspace Control.

DECEA - Department of Airspace Control.

CA-P - Conditioned Airspace – Permanent.

CA-T - Conditioned Airspace – Temporary.

ICA - Aeronautics Command Instruction.

I.S - Supplementary Instruction.

IFR - Instrument Flight Rules.

KT - Knot.

MCA - Aeronautics Command Manual.

SRPV - Regional Flight Protection Service.

TWR - Aerodrome Control Tower.

VFR - Visual Flight Rules.

#### **1.4** DEFINITIONS

The terms and expressions related below, used in this Instruction, have the following meanings:

#### DANGEROUS AREA

Airspace of defined dimensions, over Brazilian land or sea, in which may exist, in specific moments, dangerous activities for the flight of aircraft.

#### PROHIBITED AREA

Airspace of defined dimensions, over Brazilian land or sea, in which the flight of aircraft is prohibited.

#### RESTRICTED AREA

Airspace of defined dimensions, over Brazilian land or sea, in which the flight of aircraft is restricted according to certain defined conditions.

#### CONDITIONED AIRSPACE ACTIVATION

Expression that means the beginning of operation in a determined CA.

#### CONDITIONED AIRSPACE DEACTIVATION

Expression that means the ceasing of operation in a determined CA.

#### CONDITIONED AIRSPACE

Generic expression that applies, according to the case, to a prohibited, restricted or dangerous area.

#### PERMANENT CONDITIONED AIRSPACE

Part of the airspace established permanently and registered in the aeronautical information publication.

#### TEMPORARY CONDITIONED AIRSPACE

Portion of the airspace established by a determined period of time.

#### DECEA'S REGIONAL CENTER

Organization of COMAER, subordinate to DECEA, with jurisdiction over a determined region of Brazilian airspace, which ATC providers, for air traffic control purposes, are directly aligned with operational subordination. Are Regional Centers CINDACTA and the SRPV-SP.

#### AIR TRAFFIC SERVICE PROVIDERS

Generic expression that applies, according to the case, to an air traffic control provider or flight information provider.

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#### ACTIVATION PERIOD

Period of time in which the CA is being used, according to the finality that it was created.

#### AEROBATIC FLIGHT

Manoeuvres done intentionally with the aircraft that involves abrupt changes in an aircraft's altitude, abnormal flight attitudes or abnormal speed and acceleration variations.

#### 2 INTRODUCTION

**2.1** The provisions contained in this norm do not have the objective of regulating or stablishing requirements related to pilot formation processes or homologation/certification of activities with airsport aircraft, either regulate or stablish requirements for the homologation of intended sites for landing and takeoff operations for ultralights and other sport aircraft.

- **2.2** In the processes of analysis of proposals of airspace creation of permanent or temporary character, the regional centers of DECEA must only analyze the operational and technical aspects related to the dispositions contained in the regulations of the Department, according to the specified in ICA 100-38.
- **2.3** The authorization issued by SRPV or CINDACTA for the creation of flight airspaces has the exclusive finality of guaranteeing the coordination and the air traffic control, as well as the flight safety, without implying any authorization for the execution of specific technical activity of the air sport operations.
- **2.4** The reissue of this Publication was developed in order to make the air traffic rules and procedures more efficient for the sport operation of aircraft, in view of:
  - a) the increased demand of these flight;
  - b) the different and modern equipment used;
- c) the provisions in the new ANAC's regulations about airsport aircraft operation; and
  - d) the pertinent air traffic norms, established for the general aviation.
- **2.5** For the purpose of this Instruction, the following expressions related to ultralight vehicles shall be used with the same meaning:
  - a) ultralight vehicle ultralight;
  - b) non-propelled non-motorized; and
  - c) self propelled motorized.

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#### **3 GENERAL RULES**

The provisions described in this chapter applies to the other chapters of this regulation, respected the specific provisions for each air sport modality.

NOTE: The items 4.1, 4.2, 4.3 and 4.6 contain provisions that are applicable specifically to the modalities that they refer to.

#### **3.1** RESPONSIBILITY

**3.1.1** It is the responsibility of the practitioner to know the adequate sites for the practice and respect the airsport operation rules, know the limits, validity and special applicable conditions, as well as it is the responsibility of the Associations to classify correctly the types of airsport operations, by occasion of the request of new airspaces creation, in view that the request processes may be different.

#### **3.2 DESIGNATED AIRSPACES**

- **3.2.1** The airsport aircraft operations exclusively must be carried out only within the airspaces specifically designed for this purpose (flight spaces).
- **3.2.2** To enable the practice of airsport activities, the Associations related to this practice must request previously the creation of flight spaces either for the activities of permanent character, as well as temporary, to DECEA's regional centers (SRPV/CINDACTA), in order to be analyzed the viability of the creation of these airspaces described in 3.2.4 and 3.2.5.
- NOTE 1: Except the provisions of 4.1.2.1 and I.S n° 91-008 Rev. A of ANAC (or its updates).
- NOTE 2: The processes for the request of flight are described in the ICA 100-38 of DECEA and I.S n° 91-008 Ver. A and I.S n° 103-001 of ANAC (or its updates).
- **3.2.3** When airsport operations are allowed only in aerodromes and its surroundings, it may not be necessary the creation of flight spaces, as provided in 3.2.2. In such cases, the events should be publicized through NOTAM, besides the coordination between the users in airsport operations and the ATS (if existent) and the airport administration.
- NOTE 1: An aircraft shall be considered in the surroundings of an aerodrome, when within the traffic pattern, entering or leaving it.
- NOTE 2: This exception does not apply to the case of aerobatic flight.
- **3.2.4** The designated airspaces for the airsport operations of aircraft must be established as Conditioned Airspaces, where possible, without prejudice to the safety of other aerial operations.
- **3.2.5** If it is necessary for the displacement of aircraft in airsport operations, from the base site to the destined flight sites, Conditioned Airspaces will be defined, in a corridor shape.
- **3.2.6** The activation times, as well as the maximum and minimum altitudes of the Conditioned Airspaces, described in 3.2.4 and 3.2.5, must be defined, in order not to interfere in the safe operation of other aircraft.

**3.2.7** The publication to the users about the Conditioned Airspaces, described in 3.2.4 and 3.2.5, must occur, initially, through regional NOTAM, until its definitive inclusion, when applicable, in pertinent aeronautical publication.

NOTE: Additionally, digital systems may be used, in order to facilitate the visualization and dissemination of flight spaces for the practice of airsport operations.

#### **3.3** OPERATIONAL RULES

- **3.3.1** It is forbidden the employment of aircraft in airsport operation in a way that offers risk to the people on the ground or the civil aviation system.
- **3.3.2** It is forbidden to anyone employing an airsport aircraft to allow the throwing of objects to the ground in a way that offers risk to the people or property.
- **3.3.3** It will only be permitted the employment of aircraft in airsport operation in the period within the official sunrise times and the official sunset times in the site of the operation.
- **3.3.4** No aircraft in airsport operation will fly as close to another aircraft, in a way that it offers collision hazard with it.

NOTE: The formation flights must be carried out according to the provisions contained in specific publications.

- **3.3.5** It is forbidden the operation of aircraft without radio equipment or with it inoperative in aerodromes provided with TWR or AFIS, except the flight of gliders and aircraft belonging to flight clubs based in these localities, through prior coordination with the ATS and the airport administration, in a period that does not cause prejudice to the aerodrome traffic.
- **3.3.6** Prohibition of the airsport operations of aircraft may occur in determined controlled aerodromes, in permanent character or in specific periods, in order to guarantee the safety and fluidity necessary to the efficient management of air traffic.

NOTE: The prohibition in 3.3.6, when possible, may be included in the Aeronautical Information Publication.

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#### **4 SPECIFIC RULES FOR THE MODALITIES**

# **4.1** ULTRALIGHT VEHICLES AND MANNED FREE BALLOONS WITHOUT AIRWORTHINESS CERTIFICATE

**4.1.1** For the purposes of this regulation, the definition of ultralight vehicle can be found in Annex A.

NOTE: As an example of ultralight vehicles, there are the non-motorized flying wings (hang gliders and paragliders), motorized flying wings (trikes and powered paragliders)

#### **4.1.2** DESIGNATED AIRSPACES

- **4.1.2.1** To enable the practice of airsport activities of **permanent character** for ultralight vehicles and manned free balloons without airworthiness certificates, the Associations must first request ANAC the creation of flight spaces, according to the process established in ICA 100-38 and I.S no 103-001 of ANAC.
- **4.1.2.1.1** After the analysis of the subjects of competencies of ANAC, with a favorable opinion to the creation of a permanent airspace, this Agency will forward the application request for the appreciation of the regional DECEA centers (SRPV/CINDACTA), in order to be analyzed the viability of its creation.
- **4.1.2.2** According to established in the item 3.2.2 of the general rules, the request to create a **temporary** flight space must be forwarded directly to the regional DECEA center, however, for the specific airsport operations listed in this item, additionally, the copies of the applications sent by the users must be forwarded, by the regional center, to the regional ANAC unit, in a way to allow the acknowledgement of the process by the Agency.

## **4.1.3** OPERATIONAL RULES FOT ULTRALIGHTS AND MANNED FREE BALLOONS WITHOUT AIRWORTHINESS CERTIFICATES

- **4.1.3.1** The operation of an ultralight vehicle or manned free balloon, according to this regulation, is limited to the Visual Meteorological Condition (VMC) during daytime and maintaining visual references with the surface during all flight.
- **4.1.3.2** It is forbidden the takeoff or landing operation with an ultralight vehicle or manned free balloon in a locality not authorized by the owner or the rights holder over the area in question.
- **4.1.3.3** A person can only board another person in an ultralight vehicle or manned free balloon under this regulation if this person acknowledges that the activity is by their own risk, where operator and aircraft does not have any technical qualification issued by ANAC, not having, therefore, any safety guarantee.
- **4.1.3.4** It is only allowed the operation of an ultralight vehicle or manned free balloon by a person with age of 18 or higher.

NOTE: The general operational rules contained in the item 3.3 are also applicable to the ultralight vehicles and manned free balloons without airworthiness certificates.

#### **4.1.4** RIGHT OF PASSAGE FOR ULTRALIGHT VEHICLES

- **4.1.4.1** The ultralight that has the right of passage must keep its course and speed, although this rule does not exempt the pilot in command to proceed in the way of avoiding a collision. Every ultralight, obliged to move away from another ultralight or aircraft, must avoid flying over, under or in front of it, unless there is sufficient distance.
- **4.1.4.2** The motorized ultralights will not have the right of passage over the other aircraft, and their pilots should maintain constant vigilance during the flight, in order to observe them and give them the passage.
- **4.1.4.3** The motorized ultralights will give passage to the non-motorized ultralights

#### 4.1.5 VISIBILITY IN FLIGHT AND CLOUD CLEARANCE

**4.1.5.1** The operation of ultralight and manned free balloon without airworthiness certificates should be conducted in a way that the aircraft flies in visibility conditions and cloud clearance equal or above the values of the following table:

FLIGHT ALTITUDE (BASED ON THE MEAN SEA LEVEL)	MINIMUM FLIGHT VISIBILITY	MINIMUM CLOUD CLEARANCE
Below FL 100	5.000 m	300m (1000 ft) vertically 1500m (5000 ft) horizontally
At or above FL 100	8.000 m	300m (1000 ft) vertically 1500m (5000 ft) horizontally

#### 4.1.6 SPECIFIC OPERATIONAL RULES FOR MOTORIZED ULTRALIGHTS

**4.1.6.1** The flights in motorized ultralights must comply with the minimum height of 90 meters (300 ft) above the higher existing obstacle within the radius of 100 meters around the aircraft.

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#### **4.2** LIGHT SPORT AIRCRAFT

**4.2.1** The use of light sport aircraft may have different purposes, such as sporting, private mean of transport, pilot training tool, among others. The spectrum of possibilities of application of these aircraft is quite wide and approaches the use of small certified aircraft.

#### **4.2.2** DESIGNATED AIRSPACES

- **4.2.2.1** The flight of light sport aircraft must be carried out:
  - a) within the conditioned airspaces described in 3.2, in the cases of flight with sporting purposes; or
  - b) outside the conditioned airspaces described in 3.2, WITHOUT the sporting purposes, and:
  - in compliance with the general rules and the visual flight rules (VFR) or instrument flight rules (IFR) contained in the ICA 100-12, as well as the other rules contained in the DECEA's pertinent legislations;
  - the vehicle used has the necessary characteristics and is adequately equipped, according to the ANAC regulations, to comply with the flight requirements in the corresponding airspace classes; and
  - the pilot has the crew licenses and/or the technic capacity certificate given by the aeronautical authority according to the Art. 160 of Law n° 7.565, of December 19<sup>th</sup>, 1986 (Brazilian Aeronautics Code).

NOTE: The demands described in 4.2.2.1 b) aim to protect the air traffic safety within the ATS airspaces, due to the coexistence of these sport aircraft and other types of aircraft.

- **4.2.2.2** The ATS and AIS, when contacted by the pilots of light sport aircraft, must consider that the demands provided in 4.2.2.1 b) and 4.2.2.3 were met.
- **4.2.2.3** For the flight of light sport aircraft outside the airspaces described in 3.2, the pilot in command must meet the requirements of ICA 100-11 and the MCA 100-11, referring to the obligatory presentation and correction of the Flight Plan filling.

#### **4.2.3 OPERATIONAL RULES**

The general operational rules are applied, fully, to the flights listed in the item 4.2.2.1, letter a).

The operation of light sport aircraft listed in the item 4.2.2.1, letter a) is limited to the Visual Meteorological Condition (VMC) during daytime and maintaining visual references with the surface during all flight.

For the flights listed in the item 4.2.2.1 letter b), only the general flight rules are applied.

#### **4.3** EXPERIMENTAL SPORT AIRCRAFT

**4.3.1** The operation of experimental sport aircraft is under the generalities of the experimental aviation and, even with sporting finality, is confused with the general aviation operation. Despite being subjected to some operational restrictions, these devices are still in touch with the civil aviation system, presenting a considerable injurious potential to the safety of the system.

**4.3.1.1** The aircraft included in this modality can be weight-shifting (trikes), gyrocopters, amphibian aircraft and amateur-built aircraft (homebuilt).

#### **4.3.2** DESIGNATED AIRSPACES

- **4.3.2.1** The flight of experimental sport aircraft must be carried out:
  - a) within the conditioned airspaces described in 3.2, in the cases of flight with sporting purposes; or
  - b) outside the conditioned airspaces described in 3.2, WITHOUT the sporting purposes, and:
  - in compliance with the general rules and the visual flight rules (VFR) or instrument flight rules (IFR) contained in the ICA 100-12, as well as the other rules contained in the DECEA's pertinent legislations;
  - the vehicle used has the necessary characteristics and is adequately equipped, according to the ANAC regulations, to comply with the flight requirements in the corresponding airspace classes; and
  - the pilot has the crew licenses and/or the technic capacity certificate given by the aeronautical authority according to the Art. 160 of Law no 7.565, of December 19<sup>th</sup>, 1986 (Brazilian Aeronautics Code).
  - NOTA: The demands described in 4.3.2.1 b) aim to protect the air traffic safety within the ATS airspaces, due to the coexistence of these sport aircraft and other types of aircraft.
- **4.3.2.2** The ATS and AIS, when contacted by the pilots of experimental sport aircraft, must consider that the demands provided in 4.3.2.1, letter b), and 4.3.2.3.
- **4.3.2.3** For the flight of experimental sport aircraft outside the airspaces described in 3.2, the pilot in command must meet the requirements of ICA 100-11 and the MCA 100-11, referring to the obligatory presentation and correction of the Flight Plan filling.

#### **4.3.3** OPERATIONAL RULES

The general operational rules are applied, fully, to the flights listed in the item 4.3.2.1, letter a).

The operation of experimental sport aircraft listed in the item 4.3.2.1, letter a) is limited to the Visual Meteorological Condition (VMC) during daytime and maintaining visual references with the surface during all flight.

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For the flights listed in the item 4.3.2.1 letter b), only the general flight rules are applied.

#### **4.4** AEROBATIC FLIGHT

**4.4.1** The activity of aerobatic flight, carried out in an isolated way or in formation, is quite peculiar, hence the nature of high specialization that it requires, the low variability of operators and its constant execution in defined airspaces (flight spaces).

#### **4.4.2** DESIGNATED AIRSPACES

Are applied the provisions of the general rules and I.S no 91-008 Rev. A of ANAC.

#### **4.4.3** OPERATIONAL RULES

Are applied the provisions of the general rules and I.S no 91-008 Rev. A of ANAC.

#### **4.5** GLIDER FLIGHT

**4.5.1** The activity of gliding is one of the most classics in the history of aviation and, despite sharing the airport infrastructure and shared flight areas, has a low injurious potential due to its own nature of equipment and type of operation.

#### **4.5.2** DESIGNATED AIRSPACES

Are applied the provisions of the general rules.

#### **4.5.3** OPERATIONAL RULES

Are applied the provisions of the general rules.

#### **4.6** PARACHUTISM

**4.6.1** The parachutism shows itself as a separated activity, in which the aspect of the airspace management overlaps the definition of operational standards. Therefore, despite still existing the use of airport infrastructures and eventual traffic coordination, everything is carried out within the known general aviation universe, this is why it is possible to stick to the combination between operational segregation strategy and the establishment of minimum care for the launch.

#### **4.6.2** DESIGNATED AIRSPACES

Are applied the provisions of the general rules, however, if all the activities involving the launch of parachutists occur in an airspace where the ATC service is being provided, it will not be compulsory the establishment of the corresponding flight space.

#### **4.6.3** OPERATIONAL RULES

Are applied the provisions of the general rules.

#### 4.7 MANNED HOT AIR BALLON WITH AIRWORTHINESS CERTIFICATE

**4.7.1** Ballooning is a very peculiar activity due to the variety of natural operational restrictions to which it is submitted, being, clearly, an absolute sporting activity, although it can be employed commercially through certification and authorization. In the sporting ambit, the aspect of airspace management overlaps the definition of operational standards and third party protection and the aviation system.

#### **4.7.2** DESIGNATED AIRSPACES

Are applied the provisions of the general rules.

#### **4.7.3** OPERATIONAL RULES

Are applied the provisions of the general rules.

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#### **5 FINAL DISPOSITIONS**

**5.1** When the significant frequency of aircraft movement in airsport operations in a noncontrolled aerodrome makes evident the need of divulgation of this flow, the SRPV/CINDACTA will send the specific NOTAMs and will forward to the DECEA's Subdepartment of Operations the proposed amendments and/or studies that, by their nature, must be inserted in the Aeronautical Information Publications

- **5.2** The non-compliance with the rules established in the present Instruction may be considered as Air Traffic Infringement and non-compliance with the norms that regulate the Brazilian Airspace Control System. Additionally, shall be subjected to the sanctions and penalties provisioned in the articles which deal with the physical safety of people, the exposition of aircraft to hazards and the irregular practice of aviation, provisioned by the Penal Code (Decree-Law n° 2.848) and the Law of Penal Contraventions (Decree-Law n° 3.688).
- **5.3** The suggestions for the continuous enhancing of this publication must be sent via the electronic addresses http://publicacoes.decea.intraer/ or http://publicacoes.decea.gov.br/, following the specific link of the publication.
- **5.4** The cases not provisioned in this Instruction will be submitted to His Excellency the General Director of DECEA

#### Annex A

#### Transcription of the definitions in the RBAC 103, I.S 103-001 and RBAC 01

"For the purposes of this regulation, it is considered ultralight vehicle an aircraft which:

- (1) has an exclusive sporting and recreational purpose;
- (2) does not hold an airworthiness certificate issued according to the RBAC n° 21;
- (3) has a maximum empty weight of 80kg if non-motorized or 200kg if motorized; and
- (4) has:
  - (i) maximum speed in leveled flight and with the maximum continuous throttle (VH) of 100 knots calibrated (CAS) or lower, under atmospheric conditions at sea level; or
  - (ii) in case of glider or powered glider, the never exceed speed (VNE) of 100 knots CAS or lower."

**Airsport Person** is the generic definition of a person that practices the activities governed by the RBAC n° 103. (Included by Resolution n° 474, of 07.06.2018)

**Airsport** is any activity practiced with aerial devices or that is intended to fly within the atmosphere with sporting or recreational finality.

**Airsport Aircraft** is the generic designation of an aircraft that holds a certificate issued according to RBAC n° 21 which its main purpose is the sport and leisure.

**Sport Pilot Certificate** – **CPA** is the verifying document, with inferior status related to a license, that proves that the holder meets the requirements to operate an airsport aircraft, according to the definition of RBAC n° 01, with maximum takeoff weight as 750kg, except balloons and gliders, with limitations and prerogatives established to the referred certificate.

**Flight Space** – generic designation of a tridimensional area limited horizontal and vertically.

Airsport Pilot – is the generic definition of any person who holds any habilitation issued according to the RBAC  $n^{\circ}$  61 necessary for the operation of an Airsport Aircraft.

**Ultralight Vehicle** is the generic definition of an aircraft which physical and operational characteristics are limited according to the RBAC no 103."