

No. R. 24

11 January 2002

**AVIATION ACT, 1962,(ACT NO 74 OF 1962)  
PROPOSED AMENDMENT TO THE CIVIL AVIATION  
REGULATIONS, 1997**

Under regulation 11.03.2(1)(a) of the Civil Aviation Regulations the Chairperson of the Civil Aviation Regulations Committee (CARCOM) hereby publishes for comment the proposed amendments to the Civil Aviation Regulations, 1997, as set out in the schedules. Any comments or representations on the proposed amendments should be lodged in writing with the Chairperson of the Regulations Committee, for attention Mr. Kim Gorringer or Mr. Herman Wildenboer, Private Bag X08, Waterkloof, 0145, fax: (012) 346-5979, or e-mail at [gorringerk@caa.co.za](mailto:gorringerk@caa.co.za) or [wildenboerh@caa.co.za](mailto:wildenboerh@caa.co.za), before or on 11 February 2002.

**SCHEDULE (3)**

1. Proposal to introduce Part 94, Operation of Non-Type Certificated Aircraft

**PROPOSER:**

Civil Aviation Authority  
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**Explanation of interest of the PROPOSER**

The Proposer administers the Aviation Act, 1962 (Act No. 74 of 1962) and regulations and technical standards issued in terms thereof.

2. **Proposed introduction of Part 94**

It is proposed to introduce the under-mentioned regulations, as Part 94.

**Motivation :**

The operation of non - type certificated aircraft is currently regulated in terms of Document LS/1 dated 30 November 2000. The re-introduction of Document LS/ 1, on 15 December 2000, was intended only as a temporary measure, until such time as new regulations pertaining to non - type certificated aircraft had been developed. The proposals contained in this schedule, read together with proposed Parts 24 and 96, (the proposals contained in schedules 3 and 4) are proposed as the requirements which will replace and expand upon those requirements currently contained in Document LS/1. The proposed Parts 24, 94 and 96 are a synthesis of; work previously undertaken on this topic, the requirements contained in Document LS/1, the requirements of other aviation authorities, and the inputs obtained from both the CAA and other stakeholders. The proposed Part 24 (Schedule 2) establishes the minimum airworthiness standards for non-type certificated aircraft. Proposed Part 94 (this Schedule ) stipulates the operational requirements for non - type certificated aircraft and the proposed Part 96 (Schedule 4), establishes the requirements for the commercial operation of non - type certificated aircraft. The requirements contained in the proposed Part 96 are to address the South African and universal trend towards the utilization of non type certificated aircraft for commercial purposes and establish standards that will permit commercial operation within parameters that maintain adequate levels of safety. All three of the proposed Parts have been work shopped with stakeholders.

3. **Current regulation :** No Part 94 currently exists.

**PART 94****OPERATION OF NON-TYPE CERTIFICATED  
AIRCRAFT****LIST OF REGULATIONS OPERATION OF NON  
TYPE CERTIFICATED AIRCRAFT****SUBPART 1: GENERAL PROVISIONS**

- 94.01.1 Applicability
- 94.01.2 Authority to Fly

**SUBPART 2: FLIGHT CREW**

- 94.02.1 Duties of pilot-in-command regarding flight preparation
- 94.02.2 Crediting of flight time
- 94.02.3 Ex-military aircraft

**SUBPART 3: DOCUMENTATION AND RECORDS**

- 94.03.1 Operations Manual
- 94.03.2 Logbooks

**SUBPART 4: COMMUNICATION AND NAVIGATION EQUIPMENT**

- 94.04.1 Communication equipment

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- 94.05.1 Conditions for flight
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**SUBPART 6: FLIGHT OPERATIONS**

- 94.06.1 Standards and procedures
- 94.06.2 Operation of paraplanes
- 94.06.3 Operation of gyroplanes
- 94.06.4 Operation of manned free balloons
- 94.06.5 Operation of captive balloons
- 94.06.6 Operation of unmanned free balloons
- 94.06.7 Operation of amateur-built or production-built aircraft, including  
microlight aeroplanes
- 94.06.8 Operation of gliders
- 94.06.9 Operation of hang-gliders (hang gliders)
- 94.06.10 Operation of line-controlled kites
- 94.06.11 Operation of model aircraft
- 94.06.12 Operation of parachutes
- 94.06.13 Operation of ex-military aircraft

94.06.14 Display Authorisation

**SUBPART 7: MAINTENANCE**

94.07.1 General

94.07.2 Maintenance Control Manual

**SUBPART 1: GENERAL PROVISIONS**

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**Applicability**

**94.01.1** (1) This Part shall apply to –

- (a) non-type certificated aircraft operated within the Republic;
  - (b) non-type certificated aircraft registered in the Republic and operated outside the borders of the Republic;
  - (c) persons acting as flight crew members of non-type certificated aircraft registered in the Republic; and
  - (d) persons who are on board a non-type certificated aircraft operated in terms of this Part.
- (2) This Part contains for the various sub-groups of non-type certificated aircraft –
- (a) operating and flight rules additional to, and
  - (b) exemptions from,
- the operating and flight rules prescribed in Part 91, if any.
- (3) The provisions of the various other Parts of these Regulations shall apply *mutatis mutandis* to any non-type certificated aircraft unless specifically exempted by the provisions of this Part.
- (4) Non-type certificated aircraft operated in terms of this Part are prohibited to carry passengers or cargo for reward.
- (5) Notwithstanding the provision of sub-regulation (4), non-type certificated aircraft operated in terms of this Part may be used for the training of its registered owner: Provided the training is provided by an approved ATO and the airworthiness requirements in respect of a non-type certificated aircraft used in training are met.

**General**

**94.01.2** (1) No person shall operate a non-type certificated aircraft unless-

- (a) for such aircraft an Authority to Fly or Proving Flight Authority has been issued in terms of Part 24 of these Regulations;
  - (b) the aircraft is in an airworthy condition; and
  - (c) the pilot-in-command is the holder of a valid pilot licence with the appropriate rating for the particular category and type of non-type certificated aircraft.
- (2) In the case of a foreign-registered non-type certificated aircraft, prior written permission by the Commissioner is required before such aircraft may enter the Republic.
- (3) The permission referred to in sub-regulation (2) shall normally be granted only –
- (a) for a limited period of time;
  - (b) for the purpose of participation in international events within the Republic, for record-breaking purposes or demonstration flights, or at the discretion of the Commissioner if an acceptable level of safety can be shown and public safety is not jeopardized; and if —
  - (c) proof is submitted that for the aircraft an Authority to Fly or similar certificate was issued by the foreign civil aviation authority or an organization designated for the purpose by such authority; and
  - (d) the aircraft is made available for inspection by a licensed AME or AMO or an Approved Person with the relevant rating or approval, or by any other person designated for the purpose by the Commissioner, as soon as possible after its arrival in the Republic, and an inspection report has been submitted to the Commissioner.

**SUBPART 2: FLIGHT CREW****Ex-military aircraft****94.02.1 (1) Pilot Licensing – General Requirements**

- (a) No person shall act as pilot of a South African registered ex-military aircraft unless such person is the holder of a private pilot licence or higher category pilot licence with the appropriate category and type rating, issued or validated in terms of Part 61.
- (b) A type-rating shall be issued by the Commissioner once the licence holder has completed the required training as detailed in Document SA-CATS-FCL or Document SA-CATS-OPS 94, as applicable, and has submitted the required type rating forms, logbook copies, technical examination and payment as specified in these Regulations to the Commissioner. The currency of the type rating shall be in accordance with the provisions of Part 61 of these Regulations.
- (c) Before performing acrobatic flight in an aircraft that has been certificated for, or is capable of performing acrobatic flight, the pilot-in-command shall also be the holder of an acrobatic rating issued by the Commissioner or by an organization approved for the purpose in terms of Part 149, as the case may be.
- (d) The Commissioner may exempt a candidate from undergoing all or part of the prescribed training if he or she is satisfied that the candidate –
  - (i) has sufficient flying experience on similar types of aircraft; or
  - (ii) is the holder of a foreign type rating for the aircraft type and the Commissioner is satisfied that the training was of an acceptable standard.

(2) *Pilot Training on Ex-Military Jet Aircraft*

- (a) Pilots wishing to be rated to fly ex-military jet aircraft shall have the appropriate flying experience. Conversion, refresher and technical training requirements for these aircraft will be assessed on an individual basis by the Commissioner, after receiving the relevant documentation.
- (b) Flying training is not allowed prior to the approval of the applicable syllabus.
- (c) Pilots who have little or no military jet or high-performance piston-engine or turbo-prop aircraft experience shall be required to undergo rigorous and detailed conversion training according to the syllabus prescribed in Document SA-CATS-OPS 94.
- (d) Guidelines for the establishment of training and acrobatic training criteria for individual applicants are provided in Document SA-CATS-OPS 94.
- (e) The applicant shall supply the information as detailed in Document SA-CATS-OPS 94 when applying for approval of the training criteria referred to in sub-regulation 2(a).
- (f) The Commissioner may allow a Grade II or Grade I flight instructor with the appropriate category and type rating to determine how many hours of acrobatic training may be counted towards the conversion training prescribed by sub-regulation 2(c).
- (g) In the case of an ex-military aircraft that is available in a single-seat version only, the Commissioner may accept the training requirements for single-seat aircraft of the air force of the country of origin, or – where not available – training may be simulated in a similar aircraft. The Commissioner will treat each application for a type rating on a single-seat type on its merits.
- (h) For training purposes, the Commissioner may permit the candidate to enter into an arrangement with an owner of a similar aircraft type that has a valid Authority to Fly, e.g. a dual-seat training variant or dual-seat aircraft of similar performance: Provided that:

- (i) the candidate has obtained permission from the Commissioner to place the aircraft type for which the training is required on the South African Civil Aircraft Register;
- (ii) the candidate and the owner of the training variant submit to the Commissioner for approval the commercial agreement for the use of the aircraft;
- (iii) the owner submits to the Commissioner the insurance documentation stating that the candidate may undergo training on the aircraft; and
- (iv) the Commissioner issues a revised Authority to Fly for the aircraft stipulating that it may be used for the training of the candidate.

### **SUBPART 3: DOCUMENTATION AND RECORDS**

#### **Operations Manual**

##### **94.03.1 (1) The owner of**

- (a) a veteran aeroplane with a maximum all-up mass in excess of 5 700 kg or with more than 9 passenger seats;
- (b) a veteran helicopter with a maximum all-up mass in excess of 3 175 kg; or
- (c) an ex-military jet aircraft,

shall draw up an operations manual containing all information required under this Part, and if applicable, required under Part 96, whether the aircraft is to be operated in commercial air transport operations or not. The operations manual shall set out the manner in which the owner will operate and maintain the aircraft.

- (2) The owner shall submit the operations manual in duplicate for approval to the Commissioner.
- (3) If the Commissioner is satisfied that the owner will comply with the provisions of the relevant Parts of the Regulations, he or she shall certify in writing on both copies of the operations manual that such



- (4) manual has been approved and shall return one copy of the approved operations manual to the owner.
- (5) The owner shall submit any amendment to an approved operations manual in duplicate for approval to the Commissioner.
- (6) If the Commissioner is satisfied that the owner will comply with the provisions of the relevant Parts of the Regulations, he or she shall certify in writing on both copies of the amendment to the approved operations manual that such amendment has been approved and shall return one copy of the approved amendment to the owner.
- (7) The owner shall at all times operate the aircraft, referred to in sub-regulation (1), in accordance with the approved operations manual or an approved amendment thereto.
- (8) The owner shall –
  - (a) ensure that all operations personnel are able to understand the technical language used in those sections of the operations manual which pertain to their duties;
  - (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight, are easily accessible to the flight crew members on board;
  - (c) make the operations manual available for the use and guidance of operations personnel;
  - (d) provide the flight crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them;
  - (e) keep the operations manual up to date; and
  - (f) keep the operations manual in a safe place.
- (9) The contents of the operations manual shall not contravene the conditions contained in the Authority to Fly issued to the owner in terms of Subpart 2 of Part 24 of these Regulations.
- (10) The structure and contents of the operations manual referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS-OPS 96.

**Logbooks**

- 94.03.2** (1) For any veteran or ex-military aircraft, and for any non-type certificated aircraft used in a commercial air transport operation, appropriate airframe, engine and propeller logbooks, as applicable, shall be maintained in accordance with the provisions of Part 43 of these Regulations.
- (2) Notwithstanding the provisions of sub-regulation (1), the owner or operator of an ex-military aircraft may continue to use the equivalent document or documents used by the previous military operator for the recording of flight times and maintenance carried out.
- (3) Notwithstanding the provisions of sub-regulation 24.03.6(1) of Part 24 of these Regulations, the following non-type certificated aircraft are exempted from keeping the logbooks, prescribed by Part 43 to the extent stated:
- (a) paragliders, including powered paragliders and paratrikes: record of maintenance to be kept in accordance with the approved maintenance schedule;
  - (b) hang-gliders, including powered hang-gliders: record of maintenance to be kept in accordance with the approved maintenance schedule;
  - (c) balloons: record of maintenance to be kept in accordance with the approved maintenance schedule;
  - (d) parachutes: record of maintenance to be kept in accordance with the approved maintenance schedule;
  - (e) model aircraft.

**SUBPART 4: COMMUNICATION AND NAVIGATION EQUIPMENT****Communication equipment**

- 94.04.1** (1) Notwithstanding the provisions of Regulation 91.05.1 of these Regulations, the following non-type certificated aircraft may be operated outside controlled airspace below 1 000 feet AGL, or within the traffic area of any aerodrome licensed or approved in terms of Part 139 and reserved for the operation of such aircraft, without the prescribed communication equipment:

- (a) microlight aeroplanes;
  - (b) paragliders, including powered paragliders and paratrikes;
  - (c) hang-gliders, including powered hang-gliders; and
  - (d) model aircraft.
- (2) Unmanned free balloons and unmanned aerial vehicles shall carry the equipment as prescribed by the Commissioner in the Authority to Fly or in terms of regulation 94.06.6.
- (3) Notwithstanding the provisions of sub-paragraph (1), at sites where and when paragliding or hang-gliding takes place, the persons involved shall preferably arrange for the automatic transmission on the applicable flight information frequency of a warning that such gliding activity takes place, or alternatively make use of a hand-held transceiver to warn other aircraft in the vicinity.
- (4) Notwithstanding the provisions of sub-paragraphs (1) and (3), at sites where aerotowing of hang-gliders takes place, the use of the appropriate communication equipment to warn other air traffic in the vicinity that aerotowing is in progress is mandatory.

#### **SUBPART 5: RULES OF THE AIR**

##### **Conditions for Flight**

**94.05.1** Except when stated otherwise on the Authority to Fly, a non-type certificated aircraft may not be flown –

- (a) by night;
- (b) in meteorological conditions less than those prescribed as suitable for flight under VFR;
- (c) within controlled airspace, unless cleared by and on conditions prescribed by ATC; or
- (d) within 8 km from the aerodrome reference point of an aerodrome, licensed or approved in terms of Part 139 of these Regulations and situated in Class G airspace, unless established unmanned aerodrome procedures for the particular aerodrome can be adhered to.

**Aircraft speed**

**94.05.2** (1) No aircraft shall be flown at speeds in excess of –

- (a) Mach 0.90 below 5 000 feet AGL;
- (b) Mach 0.95 between 5 000 feet AGL and FL 300.

- (2) Supersonic flight will be allowed at or above FL 300 with the permission of the responsible air traffic service unit.

**SUBPART 6: FLIGHT OPERATIONS****Standards and procedures**

**94.06.1** (1) The owner of a non-type certificated aircraft, flown for aviation recreational purposes or in air displays, shall comply with the standards and procedures determined by the organization approved for the purpose in terms of Part 149, if any, and if applicable.

- (2) Any person operating a non-type certificated aircraft for aviation recreational purposes shall be a *bona fide* member of an applicable aviation recreation organization approved by the Commissioner in terms of Part 149 and abide by its constitution and code of conduct, if any.

**Operation of paragliders, including powered paragliders and paratrikes**

**94.06.2** (1) *Exemptions*

Notwithstanding the provisions of –

- (a) Regulation 91.03.2 and Regulation 91.03.5, a person may operate a paraglider without carrying on board a current, approved flight manual or flight folio;
- (b) Regulation 91.03.7, a person may operate a paraglider if the paraglider has been issued with a certificate of release to service by an appropriately rated Approved Person;
- (c) Subpart 4 of Part 91, a person may operate a paraglider if the paraglider has been equipped with –
  - (i) a safety harness or safety belt for each person on board the paraglider;
  - (ii) in the case of flights above 500 feet AGL, an altimeter that is accurate to within approximately 100 feet; and

- (iii) in the case of flight over water beyond gliding distance from shore, one lifejacket or individual flotation device for each person on board, worn by such persons.
  - (d) Regulation 91.06.7(5), the pilot-in-command of a paraglider, overtaking another paraglider or hang-glider soaring on a ridge, shall pass on the ridge side of the overtaken paraglider or hang-glider;
  - (e) Regulation 91.07.2, the pilot-in-command of a paraglider may fly the paraglider below 500 feet AGL for the purpose of ridge soaring if such paraglider is flown in a manner that does not endanger persons or property on the ground;
  - (f) Regulation 139.01.1(2)(b), the pilot in-command of a paraglider may use any suitable area to launch the paraglider: Provided permission has obtained from the owner of the site or the local authority having jurisdiction; and provided furthermore that in the case of flight training or tandem operations, only launch sites approved by the Commissioner or by the organization designated for the purpose in terms of Part 149, as the case may be, shall be used.
- (2) *Helmets*
- Each person on board a paraglider shall wear a serviceable, rigid, protective helmet of a type approved by the Commissioner or by the organization designated for the purpose in terms of Part 149.
- (3) *Conditions for flight*
- In addition to the restrictions imposed by Regulation 94.05.1, no paraglider operation shall be conducted above 1 000 feet AGL unless fitted with an approved, serviceable compass.
- (4) *Tandem operations*
- (a) No person may operate a paraglider with a passenger, unless that person holds a valid tandem rating.
  - (b) Tandem operations shall be limited to two persons, including the pilot.

**Operation of gyroplanes****94.06.3 (1) Exemptions**

Notwithstanding the provisions of –

- (a) Regulation 91.03.2 and Regulation 91.03.5, a person may operate a non-type certificated gyroplane without carrying on board a current, approved flight manual or flight folio;
  - (b) Regulation 91.03.7, a person may operate a non-type certificated gyroplane if the gyroplane has been issued with a certificate of release to service by an appropriately rated Approved Person;
  - (c) Subpart 4 of Part 91, a person may operate a non-type certificated gyroplane if the gyroplane has been equipped with –
    - (i) a seat with an approved safety harness or safety belt for each person on board the gyroplane;
    - (ii) a map which covers the complete route of the proposed flight;
    - (iv) in the case of flights above 500 feet AGL, an altimeter that is accurate to within approximately 100 feet;
    - (v) a rotor brake; and
    - (vi) in the case of flight over water beyond autorotative distance from shore, one lifejacket or individual flotation device for each person on board, stored in a position easily accessible for such persons, or alternatively worn by such persons
- (2) *Conditions for flight*

In addition to the restrictions imposed by Regulation 94.05.1, no gyroplane operation shall be conducted above 1 000 feet AGL unless fitted with an approved, serviceable compass.

**Operation of manned free balloons****94.06.4 (1) Exemptions**

Notwithstanding the provisions of –

- (a) Regulation 91.03.7, a person may operate a non-type certificated manned free balloon if the balloon has been issued with a certificate of release to service by an appropriately rated Approved Person;
- (b) Subpart 4 of Part 91, a person may operate a non-type certificated manned free balloon if the balloon has been equipped with –
  - (i) a map which covers the complete route of the proposed flight;
  - (ii) an approved sensitive altimeter;
  - (iii) a rate-of-climb indicator;
  - (iv) a fire extinguisher;
  - (v) gloves;
  - (vi) a handling line;
  - (vii) in the case of a hot-air balloon:
    - (aa) two alternate methods of ignition;
    - (bb) a fuel quantity gauge; and
    - (cc) envelope temperature indicator; and
  - (viii) in the case of flight over water, one lifejacket or individual flotation device for each person on board, stored in a position easily accessible for such persons, or alternatively worn by such persons.

**(2) Conditions for flight**

In addition to the restrictions imposed by Regulation 94.05.1, no manned free balloon operation shall be conducted over any built-up areas below 3 000 feet.

**Operation of captive balloons****94.06.5 Exemptions**

- (1) Captive balloons are exempted from these Regulations –
  - (a) except from regulation 94.05.1; and
  - (b) provided that no captive balloon operation shall be conducted –

- (i) higher than 150 feet above the surface; or
- (ii) from or above a public road;

unless with the prior approval of the Commissioner and on conditions determined by him or her.

- (2) In the event of a captive balloon breaking free from its moorings, the operator thereof shall immediately report the occurrence to the nearest air traffic service unit, indicating the direction in which the balloon is drifting.

#### **Operation of unmanned free balloons**

##### **94.06.6 Exemptions**

- (1) Unmanned free balloons are exempted from these Regulations, except that no unmanned free balloon operations shall take place without the prior permission of the Commissioner and on the conditions determined by him or her.
- (2) For purposes of this regulation, the mass release of toy balloons shall considered to be the launch of an unmanned free balloon.

#### **Operation of amateur-built or production-built aircraft, including microlight aeroplanes**

##### **94.06.7 (1) Exemptions**

Notwithstanding the provisions of –

- (a) Regulation 91.03.2 and Regulation 91.03.5, a person may operate an amateur-built or production-built aircraft, including a microlight aeroplane, without carrying on board a current, approved flight manual or flight folio should such carriage not be safely possible;
- (b) Regulation 91.03.7, a person may operate an amateur-built or production-built aircraft, including a microlight aeroplane, if the aircraft has been issued with a certificate of release to service by an appropriately rated Approved Person;
- (c) Subpart 4 of Part 91, a person may operate an amateur-built or production-built aircraft, including a microlight aeroplane, if the aircraft has been equipped with –



- (i) a seat with an approved safety harness or safety belt for each person on board the aircraft;
- (ii) a map which covers the complete route of the proposed flight; and
- (iii) in the case of flight over water beyond gliding or autorotative distance from shore, one lifejacket or individual flotation device for each person on board, stored in a position easily accessible for such persons, or alternatively worn by such persons

(3) *Conditions for flight*

In addition to the restrictions imposed by Regulation 94.05.1, no microlight aeroplane shall be operated above 500 feet AGL unless fitted with –

- (a) an approved, serviceable compass; and
- (b) an altimeter that is accurate to within approximately 100 feet.

**Operation of gliders**

**94.06.8 (1) Exemptions**

Notwithstanding the provisions of –

- (a) Regulation 91.03.2 and Regulation 91.03.5, a person may operate a non-type certificated glider without carrying on board a current, approved flight manual or flight folio should such carriage not be safely possible;
- (b) Regulation 91.03.7, a person may operate a non-type certificated glider if the glider has been issued with a certificate of release to service by an appropriately rated Approved Person;
- (c) Subpart 4 of Part 91, a person may operate a non-type certificated glider if the glider has been equipped with –
  - (i) a seat with an approved safety harness or safety belt for each person on board the glider;
  - (ii) a map which covers the complete route of the proposed flight;
  - (iii) in the case of flights above 500 feet, an altimeter that is accurate to within approximately 100 feet; and
  - (iv) in the case of flight over water beyond gliding distance from shore, one lifejacket or individual

flotation device for each person on board, stored in a position easily accessible for such persons, or alternatively worn by such persons;

- (d) Regulation 139.01.1(2)(b), a person may land a glider, operated in training, at suitable sites other than a licensed aerodrome: Provided that this exemption shall not override a landowner's rights in respect of trespassing.

(2) *Conditions for flight*

In addition to the restrictions imposed by Regulation 94.05.1, no glider operation shall be conducted over a built-up area.

(3) *Glider launching winches*

- (a) On every winch, used for the launching of gliders, a means shall be provided for the severing of the launching cable.
- (b) The means referred to in sub-regulation 3(a) shall be subject to the approval of the Commissioner or the organization, approved for the purpose in terms of Part 149, as the case may be, and shall be so positioned that it can be easily and readily operated by the winch operator.

**Operation of hang-gliders**

**94.06.9 (1) Exemptions**

Notwithstanding the provisions of –

- (a) Regulation 91.03.2 and Regulation 91.03.5, a person may operate a hang-glider without carrying on board a current, approved flight manual or flight folio;
- (b) Regulation 91.03.7, a person may operate a hang-glider if the hang-glider has been issued with a certificate of release to service by an appropriately rated Approved Person;
- (c) Subpart 4 of Part 91, a person may operate a hang-glider if the hang-glider has been equipped with –
  - (i) an approved safety harness or safety belt for each person on board the hang-glider;
  - (ii) in the case of flights above 500 feet AGL, an altimeter that is accurate to within approximately 100 feet; and

- (iii) in the case of flight over water one lifejacket for each person on board and worn by such persons;
- (d) Regulation 91.06.7(5), the person operating a hang-glider overtaking another hang-glider or paraglider soaring on a ridge shall pass on the ridge side of the overtaken hang-glider or paraglider;
- (e) Regulation 91.06.21, a person may operate a hang-glider to 500 feet vertically below cloud –
  - (i) up to a maximum altitude of 19 500 feet above MSL in class G airspace; and
  - (ii) up to a maximum altitude of 19 500 feet above MSL in Class E airspace, other than transponder-mandatory airspace;
- (f) Regulation 91.06.32, a person may operate a hang-glider below 500 feet AGL for the purpose of ridge soaring: Provided such hang-glider is flown in a manner that does not endanger persons or property on the surface;
- (g) Regulation 139.01.1(2)(b), the pilot in-command of a hang-glider may use any suitable area to launch the hang-glider: Provided permission has been obtained from the owner of the site or the local authority having jurisdiction; and Provided furthermore that in the case of flight training or tandem operations, only launch sites approved by the Commissioner or by the organization designated for the purpose in terms of Part 149, as the case may be, shall be used.

(2) *Helmets*

Each pilot and passenger of a hang-glider shall wear a serviceable, rigid, protective helmet of a type approved by the Commissioner or by the organization designated for the purpose in terms of Part 149.

(3) *Conditions for flight*

In addition to the restrictions imposed by Regulation 94.05.1, no hang-glider operation shall be conducted –

- (a) over a built-up area; or
- (b) higher than 19 500 feet above MSL.

(4) *Hang-glider launching winches*

- (a) On every winch, used for the launching of hang-gliders, a means shall be provided for the severing of the launching cable.
- (b) The means referred to in sub-regulation (1) shall be subject to the approval of the Commissioner or the organization, approved for the purpose in terms of Part 149, as the case may be, and shall be so positioned that it can be easily and readily operated by the winch operator.

(5) *Tandem operations*

- (a) No person may operate a hang-glider with a passenger, unless that person holds a valid tandem rating.
- (b) Tandem operations shall be limited to two persons, including the pilot.

(6) *Aerotowing*

- (a) No person may operate a hang-glider in an aerotow operation unless such person is the holder of an appropriately endorsed license.
- (b) The requirements for the issue of an aerotow endorsement are those prescribed in Part 62.

**Operation of line-controlled kites**

**94.06.10 Exemptions**

Line-controlled kites are exempted from these Regulations –

- (a) except from regulation 94.05.1; and
- (b) provided that no line-controlled kite shall be flown –
  - (i) higher than 150 feet above the surface;
  - (ii) from or above a public road; or
  - (iii) on the approaches to any aerodrome licensed or approved in terms of Part 139 of these Regulations;

unless with the prior approval of the Commissioner and on conditions determined by him or her.

**Operation of model aircraft****94.06.11 Exemptions**

Model aircraft are exempted from these Regulations –

- (a) except from regulation 94.05.1; and
- (b) provided that no model aircraft shall be flown –
  - (i) higher than 150 feet above the surface; or
  - (ii) from or above a public road;unless –
  - (iii) with the prior approval of the Commissioner and on conditions determined by him or her; or
  - (iv) in airspace specifically approved for the purpose by the Commissioner and on conditions set by him or her for the use of such airspace.

**Operation of parachutes**

**94.06.12** The regulations governing parachuting operations are those prescribed in Part 105 of these Regulations.

**Operation of ex-military jet aircraft****94.06.13 (1) Minimum fuel**

Further to the provisions of Regulation 91.07.12, an ex-military jet aircraft shall carry sufficient fuel –

- (a) to divert from its destination aerodrome to an alternate aerodrome that is at least 100 km distant from the destination aerodrome; and
- (b) to allow for at least 10 minutes of flight at cruise-power settings when arriving over the alternate aerodrome referred to in sub-regulation (1) (a).

**(2) Passenger seating**

- (a) Only if the Commissioner on the Authority to Fly has approved the carriage of passengers may passengers be carried in an ex-military jet aircraft.
- (b) Where applicable, the owner of an ex-military jet aircraft shall ensure that the medical and physical condition of the

passenger complies with the conditions prescribed by the manufacturer of the ejection seat of the aircraft.

- (c) It is the responsibility of the owner of an ex-military jet aircraft to provide the passenger with suitable and serviceable flying equipment, protection gear and clothing.

(3) *Passenger briefing*

The owner of an ex-military jet aircraft shall ensure that the passenger is thoroughly briefed on --

- (a) all the dangers associated with the flying in an ex-military jet aircraft, including the possible injuries following ejection; and
- (b) actions during flight:
  - (i) the operation of switches and handles, if applicable;
  - (ii) the actions and execution of commands during emergency situations;
  - (iii) the actions should the pilot-in-command become incapacitated during flight; and
  - (iv) any other information as seen fit by the owner or the pilot-in-command.

(4) *Minimum equipment list*

(a) *Oxygen Systems*

Oxygen system shall be fully serviceable, unless specifically exempted, whether or not it is intended to fly the aircraft above FL 100.

(b) *Aircraft Pressurisation*

Aircraft pressurisation systems shall be fully serviceable, unless specifically exempted, irrespective of the altitudes it is intended that the aircraft be flown.

(c) *Ejection Seats*

Where ejection seats are an integral part of the aircrew escape system, as specified in the relevant Flight Manual or Aircrew Notes, they shall be fully serviceable for all flights

unless specifically exempted, and all occupants shall have been suitably instructed in their use.

(d) *Flying Clothing and equipment*

- (i) Certain items of flying clothing and personal equipment are an integral part of the aircraft safety equipment, such as life-saving jackets with dinghy connections or personal equipment connectors with oxygen connections. Where the appropriate clothing, equipment or systems are required for flight, these additional items shall be made available and be fully serviceable.
- (ii) Unless specifically exempted, all occupants of an ex-military jet or turbo-prop aircraft shall wear protective helmets, equipped with suitable visors and facilitating communication.
- (iii) Aircraft that are to be operated over large water masses beyond gliding distance from shore shall be equipped with suitable survival equipment, and the occupants shall wear suitable survival clothing and equipment.

(e) *Emergency and Backup Systems.*

Systems under this heading are invariably an integral part of the aircraft build standard and will have been installed with certain emergencies in mind (i.e. emergency undercarriage lowering, or hood opening or jettison). All such systems shall be serviceable for flight, unless specifically exempted.

(f) *Instrumentation for flight under IFR and Standby Instrumentation*

Where permission has been granted to operate the aircraft in instrument meteorological conditions (IMC), all instrumentation and equipment normally required for operation in IMC according to Instrument Flight Rules (IFR) shall have been fitted and be serviceable in accordance with the provisions of Part 91 of the CAR, 1997.

(g) *Weaponry*

- (i) Where weaponry are an integral part of the aircraft, such weaponry shall be permanently de-activated, or

be removed and replaced by ballast to ensure that the correct mass and center of gravity of the aircraft is maintained.

(ii) The carriage of external weaponry is prohibited

(h) *External Equipment*

Where aircraft are capable of carrying external fuel tanks, whether jettisonable or not, such fuel tanks may be used: Provided that all systems applicable to the fuel tanks are serviceable. The pilot must also be fully qualified in the handling of the aircraft with and without the external fuel tanks (including asymmetric flight) and conversant with the jettison restrictions, limits and implications.

**Display Authorization**

**94.06.13** (1) When a non-type certificated aircraft is to participate in a public flying demonstration, the pilot-in-command shall be the holder of an appropriate Display Authorization.

(2) The Display Authorization may be issued by the Commissioner or by an organization approved for the purpose in terms of Part 149, as the case may be, in writing if he, she or it is satisfied that –

(a) the pilot has the required experience; and

(b) the proposed display sequence can be executed safely with the particular aircraft.

(3) The Display Authority shall be issued on the form prescribed in SA-CATS-OPS 94, and shall detail the aircraft to be used, its configuration, the sequence to be flown, and any other condition that may be imposed by the Commissioner or by the organization approved for the purpose in terms of Part 149, as the case may be, at his, her or its discretion in the interest of flight and public safety.

(4) The following information shall be submitted to the Commissioner or the organization approved for the purpose in terms of Part 149, as the case may be, when applying for a Display Authorization:

(a) a summary of the pilot's total flying experience and details of experience on the type of aircraft to be flown in the display;



- (b) a detailed list of previous air display experience, to include events, dates, duration, aircraft types, and sequences flown;
  - (c) the details of the sequence for which Display Authorization is sought, including:
    - (i) good weather sequence; and
    - (ii) bad weather sequence, where the weather conditions, such as cloud ceiling, impose a restriction on the good weather display sequence.
    - (iii) The sequences shall be submitted in textual and graphical form, with the minimum meteorological conditions for each sequence specified.
  - (d) The specific procedures to be followed for possible emergencies that may arise during the display, including the listing of diversion aerodromes.
  - (e) Details of the aircraft in the configuration to be used in the display, including take-off mass, take-off fuel and landing fuel.
- (5) The application shall be made in the form prescribed in SA-CATS-OPS 94.
- (6) The application shall be accompanied by the appropriate fee prescribes in Part 187.

## **SUBPART 7      MAINTENANCE**

### **General**

**94.07.1** No owner, operator or pilot-in-command of a non-type certificated aircraft shall operate the aircraft unless such aircraft is maintained and released to service in accordance with the provisions of Part 24.

### **Maintenance Control Manual**

**94.07.2** Where an owner or operator is required in terms of sub-regulation

- 94.03.1 (1)** to maintain an operations manual, the latter shall include a maintenance control manual in the format as prescribed in TS 43.02.2 in Document SA-CATS-GMR.