

No. R. 535

30 July 2013

**CIVIL AVIATION ACT, 2009 (ACT NO. 13 OF 2009)**  
**FOURTH AMENDMENT OF THE CIVIL AVIATION REGULATIONS, 2011**

I, Dipuo Peters, Minister of Transport, hereby in terms section 155(1)(z)(i), read with section 74(1) (a), of the Civil Aviation Act, 2009, (Act No. 13 of 2009), makes the regulations in the Schedule hereunder.

**SCHEDULE**

**Definition**

1. These Regulations, unless the context otherwise indicates, means the Civil Aviation Regulations, 2011, (hereinafter referred to as “the Regulations”) published by Government Notice No.425 of 1 June 2012 and by Government Gazette No.781 of 28 September 2012, as amended by Government Notice No R.532 of 30 July 2013, as amended by Government Notice No R. 533 .of 30 July 2013, as amended by Government Notice No R. 534 of 30 July 2013.

2. **Amendment of regulation 1.00.1 of the Regulations**

Regulation 1.00.1 of the Regulations is hereby amended by –

- (a) the insertion of the following definition after the definition of “ATS facility”:

“**ATS Routes**” means a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

- (b) the insertion of the following definitions after the definition of “defined point”

“**de-icing**”; means a procedure by which frost, ice, slush or snow is removed from the aircraft in order to provide clean surfaces;

“**de-icing/ anti-icing**’ means a combination of the procedures de-icing and anti-icing. It may be performed in one or two steps; and

**“de-icing fluid”** means: a) heated water; b) type 1 fluid c) mixture of water and type 1 fluid d) type II, type III, or type IV fluid, and e) mixture of water and type II, type III, or type IV fluid

Note: De-icing fluid is normally applied heated in order to assure maximum efficiency

(c) the insertion of the following definitions after the definition of “duty period”:

**“EDTO critical fuel”** means the fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure; and

**“EDTO-significant system”** means an aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight, or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion;

(d) the insertion of the following definition after the definition of “express air cargo”:

**“extended diversion time operations (EDTO)”** means Any operations by an aeroplane with two or more turbine engines where the diversion time to an en-route alternate aerodrome is greater than threshold time established by the State of the Operator;”;

(e) the insertion of the following definitions after the definition of “flight simulator training device”:

**“flight simulator qualification certificate”**, means a certificate issued under Part 60 of the regulations for a qualified flight simulator;” and

**“flight simulator qualification, for a flight simulator”**, means a qualification of the flight simulator under Part 60 of the regulations;

(f) the insertion of the following definitions after the definition of “flight time”:

**“flight training device qualification”**, for a flight training device, means a

qualification of the flight training device under Part 60 of the regulations;"; and

**"flight training device qualification certificate"**, means a certificate issued under Part 60 of the regulations for a qualified flight training device;

(g) the the insertion of the following definition after the definition of "Integrated Aeronautical Information Package" :

(h) the insertion of the following definitions after the definition of "flight time":

**"Integrated survival suit"** means a survival suit which meets the combined requirements of the survival suit and life jacket";.

(i) the insertion of the following definition after the definition of "investigator-in charge":

**"isolated aerodrome"** means a destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type;";

(j) the the insertion of the following definition after the definition of "Master":

**"Master QTG"**, for a synthetic training device, means the qualification test guide (QTG) approved for the device under Part 60; ';

(k) the insertion of the following definition after the definition of "maximum certificated mass":

**"maximum diversion time"** means maximum allowable range, expressed in time, from a point on a route to an en-route alternate aerodrome;

(l) the insertion of the following definition after the definition of "operational flight plan":

**"operation"** means an activity of group of activities which are subject to the same or similar hazards and which require a set of equipment to be specified or the achievement and maintenance of a set of pilot competencies, to eliminate or mitigate the risk of such hazards.";

Note – Such activities could include, but would not be limited to, offshore operation, heli-hoist operations or emergency medical service.

(m) the insertion of the following definition after the definition of "operator":

**"operator of a flight simulator or flight training device"** means the person who is responsible for the maintenance and operation of the simulator or device;";

(n) the insertion of the following definition after the definition of "pilot-in-command

under supervision”:

“**point of no return**” means the last possible geographic point at which an aeroplane can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight;”;

(o) the insertion of the following definitions after the definition of “public air transport service”:

“**qualification level, for a flight simulator or flight training device**”, has the meaning given by regulation 60.01.3;” and

“**qualification test guide**)’ (QTR) for a synthetic training device, means a document that:

- (a) shows that:
  - (i) the performance and handling qualities of the synthetic training device agree, within the limits set out in the Manual of Standards, with those of the aircraft to which it relates; and
  - (ii) all applicable requirements in these Regulations have been met; and
- (b) includes the following information that relates to the matters mentioned in paragraph (a):
  - (i) data relating to the performance and handling qualities of the aircraft and synthetic training device;
  - (ii) the validation tests, and all functions and subjective tests for the device;

(p) the insertion of the following definition after the definition of “rotorcraft”:

“**rotorcraft flight manual**” means a manual, associated with the certificate of airworthiness, containing limitations within which the rotorcraft is to be considered airworthy, and instructions and information necessary to the flight crew members of the safe operation of the rotorcraft.”;

(q) the insertion of the following definitions after the definition of “RVSM approval certificate”:

“**SACAA-FSTD A** “means the General Technical Standard Document for Qualification of Flight Training Devices Aeroplanes published by the SACAA’. and

“**SACAA-FSTD H**” means the General Technical Standard Document for Qualification of Flight Training Devices Helicopters published by the SACAA;

(r) the insertion of the following definition after the definition of “self-launching glider”:

“**separate runways**” means that two or more runways at the same aerodrome are so configured such that if one runway is closed, operations to the other runway(s) can be conducted:”.

(s) the insertion of the following definition after the definition of “threshold”:

“**threshold time**” means the range, expressed in time, established by the State of the Operator to an en-route alternate aerodrome, whereby any time beyond requires an EDTO approval from the State of the Operator;”;

(t) the insertion of the following definition after the definition of “unknown cargo”:

“**user, of a flight simulator or flight training device**”, means the person who uses the simulator or device in a training, testing or checking program:”; and

(u) the insertion of the following definition after the definition of “visual meteorological conditions”

“**VToss**” means the minimum speed at which climb shall be achieved with the critical engine inoperative, the remaining engines operating within approved operating limits.”.

#### 1. Amendment of regulation 1.02.1 of the Regulations

Regulation 1.02.1 is hereby amended by the substitution of sub regulation (1) and (2) of the following sub regulation:

“(2) The International System of Units developed and maintained by the General Conference of Weights and Measures shall, subject to the provisions of sub-regulation (3), be used as the standard system of units of measurements for all aspects of international civil aviation air and ground operations; and .

(3) The application of units of measurement for certain quantities used in international civil aviation air and ground operations shall be as prescribed in Document SA-CATS 1. “.

#### 4. Insertion of Part 60 into the Regulations

The following Part is herewith inserted after Part 48 of the regulations:

**“PART 60: FLIGHT SIMULATOR TRAINING DEVICES****List of regulations****SUBPART 1: GENERAL**

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60.02.1 Basic instrument flight trainers

**SUBPART 1: GENERAL**

**Preliminary**

**60.01.1** Part 60 of the regulations is based on the requirements as described in the ICAO Document 9625, AN 938 Manual of Criteria for Qualification of Flight Training Devices and added to where necessary by using existing JAR-FSTD regulations and the Federal Aviation Regulations of the United States of America where acceptable.

**Applicability**

**60.01.2 (1)** This Part applies to Flight simulator training devices that may be used by a person to gain aeronautical experience.

(2) The SACAA-FSTD A and SACAA-FSTD H as amended applies to those persons, organisations or enterprises (Flight Simulation Training Devices (FSTD) operators) or, in the case of BITDs manufacturers seeking initial qualification of FSTDs.

(3) The SACAA-FSTD A and SACAA-FSTD H will apply to all Flight Simulation Training Devices located and operated within the Borders of the Republic of South Africa by any local or foreign operator

(4) No Certificate of Qualification for a FSTD issued by an ICAO Contracting State or any other Civil Aviation Authority to a FSTD located within the Borders of the Republic of South Africa will be acceptable to the SACAA unless the FSTD has been granted a Qualification Level by the SACAA in terms of these regulations and the SACAA-FSTD A or SACAA-FSTD H.

(5) The version of the SACAA-FSTD Aeroplanes or Helicopter agreed by the SACAA and the Operator for the issue of the initial qualification shall be applicable for future recurrent qualifications of the FSTD unless the FSTD is re-categorised.

(6) No Certificate of Qualification for a FSTD issued by an ICAO Contracting State or any other Civil Aviation Authority to a FSTD located within the Borders of the Republic of South will be acceptable for the training of South African Aircrew.

(7) For imported FSTD's the version of the initial Qualification agreed to by the SACAA shall be applicable future recurrent qualifications of the FSTD unless the FSTD is re-categorised

(8) FSTD users shall have to gain approval to use the FSTD as part of their approved training programmes despite the fact the FSTD has been previously

qualified.

### **Qualification levels**

**60.01.3** (1) A flight simulator qualification in terms of SACAA-FSTD A or SACAA-FSTD H will be allocated the following level of qualification as applicable:

- (a) Level A
- (b) Level B
- (c) Level C
- (d) Level D

(2) A flight training device qualified in terms of SACAA-FSTD A and SACAA-FSTD H will be allocated the following level of qualification as applicable:

- (a) BITD
- (b) FTD I
- (c) FTD II
- (d) FNPT I
- (e) FNPT II
- (f) FNPT III
- (g) FNPT II MCC
- (h) FNPT III MCC

(3) The training credits applicable to each level of qualification are contained in document SA-CATS 60.

### **Application for flight simulator qualification or flight training device qualification**

**60.01.4** (1) An application for a qualification of a flight simulator or flight training device shall be made to the Director in a form and manner as prescribed by the Director in Document SACAA-FSTD A or SACAA-FSTD H shall be accompanied by the appropriate fee as prescribed in Part 187.

(2) An application must include:

- (a) a QTG for the simulator or device; and



(b) a document describing the quality system that the operator proposes to use to satisfy regulation 60.01.10.

*Note* For further guidance see TGM Flight Simulator Approvals.

#### **Initial evaluation and qualification**

**60.01.5** (1) If SACAA receives an application for the qualification of a flight simulator or flight training device, SACAA must conduct an evaluation (an *initial evaluation*) of the simulator or device, including consideration of:

- (a) any inspection or trial of the simulator or device; and
- (b) the data provided in the QTG
- (c) information available from any test conducted during the initial evaluation.

*Note* SACAA may arrange for an evaluation to be conducted by an evaluation team: see regulation 60.01.16.

(2) If, after the initial evaluation, SACAA is satisfied that:

- (a) the operator's quality system will be suitable for the simulator or device; and
- (b) the simulator or device meets a qualification level;

SACAA must qualify the simulator or device at the qualification level.

- (3) SACAA may qualify a simulator or device that will simulate a new type of aircraft for which fully validated aircraft data is not available at an interim qualification level that is based on partially validated aircraft data.
- (4) An interim qualification level applies for the period agreed between SACAA and the operator of the simulator or device.
- (5) If SACAA qualifies a simulator or device, it must at the same time approve the QTG for the simulator or device.

#### **Issue of flight simulator qualification certificate or flight training device qualification certificate**

**60.01.6** (1) SACAA must issue a flight simulator qualification certificate to the operator of a flight simulator, or a flight training device qualification certificate to the operator of a flight training device, if SACAA qualifies the simulator or device.

(2) The certificate must include the name of the operator and:

- (a) include information identifying the simulator or device; and

- (b) specify the aircraft that is simulated by the simulator or device; and
- (c) specify the qualification level for the simulator or device.

**Period of validity of flight simulator qualification or flight training device qualification**

**60.01.7** (1) A flight simulator qualification or flight training device qualification is in force for:

- (a) 12 months from the date of issue of the flight simulator qualification certificate or flight training device qualification certificate; or
  - (b) if a shorter period is specified in the certificate — that period.
- (2) However, a qualification ceases to be in force if:
- (a) it is cancelled by SACAA under regulation 60.01.9; or
  - (b) there is a change of operator of the simulator or device; or
  - (c) the simulator or device is deactivated or relocated.
- (3) A qualification is not in force for the period of any suspension imposed by SACAA under regulation 60.01.9.

**Recurrent evaluation of qualified flight simulator or qualified flight training device**

**60.01.8** (1) The operator of a qualified flight simulator or qualified flight training device may, within 60 days before the expiry of the flight simulator qualification or flight training device qualification, ask SACAA, in writing, to conduct an evaluation (*a recurrent evaluation*) of the simulator or device.

*Note* SACAA may arrange for an evaluation to be conducted by an evaluation team: see Regulation 60.01.9.

- (2) Subject to sub regulation (3), regulations 60.01.5 and 60.01.6 apply in respect of a recurrent evaluation in the same way as they apply to the initial evaluation.
- (3) During a recurrent evaluation, a qualified flight simulator or qualified flight training device must be assessed against:
- (a) the qualification level at which the simulator or device was qualified at the initial qualification or accreditation of the simulator or device in South Africa; or
  - (b) if SACAA has changed the qualification level since the initial evaluation — the qualification level as changed.

**Variation, cancellation or suspension of flight simulator qualification or flight training device qualification**

**60.01.9** (1) SACAA may, by notice in writing to the operator of a qualified flight simulator or qualified flight training device, vary, cancel or suspend the qualification of the simulator or device if:

- (a) the simulator or device no longer meets the qualification level specified in its qualification certificate; or
  - (b) the operator has failed to comply with a requirement of this Part in relation to the simulator or device.
- (2) If an operator receives a notice of variation or cancellation under sub regulation (1), the operator must return the qualification certificate to SACAA within 14 days after receiving the notice.
- (3) If SACAA varies a qualification, SACAA must reissue the qualification certificate specifying the qualification as varied.

**Flight simulator or flight training device approvals**

**60.01.10** (1) A person who proposes to be the user of a qualified flight simulator or qualified flight training device must apply to SACAA, in writing, for approval to do so.

*Note* For further guidance see TGM Flight Simulator Approvals.

- (2) In considering whether to grant an approval, SACAA must take into account:
- (a) the differences between the characteristics of the flight simulator or flight training device and the characteristics of a specific type (or a specific make, model and series) of aircraft, whether or not the user operates such an aircraft; and
  - (b) the proposed user's operating and training competencies.
- (3) SACAA may also take into account any other matter that affects the way the simulator or device operates or may be used.
- (4) An approval:
- (a) must be in writing;
  - (b) may be issued subject to conditions that are set out in the approval; and
  - (c) will be granted in terms of SA-CAA FSTD Training/Testing credits contained in SA-CATS 60.

- (5) An approval takes effect on the date of issue and continues in force unless the applicable flight simulator qualification or flight training device qualification ceases to be in force.
- (6) However, if SACAA is satisfied that any matter that was taken into account under sub regulation (2) or (3) has changed, SACAA may, by notice in writing to the user, vary, suspend or cancel the approval.

### **Quality system**

**60.01.11** (1) The operator of a qualified flight simulator or qualified flight training device must establish and maintain a quality system that ensures the correct operation and maintenance of the simulator or device.

(2) The quality system must cover at least the following matters:

- (a) quality policy;
- (b) management responsibility;
- (c) document control;
- (d) resource allocation;
- (e) quality procedures;
- (f) internal audit.

*Note* The quality system may be structured according to the size and complexity of the operator's organisation, in accordance with the requirements set out in the following document:

AC No 1 to SACAA-FSTD A.025

### **On-going fidelity requirements**

**60.01.12** (1) The operator of a qualified flight simulator or qualified flight training device must, progressively during the 12 months after the issue of the applicable flight simulator qualification certificate or flight training device qualification certificate, perform:

- (a) all validation tests mentioned in the master QTG for the simulator or device; and
  - (b) all functions and subjective tests within the current (and any planned) training program (or an equivalent sample approved by SACAA).
- (2) The operator must establish a configuration management system to ensure the continued integrity of the equipment and software of the simulator or device.

- (3) The operator must maintain an on-going modification program to ensure that the equipment, software and performance of the simulator or device accurately simulate the aircraft specified in the certificate.
- (4) The operator must notify each user of the simulator or device, before its use, if the simulator or device is unsuitable for any training, testing or checking sequence specified in the certificate.

#### **Modification of qualified flight simulator or qualified flight training devices**

**60.01.13** (1) The operator of a qualified flight simulator or qualified flight training device must notify SACAA, in writing, if it proposes to modify the equipment or software of the simulator or device in a way that will change the characteristics of the simulator or device.

- (2) If SACAA receives a notice under sub regulation (1), SACAA may conduct an evaluation (a *special evaluation*) of the simulator or device as it is proposed to be modified.
- (3) Subject to sub-regulations (4) and (5), regulations 60.01.5 and 60.01.6 apply in respect of a special evaluation in the same way as they apply to the initial evaluation.
- (4) If SACAA decides not to conduct a special evaluation:
  - (a) the operator may make the proposed modification of the simulator or device; and
  - (b) the flight simulator or flight training device qualification continues to be in force.
- (5) During a special evaluation, a simulator or device must be assessed against:
  - (a) the qualification level at which the simulator or device was qualified at the initial qualification or accreditation of the simulator or device in South Africa; or
  - (b) if SACAA has changed the qualification level since the initial evaluation — the qualification level as changed.

*Note* SACAA may arrange for an evaluation to be conducted by an evaluation team: see Regulation 60.01.17.

- (6) This regulation does not apply to the modification of a device for the purpose of a change in the qualification level of the simulator or device.

**Change in qualification level of qualified flight simulator or qualified flight training device**

**60.01.14** (1) The operator of a qualified flight simulator or qualified flight training device may ask SACAA, in writing, to change the qualification level of the simulator or device.

*Note* For further guidance about qualification levels see the SACAA-FSTD A or SACAA-FSTD H.

- (2) If SACAA receives a request under sub regulation (1), it must conduct a special evaluation of the simulator or device, applying the standards in the SACAA-FSTD A or SACAA-FSTD H.

*Note* SACAA may arrange for an evaluation to be conducted by an evaluation team: see Regulation 60.01.17.

- (3) If SACAA changes the qualification level, it must:
- (a) approve any resulting amendments to the master QTG of the simulator or device; and
  - (b) issue a revised flight simulator qualification certificate or flight training device qualification certificate.

**Deactivation, relocation or reactivation of qualified flight simulator or qualified flight training device**

**60.01.15** (1) The operator of a qualified flight simulator or qualified flight training device must notify SACAA, in writing, if the simulator or device is deactivated.

- (2) An operator must notify SACAA, in writing, before the operator reactivates or relocates a simulator or device, and SACAA may then conduct a special evaluation of the simulator or device.

*Note 1* A flight simulator qualification or flight training device qualification ceases to be in force if the simulator or device is deactivated or relocated: see paragraph 60.01.7 (2) (c).

*Note 2* SACAA may arrange for an evaluation to be conducted by an evaluation team: see regulation 60.01.17.

- (3) During a special evaluation, a flight simulator or flight training device must be assessed against:

- (a) the qualification level at which the simulator or device was qualified at the initial qualification or accreditation of the simulator or device in South Africa; or
- (b) if SACAA has changed the qualification level since the initial evaluation — the qualification level as changed.

#### **Change of operator of qualified flight simulator or qualified flight training device**

**60.01.16** (1) The operator of a qualified flight simulator or qualified flight training device must notify SACAA, in writing, of any proposed change of operator of the simulator or device.

- (2) If there is a change of operator of a simulator or device:
  - (a) the former operator must give to the new operator the records mentioned in regulation 60.01.18 that apply to the simulator or device; and
  - (b) the new operator may apply to SACAA, in writing, for qualification of the simulator or device.
- (3) An application under paragraph (2) (b) must be accompanied by a plan of transfer setting out in detail how the new operator will comply with the requirements of this Subpart.
- (4) If SACAA is satisfied that the new operator is able to comply with the requirements of this Subpart, SACAA must:
  - (a) approve the plan; and
  - (b) issue a new flight simulator qualification certificate or flight training device qualification certificate.

*Note* A flight simulator qualification or flight training device qualification ceases to be in force if there is a change of operator: see paragraph 60.01.7 (2) (b).

#### **Evaluation teams**

**60.01.17** SACAA may:

- (a) arrange for an evaluation mentioned in this Subpart to be conducted by an evaluation team; and
- (b) appoint a person to be an evaluation team leader, having regard to the skills, qualifications and experience necessary to undertake the evaluation.

## **Records**

**60.01.18** (1) The operator of a qualified flight simulator or qualified flight training device must keep the following records relating to the simulator or device for at least 3 years after the simulator or device is decommissioned:

- (a) the master QTG;
  - (b) modification records;
  - (c) quality system records.
- (2) The operator must also keep the results of each test carried out under sub regulation 60.01.12 (1) for the simulator or device for at least 3 years after the test.
- (3) If there is a change of operator of a simulator or device, the new operator must keep the records and test results relating to the simulator or device that were kept by the former operator.

## **Basic instrument flight trainers**

**60.02.1 .”.** *Note* This Subpart heading is reserved for future use.

## **5. Amendment of regulation 91.00.11 of the Regulations**

Regulation 91.00.11 is hereby amended by the substitution of sub regulations (2), (3) and (4) of the following sub- regulations:

**“91.01.11** (2) The owner or operator of an aircraft operated in the mass category specified under Table 1 of Part 187 and issued with a certificate of airworthiness in any category in terms of Part 21, shall be liable for a currency fee, as prescribed in table 1 of Part 187. Such fees shall be payable in advance on the anniversary date on which the certificate of airworthiness was issued or

(3) Should the aircraft be unserviceable and not in possession of a valid certificate of airworthiness at that time, the currency fee will be waived until the aircraft is again serviceable and the certificate of airworthiness reissued. The fee for the re-issue of the certificate of airworthiness as prescribed by Part 187 shall then be applicable.

(4) The onus to demonstrate that the aircraft was unserviceable, or not in possession of a valid Certificate of Airworthiness rest with the owner/operator.”.



**6. Amendment of regulation 91.02.1 of the Regulations**

Regulation 91.02.1 is hereby amended by the substitution of sub regulation (3) and (8) of the following sub regulations:

“(3) The flight crew members and, if applicable, the cabin crew members, shall  
(a) have maintained competency and be qualified to perform the duties assigned to them;  
(b) hold the appropriate valid crew licences, ratings and certificates; and  
(c) have the ability to speak and understand the language used for aeronautical

Radiotelephony communications for the routes being flown”

. and

**(b) the insertion of the following sub-regulation after sub-regulation (7):**

(8) In instances of non-commercial operations, the pilot in command shall be responsible for ensuring compliance with (3).”

**7. Amendment of regulation 91.02.3 of the Regulations**

Regulation 91.02.3 is hereby amended by the substitution for sub-regulation (1) of the following sub-regulation:

“**91.02.3** (1) No person shall act as a crew member of an aircraft –

- (a) whilst using any psychoactive substance which may affect his or her faculties in any manner that may jeopardize safety;
- (b) within 24 hours following scuba diving by such flight crew member;
- (c) within 72 hours following blood donation by such flight crew member;
- (d) having due regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue to such an extent that it may endanger the safety of the aircraft or its occupants; *or*
- (e) if the crew member is in any doubt of being able to accomplish his or her assigned duties on board the aircraft.

**8. Amendment of regulation 91.03.6 of the Regulations**

Regulation 91.03.6 is hereby amended by-

(a) the substitution of sub- regulations (1) of the following sub-regulation:

“ (1)The owner or operator shall maintain fuel records to enable the Director to ascertain that, for each flight under his or her control, the requirements of Regulation 91.07.12 are complied with.” .

and

(b) the addition of the following sub-regulations after sub-regulation (2):

“(3) The owner or operator shall maintain oil records to enable the Director to ascertain that trends for oil consumption are such that an aircraft has sufficient oil to complete each flight.

(4) Fuel and oil records shall be retained by the owner or operator for a period of three months’..

#### **9. Amendment of regulation 91.04.1 of the Regulations**

Regulation 91.04.1 is herewith amended by the addition of the following sub-regulation after sub-regulation (6):

“(7) Aircraft with advanced cockpit automation systems (glass cockpits) must have system redundancy that provides the flight crew with attitude, heading, and airspeed and altitude indications in case of failure of the primary system or display.”.

#### **10. Amendment of regulation 91.04.9 of the Regulations**

Regulation 91.04.9 is herewith amended by the addition of the following sub-regulation after sub-regulation (3):

“(4) A flight to be planned or expected to operate in suspected or known ground icing conditions shall not take off unless the aircraft has been inspected for icing and, if necessary, has been subjected to appropriate ground de-icing. Accumulation of ice or other naturally occurring contaminants shall be removed so that the aeroplane is kept in an airworthy condition prior to take-off.”.

#### **11. Amendment of regulation 91.04.10 of the Regulations**

Regulation 91.04.10 is hereby amended by the substitution of sub regulation (e) (i), (ii) and (ii) of the following sub-regulation:

“(e) All turbine-engine helicopters of a maximum certificated take-off mass of over 2 250 kg, up to and including 3 180 kg for which the application for type certification is submitted on or after 1 January 2018 shall be equipped with:

- (i) a Type IV A FDR; or
- (ii) a Class C AIR capable of recording flight path and speed parameters displayed to the pilot(s); or

- (ii) an ADRS capable of recording the essential parameters defined in Table 2 of CATS 91.”.

## **12. Amendment of regulation 91.06.32 of the Regulations**

Regulation 91.06.32 is hereby amended by-

- (a) the substitution for paragraphs (a) and (c) of sub regulation (1), ( of the following paragraphs:

“(a) shall be flown over congested areas or over an obvious open-air assembly of persons at a height less than 1 000 feet above the highest obstacle, within a radius of 2 000 feet from the aircraft;”;

and

“(c) shall circle over or do repeated overflights over an obvious open-air assembly of persons at a height less than 3 000 feet above the surface.”.

- (b) the substitution for the proviso contained in the introductory sentence of sub-regulation (2) of the following proviso:

“(2) A helicopter shall be permitted to be flown at heights less than those prescribed in sub-regulations (1) (a) provided that-;”

- (c) the substitution for paragraph (a) of sub-regulation (2) of the following paragraph:

“(a) the operation is conducted without unnecessary nuisance or hazard to persons and property on the ground or water; and:”;

and

- (d) the substitution for sub-regulation (3) of the following sub-regulation:

“(3) at a height of at least 2 000 feet above the highest terrain or obstacle located within five nautical miles of the aircraft in flight where the height of such terrain or obstacle exceeds 5 000 feet above sea level: Provided that within areas determined by the Director the minimum height may be reduced to 1 000 feet above the highest terrain or obstacle located within 5 nautical miles of the aircraft in flight, the aircraft is flown in accordance with such procedures as the Director may determine.” .

## **13. Amendment of regulation 91.07.7 of the Regulations**

Regulation 91.07.7 is hereby amended by-

- (a) the substitution for sub- regulations (3), and (4), (6) of the following sub-regulations:

“(3) A take-off alternate aerodrome shall be selected and specified in the operational and ATS flight plan, as regulated in by-Regulation 91.03.4 if the meteorological

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conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or it would not be possible to return to the aerodrome of departure for other reasons.

(4) The take-off alternate aerodrome referred to in sub-regulation (3), shall be located within the following time from the aerodrome of departure –

- (a) twenty (20) minutes flying time from the departure aerodrome in the case of single-engine aeroplanes;
- (b) for aeroplanes with two engines, one hour of flight time at a one-engine-inoperative cruising speed, determined from the aircraft flight manual referred to in regulation 91.03.2, calculated in International Standard Atmosphere (ISA) and still-air conditions using the actual take-off mass; or
- (c) for aeroplanes with three or more engines, two hours of flight time at an all-engine cruising speed, determined from the aircraft flight manual, calculated in ISA and still-air conditions using the actual take-off mass;
- (d) for aeroplanes engaged in extended diversion time operations (EDTO) where an alternate aerodrome meeting the distance criteria of Sub Regulations b) or c) is not available, the first available alternate aerodrome located within the distance of the operator's approved maximum diversion time considering the actual take-off mass;
- (e) for an aerodrome to be selected as a take-off alternate the available information shall indicate that, at the estimated time of use, the conditions will be at or above the operator's established aerodrome operating minima for that operation; and
- (f) En-route alternate aerodromes, required by sub-regulation 91.07.7(4) for extended diversion time operations by aeroplanes with two turbine engines, shall be selected and specified in the air traffic services (ATS) flight plan.

Provided that if the aircraft flight manual referred to in regulation 91.03.2 does not contain a one-engine inoperative cruising speed as referred to in sub-regulations (b) and (c), the speed to be used for calculation shall be the speed which is achieved with the remaining engine or engines set at maximum continuous power..';

(a) the substitution for sub- regulation (6) of the following sub- regulation:

“(6) For a flight to be conducted in accordance with instrument flight rules, the owner or operator of an aeroplane shall select at least one destination alternate aerodrome which shall be specified in the ATS flight plan, unless—

- (a) the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use, a reasonable certainty exists that:

(i) the approach and landing may be made under visual meteorological conditions; and

(ii) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure.

(b) the aerodrome is isolated. Operations into isolated aerodromes do not require the selection of a destination alternate aerodrome(s) and shall be planned in accordance with sub-regulation 91.07.12(3)(d) and

(i) for each flight into an isolated aerodrome a point of no return shall be determined; and

(ii) a flight to be conducted to an isolated aerodrome shall not be continued past the point of no return unless a current assessment of meteorological conditions, traffic and other operational conditions indicate that a safe landing can be made at the estimated time of use.”.

*Note. — Separate runways are two or more runways at the same aerodrome configured such that if one runway is closed, operations to the other runway(s) can be conducted.*

(c) the substitution for sub-regulation 10 of the following sub-regulation:

“(10) Two destination alternate aerodromes shall be selected and specified in the operational and ATS flight plans when at the destination aerodrome:

(a) Meteorological conditions at the estimated time of use will be below the operator’s established aerodrome operating minima for that operator; or

(b) Meteorological information is not available.’.

(d) the addition of the following sub-regulation after sub-regulation (13):

“(14) Notwithstanding the provisions in sub-regulations 91.07.7(3), 91.07.7(6), and 91.07.7(8); the Director may, based on the results of a specific safety risk assessment conducted by the owner or operator which demonstrate how an equivalent level of safety will be maintained approve operational variations to alternate aerodrome selection criteria. The specific safety risk assessment shall include at least the:

(a) Capabilities of the pilot-in-command or operator;

(b) Overall capability of the aeroplane and its systems;

(c) Available aerodrome technologies, capabilities and infrastructure;

(d) Quality and reliability of meteorological information;

- (e) Identified hazards and safety risks associated with each alternate aerodrome variation; and
- (f) Specific mitigation measures.”.

#### **14. Amendment of regulation 91.07.9 of the Regulations**

Regulation 91.07.9 is hereby amended by-

- (a) the substitution for regulation (1), ) of the following sub regulation:

“(1) On a flight conducted in accordance with-VFR, the pilot shall not commence take-off unless current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions along the route, or that part of the route to be flown under VFR shall, at the appropriate time, be such as to enable compliance with the provisions prescribed in this Part”..  
and

- (b) the insertion of the following sub-regulations after sub-regulation (1):

“(2) A flight to be conducted in accordance with IFR;

- a) shall not take off from the departure aerodrome unless meteorological conditions, at the time of use, are at or above the operator’s established aerodrome operating minima for that operator; and
- b) shall not take off or continue beyond the point of in-flight re-planning unless at the aerodrome of intended landing or at each alternate aerodrome to be selected in compliance with regulation 91.07.7, current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions will be, at the estimated time of use, at or above the operator’s established aerodrome operating minima for that operation.

(3) In the case of commercial air transport operations, to ensure that adequate margin of safety is observed in determining whether or not an approach and landing can be safely carried out at each alternate aerodrome, the operator shall specify appropriate incremental values, acceptable to the Director, for height of cloud base and visibility to be added to the operator’s established aerodrome operating minima for the estimated time of use of an aerodrome.”.

#### **15. Amendment of regulation 91.07.12 of the Regulations**

Regulation 91.07.12 is hereby amended by-

- (a) the substitution for the said regulation of the following regulation:

“(1) The pilot-in-command of an aircraft shall not commence a flight unless he or she is satisfied that the aircraft carries a sufficient amount of usable fuel, to complete the planned flight safely and to allow for deviations from the planned operation.

(2) The pilot-in-command shall ensure that the amount of useable fuel to be carried shall, as a minimum, be based on:

(a) The following data:

- i. Current aircraft-specific data derived from a fuel consumption monitoring system, if available; or
- ii. If current aircraft-specific data is not available, data provided by the aeroplane manufacturer; and

(b) the operator conditions for the planned flight including:

- iii. anticipated aeroplane mass;
- iv. Notices to Airmen;
- v. Current meteorological reports or a combination of current reports and forecasts;
- vi. Air traffic services procedures, restrictions and anticipated delays; and
- vii. The effects of deferred maintenance items and/or configuration deviations.

(3) The pre-flight calculation of usable fuel required shall include:

- (a) *Taxi fuel*, which shall be the amount of fuel expected to be consumed before take-off;
- (b) *Trip fuel*, Which shall be the amount of fuel required to enable the aeroplane to fly from take-off or the point of in-flight re-planning until landing at the destination aerodrome taking into account the operating conditions of sub-regulation 91.07.12 (2)(b);
- (c) *Contingency fuel*, which shall be the amount of fuel required to compensate for unforeseen factors. It shall be five per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel but in any case shall, in the case of aeroplanes, shall not be lower than the amount required to fly for 5 minutes at holding speed at 1 500 ft above the destination aerodrome in standard conditions;

*Note: unforeseen factors are those factors which could have an influence on the fuel consumption to the destination aerodrome, such as deviations of an individual aeroplane from the expected fuel consumption data, deviations from forecast meteorological conditions, extended taxi times before, take-off, and deviation from planned routings and/or cruising levels.*

(d) *Destination alternate fuel*, which shall be:

- (i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to:

- (aa) Perform a missed approach at the destination aerodrome;
  - (bb) Climb to the expected cruising altitude;
  - (aa) fly the expected routing;
  - (bb) descend to the point where expected approach is initiated; and
  - (cc) conduct the approach and landing at the destination alternate aerodrome; or
- (ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in sub-regulation 91.07.12 (3), required to enable the aeroplane to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or
- (iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at holding speed at (1 500 ft) above the destination aerodrome elevation in standard conditions; or
- (iv) Where the aerodrome of intended landing is an isolated aerodrome:
- (aa) For a reciprocating engine aeroplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or two hours, whichever is less; or
  - (bb) For a turbine engine aeroplane, the amount of fuel required to fly for two hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;
- (e) *Final reserve fuel*, which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome or the destination aerodrome, when no destination alternate aerodrome is required:
- (i) For a reciprocating engine aeroplane, the amount of fuel required to fly for 45 minutes, under speed and altitude conditions specified by the Director
  - (ii) For a turbine engine aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 1 500 ft above aerodrome elevation in standard conditions;
- (f) *Additional fuel*, which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with sub-regulations 91.07.12 (a), (b), (c), (d) or (e) is not sufficient to:
- (i) Allow the aeroplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route;



(aa) Fly for 15 minutes at holding speed at 1 500 ft above aerodrome elevation in standard conditions; and

(bb) Make an approach and landing

(ii) Allow an aeroplane engaged in EDTO to comply with the EDTO critical fuel scenario as established by the Director.

(iii) Meet additional requirements not covered above;

(g) Discretionary fuel, which shall be the extra amount of fuel to be carried at the discretion of the pilot-in-command.

and

(4) Operators shall determine one final reserve fuel value for each aeroplane type and variant owned or operated rounded up to an easily recalled figure.

(5) An aeroplane shall not take off or continue from the point of in-flight re-planning unless the usable fuel on board meets the requirements in sub-regulations 91.07.12 (3), (b), (d), (e) or (f) if required.

(6) The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

(7) The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.

(8) The pilot-in-command shall advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than planned final reserve fuel.

*Note: The declaration of MINIMUM FUEL informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any change to the existing clearance may result in landing with less than the planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delay occur.*

(9) The pilot-in-command shall declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL, when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

- (10) Notwithstanding the provisions in sub-regulations 91.07.12(3) (a), (b), (c), (d), and (f); the Director may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve variations to the pre-flight fuel calculation of taxi fuel, trip fuel, contingency fuel, destination alternate fuel, and additional fuel. The specific safety risk assessment shall include at least the:
- (i) Flight fuel calculations;
  - (ii) Capabilities of the operator include:
    - (aa) A data-driven method that includes a fuel consumption monitoring programme; and/or
    - (bb) The advanced use of alternate aerodromes; and
  - (iii) Specific mitigation measures.’.

#### **16. Amendment of regulation 91.07.35 of the Regulations**

The following regulation is herewith inserted after regulation 91.07.34:

##### **“Additional EDTO requirements**

**91.07.35 (1)** Requirements for operations beyond 60 minutes to an en-route alternate aerodrome

- (a) Operators conducting operations beyond 60 minutes, from a point on a route to an en-route alternate aerodrome shall ensure that:
- (i) For all aeroplanes:
    - aa) en-route alternate aerodromes are identified; and
    - bb) the most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;
  - ii) for aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator’s established aerodrome operating minima for the operation at the estimated time of use.
- (b) In addition to the requirements in paragraph (a), all operators shall ensure that the following are taken into account and provide the overall level of safety intended by the provisions of this Part:
- (i) operational control and flight dispatch procedures;

- (ii) operating procedures; and
  - (ii) training programmes.
- (2) Requirements for extended diversion time operations
  - (a) Unless the operation has been specifically approved by the Director, an aeroplane with two or more turbine engines shall not be operated on a route where diversion time from any point on the route, calculated in ISA and still air conditions at the one-engine inoperative cruise speed for aeroplanes with two turbine engines and at the all-engine operating cruise speed for aeroplanes with more than two turbine engines, to an adequate en-route alternate aerodrome exceeds a threshold time established for such operations.
  - (b) The maximum diversion time, for an operator of a particular aeroplane type engaged in extended diversion time operations shall be approved by the Director.
  - (c) When approving the appropriate maximum diversion time for an operator for a particular aeroplane type engaged in extended diversion time operations, the Director shall ensure that:
    - i) for all aeroplanes: the most limiting EDTO significant system time limitation, if any, indicated in the Aircraft Flight Manual (directly or by reference) and relevant to that particular operation is not exceeded; and
    - ii) for aeroplanes with two turbine engines, the aeroplane is EDTO certified.
  - (d) Notwithstanding the provisions of said paragraph 91.07.35 (2) (c) (i); the Director may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve operations beyond the time limits of the most time-limited system. The specific safety risk assessment shall include at least the:
    - (i) capabilities of the operator;
    - (ii) overall reliability of the aeroplane;
    - (iii) reliability of each time limited system;
    - (iv) relevant information from the aeroplane manufacturer;
    - and
    - (v) specific mitigation measures.
  - (e) For aeroplanes engaged in EDTO, the additional fuel required by paragraph 91.07.12 of sub-regulation (3) (f) shall include the fuel

necessary to comply with the EDTO critical fuel scenario as established by the Director.

- (f) A flight shall not proceed beyond the threshold time in accordance with Sub-regulation 91.07.35 (2) (a) unless the identified en-route alternate aerodromes have been re-evaluated for availability and the most up to date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for the operation. If any conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use, an alternative course of action shall be determined.
- (g) The Director shall, when approving maximum diversion times for aeroplanes with two turbine engines, ensure that the following are taken into account in providing the overall level of safety intended:
- i) reliability of the propulsion system;
  - ii) airworthiness certification for EDTO of the aeroplane type; and
  - iii) EDTO maintenance programme

*Note When the diversion time exceeds the threshold time, the operation is considered to be an extended diversion time operation (EDTO)*

Note: For the purpose of EDTO, the take-off and/or destination aerodromes may be considered en-route alternate aerodromes.

## **17. Insertion of Part 93 into the Regulations**

The following Part is hereby inserted after Part 92:

### **“PART 93: CORPORATE OPERATIONS**

**LIST OF REGULATIONS****SUBPART 1: FLIGHT OPERATIONS AND TRAINING**

- 93.01.1 Applicability
- 93.01.2 Private Operator Certificate
- 93.01.3 Validity and status of a certificate
- 93.01.4 Operations manual and instructions
- 93.01.5 Operator notification of foreign operating bases
- 93.01.6 Safety management system

**SUBPART 2 : FLIGHT OPERATIONS AND TRAINING**

- 93.02.1 No alternate aerodrome – IFR flight
- 93.02.2 Extended range twin-engine operations
- 93.02.3 Low visibility operations
- 93.02.4 Navigation systems
- 93.02.5 Operational flight planning and operational control
- 93.02.6 Refuelling or defuelling with passengers embarking, on board or disembarking
  
- 93.02.7 Minimum Equipment List
- 93.02.8 Standard Operating Procedures
- 93.02.9 Aircraft Operating Manual
- 93.02.10 Fatigue management programme
- 93.02.11 Training programme
- 93.02.12 Pilot proficiency check
- 93.02.13 Validity periods

**“SUBPART 1 :****GENERAL PROVISIONS****93.01.1 Applicability**

93.01.1(1) Subject to the provisions of sub-regulation (2), this Part shall apply to the operation of a South African registered aeroplane used in a corporate aviation operation if -

- (a) the aeroplane is a turbine-powered pressurised and non-pressurised aeroplane; or
- (b) the aeroplane is having a maximum certificated passenger seating capacity of 20 or more as authorised in the initial type certificate issued to such aeroplane; or
- (c) the aeroplane is having a maximum certificated passenger seating capacity of 19 or less as authorised in the initial type certificate issued to such aeroplane; or
- (d) the carriage of the passengers is related to the conduct of the business of the individual, company or corporation having ownership of the aeroplane and the carriage of such persons is done without remuneration or hire.

(2) This Part does not apply in respect of an aircraft that is required to be operated under Part 121, Part 127, Part 135 or Part 141.

### **93.01.2 Private Operator Certificate**

**93.01.2 (1)** No person shall operate an aircraft under this Part unless the person –

- (a) holds a Private Operator Certificate (POC), hereinafter referred to as a certificate, in respect of the operation; and
- (b) operates the aircraft in accordance with the conditions specified in the certificate.

(2) In addition to any condition pertaining to the operation of an aircraft that is necessary for aviation safety, a certificate may contain operations specifications with respect to –

- (a) the low visibility operations authorisation referred to in regulation 93.02.2;
- (b) the navigation system authorisation referred to in regulation 93.02.3; and
- (c) any other approval to conduct specialised operations deemed necessary by the Director.

(3) An application for the issuance or amendment of a certificate or operations specifications shall be made to the Director in the form and manner prescribed in Document SA-CATS 93 and shall be accompanied by the appropriate fee as prescribed in Part 187.

### **93.01.3 Validity and status of a certificate**

**93.01.3(1)** Unless otherwise specified by the Director, a certificate shall remain valid and in force until suspended or cancelled: Provided that the private operator –

- (a) submits on or before the anniversary date of initial issue, the appropriate annual fee as prescribed in Part 187; and
- (b) successfully completes such audits and inspections as were carried out by the Director, including the satisfactory resolution of any findings reported to the operator by the Director.

(2) A certificate shall cease to be in force if –

- (a) the operator voluntarily surrenders the Private Operator Certificate (POC);
- (b) the operator no longer meets the requirements for issue of a POC; or
- (c) the operator violates a provision of its POC or operations specifications.

(3) Where a private operator is notified by the Director that its POC has been suspended or cancelled, the operator shall return the POC to the Director within seven days of such notification.

#### **93.01.4 Operations manual and instructions**

**93.01.4(1)** A private operator shall provide an operations manual that contains the information prescribed in Document SA-CATS 93 for the use and guidance of operations personnel in the performance of their duties. The operations manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments or revisions shall be issued to all personnel that are required to use this manual.

(2) An operator shall ensure that all operations personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole.

(3) The operations manual referred to in sub-regulation (1), or those parts of it that pertain to flight operations, shall be carried on board the aircraft during flight time.

#### **93.01.5 Operator notification of foreign operating bases**

**93.01.5(1)** A private operator shall notify the SACAA if establishing an operating base within a country other than South Africa.

(2) The SACAA shall retain responsibility for safety oversight of the foreign base unless otherwise arranged with the State in which the base is located.

#### **93.01.6 Safety management system**

**93.01.6(1)** An operator shall establish and maintain a safety management system that is appropriate to the size and complexity of the operation.

(2) The safety management system shall, as minimum, include –

- (a) a process to identify actual and potential safety hazards and assess the associated risks;
- (b) a process to develop and implement remedial action necessary to maintain an acceptable level of safety; and
- (c) provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of safety management activities.

**SUBPART 2 :****FLIGHT OPERATIONS AND TRAINING****93.02.1 No alternate aerodrome – IFR flight**

**93.02.1** A private operator shall not conduct an IFR flight where an alternate aerodrome has not been designated in the IFR flight plan, as provided in regulation 91.07.7(6), unless –

- (a) the aircraft carries a fuel reserve of five per cent of the fuel required to fly from the aerodrome of departure to the destination; and
- (b) each flight crew member is thoroughly familiar with all suitable diversionary airports which are available during the flight.

**93.02.2 Extended range twin-engine operations**

**93.02.2** A private operator shall not operate a twin-engine aeroplane over a route which contains a point further from an adequate and suitable aerodrome than the distance that can be flown, under standard conditions in still air, in 60 minutes at the one-engine inoperative cruise speed unless –

- (a) the operator meets the requirements specified in Document SA-CATS 93; and
- (b) the operator is authorised to do so in its operations specifications; and
- (c) the extended range twin-engine operations are conducted in accordance with the procedures approved for the operator in its operations manual.

**93.02.3 Low visibility operations**

**93.02.3** No private operator shall assign and no person shall conduct a low visibility take-off or Category II or III approach unless –

- (a) the operator meets the conditions prescribed in Document SA-CAT-OPS 93;
- (b) the operator is authorised to do so in its operations specifications; and
- (c) the low visibility operations are conducted in accordance with the procedures approved for the operator in its operations manual.

**93.02.4 Navigation systems**

**93.02.4** A private operator shall not operate an aircraft in airspace requiring specified navigation accuracy unless –

- (a) the aircraft meets the requirements prescribed in Document SA-CATS 93; and



- (b) the operator is authorised to do so in its operations specifications.

#### **93.02.5 Operational flight planning and operational control**

**93.02.5(1)** A private operator shall specify flight planning procedures to provide for the safe conduct of the flight based on considerations of aircraft performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned. These procedures shall be included in the operations manual.

**(2)** An operator shall develop an operational control system for the dispatch of its aircraft, describe it in the operations manual and identify the roles and responsibilities of those involved with the system. The pilot-in-command shall be responsible for operational control unless otherwise provided for in the system.

#### **93.02.6 Refuelling or defuelling with passengers embarking, on board or disembarking**

**93.02.6(1)** An aeroplane shall not be refuelled or defuelled when passengers are embarking, on board or disembarking unless it is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.

**(2)** When refuelling or defuelling with passengers embarking, on board or disembarking, two-way communication shall be maintained using the aircraft's intercommunication system or other suitable means between the ground crew supervising the refuelling or defuelling and the qualified personnel on board the aeroplane.

#### **93.02.7 Minimum Equipment List**

**93.02.7** Where a Master Minimum Equipment List (MMEL) is established for the aircraft type, a private operator shall prepare a Minimum Equipment List (MEL) approved by the Director which will enable the pilot-in-command to determine whether a flight may be commenced or continued from any intermediate stop should any instrument, equipment or system become inoperative.

#### **93.02.8 Standard Operating Procedures**

**93.02.8** A private operator shall develop Standard Operating Procedures (SOP) for the use of its flight crew members for each aircraft type with a maximum certificated take-off mass in excess of 5 700 kg for which two flight crew members are required by the type certificate or by regulation. The SOP shall cover all phases of ground and flight operations under normal, abnormal and emergency conditions.

**93.02.9 Aircraft Operating Manual**

**93.02.9(1)** A private operator may establish and maintain an Aircraft Operating Manual (AOM) that meets the requirements set out in Document SA-CATS 93 and that provides guidance to flight crew members in the operation of the aircraft.

(2) An AOM shall contain –

- (a) the aircraft operating procedures; and
- (b) where the aircraft flight manual is not carried on board the aircraft, the aircraft performance data and limitations specified in the aircraft flight manual, which shall be clearly identified as aircraft flight manual requirements.

(3) An operator who has established an AOM shall ensure that a copy of the manual is carried on board each aircraft to which it relates.

**93.02.10 Fatigue management programme**

**93.02.10** A private operator shall establish and implement a fatigue management programme that ensures that all operator personnel involved in the operation and maintenance of aircraft do not carry out their duties when fatigued. The programme shall address flight and duty times and be included in the operations manual.

**93.02.11 Training programme**

**93.02.11(1)** A private operator shall establish and maintain a ground and flight training programme, either through internal programmes or through a training services provider, that –

- (a) is designed to ensure that each person who receives training acquires the competence to perform their assigned duties, including skills related to human performance; and
- (b) meets the requirements prescribed in Document SA-CATS 93 and is approved by the Director.

(2) The training programme referred to in sub-regulation (1) shall be described in the operations manual.

**93.02.12 Pilot proficiency check**

**93.02.12(1)** A private operator shall ensure that piloting technique and the ability to execute normal, abnormal and emergency procedures is checked in such a way as to demonstrate that the pilot is competent to perform those functions.

(2) Where the operation may be conducted under the instrument flight rules, the operator shall ensure that the pilot's ability to comply with such rules is satisfactorily demonstrated.

(3) The checks required by sub-regulations (2) and (3) shall be demonstrated to an authorised person.

### **93.02.13 Validity periods**

**93.02.13** (1) Subject to sub-regulations (2) and (3), the validity period of the annual training referred to in regulation 93.02.11 and the pilot proficiency check (PPC) referred to in regulation 93.02.11 expires on –

- (a) for aircraft with a certificated maximum take-off mass in excess of 22 680 kg, the first day of the seventh month following the month in which the training or proficiency check was completed; and
- (b) for aircraft with a certificated maximum take-off mass of 22 680 kg or less, the first day of the thirteenth month following the month in which the training or proficiency check was completed.

(2) Where recurrent training or a PPC is renewed within the last 60 days of its validity period, its validity period is extended by 12 months: Provided that the original expiration date shall not change.

(3) The Director may extend the validity period of recurrent training or a PPC by up to 30 days where the Director is of the opinion that aviation safety is not likely to be affected: Provided that the application for extension is received prior to the associated expiry date.

(4) An extension approved in accordance with sub-regulation (3) does not constitute a change in the original expiration date.”.

### **18. Insertion of regulations 121.02.14, 121.02.15 and 121.02.16 into the Regulations**

The following regulations are herewith inserted after regulation 121.02.13:

#### **“Fatigue risk management system**

**121.02.14** (1) An air service operator that establishes a scheme for the regulation of flight time and duty periods in accordance with regulation 121.02.13(1) (a) (ii) shall establish a fatigue risk management system.

(2) An operator’s fatigue risk management system shall contain, as a minimum:

- a) a fatigue risk management system policy;
- b) a fatigue risk management processes;
- c) a safety assurance processes; and
- d) a fatigue risk management system promotion processes:  
each as prescribed in Document SA–CATS 121.

(3) The operator shall designate a person responsible for the fatigue risk management system who meets the qualifications and experience requirements and who will be responsible for the functions as prescribed in Document SA-CATS 121.

#### **Approval of a fatigue risk management system**

**121.02.15** (1) An operator shall submit to the Director their proposed fatigue risk management system which complies with the requirements of Regulation 121.02.14(2).

(2) The Director shall approve the commencement of a trial phase for implementation of the proposed fatigue risk management system for a trial period of up to 24 months if the Director is satisfied that the operator has complied with the provisions of Regulation 121.02.14 (2).

(3) At any time during the approved trial phase, the Director may withdraw the approval if it becomes evident that the operator does not comply with the provisions of the system or these Regulations.

(4) During the trial phase, the operator may implement the proposed maximum and minimum flight time and duty values, as determined by the operator and approved by the Director.

(5) After a 12 months period, an operator approved under Regulation 121.02.15 (2) may apply to the Director for full approval by providing evidence that the fatigue risk management system is delivering the required safety outcomes.

(6) Where the Director is satisfied that the evidence provided under paragraph (5) is acceptable, the Director shall issue a full approval to implement the fatigue risk management system.

#### **Fatigue risk management system manual**

**121.02.16** (1) The operator shall draw up a fatigue risk management system containing all the information required under this Part and publish the content in their operations manual as prescribed in Document SA-CATS 121”..

#### **19. Amendment of regulation 121.05.3 of the Regulations**

Regulation 121.05.3 is herewith amended by the substitution for paragraph (c) of sub-regulation (1) of the following paragraph:

“(1) An air service operator shall not operate an aeroplane in accordance with IFR, unless such aeroplane is equipped with –

- (b) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable any barometric pressure setting likely to be

encountered during flight. These altimeters must have counter drum-pointer or equivalent presentation.”.

## **20. Renumbering of regulation 121.06.8 of the Regulations and the insertion of Regulation 121.06.9 into the Regulations**

Regulation 121.06.8 is herewith amended by-

- (a) the renumbering of it as regulation 121.06.9; and
- (b) (the insertion of the following regulation as regulation 121.06.8 after regulation 121.06.7:

### **“Operator Notification**

**121.06.8** If an operator has an operating base in a State other than the Republic of South Africa, the operator shall notify the Director as well as the State in which the operating base is located.”.

## **21 Substitution of Part 127 of the Regulations**

The following Part is herewith substituted for Part 127 of the Regulations

### **“PART 127: COMMERCIAL HELICOPTER OPERATIONS: PASSENGERS CARGO AND MAIL**

#### **SUBPART 1: GENERAL**

- 127.01.1. Applicability
- 127.01.2. Admission to flight deck
- 127.01.3. Passenger intoxication and unruly behaviour
- 127.01.4. Compliance with foreign and domestic regulations
- 127.01.5. Regulatory infractions during emergency situations
- 127.01.6. Language proficiency

#### **SUBPART 2: OPERATIONS PERSONNEL REQUIREMENTS**

##### **Division one; Minimum crew requirements**

- 127.02.1. Composition of flight crew
- 127.02.2. Cabin crew member compliment
- 127.02.3. Senior cabin crew member
- 127.02.4. Cabin crew emergency evacuation stations
- 127.02.5. Seating of cabin crew members during flight
- 127.02.6. Flight and cabin crew member emergency duties

**Division Two: Flight crew member, cabin crew member and flight operations officer qualifications**

- 127.02.7. Flight crew member qualifications
- 127.02.8. Cabin crew member qualifications
- 127.02.9. Crew members, other than flight and cabin crew members
- 127.02.10. Flight operations officer or flight follower qualifications
- 127.02.11. Ground personnel and service providers qualifications

**Division Three: Flight time and duty limitations**

- 127.02.12. Flight time and duty periods

**SUBPART 3: TRAINING AND CHECKING****Division One: General provisions**

- 127.03.1 Air service operator approved training programme
- 127.03.2 Publishing an approved training programme
- 127.03.3 Approval of a training programme

**Division Two: Flight crew member training**

- 127.03.4 Flight crew member training

**Division Three: Training of cabin crew members**

- 127.03.5 Initial training
- 127.03.6 Type and differences training
- 127.03.7 Operator induction training
- 127.03.8 Familiarisation flights
- 127.03.9 Recurrent training
- 127.03.10 Re-qualification training

**Division Four: Training of other than flight and cabin crew members**

- 127.03.11 Training of personnel other than flight and cabin crew

**Division Five: Checking, certification, training and validity**

- 127.03.12 Checking, certification, training and validity periods

**SUBPART 4: DOCUMENTATION AND RECORDS**

- 127.04.1 Documents to be carried on board a helicopter during flight and retained on the ground
- 127.04.2 Operations manual
- 127.04.3 Aircraft operating manual
- 127.04.4 Operational flight plan
- 127.04.5 Flight time and duty period records
- 127.04.6 Records of emergency and survival equipment
- 127.04.7 Flight crew member training records
- 127.04.8 Mass and balance sheets
- 127.04.9 Fuel records
- 127.04.10 Helicopter search procedure checklist
- 127.04.11 Preservation of documents

**SUBPART 5: HELICOPTER INSTRUMENTS AND EQUIPMENT**

- 127.05.1 Approval and use of instruments and equipment
- 127.05.2 Flight, navigation, and associated equipment for helicopters operated under VFR
- 127.05.3 Flight, navigation, and associated equipment for helicopters operated under IFR
- 127.05.4 Airborne weather radar equipment
- 127.05.5 Flight crew interphone system
- 127.05.6 Crew interphone system
- 127.05.7 Public address system
- 127.05.8 Lifejackets and other flotation devices
- 127.05.9 Survival suits
- 127.05.10 Emergency locator transmitters
- 127.05.11 Cabin attendant seats
- 127.05.12 Microphones
- 127.05.13 Passenger cabin signs and placards
- 127.05.14 Flight recorders
- 127.05.15 First-aid and universal precaution kits

**SUBPART 6: OPERATING CERTIFICATE**

- 127.06.1 Requirement to hold an air operator certificate
- 127.06.2 Application for the issuance or amendment of an air operator certificate and operations specifications
- 127.06.3 Adjudication of, and issuance of, an air operator certificate or operations specifications
- 127.06.4 Period of validity and status of an air operator certificate
- 127.06.5 Safety and security inspections and audits
- 127.06.6 Administrative duties of an air operator certificate holder
- 127.06.7 Register of air operating certificates
- 127.06.8 Demonstration flights

**SUBPART 7: FLIGHT OPERATIONS****Division One: General**

- 127.07.1 Routes and areas of operation and aerodrome facilities
- 127.07.2 Establishment of procedures
- 127.07.3 Hazardous flight conditions and unlawful interference
- 127.07.4 Competence of operations personnel
- 127.07.5 Use of air traffic services
- 127.07.6 Minimum flight altitudes
- 127.07.7 Aerodrome operating minima
- 127.07.8 Offshore operations
- 127.07.9 Refueling and defueling with passengers on board
- 127.07.10 Fuel policy
- 127.07.11 IMC or night flight without a second-in-command
- 127.07.12 Instrument approach and departure procedures
- 127.07.13 Noise abatement procedures
- 127.07.14 Operation of helicopter in icing conditions
- 127.07.15 Surface contamination programme
- 127.07.16 Mass and balance control
- 127.07.17 Initial navigation systems and inertial reference systems
- 127.07.18 Operations with head-up displays, enhanced vision systems and night vision goggles
- 127.07.19 Operations with electronic flight bags
- 127.07.20 Single-engine helicopter IMC and night operations

**Division Two: Operational control**

- 127.07.21 Operational control and supervision of flight operations
- 127.07.22 Contracted services for an operational control system
- 127.07.23 Operational flight plans
- 127.07.24 Familiarity with weather conditions and technical data
- 127.07.25 Retention of flight operations documents and reports
- 127.07.26 Maintenance status
- 127.07.27 Incidents and defects
- 127.07.28 Minimum equipment list

**Division Three: Cabin safety**

- 127.07.29 Carriage of infants
- 127.07.30 Carriage of persons with a disability
- 127.07.31 Limitations on carriage of infants, children and passengers with disability
- 127.07.32 Carriage of inadmissible passengers, deportees or persons in custody
- 127.07.33 Carry-on baggage
- 127.07.34 Securing of passenger compartment and galley
- 127.07.35 Passenger services
- 127.07.36 Briefing of passengers
- 127.07.37 Safety features cards



**SUBPART 8: HELICOPTER PERFORMANCE OPERATING LIMITATIONS****Division One: General**

- 127.08.1 Classification
- 127.08.2 General provisions for all classes of helicopters

**Division Two: Class 1 helicopter**

- 127.08.3 Take-off
- 127.08.4 *En route* with one or more engines inoperative
- 127.08.5 Approach and landing

**Division Three: Class 2 helicopter**

- 127.08.6 General
- 127.08.7 Take-off
- 127.08.8 *En route* with one or more engines inoperative
- 127.08.9 Landing

**Division Four: Class 3 helicopter**

- 127.08.10 General
- 127.08.11 Take-off
- 127.08.12 *En route*
- 127.08.13 Landing

**SUBPART 9: MAINTENANCE**

- 127.09.1 General
- 127.09.2 Helicopter maintenance programme
- 127.09.3 Maintenance contracted to an approved aircraft maintenance organisation
- 127.09.4 Operator's maintenance responsibilities
- 127.09.5 Operator's maintenance control manual
- 127.09.6 Maintenance records
- 127.09.7 Continuing airworthiness information
- 127.09.8 Modifications and repairs
- 127.09.9 Maintenance release
- 127.09.10 Records

## SUBPART 1: GENERAL

### Applicability

127.01.1 (1) This Part applies to –

- (a) any operator of a helicopter registered in the Republic and operated wherever in terms of a Class I or Class II air service licence issued either in terms of the Air Services Licensing Act of 1990 or the International Air Services Act of 1993;
- (b) any operator of a helicopter registered in the Republic and operated wherever in terms of one of the following types of a Class III air service license issued either in terms of the Air Services Licensing Act of 1990 or the International Air Services Act of 1993 –
  - (i) G7 – emergency medical services;
  - (ii) G16 – offshore operations
- (c) any approved aviation training organisation engaged in the provision of flight training and operating more than five (5) helicopters for flight training;
- (d) all persons employed, or otherwise engaged by the operator, referred to in sub-regulations (a), (b) or (c), and who perform functions essential to the operation of a helicopter operated under this Part; and
- (e) all persons, mail or cargo on board a helicopter operated under this Part.

(2) For the purposes of this Part a helicopter, registered in another State and operated by the holder of an operating certificate issued in the Republic, shall be deemed to be registered in the Republic.

(3) The provisions of Part 91 shall apply *mutatis mutandis* to any helicopter operated in terms of this Part.

(4) Unless the context suggests otherwise, throughout this Part the expression 'operator' shall mean an operator referred to in paragraphs (1)(a) or (b), as the case may be.

(5) Throughout this Part the expression 'aerodrome' shall include any site used for the take-off or landing of a helicopter, whether licensed, approved or not.

### Note:

*In the case of an operator who, in addition to Class I or Class II air services and the Class III air services, referred to in sub-regulation 127.01.1(b), operates other Class III air services, he or she does not require to obtain a separate Part 128 approval but*

*may have his or her aircraft operating certificate and operating specifications, as well as his various manuals, endorsed for such operations. Wherever applicable, these documents shall indicate which requirements of this Part and its associated technical standards are not applicable to the particular aerial work operation, and which specific requirements of Part 128 and its associated technical standards need to be adhered to.*

### **Admission to flight deck**

**127.01.2** (1) An operator and the pilot-in-command of a helicopter shall ensure that no person is admitted to, or carried on the flight deck of the helicopter unless such person is –

- (a) a flight crew member assigned to the flight;
- (b) an authorised officer, inspector or authorised person in accordance with sub-regulations (2) and (3); or
- (c) permitted by, and carried in accordance with, the instructions contained in the operations manual referred to in regulation 127.04.2.

(2) Where the Director has authorised an authorised officer or inspector in terms of regulation 13.00.2 to carry out in-flight inspections of a helicopter engaged in an air serviced operation and the authorised officer or inspector indicates to the pilot-in-command that he or she wishes to carry out such an in-flight inspection, the pilot-in-command shall give the authorised officer or inspector free and uninterrupted access to the flight deck of the helicopter.

(3) The pilot-in-command shall make available for the use of the authorised officer or inspector the seat most suitable to perform the official duties, as determined by the authorised officer or inspector, whether such seat is located on or off the flight deck.

(4) Notwithstanding sub-regulations (2) and (3), the final decision regarding the admission of any person to the flight deck shall be the responsibility of the pilot-in-command.

(5) The admission of any person to the flight deck shall not interfere with the operation of the helicopter.

(6) The pilot-in-command shall ensure that any person carried on the flight deck is made familiar with the applicable safety equipment and operational procedures.

### **Passenger intoxication and unruly behaviour**

**127.01.3** (1) An operator shall not permit, a person to enter or be in a helicopter while under the influence of alcohol or a drug having a narcotic effect, to the extent where the safety of such helicopter or its occupants is, or is likely to be, endangered.

(2) The operator shall establish procedures to ensure that any person referred to in sub-regulation (1) is –

- (a) refused embarkation; or
  - (b) if such person is on board, restrained or disembarked.
- (3) Each passenger on board a helicopter shall obey any command issued by a crew member in the performance of his or her duties.

### **Compliance with foreign and domestic regulations**

**127.01.4** (1) An operator shall ensure all crew members, while operating within foreign airspace, comply with all air traffic rules and regulations of the State concerned and the local airport rules, except where any regulation of this Part is more restrictive and may be followed without violating the rules or regulations of that State.

(2) The operator shall publish in the operations manual referred to in regulation 127.04.2, such information, procedures and instructions to ensure its personnel are familiar with, and in compliance with the laws, regulations and procedures pertinent to their duties with respect to –

- (a) flight operations into or within domestic and foreign airspace;
  - (b) the area over which the operation will occur;
  - (c) the aerodromes to be used; and
  - (d) air navigation facilities to be used.
- (3) Notwithstanding sub-regulation (2), each operator, including its employees or agents, shall comply with all applicable provisions of the South African Civil Aviation Regulations.

### **Regulatory infractions during emergency situations**

**127.01.5** (1) Where the pilot-in-command of a helicopter takes action, deemed necessary to ensure the safety of the helicopter, which results in a violation of any regulation of the State in, or over which the helicopter is being operated, he or she shall comply with the requirements of regulation 91.02.6 and, where possible, cause the event to be marked on the cockpit voice recorder, if fitted.

- (b) The requirements referred to in regulations 91.02.6 include:
- (i) notifying the appropriate authority without delay;
  - (ii) submitting a report to the appropriate authority, if so requested by the latter within the specified period; and

(iii) copy the report, referred to in subparagraph (ii), to the Director.

(2) Notwithstanding any requirement to file a report in terms of regulation 91.02.6, the pilot-in-command shall submit a full report of the event to the person responsible for operations within 48 hours after the conclusion of the flight in the manner specified in the operations manual referred to regulation 127.04.2.

### **Language proficiency**

**127.01.6** (1) Notwithstanding the language proficiency requirements specified in Part 61, an operator shall not assign a flight crew to duty unless at least one member of the flight crew has demonstrated to such operator, his or her ability to speak and understand the language used for radiotelephony communications over any route and aerodrome named in the operational flight plan for that flight.

(2) The level of language proficiency required to be demonstrated to the operator shall be as prescribed in Document SA-CATS 127.

## **SUBPART 2: OPERATIONS PERSONNEL REQUIREMENTS**

### **DIVISION ONE: MINIMUM CREW REQUIREMENTS**

#### **Composition of flight crew**

**127.02.1** (1) The minimum number and composition of the flight crew of a helicopter shall not be less than the minimum number and composition specified in the helicopter flight manual (AFM) referred to in regulation 91.03.2.

(2) An operator shall allocate additional flight crew members when it is required by the type of operation, and the number of such additional flight crew members shall not be less than the number specified in the operations manual referred to in regulation 127.04.2.

(3) The operator shall not assign and no person shall act as a flight crew member on a helicopter type or variant unless the flight crew member meets the qualification requirements specified in regulation 127.02.7.

(4) The flight crew shall include at least one member who holds a valid radiotelephony operator licence or equivalent document issued by an appropriate authority, authorising such member to operate the type of radio transmitting equipment to be used.

(5) The flight crew shall include at least one member who is proficient in navigating over the route or within the area to be operated.

(6) The operator shall ensure that –

(a) in the case of operations under IFR or by night, when carrying passengers in a helicopter certified for the transport of more than nine passengers; or

(b) in the case of any operation, when more than 19 passengers are carried, the minimum flight crew of such helicopter is two pilots.

(7) A helicopter, other than a helicopter referred to in sub-regulation (6), may be operated by a single pilot: Provided that the requirements referred to in Document SA-CATS 127 are complied with: Provided further that if the requirements referred to in Document SA-CATS 127 are not complied with, the minimum flight crew shall be two pilots.

(8) The operator shall designate one pilot among the flight crew as pilot-in-command and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.

(9) A flight crew member may be relieved in flight of his or her flight deck duties by another flight crew member qualified in accordance with regulation 127.02.7.

(10) An operator shall not assign flight crew members to any helicopter required to be operated with two flight crew members unless such flight crew meets the crew pairing requirements prescribed in document SA-CATS 127.

(11) The operator shall not assign a person, and no flight crew member may accept any assignment, to act as a flight crew member of any helicopter operated in terms of this Part unless such person meets the requirements prescribed in document SA-CATS 127.

(12) The operator shall publish procedures in its operations manual to ensure flight crew members who do not meet the requirements specified in sub-regulations (1) and (2) are not assigned to flight duty.

#### **Cabin crew member complement**

**127.02.2** (1) An operator may not operate a helicopter with a certificated passenger seating capacity of more than 19 in a passenger-carrying service unless –

- (a) one or more cabin crew members have been assigned to duty, if one or more passengers are carried; and
- (b) the minimum number of cabin crew members assigned to a flight is not less than that prescribed in Document SA-CATS 127, notwithstanding the actual number of passengers on board the helicopter.

(2) A cabin crew member shall give priority to the performance of duties relating to the safety of passengers as may be assigned by the operator or the pilot-in-command.

(3) In unforeseen circumstances, the operator may reduce the required minimum number of cabin crew members: Provided that –

- (a) the number of passengers are reduced in accordance with the procedures specified in the operations manual referred to in regulation 127.04.2; and

- (b) a report is submitted to the Director after completion of the flight.

#### **Senior cabin crew member**

**127.02.3** (1) An operator shall appoint a senior cabin crew member whenever more than one cabin crew member is carried on board a helicopter operated under this Part.

(2) The senior cabin crew member shall be responsible to the pilot-in-command for the conduct of cabin operations and the coordination and performance of cabin crew duties.

(3) The operator shall establish procedures to select the next most suitably qualified cabin crew member to operate as senior cabin crew member in the event of the nominated senior cabin crew member being unable to perform his or her duties.

#### **Cabin crew emergency evacuation stations**

**127.02.4** A cabin crew member assigned to perform evacuation duties shall occupy the seat provided for that purpose during take-off and landing or when so directed by the pilot-in-command.

#### **Seating of cabin crew members during flight**

**127.02.5** During take-off and landing, and whenever deemed necessary by the pilot-in-command in the interest of aviation safety, cabin crew members shall be seated at their assigned stations or seats.

#### **Flight and cabin crew member emergency duties**

**127.02.6** (1) An operator Operating in terms of regulation 127.01.1, and, where appropriate, the pilot-in-command, shall assign to each flight and cabin crew member, as applicable, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation,; and the operator shall establish emergency evacuation procedures based on such assignment.

(2) The functions referred to in sub-regulation (1) shall be such as to ensure that any reasonably anticipated emergency can be adequately dealt with and shall take into consideration the possible incapacitation of individual flight and cabin crew members.

(3) With respect to the emergency evacuation procedures required by sub-regulation (1) –

- (a) the operator shall prove to the satisfaction of the Director that the procedures to accomplish the evacuation have been adopted and are adequate; and
- (b) the procedures shall be demonstrated by the operator's flight and cabin crew members and carried out in accordance with the requirements prescribed in Document SA-CATS 127.

(4) The operator shall carry out an the emergency evacuation demonstration referred to in sub-regulation (3)(b) when a new type or variant of helicopter or new configuration of an existing helicopter is introduced for use and for any helicopter type which has not been certified under a certification process acceptable to the Director.

(5) The emergency evacuation procedures referred to in sub-regulation (1) shall be contained in the operator's operations manual, referred to in regulation 127.04.2, and shall form part of the operator's emergency training programme.

(6) A flight or cabin crew member shall not accept an assignment of emergency functions unless such flight or cabin crew member has been trained to perform emergency functions in accordance with the requirements prescribed in Subpart 3.

## **DIVISION TWO – FLIGHT CREW MEMBER, CABIN CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS**

### **Flight crew member qualifications**

**127.02.7** (1) An operator shall not permit a person to act and no person shall act as a flight crew member of a helicopter unless, in addition to the recency requirements of regulation 91.02.4, the person –

- (a) holds valid licences, certificates and ratings as required by Part 61 and Part 63 appropriate to the assignment;
- (b) meets the type and variant training and checking requirements specified in Subpart 3 and has otherwise fulfilled all applicable training requirements specified in technical standard 127.03.4 of Document SA-CATS 127; and
- (c) in the case of the pilot-in-command of a helicopter operated in accordance with regulation 127.01.1, assigned to duty on a passenger-carrying flight, meets the area, route and aerodrome familiarization requirements specified in Document SA-CATS 127.

(2) A pilot who does not meet the recency requirements of regulation 91.02.4 or who's training and checking validity periods have lapsed shall regain qualification as prescribed in the regaining qualification requirements specified in Subpart 3.

(3) The operator shall ensure that a holder of a commercial pilot licence (helicopter) does not operate as a pilot-in-command of a helicopter –

(a) certificated for single-pilot operations when operating under IFR unless the requirements prescribed in regulation 127.02.1(7) are complied with; or unless –

- (i) when conducting operations in accordance with regulation 127.01.1 under VFR outside a radius of 50 nautical miles from a place of



departure, the pilot has a minimum of 300 hours total flight time on helicopter or holds a valid instrument rating; or

- (ii) when operating under IFR, the pilot has a minimum of 400 hours total flight time on helicopters, which includes 200 hours as pilot-in-command, of which 100 hours have been under IFR: Provided that the 200 hours as pilot-in-command may be substituted by hours operating as second-in-command on the basis of two hours as second-in-command being equivalent to one hour as pilot-in-command: Provided further that these hours are gained within an established multi-pilot flight crew system prescribed in the operations manual referred to in regulation 127.04.2;
- (iii) the minimum required recent experience for a pilot engaged in a single-pilot operation under IFR shall be 5 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on a helicopter approved in the single-pilot role. This requirement may be replaced by an IFR instrument approach check on the helicopter or in a standard training device (STD).
- (iv) 25 hours total IFR flight experience in the relevant operating environment;
- (v) 25 hours flight experience on the specific type of helicopter, approved for single-pilot IFR, of which 10 hours is as pilot-in-command or pilot-in-command-under-supervision, including 5 sectors of IFR line flying under supervision using the single-pilot procedures;

(b) in multi-pilot flight crew operations, and prior to operating as pilot-in-command, the command course prescribed in paragraph 127.03.4(1)(f) is completed.

(4) Where a flight crew member operates more than one helicopter or variant of a helicopter under this Part the provisions of technical standard 127.02.8 shall apply.

#### **Cabin crew member qualifications**

**127.02.8** An operator shall not assign a person to act, and no person shall act, as a cabin crew member on board a helicopter unless the person –

- (a) holds a valid licence and appropriate ratings issued in terms of Part 64;
- (b) has successfully completed the operator's approved training programme outlined in Subpart 3, except that a person may act as a cabin crew member while undergoing operator induction training if the person is carried in

addition to the number of cabin crew members required by regulation 127.02.2(1) and is under the supervision of a cabin crew member; and

- (c) has successfully completed operator induction training within 90 days after completing the operator's training programme or has regained competency in accordance with Subpart 3.

#### **Crew members, other than flight and cabin crew members**

**127.02.9** An operator shall not assign a person to act, and no person shall act, as a specialist crew member, other than a flight or cabin crew member, on board a helicopter unless the person has successfully completed the operator's approved training programme for such specialists outlined in Subpart 3.

#### **Flight operations personnel officer or flight follower qualifications**

**127.02.10** An operator shall exercise operational control over all flight operations and thereto establish and maintain an approved method of supervision over all flights. If necessary, the operator shall employ additional personnel as flight operations officers or flight followers. .

(2) The operator shall not permit a person to act, and no person shall act, as a flight operations officer, other than a person holding or having held a valid flight crew licence, unless he or she meets the training and checking requirements specified in Subpart 3.

(3) The operator shall not permit a person to act, and no person shall act, as a flight follower unless he or she has successfully completed the training and checking requirements specified in Subpart 3, provided that this requirement does not apply to any person holding or having held a valid flight crew licence.

#### **Ground personnel and service providers qualifications**

**127.02.11** An operator licensed to operate in accordance with regulation 127.01.1, shall employ sufficient ground personnel or service providers capable of delivering essential ground support services appropriate to the helicopters and type of service being operated.

### **DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS**

#### **Flight time and duty periods**

##### **127.02.12 (1) An operator shall –**

- (a) establish a scheme for the regulation of flight time and duty periods, rest periods and days free of duty, as applicable, for each flight crew member, and cabin crew member and that complies with –

- (i) the flight time and duty period limitations, rest periods and days free of duty, prescribed in Document SA-CATS 127; or
    - (ii) a system of flight time and duty period limitations, rest periods and days free of duty, proposed by the operator, where the Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme; and
  - (b) publish the scheme referred to in sub-regulation (1)(a) in the operations manual referred to in regulation 127.04.2.
- (2) The operator shall not assign, and no crew member shall accept an assignment, if such assignment is not in compliance with the provisions of the scheme referred to in sub-regulation (1)(a) or if-
- (a) the operator or crew member knows or has been made aware that such flight assignment will cause the crew member to exceed the flight time and duty periods referred to in sub-regulation (1)(a) while on flight duty; or
  - (b) the crew member is suffering, or having regard to the circumstances of the flight to be undertaken is likely to suffer, from fatigue, which may endanger the safety of the helicopter or its crew members and passengers.
- (3) The operator shall not schedule a flight crew member for active flight duty for a period exceeding the maximum hours set out in table 1 in technical standard 127.02.12 of Document SA-CATS 127 during any given flight time and duty period unless authorised in the scheme referred to in sub-regulation (1)(a).
- (4) Where any flight crew member, cabin crew member or flight operations officer is aware of any reason they would be in violation of the scheme referred to in sub-regulation (1)(a), that person shall, without delay, inform the person responsible for flight operations or his or her designated alternate.
- (5) The provisions to be included in a flight time and duty scheme referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS 127.

### **SUBPART 3: TRAINING AND CHECKING**

#### **DIVISION ONE: GENERAL PROVISIONS**

##### **Air service operator approved training programme**

**127.03.1** (1) An operator shall establish and maintain a training and checking programme for all personnel referenced in Divisions One to Four of this Subpart that

will ensure such personnel are adequately trained and qualified to perform their assigned duties and such personnel shall undergo the training from that operator.

(2) The training programme referred to in sub-regulation (1) shall be conducted by an aviation training organisation approved in accordance with Part 141, or by the operator if approved by the Director as provided in regulation 127.03.3: Provided that, in the latter case, –

- (a) such programme is conducted for the operator's employees only; and
- (b) with respect to any licence, rating or validation under Part 61 or 64, the training is restricted to –
  - (i) training for an instrument rating revalidation;
  - (ii) initial type rating, familiarisation and differences training; and
  - (iii) training for licence renewals and proficiency checks; or
- (c) the training is for any other qualification or certification required under this Part.

(3) The training programme referred to in sub-regulation (1) shall be approved by the Director as provided in regulation 127.03.3.

(4) The operator shall ensure that –

- (a) prior to assignment to duty, each person required to receive training in accordance with this Subpart, shall, whether employed on a full or part time basis, receive such training as appropriate to his or her duties;
- (b) each person, receiving training in terms of sub-regulation (2)(a), shall pass a written examination or other comprehension assessment acceptable to the Director and where applicable, complete a skills test in accordance with Division 5 of this Subpart; and
- (c) if training is provided in terms of sub-regulation (2)(a), the training facilities, equipment and personnel shall be appropriate for the task to be performed and acceptable to the Director and, in the case of training and checking personnel, their qualifications shall meet the requirements prescribed in Document SA-CATS 127.

(5) The training and checking programme referred to in sub-regulation (1) shall meet the content prescribed in Document SA-CATS 127.

(6) The training programme referred to in sub-regulation (1) shall include a system of record keeping as prescribed in regulation 127.04.8.

(7) The training records referred to in sub-regulation (5) shall be retained as provided in regulation 127.04.7.

### **Publishing an approved training programme**

**127.03.2** (1) An operator shall publish the training programme referred to in regulation 127.03.1(1) in the operations manual referred to in regulation 127.04.2.

### **Approval of a training programme**

**127.03.3** (1) An operator shall submit to the Director for approval its flight and ground training programme and any amendments thereto.

(2) The interim and formal approval process shall be as prescribed in Document SA-CATS 127.

(3) The Director may approve an operator to have its training programme either in whole or in part contracted out to another organisation in accordance with the provisions specified in Document SA-CATS 127.

## **DIVISION TWO: FLIGHT CREW MEMBER TRAINING**

### **127.03.4 Flight crew member training**

**127.03.4** (1) An operator shall provide ground and flight training to his or her flight crew personnel that includes at least the following training components –

- (a) company induction training on an initial basis;
- (b) crew resource management training including human factors, risk analysis and error management training;
- (c) emergency procedures training including –
  - (i) the location, inspection schedules, testing as applicable and use of all emergency equipment required to be carried, or otherwise carried on board the helicopter;

- (ii) emergency evacuation, and where applicable ditching training; and
  - (iii) training in the functions for which each flight crew member is responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures.
- (d) initial helicopter type training if applicable, including visual, instrument and special flight procedures, crew coordination in all types of emergency situations, normal, abnormal, emergency and supplementary procedures for the type of helicopter assigned to;
- (e) recurrent training;
- (f) upgrade training;
- (g) differences and familiarisation training where the operator intends to assign a flight crew member to variant types, in accordance with regulation 127.02.7(1)(b);
- (h) pilot qualification to operate in either pilot seat;
- (i) regaining recency and re-qualification training when required;
- (j) area, route and aerodrome familiarization training,
- (k) dangerous goods training if dangerous goods are authorised to be carried, or dangerous goods awareness training if they are not;
- (l) any other course of studies, required by the Director as prescribed in Document SA-CATS 127 to ensure full competency of personnel on new or special equipment installed in the operator's helicopter, or for operations requiring specialised training.
- (2) Except where noted, all training components listed in sub-regulation (1), shall be provided on an initial and an annual recurrent basis and meet the requirements prescribed in Document SA-CATS 127.

### **DIVISION THREE: TRAINING OF CABIN CREW MEMBERS**

#### **127.03.5 Initial training**

**127.03.5** An operator, who is required to engage cabin crew in its operations, shall ensure that each cabin crew member successfully completed the initial training as prescribed in Part 64, before undertaking helicopter type and differences training.

**Type and differences training**

**127.03.6** (1) The operator shall ensure that each cabin crew member has completed the type training or differences training, specified in the operations manual referred to in regulation 127.04.2 before undertaking duties assigned to them.

(2) A cabin crew member shall complete a type training course when –

- (a) engaged by the operator as a cabin crew member; or
- (b) assigned to act as a cabin crew member on another helicopter type.

(3) A cabin crew member shall complete a differences training course when acting as a cabin crew member –

- (a) in a variant of the current helicopter type; or
- (b) in a helicopter type with equipment, equipment location, or safety procedures which differ from the current helicopter type or variant.

(4) The operator shall determine the content of the type or differences training course taking account of the cabin crew member's previous training as recorded in the cabin crew member's training records prescribed in regulation 127.04.5.

(5) The operator shall ensure that –

- (a) type training is conducted in a structured manner, in accordance with the requirements as prescribed in Document SA-CATS 127;
- (b) differences training is conducted in a structured manner; and
- (c) type training and differences training includes the use of all emergency and survival equipment and all emergency procedures applicable to the helicopter type or variant and involves training and practice on either a representative training device or on the actual helicopter.

**Operator induction training**

**127.03.7** (1) An operator shall ensure that each cabin crew member has completed the operator induction training, specified in the operations manual referred to in regulation 127.04.2, before undertaking duties assigned to them.

(2) A cabin crew member shall complete an operator induction training course upon initial engagement by the operator.

(3) The operator induction training courses referred to in sub-regulation (1) shall consist of the subject matter as prescribed in Document SA-CATS 127.

**Familiarisation flights**

**127.03.8** An operator shall ensure that upon completion of type or differences training, each cabin crew member undertakes familiarisation flights before acting as one of the minimum number of cabin crew prescribed in regulation 127.02.3.

**Recurrent training**

**127.03.9** (1) The operator shall ensure that each cabin crew member undergoes recurrent training, covering the actions assigned to each cabin crew member in evacuation and other appropriate normal and emergency procedures and drills relevant to the helicopter type or variant, in accordance with the requirements as prescribed in Document SA-CATS 127.

(2) The operator shall ensure that the recurrent training and checking programme includes the theoretical and practical instruction, as well as individual practice, as prescribed in Document SA-CATS 127.

(3) Upon successful completion of the recurrent training and checking, the operator shall issue a certificate of competency to the cabin crew member concerned, which certificate shall be valid for a period of 12 calendar months calculated from the last day of the calendar month in which such certificate is issued.

**Re-qualification training**

**127.03.10** (1) An operator shall ensure that each cabin crew member who has been absent from all flying duties for more than six months completes the re-qualification training specified in the operations manual referred to in regulation 127.04.2, as prescribed in Document SA-CATS 127.

(2) The operator shall ensure that a cabin crew member who has not been absent from all flying duties, but has not acted as a cabin crew member on a particular helicopter type for a period of six months, completes –

- (a) re-qualification training in such helicopter type; or
- (b) two familiarisation flights during commercial air transport operations in such helicopter type, before undertaking duties on such helicopter type.



## **DIVISION FOUR: TRAINING OF OTHER THAN FLIGHT AND CABIN CREW MEMBERS**

### **Training of personnel other than flight and cabin crew training**

**127.03.11** An operator shall provide initial, recurrent and re-qualification training and checking as prescribed in Document SA-CATS 127 for any person whose function is essential to safe operations in terms of this Part.

## **DIVISION FIVE: CHECKING, CERTIFICATION, TRAINING and VALIDITY**

### **Checking, certification, training and validity periods**

**127.03.12** (1) The conduct of any check or demonstration of competency required in terms of this Subpart shall be as prescribed in Document SA-CATS 127.

(2) The issuance of any certificate or other means of certifying competency shall be as prescribed in Document SA-CATS 127.

(3) The following training, checking or demonstration of competency validity periods shall apply –

(a) flight crew members –

- (i) training shall be valid to the first day of the thirteenth month following the month in which the training took place;
- (ii) a pilot proficiency check (PPC) is valid to the first day of the seventh month following the month the PPC took place;

(b) cabin crew members –

- (i) training shall be valid to the first day of the thirteenth month following the month in which the training took place;
- (ii) examinations and competency checks are valid to the first day of the thirteenth month following the month the examination or check took place;

(c) other than flight or cabin crew members –

- (i) for flight operations officers, training and checks are valid to the first day of the thirteenth month following the month the training or demonstration of competency took place; and
- (ii) for all others, training and checks are valid to the first day of the twenty-fifth month following the month the training, check or demonstration of competency took place.

(4) Where any required training, check or demonstration of competency is renewed within the last 60 days of its validity period, its validity period is extended by 6, 12 or 24 months, as appropriate

(5) The Director may extend the validity period of any required training, check or demonstration of competency by up to 30 days where the Director is satisfied that the application is justified and that aviation safety is not likely to be compromised: Provided the request for extension is submitted prior to the expiration of the training, check or demonstration of competency.

(6) Completion of any required training, check or demonstration of competency at any time during the periods specified in paragraphs (3) or (4) above shall be considered as completed in the month due for calculation of the next due date.

#### **SUBPART 4:**

#### **DOCUMENTATION AND RECORDS**

##### **Documents to be carried on board a helicopter during flight and retained on the ground**

**127.04.1** (1) An operator licensed to operate in accordance with regulation 127.01.1 shall ensure that, in addition to the requirements specified in regulation 91.03.1, the following documents are carried on board the helicopter during flight –

- (a) a copy of the operational flight plan; if applicable;
  - (b) the special loads notification (NOTOC), if applicable;
  - (c) the insurance certificate or proof of insurance;
  - (d) a true certified copy of the air operator certificate and a copy of the operations specifications;
  - (e) the mass and balance sheet specified in regulation 127.04.8;
  - (f) a copy of the relevant portions of the aircraft operations manual referred to in regulation 127.04.2 applicable to the flight to be undertaken; and
- (2) In the case of any other operation than the ones referred to in sub-regulation (1) those documents shall be available on the ground at the point of operation.
- (3) The operator shall ensure that –
- (a) a copy of the operational flight plan, if applicable;
  - (b) copies of the relevant parts of the flight folio;

- (c) the mass and balance sheet specified in regulation 127.04.8;
- (d) the passenger list or cargo manifest, if applicable;
- (e) the special loads notification (NOTOC), if applicable; and
- (f) a general declaration in the case of a helicopter engaged in international flights,

are retained in a safe place at the first point of departure in respect of each flight undertaken by the helicopter.

(4) Except when otherwise instructed by the Director, the documents referred to in sub-regulation (3) shall be retained at the operator's main base of operations, or other location if approved by the Director, for a period of 90 days or for so much longer as prescribed elsewhere in the Regulations;.

### **Operations manual**

**127.04.2** (1) An operator shall draw up an operations manual containing all information required under this Part and setting out the manner in which such operator will operate the air service for which such operator is licensed in terms of the Civil Aviation Act, 2009, International Air Services Act, 1993 (Act No. 60 of 1993), or the Air Services Licensing Act, 1990 (Act No. 115 of 1990), as the case may be.

- (2) The operator shall ensure that –
  - (a) all parts of the manual are consistent and compatible in form and content and shall not contravene the conditions contained in the operating certificate or operations specifications issued to the operator in terms of regulation 127.06.3;
  - (b) the manual can be readily amended;
  - (c) the manual contains an amendment control page and a list of effective pages (LEP) showing the effective date for each page in the manual; and
  - (d) the manual has the date of the last amendment to each page specified on that page that agrees with the LEP.
- (3) The operator shall submit the operations manual in the English language in duplicate to the Director for approval.

(4) If the Director is satisfied that the operator will not operate the air service concerned contrary to any provision of the Civil Aviation Act, 2009, the International

Air Services Act, 1993, or the Air Services Licensing Act, 1990, the Director shall certify in writing on both copies of the operations manual that such manual has been approved, and shall return one copy of the approved operations manual to the operator.

(5) The operator shall amend its operations manual –

- (a) where there is a change in any aspect of an operator's operation;
- (b) where the operations manual no longer meets the requirements of these regulations or associated technical standards; or
- (c) when so required by the Director.

(6) The operator shall submit an amendment to its operations manual in duplicate to the Director for approval and if the Director is satisfied that the operator will comply with the provisions of sub-regulation (4)(a) and (b), the Director 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 operator.

(7) The operator shall at all times operate its helicopters in accordance with the approved operations manual or an approved amendment thereto.

(8) The operator shall –

- (a) ensure that all operations personnel are able to understand the technical language used and that the information provided will ensure that such personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole;
- (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 in terms of regulation 127.01.1, are easily accessible to the crew members on board during flight time.
- (c) make the operations manual available for the use and guidance of operations personnel;
- (d) provide the crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them and shall designate such crew members as manual holders;
- (e) provide each manual holder with copies of all amendments after approval by the Director and such manual holders shall insert amendments issued to them prior to their next flight assignment; and

- (f) keep the operations manual in a safe place.
- (9) The structure and contents of the operations manual referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS 127.

#### **Aircraft operating manual**

**127.04.3** (1) An operator shall compile an aircraft operating manual for each large helicopter type being operated and make it available during flight time to all flight crew members assigned to the helicopter and each flight crew member shall operate the helicopter in accordance with such manual. The operator shall also provide such portions of the aircraft operating manual to other of the operator's employees or agents where their need to know can be established.

(2) The aircraft operating manual shall be approved by the Director and contain the information specified in Document SA-CATS 127.

(3) The operator shall provide each flight crew member with any amendments to the aircraft operating manual.

(4) The operator may provide the aircraft operating manual in an electronic format provided a means of accessing the information during flight time has also been made available to any crew member who may have need to access the information therein.

(5) The aircraft operating manual may be included in the operations manual referred to in regulation 127.04.2 or be published as a stand-alone document as part of the manual system.

#### **Operational flight plan**

**127.04.4** (1) An operator engaged in commercial air transport or general aviation operations shall ensure that an operational flight plan that meets the requirements specified in Document SA-CATS 127 is completed for each flight undertaken by its helicopters.

(2) The procedures for the use of the operational flight plan and a copy of it shall be contained in the operations manual referred to in regulation 127.04.2.

(3) All entries in the operational flight plan shall be current and permanent in nature.

(4) The operational flight plan shall be retained by the operator for a period of at least 90 days.

**Flight time and duty period records**

**127.04.5** (1) An operator shall –

- (a) maintain current flight time and duty period records of all crew members and flight operations officers engaged by such operator; and
- (b) retain the flight time and duty period records for a period of 15 calendar months calculated from the date of the last flight of each crew member or, for flight operations officers, from their last date of engagement.

(2) A crew member who is engaged by more than one operator or otherwise accumulates flight time outside of his or her employment, shall maintain an accurate record of his or her flight time and duty periods and shall provide copies thereof to all operators by whom such crew member is engaged. While the crew member is responsible to report all flight activity, each employer maintains responsibility to ensure the crew member concerned does not exceed the limits prescribed in the flight time and duty scheme of the operator referred to in regulation 127.02.8.

**Records of emergency and survival equipment**

**127.04.6** (1) An operator shall compile a list of all the survival and emergency equipment to be carried in a commercial air transport helicopter and shall have such list available at all times for immediate communication to rescue coordination centres.

(2) The survival and emergency equipment list shall be included in the operations manual referred to in regulation 127.04.2.

(3) The format and minimum information to be included in the survival and emergency equipment list shall be as prescribed in Document SA-CATS 127.

**Flight crew member training records**

**127.04.7** (1) An operator shall establish a training file for each person required to receive training and retain on such file a record of all training and checking required in terms of Subpart 3. The records of training and checking shall contain at least the information prescribed and be retained for the period of time specified in Document SA-CATS127.

(2) The operator shall establish procedures to make a person's training file available for supervised review by such person, but all training files shall remain in the custody of the operator.

**Mass and balance sheet**

**127.04.8** (1) An operator operating helicopters with a maximum approved passenger seating configuration of more than nine seats –

- (a) registered in the Republic and operated into, within or from the Republic under –
  - (i) a Class I or Class II licence issued in terms of the Domestic Air Services Regulations, 1991; or
  - (ii) a Class I or Class II licence issued in terms of the International Air Services Regulations, 1993; or
- (b) registered in a foreign State and operated into, within or from the Republic under –
  - (i) a Class I or Class II licence issued in terms of the Domestic Air Services Regulations, 1991; or
  - (ii) a foreign operator's permit issued in terms of the International Air Services Regulations, 1993;

shall ensure that no flight is undertaken by the helicopter unless the person superintending the loading of such helicopter has completed and certified a mass and balance sheet.

(2) A mass and balance sheet shall be completed in duplicate and one copy shall be carried in the helicopter and, one copy shall be retained in accordance with the provisions of regulation 127.04.1.

(3) The mass and balance sheet shall be retained by the operator for a period of at least 90 days calculated from the date on which the flight was completed.

(4) The minimum contents of a mass and balance sheet shall be as prescribed in Document SA-CATS 127.

**Fuel records**

**127.04.9** An operator shall maintain records of the fuel taken on board for flight and used during flight time and shall keep such records for a period of at least 90 days following each flight or series of flights.

**Helicopter search procedure checklist**

**127.04.10** (1) An operator shall ensure that there is on board of its helicopters a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting helicopters for concealed weapons,

explosives or other dangerous devices when a well-founded suspicion exists that the helicopter may be the object of an act of unlawful interference.

(2) The checklist referred to in sub-regulation (1) shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the helicopter where such information is available from the manufacturer.

#### **Preservation of documents**

**127.04.11** An operator shall retain any document required in terms of Subpart 4 for the period of time specified herein even where, prior to the expiry of such retention period, the operator ceases to maintain ownership or possession of the helicopter concerned.

### **SUBPART 5:**

#### **HELICOPTER INSTRUMENTS AND EQUIPMENT**

##### **Approval and use of instruments and equipment**

**127.05.1** (1) The operator shall ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed on the helicopter, are such that it will enable the flight crew to control the flight path of the helicopter, carry out any required procedural manoeuvres and observe the operating limitations of the helicopter in the expected operating conditions and are –

- (a) subject to the provisions of sub-regulation (2), approved and installed in accordance with the requirements, including operational and airworthiness requirements, applicable to such instruments and equipment; and
- (b) in a condition for safe operation of the kind being conducted, except as provided for in the minimum equipment list (MEL).

(2) Except as provided in paragraph (1)(b) and sub-regulation (4), no person shall conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed, where such instruments or equipment are required by –

- (a) the standards of airworthiness that apply to the type of flight being undertaken;
- (b) any equipment list published by the helicopter manufacturer respecting helicopter equipment that is required for the intended flight;



- (c) an air operator certificate;
  - (d) an airworthiness directive; or
  - (e) these Regulations.
- (3) The operator shall not be required to obtain approval for the –
- (a) fused referred to in regulation 91.04.2;
  - (b) intrinsically safe electric torches referred to in regulation 91.04.3(1)(d);
  - (c) accurate time piece referred to in regulations 91.04.4 and 91.04.5;
  - (d) first aid equipment referred to in regulation 91.04.16;
  - (e) megaphones referred to in regulation 91.04.24;
  - (f) survival equipment referred to in regulation 91.04.29; and
  - (g) sea anchors and equipment for the mooring, anchoring or manoeuvring of amphibious helicopters on water, referred to regulation 91.04.30.
- (4) A person may conduct a take-off in a helicopter that has instruments or equipment that are not serviceable or that have been removed where the helicopter is operated in accordance with the conditions of a flight permit that has been issued by the Director specifically for that purpose.
- (5) No person shall conduct a take-off in a helicopter for which a minimum equipment list has not been approved and the helicopter has instruments and equipment, other than the instruments and equipment specified in sub-regulation (2), that are not serviceable or that have been removed unless –
- (a) where the unserviceable instrument or equipment is not removed from the helicopter, it is isolated or secured so as not to constitute a hazard to any other helicopter system or to any person on board the helicopter;
  - (b) the appropriate placards are installed as required by the maintenance control manual; and
  - (c) *an entry recording the actions referred to in paragraphs (a) and (b) is made in the flight folio, as applicable.*

#### **Flight, navigation and associated equipment for helicopters operated under VFR**

**127.05.2** (1) The operator shall not operate a helicopter in accordance with VFR, unless such helicopter is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece on board indicating the time in hours, minutes and seconds;
- (c) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator;
- (e) a vertical speed indicator and an attitude indicator if operated at night;
- (f) a stabilised direction indicator if operated at night; and
- (g) a means of indicating on the flight deck the outside air temperature in degrees Celsius.

Provided that a helicopter with a maximum certificated mass of 2 730 kilograms or less, does not have to comply with the provisions of paragraphs (f) and (g).

(2) If in terms of the Regulations, other than for training or testing or the type certificate of the helicopter two pilots are required to operate a helicopter, the second pilot's station shall be equipped with –

- (a) a sensitive pressure altimeter with a subscale setting calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (b) an airspeed indicator;
- (c) a vertical speed indicator;
- (d) a turn-and-slip indicator or a turn coordinator, incorporating a slip indicator;
- (e) an attitude indicator; and
- (f) a stabilised director indicator.

Provided that a helicopter with a maximum certificated mass of 2 730 kilograms or less, does not have to comply with the provisions of paragraph (e) and (f).

(3) A helicopter being operated in terms of regulation 127.01.1 by night in accordance with VFR –

- (a) outside a radius of 15 nautical miles from its point of departure; or
- (b) if on a cross-country flight, for longer than 20 minutes; or

- (c) over water at a distance from land corresponding to more than 10 minutes at normal cruise speed;

shall be equipped with two attitude indicators, each powered by a different power source, and a radio altimeter with an audio warning operating below a pre-set height and a visual warning capable of operating at a height selectable by the pilot.

**Flight, navigation and associated equipment for helicopters operated under IFR**

**127.05.3** (1) The operator shall not operate a helicopter in accordance with IFR, unless such helicopter is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece on board indicating the time in hours, minutes and seconds;
- (c) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) in the case of a helicopter having a maximum certificated mass exceeding 3 180 kilograms or a maximum passenger seating configuration of more than 9 seats, a radio altimeter with an audio warning operating below a pre-set height and a visual warning capable of operating at a height selectable by the pilot;
- (e) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing, including a warning indicator of pitot heater failure;
- (f) a vertical-speed indicator;
- (g) a turn-and-slip indicator or in lieu thereof, an additional attitude indicator powered by a power source separate from that of the main attitude indicator;
- (h) an attitude indicator;
- (i) a single standby attitude indicator, capable of being used from either pilot's station, which –
  - (i) is powered continuously during normal operation and, after a total failure of the normal electrical generating system, is powered from a source independent of the normal electrical generating system;
  - (ii) provides reliable operation for a minimum of 30 minutes after total failure of the normal electrical generating system, taking into account

other loads on the emergency power supply and operational procedures;

- (iii) operates independently of any other attitude indicating system;
- (iv) is operative automatically after total failure of the normal electrical generating system; and
- (v) is appropriately illuminated during all phases of operation:

Provided that if the standby attitude instrument system is capable of being used through flight attitudes of 360° of pitch and roll, the turn-and-slip indicators may be replaced by slip indicators;

- (j) a stabilised direction indicator;
  - (k) a means of indicating on the flight deck the outside air temperature in degrees Celsius;
  - (l) an alternate source of static pressure for the altimeter and the airspeed and vertical speed indicators; and
  - (m) a chart holder in an easily readable position which can be illuminated, if to be operated by night.
- (2) The operator shall not operate a helicopter in IMC while carrying passengers, unless such helicopter is a multi-engine helicopter certified for IMC operations and equipped with –
- (a) a power-failure warning device or vacuum indicator to show the power available for gyroscopic instruments from each power source;
  - (b) two independent sources of energy (with means of selecting either), of which at least one is an engine-driven pump or generator, which are both able to drive all required gyroscopic instruments powered by, or to be powered by, that particular source and installed in such a manner that failure of one instrument or source does not interfere with the energy supply to the remaining instruments or the other energy source except where the rate-of-turn indicator of a single-engine helicopter involved in all-cargo operations only, has a source of energy separate from the bank and pitch and direction indicators. For the purpose of this sub-regulation, each engine-driven source of energy of a multi-engine helicopter must be on a different engine; and
  - (c) at least two generators or alternators of which any combination of one-half of the total number are rated sufficiently to supply the electrical loads of all required instruments and equipment necessary for safe emergency

operation of the helicopter (both units may be mounted on the main rotor drive train); or

- (d) either airborne weather radar equipment or other equipment, approved by the Director, capable of detecting thunderstorms and other potentially hazardous weather conditions.

(3) If two pilots are required to operate the helicopter, other than training or testing, the second pilot's station shall be equipped with –

- (a) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight, which may be one of the two altimeters required under sub-regulation (1)(c);
- (b) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunction due to either condensation or icing, including a warning indicator of pitot heater failure;
- (c) a vertical-speed indicator;
- (d) a turn-and-slip indicator, or in lieu thereof, an additional attitude indicator powered by a power source separate from that of the main attitude indicator;
- (e) an altitude indicator; and
- (f) a stabilised direction indicator.

(4) In complying with the provisions of paragraph (1)(i) it shall be clearly evident to the flight crew members when such standby altitude indicator is being operated by emergency power.

(5) Where the standby altitude indicator referred to in paragraph (1)(i) has its own dedicated power supply, there shall be an associated indicator, either on the instrument or instrument panel, when such power supply is in use.

(6) When a helicopter is operated with a single pilot in terms of regulation 127.02.1(8) while carrying passengers at night or in IMC, the helicopter shall furthermore be equipped with -

- (a) IFR-approved area navigation equipment that provides immediate identification and heading to the nearest suitable diversion;
- (b) an approved stability augmentation or automatic flight control management system; and
- (c) if the helicopter is fitted with a turbine engine-

- (i) an auto-ignition system or use of continuous ignition during take-off, landing and flight during heavy precipitation; and
- (ii) a manual throttle that bypasses the governing section of the fuel control unit, and permits continued unrestricted operation of the engine in the event of a fuel control unit failure.

(7) With effect from 31 January 2018 helicopters operating under IFR with a maximum certificated take-off mass in excess of 3 175 kg, a maximum passenger seating configuration of more than 9, shall be equipped with a ground proximity warning system which has a forward-looking terrain avoidance function.

#### **Airborne weather radar equipment**

**127.05.4** The operator of a helicopter with a maximum approved passenger seating configuration of more than nine seats operated in terms of regulation 127.01.1, on a scheduled or non-scheduled public air transport service operation, shall not operate the helicopter unless such helicopter is equipped with airborne weather radar or other equivalent equipment whenever such helicopter is being operated by night or in IMC in areas where thunderstorms or other potentially hazardous weather conditions, regarded as detectable with airborne weather radars, may be expected to exist along the route.

#### **Flight crew interphone system**

**127.05.5** The operator of a helicopter on which more than one flight crew member is required, shall not operate the helicopter unless such helicopter is equipped with a flight crew interphone system, including headsets and microphones, not of a hand-held type, for use by all flight crew members.

#### **Crew interphone system**

**127.05.6** (1) The operator of a helicopter with a maximum approved passenger seating configuration of more than 19 seats, shall not operate the helicopter unless such helicopter is equipped with a crew interphone system.

(2) The crew interphone system shall –

- (a) operate independently of the public address system referred to in regulation 127.05.7 except for handsets, microphones, selector switches and signalling devices;
- (b) provide a means of two-way communication between the flight deck and each passenger compartment;

- (c) be readily accessible for use from each of the required crew stations on the flight deck;
- (d) be readily accessible for use at the required cabin crew stations close to each emergency exit;
- (e) have an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew and for use by cabin crew to alert the flight crew;
- (f) have a means of the recipient of a call to determine whether it is a normal call or an emergency call; and
- (g) provide on the ground a means of two-way communication between ground personnel and at least one flight crew member, if the design of the helicopter requires such interphone system.

### **Public address system**

**127.05.7** (1) The operator of a helicopter with a maximum approved passenger seating configuration of more than nine seats, shall not operate the helicopter unless such helicopter is equipped with a public address system.

(2) The public address system shall –

- (a) operate independently of the interphone systems referred to in regulations 127.05.5 and 127.05.6, except for handsets, microphones, selector switches and signalling devices;
- (b) be readily accessible for immediate use from each required flight crew member station;
- (c) be readily accessible for use from at least one cabin crew station in the cabin;
- (d) in the case of a public address system microphone intended for cabin crew use, be positioned adjacent to a cabin crew seat located near each required emergency exit in the passenger compartment;
- (e) be capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which the use of such public address system is accessible;
- (f) be audible and intelligible in all phases of flight at all passenger seats, toilets and cabin crew seats and stations;
- (g) be powered continuously during normal operation; and

- (h) provide reliable operation for at least 10 minutes, following a total failure of the normal electrical generating system.

### **Life jackets and other floating devices**

**127.05.8** (1) The provisions of regulations 91.04.24 to 91.04.27, both inclusive, apply *mutatis mutandis* to helicopters operated in terms of this Part.

(2) Notwithstanding the provisions of paragraph 91.04.24(1)(c), a Class 2 or Class 3 helicopter, operated in terms of this Part, shall – where the take-off or approach path is so disposed over water that in the event of a mishap there would be the likelihood of a ditching – be equipped with one life jacket or equivalent flotation device, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(3) Notwithstanding the provisions of paragraphs 91.04.24(2)(b) and (c), a Class 1 or Class 2 helicopter, operated in terms of this Part, shall be equipped with the equipment specified in regulation 91.04.25 whenever the helicopter is operated over water at such a distance that, in the event of a mishap there would be the likelihood of a ditching.

(4) For offshore operations, life jackets shall be worn constantly during flight unless the occupant is wearing an integrated survival suit that includes the function of a life jacket.

(5) The contents of the life rafts are specified in Document SA-CATS 127

### **127.05.9 Survival suits**

**127.05.9** The operator shall not operate a helicopter beyond 10 minutes flying time at normal cruising speed from land when the weather report or forecasts available to the pilot-in-command indicate that –

- (a) the water temperature will be less than 10°C during the flight; or
- (b) the estimated rescue time exceeds the calculated survival time,

unless each person on board is wearing a survival suit: Provided that this provision shall not apply where an operator received the prior written approval of the Director to operate without such survival suits.

### **Emergency locator transmitters**

**127.05.10** (1) An operator shall not operate a helicopter, classified as a performance Class 1 or 2 helicopter, over water more than 30 minutes at normal cruising speed or 50 nautical miles, whichever is the lesser, away from land unless such helicopter is



equipped with at least one automatic emergency locator transmitter (ELT) and one survival emergency locator transmitter (ELT(S)) in a raft or life jacket.

(2) An operator shall not operate a helicopter, classified as a performance Class 3 helicopter, beyond 10 minutes flying time at normal cruising speed from land unless such helicopter is equipped with at least one automatic ELT and one ELT(S) in a raft or life jacket.

(3) ELTs required by this regulation shall meet the requirements of sections 4 through 6 of technical standard 91.04.26 of Document SA-CATS 91.

#### **Cabin attendant seats**

**127.05.11** Where applicable, helicopters shall be equipped with seats for cabin crew members, which seats shall be forward or rearward facing within 15° of the longitudinal axis of the helicopter and located near floor-level emergency exits, where possible. Each cabin crew member required to satisfy the emergency evacuation criteria shall be provided a seat equipped with a safety harness: Provided that a safety belt with one diagonal shoulder strap is permitted if the fitting of a safety harness is not reasonably practical.

#### **Microphones**

**127.05.12** All flight crew members required to be on flight deck duty shall communicate through boom or throat microphones.

#### **Passenger cabin signs and placards**

**127.05.13** The operator shall ensure the following information is conveyed to the passengers by means of signs or placards suitably conspicuous that will ensure each passenger on board the helicopter is aware –

- (a) when and how seat belts must be fastened;
- (b) when and how oxygen equipment is to be used if the carriage of oxygen is required;
- (c) that smoking is not permitted;
- (d) of the location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
- (e) of the location and method of opening emergency exits.

## Flight recorders

**127.05.14** The provisions of regulation 91.04.10 apply *mutatis mutandis* to helicopters operated in terms of this Part, provided that for purposes of this Part:

- (a) any reference to international general aviation operations or general aviation operations shall be deemed to be a reference to all Class I, Class II and Class III G16 Off-shore operations, domestic as well as international;
- (b) the prescribed minimum recording duration, referred to in sub-regulation 91.04.10(7), shall also apply to sub-regulation 91.04.10(8);
- (c) regulation 91.04.10(20)(b)(iv) should read 'such FDR is not a CVR combined with the FDR and the CVR is serviceable and functioning in accordance with the requirements of technical standard SA-CATS 127.05.16'; and
- (d) the following expression is added to regulation 91.04.10(21)(a): '... and such MEL incorporates the provisions of paragraph (b) below'.

## First-aid and universal precaution kits

**127.05.15** (1) No operator shall operate a helicopter unless such helicopter is equipped with a first-aid kit consisting of the medical supplies as prescribed in Document SA-CATS 127.

(2) The operator shall carry out periodical inspections of the first-aid kit specified in sub-regulation (1) to ensure that, as far as practicable, the contents thereof are in a condition necessary for their intended use.

(3) The contents of the first-aid kit specified in sub-regulation (1) shall be replenished at regular intervals, in accordance with instructions contained on their labels, or as circumstances require.

(4) The first-aid kit specified in sub-regulation (1) shall be readily accessible to the crew or passengers.

(5) No operator of a helicopter for which the maximum certificated passenger seating is more than 19 and on which is carried a cabin attendant shall operate such helicopter unless it is equipped with the universal precaution kit specified in Document SA-CATS 127.

## SUBPART 6: OPERATING CERTIFICATE

### Requirement to hold an air operator certificate

**127.06.1** No operator shall operate a helicopter in terms of this Part unless the operator is the holder of, and complies with the conditions of, a valid air operator certificate including the operations specifications attached thereto, and the relevant

air services license issued in terms of the Air Services Licensing Act, No. 115 of 1990, or the International Air Services Act, No. 60 of 1993.

**Application for the issuance or amendment of an air operator certificate and operations specifications**

**127.06.2** (1) An application for the issuance or amendment of an air operator certificate (AOC) or operations specifications shall be made to the Director in the form and manner prescribed in Document SA-CATS 127 and shall be accompanied by the appropriate fee prescribed in Part 187.

(2) Each application made in terms of sub-regulation (1) shall demonstrate that the applicant –

- (a) has adequate equipment, facilities and personnel to operate the proposed commercial air transport or general aviation operation;
- (b) is able to conduct the commercial air transport or general aviation operation in a safe and proper manner and in full compliance with all applicable rules and regulations.

(3) The submission of an application under this Subpart does not place any obligation upon the Director to issue an AOC or OpsSpec until he or she has been given reasonable time, as agreed in the schedule of events, to review the application and the application has been adjudicated in terms of regulation 127.06.3

(4) The holder of an AOC may add to its AOC a helicopter registered on another AOC: Provided –

- (a) the helicopter is not registered on more than three AOCs;
- (b) the helicopter is maintained by only one aircraft maintenance organisation (AMO);
- (c) the manual of procedures or maintenance control manual, as applicable, for all operators and the operations specifications for each operator, specify by helicopter registration number the AMO responsible for the maintenance of each shared helicopter, by helicopter registration number,
- (d) the helicopter flight folio used is the same for all operators, such that there is but one continuous record of the helicopter's activities, and the flight crew members are trained in the procedures for completion of the flight folio;
- (e) there is only one method with respect to the entry, reporting and rectification of defect procedures and the flight crew members are trained in those procedures;

- (f) the flight crew members use the minimum equipment list (MEL) approved for the helicopter and are trained in the MEL procedures for that particular helicopter, if applicable, and the operations manual specifies the procedures the flight crew are to follow in the event contact with maintenance personnel is needed; and
- (g) the flight crew members receive ground and flight training covering any differences between the model(s) operated by the operator and that being added to the AOC, including at least –
  - (i) safety equipment contained on board;
  - (ii) ancillary equipment such as *navigational aids, auto flight system, flight director /flight management system (FMS), airborne collision avoidance system (ACAS), terrain awareness and warning system (TAWS), weather radar, etc.; and*
  - (iii) *systems differences, engine/airframe limitations, performance considerations and operating characteristics,*

*and the results of such training are recorded on the flight crew member's training file.*

(4) The personnel, referred to in sub-regulation (2)(a), shall be comprised of the following positions, the incumbents of which shall require the approval of the Director –

- (a) chief executive officer;
- (b) person responsible for flight operations;
- (c) person responsible for aircraft;
- (d) air safety officer;
- (g) quality assurance manager; and
- (h) security manager.

(6) When, after consideration of the scope and size of an operator applicant the Director is of the opinion that it would appropriate, he or she may approve the assignment of more than one position to one person or approve different positions.

(7) The nominated post-holders required by sub-regulation (5) shall meet the qualifications, and be responsible for the functions, specified in Document SA-CATS 127.

(8) Any post-holder of the positions listed in sub-regulation (5), who held such position on the commencement of this Part, shall be deemed to meet the qualifications required by Document SA-CATS 127: Provided that –

- (a) for a nominated post-holder, such person is satisfactory to the Director;
- (b) for an incumbent, that incumbent has discharged his or her responsibilities to the satisfaction of the Director; and
- (c) for a nominated or incumbent post-holder, such person meets the qualifications specified in Document SA-CATS127 within six months from the commencement of this Part.

(9) Notwithstanding any provision of the Regulations, where any manager no longer meets the qualifications required for that position or fails to discharge the responsibilities of that position, the Director may withdraw such approval.

(10) The Director may amend any AOC if –

- (a) he or she determines that safety in aviation and the public interest requires the amendment; or
- (b) the holder of the AOC applies for an amendment, and the Director determines such amendment is not detrimental to safety in aviation or the public interest.

(11) If the Director stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in aviation, such an amendment becomes effective on the date the holder of an AOC receives such notice.

(12) A holder of an AOC may make representations to the Director against the amendment contemplated in sub-regulations (10)(a) or (11), but shall continue to operate in accordance with such amendment, unless it is subsequently varied or withdrawn.

(13) Amendments approved by the Director, other than emergency amendments referred to in sub-regulation (11), become effective 30 days after notice to the holder of an AOC, unless the holder of the AOC makes representations against such proposal as contemplated in sub-regulation (12) prior to the effective date.

(14) Amendments proposed by the holder of an AOC shall be made at least 30 days prior to the intended date of any operation under the proposed amendment.

(15) No person may perform an air service operation or a general aviation operation for which an AOC amendment is required, unless that person has received notice of the approval from the Director.

#### **Adjudication of and issuance of an air operator certificate or operations specifications**

**127.06.3** (1) In considering an application referred to in regulation 127.06.2 the Director may conduct the investigation he or she deems necessary to determine the applicant's ability to meet the requirements specified in this Part.

(2) An application shall be granted and the operating certificate issued, containing such conditions as the Director determines, if the Director is satisfied that –

- (a) the applicant will comply with the provisions of its air operator certificate and operations specifications and
- (b) the applicant will not operate the air service concerned contrary to any provision of the Civil Aviation Act, No 13 of 2009, the International Air Services Act, No. 60 of 1993, or the Air Service Licensing Act, No. 115 of 1990.

(3) Where in the opinion of the Director an applicant has failed to provide satisfactory evidence of qualification for the document being sought, the applicant will be informed by the Director as to the deficiencies and will be given a reasonable opportunity to rectify such deficiencies after which time the Director shall grant or refuse the application concerned.

(4) An air operator certificate and associated operations specifications shall be issued in a form as prescribed by the Director and contain at least the information prescribed in Document SA-CATS127.

#### **Period of validity and status of an air operator certificate**

**127.06.4** (1) Unless otherwise specified by the Director, an air operator certificate (AOC) shall remain valid and in force as long as -

- (a) the operator meets the requirements for issue of an AOC;
- (b) the operator submits on or before the anniversary date of initial issue, the appropriate annual fee as prescribed in Part 187;

- (c) the operator successfully completes such audits and inspections as were carried out by the Director, including the satisfactory resolution of any findings reported to the operator by the Director; and
  - (d) the AOC is not suspended, cancelled or voluntarily returned to the Director.
- (2) An AOC is not transferable to any other entity.
- (3) Where an operator is notified by the Director that its AOC has been suspended or cancelled, the operator shall return the AOC to the Director within seven days of such notification.

### **Safety and security inspections and audits**

**127.06.5** (1) An applicant for the issuance of an air operator certificate (AOC) shall permit an authorised officer, inspector or authorised person to carry out such safety and/or security inspections and audits which may be necessary to verify the validity of an application made in terms of regulation 127.06.2.

(2) The holder of an AOC shall permit an authorised officer, inspector or authorised person to carry out such safety and security inspections and audits as may be necessary to determine compliance with the appropriate requirements prescribed in this Part.

### **Register of air operating certificates**

**127.06.7** (1) The Director shall maintain a register of all air operating certificates (AOCs) issued in terms of this Part.

- (2) The register shall contain the following particulars –
- (a) the full name and, if any, the business name of the holder of the AOC
  - (b) the postal address of the holder of the AOC;
  - (c) the number of the AOC issued to the holder;
  - (d) particulars of the type of air service for which the AOC was issued, including a list of operations specifications issued;
  - (e) particulars of the category of helicopter for which the AOC was issued; and
  - (f) the date on which the AOC was issued.
- (3) The particulars, referred to in sub-regulation (2), shall be recorded in the register within 30 days from the date on which the AOC is issued by the Director .
- (4) The register shall be kept in a safe place at the office of the Director.

(5) A copy of the register shall be furnished by the Director, on payment of the appropriate fee as prescribed in Part 187, to any person who requests the copy.

### **Demonstration flights**

**127.06.8** (1) The Director may require a commercial air transport or general aviation service operator to conduct satisfactory demonstration flights if the helicopter is to be operated in a designated special area, or requires the use of a specialised navigation system, or the scope of the intended operation, in the opinion of the Director, warrants such demonstration flights.

(2) The demonstration flights required in terms of sub-regulation (1) shall be conducted in accordance with the regulations applicable to the type of operation and helicopter used.

## **SUBPART 7:**

### **FLIGHT OPERATIONS**

#### **DIVISION ONE GENERAL**

#### **Routes and areas of operation and aerodrome facilities**

**127.07.1** (1) An operator operating in terms of regulation 127.01.1, shall ensure that operations are only conducted along such routes for which –

- (a) it has been ascertained by every reasonable means available that the ground facilities and services, including meteorological services, are available as required for the safe operation of the helicopter and the protection of the passengers, are adequate for the type of operation being conducted and are functioning normally for their intended purpose;
- (b) appropriate maps and charts are available; and

(2) The operator shall ensure that operations are only conducted within such areas and along such routes for which approval or authorisation has been obtained, where required, from the appropriate authority concerned.

(3) The operator shall ensure that –

- (a) the performance of the helicopter intended to be used, is adequate to comply with minimum flight altitude requirements; and
- (b) the equipment of the helicopter intended to be used, complies with the minimum requirements for the planned operation.



(4) The operator shall operate all flights in accordance with such route, aerodrome or other approvals and conditions pertaining to flight operations as are contained in the air operator certificate.

(5) The operator shall report without delay to the responsible authority any observed operational inadequacy of facilities referred to in sub-regulation (7).

(6) Prior to conducting a passenger-carrying IFR or night VFR flight in uncontrolled airspace, the operator shall ensure that a navigational capability is able to be maintained while operating on any route used in such airspace.

(7) The operator shall select a take-off alternate aerodrome and specify it in the operational flight plan (OFP) if the weather conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima: Provided that for the take-off alternate, the available information shall indicate that, at the estimated time of use, the conditions will be at or above the aerodrome operating minima for that operation.

(8) The operator shall select at least one destination alternate and specify it in the OFP for each IFR flight unless –

- (a) the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the estimated time of arrival at the aerodrome of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions; or
- (b) the aerodrome of intended landing is isolated and no suitable alternate is available, in which case a point of no return (PNR) shall be determined.

(9) The operator shall select at least two destination alternate aerodromes for each IFR flight and specify them in the OFP when –

- (a) the appropriate weather reports or forecasts for the destination aerodrome, or any combination thereof, indicate that during a period commencing one hour before and ending one hour after the estimated time of arrival, the weather conditions will be below the applicable planning minima; or
- (b) meteorological information is not available at the destination aerodrome.

(10) For offshore operations as provided in regulation 127.07.8, the operator shall select suitable offshore alternates and specify each in the OFP for each IFR flight as provided in Document SA-CATS 127.

(11) The operator shall not permit, nor may a pilot-in-command operate, a flight that is to be conducted in accordance with IFR for which one or more destination alternate aerodromes are required, to be commenced unless the aerodrome meteorological forecast indicates that conditions for a period of at least one hour before until one hour after the estimated time of arrival at the destination alternate aerodrome(s) will meet or exceed those specified in Document SA-CATS 127.

### **Establishment of procedures**

#### **127.07.2 The operator shall –**

- (a) establish procedures and instructions, for each helicopter type, containing ground personnel and flight crew members' duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by cockpit crew members for all phases of operation under normal, abnormal and emergency conditions, to ensure that the operating procedures in the operations manual referred to in regulation 127.04.2, are followed; and
- (c) ensure that flight crew members do not perform any activities during critical phases of the flight other than those required for the safe operation of the helicopter.

### **Hazardous flight conditions and unlawful interference**

**127.07.3** (1) The pilot-in-command of any helicopter that encounters flight conditions considered to be hazardous to his or her, or another helicopter, shall report such conditions to any appropriate aeronautical station as soon as possible, giving such details as may be pertinent to the safety of other helicopters.

- (2) Following an act of unlawful interference, the pilot-in-command shall –
  - (a) where, in his or her opinion the safety of persons on board the helicopter would not be jeopardized, report the events to the nearest ATS authority by the most discrete method possible, by the means devised for such communications; and
  - (b) submit, without delay, a report of such act to the Director in a form acceptable to the Director.

### **Competence of operations personnel**

**127.07.4** The operator shall ensure that all personnel assigned to, or directly involved in, ground and flight operations, are properly instructed, have demonstrated their abilities in their particular duties and are aware of their responsibilities and the relationship of such duties to the operation as a whole.

### **Use of air traffic services**

**127.07.5** The operator shall ensure that air traffic services are used for all flights whenever available.

### **Minimum flight altitudes**

**127.07.6** (1) The operator shall establish minimum flight altitudes for all operations carried out in accordance with IFR and the methods to determine such minimum flight altitudes for all route segments to be flown which provide the required terrain clearance, taking into account the performance operating limitations referred to in Subpart 8 of this Part and the minimum altitudes prescribed in regulation 91.06.32.

- (2) The operator shall take into account, when establishing minimum flight altitudes-
- (a) the accuracy with which the position of the helicopter can be determined;
  - (b) the possible inaccuracies in the indications of the altimeters used;
  - (c) the characteristics of the terrain along the routes or in the areas where operations are to be conducted;
  - (d) the probability of encountering unfavourable meteorological conditions; and
  - (e) possible inaccuracies in aeronautical charts.

(3) The operator shall specify in its operations manual the procedures used to determine the minimum altitudes to be flown in order to meet the obstacle clearance requirements specified in regulation 91.06.32(2).

### **Aerodrome operating minima**

**127.07.7** (1) For operations under instrument meteorological conditions, the operator shall establish aerodrome operating minima in accordance with the provisions of sub-regulations (2), (3) and (4) and in conjunction with the instrument approach and landing charts for each aerodrome and aerodrome intended to be used either as destination or alternate aerodrome.

(2) The operator shall establish aerodrome operating minima for each aerodrome planned to be used, which shall not be lower than the values as prescribed in regulation 91.07.5.

(3) The method of determining aerodrome operating minima shall be approved by the Director.

(4) The aerodrome operating minima established by the operator shall not be lower than any aerodrome operating minima established by the appropriate authority.

of the State in which the aerodrome is located: Provided that if such appropriate authority approves such lower aerodrome operating minima established by the operator, the higher aerodrome operating minima shall apply.

(5) In establishing the aerodrome operating minima which will apply to any particular operation, the operator shall take full account of the factors prescribed in regulation 91.07.5(3).

### **Offshore operations**

**127.07.8** (1) The operator shall ensure that, in the case of flights over water, –

- (a) the shore base or other flight-monitoring station shall maintain a means of flight monitoring with the helicopter as approved by the Director;
- (b) a full complement of crew members to operate the helicopter and its safety equipment under normal, abnormal or emergency conditions is carried on board; and
- (c) the helicopter is equipped for flights over water in terms of these Regulations.

(2) The operator shall ensure that, in the case of a single-reciprocating-engine helicopter, –

- (a) other than an amphibian helicopter or a helicopter with approved flotation gear flights shall be limited to five nautical miles seaward from base; and
- (b) no flights shall be undertaken except by day and under visual meteorological conditions (VMC) and no flight shall be commenced which cannot be completed at least one hour before night.

(3) The operator shall ensure that, in the case of a single-turbine-engine helicopter, –

- (a) other than an amphibian helicopter or a helicopter with approved flotation gear flights shall be limited to 50 nautical miles seaward from base;
- (b) no flights shall be undertaken except by day and under VMC;
- (c) for flights over water from 5 up to 15 nautical miles, sufficient survival dinghies are carried in such a manner that they will be instantly accessible at the time of ditching; and

(4) The operator shall ensure that, in the case of multi-engine helicopters, the provisions of sub-regulation (1) are complied with and, in addition, if a flight is to be undertaken by night or under IMC, that –

- (a) the helicopter is equipped for IFR operations; and
- (b) functioning area or on-board navigation aids are available.

(5) The operator shall not, when planning flight for over-water operations, consider off-shore alternates when it is possible to carry enough fuel to plan for an on-shore alternate landing site: Provided that off-shore alternate landing sites may be considered in exceptional circumstances, other than for landing for the purposes of payload enhancement in adverse weather conditions.

(6) For the purposes of this regulation “shore base” means the site from which the flight over water is commenced or supported.

### **Refueling and defueling with passengers on board**

**127.07.9** No person shall refuel or defuel a helicopter when passengers are embarking, disembarking or on board unless the fuelling is carried out in accordance with the procedures specified in Document SA-CATS 127 and such procedures are included in the air operator's operations manual.

### **Fuel policy**

**127.07.10** (1) The operator shall establish a fuel policy for the purpose of flight planning and in-flight re-planning to ensure that every flight carries sufficient fuel for the planned operation and reserve fuel to cover deviations from the planned operation.

- (2) The operator shall ensure that the planning of a flight is only based upon –
  - (a) procedures, tables or graphs which are contained in or derived from the operations manual referred to in regulation 127.04.2, or current helicopter-specific data;
  - (b) the operating conditions under which the flight is to be conducted including –
    - (i) realistic helicopter fuel consumption data;
    - (ii) anticipated masses;
    - (iii) expected meteorological conditions;
    - (iv) air traffic service procedures and restrictions;
    - (v) for IFR flight, one instrument approach at the destination aerodrome, including a missed approach;
    - (vi) the procedures prescribed in the operations manual for failure of one power-unit while *en route*; and

- (vii) any other conditions that may delay the landing of the helicopter or increase fuel consumption.

(3) The operator shall ensure that the calculation of usable fuel required by such helicopter for a flight meets the requirements specified in Document SA-CATS 127 and includes –

- (a) taxi fuel;
- (b) trip fuel;
- (c) reserve fuel consisting of –
  - (i) contingency fuel 127;
  - (ii) alternate fuel, if a destination alternate aerodrome is required;
  - (iii) final reserve fuel;
  - (iv) additional fuel, if required by the type of operation; and
- (d) extra fuel, if required by the pilot-in-command.

(4) The operator shall ensure that in-flight re-planning procedures for calculating usable fuel required when a flight has to proceed along a route or to a destination aerodrome other than originally planned includes –

- (a) trip fuel for the remainder of the flight;
- (b) reserve fuel consisting of –
  - (i) contingency fuel;
  - (ii) alternate fuel, if a destination alternate aerodrome is required, including selection of the departure aerodrome as the destination alternate aerodrome;
  - (iii) final reserve fuel; and
  - (iv) additional fuel, if required by the type of operation; and
- (c) extra fuel, if required by the pilot-in-command.

#### **IMC or night flight without a second-in-command**

**127.07.11** No operator may operate a helicopter without a second-in-command during flight in instrument meteorological conditions (IMC) or at night unless –

- (a) the helicopter is –

- (i) of a certificated maximum mass of less than or equal to 3 180 kg and
  - (ii) not certificated to carry more than nine passengers.
  - (b) the operator is authorized to do so in his or her operations specifications; and
  - (c) the operator meets the requirements specified in Document SA-CATS
- 127.

#### **Instrument approach and departure procedures**

**127.07.12** The operator may implement instrument approach and departure procedures other than instrument approach and departure procedures referred to in regulation 91.07.12, if required: Provided that such instrument approach and departure procedures have been approved by –

- (a) the appropriate authority of the State in which the aerodrome to be used, is located; and
- (b) the Director.

#### **Noise abatement procedures**

**127.07.13** (1) The operator shall establish operating procedures for noise abatement.

(2) Take-off and climb procedures for noise abatement specified by the operator for any one helicopter type shall be the same for all aerodromes.

#### **Operation of helicopter in icing conditions**

**127.07.14** (1) No person shall conduct a take-off or continue a flight in a helicopter when icing conditions are reported to exist or are forecast to be encountered along the route to be flown unless the helicopter is equipped to be operated in such conditions and the helicopter type certificate authorises flight in such conditions.

(2) In no case shall a flight be initiated or continued in icing conditions where in the opinion of the pilot-in-command, the conditions experienced may adversely affect the safety of the flight.

(3) No person shall operate a helicopter in icing conditions at night unless the helicopter is equipped with a means to illuminate a representative surface or otherwise detect the formation of ice.

## Surface contamination programme

**127.07.15 (1)** No person shall conduct or attempt to conduct a take-off in a helicopter that has frost, ice or snow adhering to any of its critical surfaces.

(2) Where conditions are such that frost, ice or snow may reasonably be expected to adhere to the helicopter, no person shall conduct or attempt to conduct a take-off in a helicopter unless the operator has established a helicopter inspection programme in accordance with a surface contamination programme approved by the Director and the dispatch and take-off of the helicopter are in accordance with that programme.

(3) The inspection referred to in sub-regulation (2) shall be performed by –

- (a) the pilot-in-command (PIC);
- (b) a qualified flight crew member of the helicopter who is designated by the PIC; or
- (c) a person, other than a person referred to in paragraph (a) or (b), who –
  - (i) is designated by the operator of the helicopter; and
  - (ii) has successfully completed a helicopter surface contamination training programme approved for such operator.

(4) Where, before commencing take-off, a crew member of a helicopter observes that there is frost, ice or snow adhering to any critical part of the helicopter, the crew member shall immediately report that observation to the PIC and the PIC, or a flight crew member designated by the PIC, shall inspect the affected part of the helicopter before take-off.

(5) Before a helicopter is de-iced or anti-iced, the PIC of the helicopter shall ensure that the crew members and passengers are informed of the decision to do so.

(6) An operator is not required to have a programme as required by sub-regulation (2) if it includes a statement in its operations manual that the operator will not dispatch its helicopters into any region or country where it could be reasonably expected that surface contamination could at anytime form on the helicopter, while parked or operating on the ground.



**Mass and balance control**

**127.07.16 (1)** No person shall operate a helicopter unless, during every phase of the flight, the load restrictions, mass and centre of gravity of the helicopter conform to the limitations specified in the aircraft flight manual.

(2) An operator shall have a mass and balance programme that complies with regulation 91.07.11.

(3) The operator shall specify in its operations manual its mass and balance programme and instructions to employees regarding the preparation and accuracy of mass and balance forms and the mass and balance sheet in accordance with regulation 127.04.8.

**Inertial navigation systems and inertial reference systems**

**127.07.17** No operator shall use an inertial navigation reference system (INS/IRS) or similar system unless the operator complies with the INS/IRS requirements prescribed in Document SA-CATS127.

**Operations with head-up displays, enhanced vision systems or night vision goggles**

**127.07.18 (1)** No operator shall use a head-up display (HUD), enhanced vision system (EVS) or night vision goggles unless the operator –

(a) is authorised to do so in its operations specifications; and

(b) complies with the HUD, EVS or night vision goggles requirements, as applicable, prescribed in Document SA-CATS127.

(2) The operator shall include the procedures for use of such equipment in the operations manual referred to in regulation 127.04.2.

**Operations with electronic flight bags**

**127.07.19 (1)** No operator shall use an electronic flight bag (EFB) unless the operator –

(a) is authorised to do so in its operations specifications; and

(b) complies with the EFB requirements prescribed in Document SA-CATS127.

(2) The operator shall include the procedures for use of such equipment in the operations manual referred to in regulation 127.04.2.

### **Single-engine helicopter IMC and night operations**

**127.07.20** (1) In the case of operations conducted in accordance with regulation 127.01.1 and except as provided in sub-regulation (2), no operator shall operate a single-engine helicopter with passengers or cargo on board in instrument meteorological conditions or night flight.

(2) An operator may operate a single-engine helicopter with passengers or cargo on board in night flight under visual meteorological conditions: Provided such operator –

- (a) is authorized to do so in its operations specifications and complies with the provisions specified therein; and
- (b) publishes in the operations manual required by regulation 127.04.2, the procedures and conditions associated with such flight.

## **DIVISION TWO OPERATIONAL CONTROL**

### **Operational control and supervision of flight operations**

**127.07.21** (1) An operator shall establish and maintain an operational control system (OCS) that meets the requirements prescribed in Document SA-CATS127 and which provides operational control services appropriate to the flights being operated.

(2) An operator who wishes to use flight operations officers (FOOs) in their OCS or who wishes to operate under a Type A OCS as provided in regulation 121.07.13, shall meet the appropriate provisions of Part 121 as follows –

- (a) for the use of FOOs, regulations 121.02.14 and 121.02.15 and Subpart 3, Divisions Four and Five; and
- (b) for a Type A OCS, Subpart 7, Division Two.

### **Contracted services for operational control system**

**127.07.22** An operator may use the operational control system of an agent whether domestic or foreign: Provided the service agreement is approved by the Director and the methods, procedures and policies for effecting operational control are described in the operator's operations manual.

**Operational flight plans**

**127.07.23** (1) An operator shall prepare an operational flight plan (OFP) for its flights as provided in technical standard 127.04.4 of Document SA-CATS 127.

(2) The signatures or alternative means of signifying acceptance of the OFP by the pilot-in-command and flight operations officer, if applicable, as required by technical standard 127.04.4 of Document SA-CATS 127, shall constitute a flight release and certifies that –

- (a) the OFP has been prepared and accepted in accordance with the procedures specified in the operations manual; and
- (b) the flight is safe to proceed.

**Familiarity with weather conditions and technical data**

**127.07.24** No flight operations officer may release a flight unless he or she is thoroughly familiar with –

- (a) reported and forecast weather conditions on the route to be flown and at all planned destination and alternate aerodromes;
- (b) the navigational requirements for the planned routes and aerodromes; and
- (c) any other technical data relevant to the proposed flight including aerodrome operating minima, helicopter performance, maintenance status, NOTAMs, bulletins or operational directives issued by the operations manager, and that nothing in such information indicates there is a threat to the safety of the flight.

**Retention of flight operations documents and reports**

**127.07.25** (1) Unless otherwise specified by the Director, every operator shall retain all flight documents made in terms of this Subpart, for a period of not less than 90 days.

**Maintenance status**

**127.07.26** No person may dispatch or release a helicopter unless it is airworthy and all known defects have been rectified and appropriately certified by a licensed aircraft maintenance engineer (AME) or an approved aviation maintenance organisation (AMO) except where the dispatch of the helicopter is in accordance with an approved minimum equipment list issued in terms of regulation 127.07.28, a

configuration deviation list approved by the State of Manufacture or as otherwise permitted in the aircraft flight manual.

### **Incidents and defects**

**127.07.27** (1) An operator shall establish adequate inspection and reporting procedures to ensure that defective equipment is reported to the pilot-in-command of the helicopter before take-off.

(2) The procedures referred to in sub-regulation (1) shall be extended to include the reporting to the operator of all incidents or the exceeding of limitations which may occur while the flight crew is embarked on the helicopter and of defective equipment found on board.

(3) Upon receipt of the reports referred to in sub-regulation (2), the operator shall compile a report and submit such report on a monthly basis to the Director.

### **Minimum equipment list**

**127.07.28** (1) No person may conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed unless the helicopter is operated in accordance with a configuration deviation list (CDL), the provisions specified in the aircraft flight manual (AFM) or the conditions or limitations specified in a minimum equipment list (MEL), which has been approved by the Director and, if in the opinion of the pilot-in-command, aviation safety is not compromised.

(2) An operator shall establish an MEL for each type of helicopter for which a master minimum equipment list (MMEL) has been approved by the State of Manufacture of such helicopter, provided the State of Manufacture is a Contracting State.

(3) No operator may operate a helicopter in accordance with an MEL unless such MEL is carried on board the helicopter.

(4) Guidance on the establishment of an MEL is contained in Document SA-CATS 127.

## **DIVISION THREE: CABIN SAFETY**

### **Carriage of infants**

**127.07.29** (1) The operator shall ensure that an infant is only carried when properly secured in the arms or on the lap of an adult passenger, or with a child restraint device or in a sky cot provided the sky cot is -

- (a) restrained so as to prevent it from moving under the maximum accelerations to be expected in flight; and
  - (b) fitted with a restraining device so as to ensure that the infant will not be thrown from such sky cot under the maximum accelerations to be expected in flight.
- (2) The operator shall ensure that precautions are taken to ensure that, at the times seat belts are required to be worn in flight, the infant carried in the sky cot will not be thrown from such sky cot under the maximum accelerations to be expected in flight.
- (3) No passenger may be responsible for the safety of more than one infant on board a helicopter.
- (4) Infants shall not be carried behind a bulkhead unless a child restraint device is used during critical phases of flight and during turbulence.
- (5) Sky cots may not be used during critical phases of flight.
- (6) Sky cots shall be positioned in such a way that they do not prevent or hinder the movement of adjacent passengers or block exits.
- (7) When an infant is carried in the arms or on the lap of a passenger, the seat belt, when required to be worn, shall be fastened around the passenger carrying or nursing the infant, but not around the infant.
- (8) When an infant is carried in the arms or on the lap of a passenger, the name of the infant shall be bracketed on the passenger list with the name of the person carrying or nursing the infant.
- (9) An infant may be seated in a car-type infant seat which is secured to the helicopter seat, provided –
- (a) the infant's seat is secured to the helicopter seat in accordance with the instructions provided with the child seat;
  - (b) the infant's seat is designed to be secured to a passenger seat by means of a single lap strap and face the same direction as the passenger seat;
  - (c) the lower part of the shell does not unreasonably extend beyond the forward position of the passenger seat cushion on which it rests;
  - (d) the infant's seat is secured to the passenger seat at all times during flight, even when it is unoccupied by the child;

- (e) only the infant shall be removed from the aircraft in an emergency evacuation, not the infant's seat;
- (f) the infant's seat is positioned in such a way that it does not prevent or hinder the movement of adjacent passengers or block exits;
- (g) the infant's seat is not placed in an aisle seat, depending on cabin configuration;
- (h) the infant's seat is used in accordance with infant weight limitations specified for such device; and
- (i) the infant's seat is fitted with a single release harness, which secures the infant's lap, torso and shoulders, but designed that the child can easily be secured in or removed from it.

(10) An infant or a car-type infant seat referred to in sub-regulation (9) shall not be located in –

- (a) the same row or row directly forward or aft of an emergency exit; or
- (b) in the same row as any other exit unless such exit and row are separated by a bulkhead.

#### **Carriage of persons with a disability**

**127.07.30** (1) An operator shall establish procedures, including identification, seating positions and handling in the event of an emergency, for the carriage of passengers with a disability.

(2) The operator shall ensure that –

- (a) the pilot-in-command of the helicopter is notified when a passenger with a disability is to be carried on board;
- (b) a passenger with a disability is not seated in the same row or a row directly forward or aft of an emergency exit;
- (c) individual briefings on emergency procedures are given to a passenger with a disability and his or her able-bodied assistant, appropriate to the needs of such passenger; and
- (d) the person giving the briefing shall enquire as to the most appropriate manner of assisting the passenger with a disability so as to prevent pain or injury to such passenger.

(3) In the case of the carriage of a person on a stretcher in the helicopter –

- (a) the stretcher shall be secured in such helicopter so as to prevent it from moving under the maximum accelerations likely to be experienced in flight and in an emergency alighting such as ditching;
- (b) the person shall be secured by an approved harness to the stretcher or helicopter structure; and
- (c) an able-bodied assistant shall accompany each person carried on a stretcher.

**NOTE:** *The carriage of patients is regulated in Part 138 'Emergency Medical Services' of these Regulations. An operator not licensed in terms of Part 138 may carry stretcher patients only in case of an emergency, as provided for in sub-regulation 91.07.19(4).*

(4) A person with a certified mental disability shall not be carried in the helicopter unless –

- (a) accompanied by an able-bodied assistant; and
- (b) a medical certificate has been issued by a medical practitioner certifying that the person with the mental disability is suitable for carriage by air, and confirming that there is no risk of violence from such person.

(5) The operator shall undertake the carriage of a person with a mental disability who, according to his or her medical history, may become violent, only after special permission has been obtained from the Director by such operator.

(6) A passenger with a splinted or artificial limb may travel unaccompanied provided he or she is able to assist himself or herself.

(7) The affected limb or supporting aids of a passenger referred to in sub-regulation (6), shall not obstruct an aisle or any emergency exit or equipment.

(8) If a passenger with a splinted or artificial limb cannot assist himself or herself, the passenger shall be accompanied by an able-bodied assistant.

#### **Limitations on carriage of infants, children and passengers with disability**

**127.07.31** (1) Unless otherwise authorised by the Director, the maximum number of passengers with a disability, unaccompanied minors, or a combination of such passengers and minors, which may be carried by the operator, is limited to one per unit of 20 passengers capacity or part thereof.

(2) At least one able-bodied assistant shall be carried for every group of five passengers with a disability or unaccompanied minors, or a part or combination

thereof, and such assistant shall be assigned with the responsibility for the safety of such passengers or minors: Provided that the persons with a disability can assist themselves.

(3) In addition to the provisions of sub-regulation (2), for each one passenger with a disability who cannot assist himself or herself, an able-bodied assistant shall be assigned to solely assist such passenger.

(4) The operator may establish procedures in lieu of the provisions of sub-regulations (2) and (3), for the carriage of children and persons with a disability: Provided that such procedures –

- (a) do not jeopardise aviation safety; and
- (b) prior written approval is obtained from the Director.

### **Carriage of inadmissible passengers, deportees or persons in custody**

**127.07.32** (1) The operator shall establish procedures for the carriage of inadmissible passengers, deportees or persons in custody to ensure the safety of the helicopter and its occupants.

(2) The pilot-in-command of the helicopter shall be notified by the operator of such helicopter prior to departure, of the intended carriage and the reason for carriage, of any of the persons referred to in sub-regulation (1).

(3) For the purposes of this regulation, “inadmissible passenger” means any person who is not entitled to board the helicopter and includes those persons who are not in the possession of a valid passenger ticket, passport, or visa.

### **Carry-on baggage**

**127.07.33** (1) The operator shall establish adequate procedures to ensure that only such baggage is carried onto the helicopter and taken into the passenger cabin as can be adequately and securely stowed.

(2) The minimum requirements for the procedures referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS 127.

### **Securing of passenger cabin and galley**

**127.07.34** (1) Before take-off and landing and whenever deemed necessary in the interests of aviation safety, the pilot-in-command shall ensure that –

- (a) all equipment, baggage and loose articles in the cabin of the helicopter, including passenger service items and crew members’ and passengers’ personal effects, are properly secured and stowed so as to avoid the



possibility of injury to persons or damage to such helicopter through the movement of such articles caused by in-flight turbulence or by unusual accelerations or manoeuvres; and

- (b) all aisles, passage ways, exits and escape paths are kept clear of obstructions.

(2) All solid articles shall be placed in approved stowage areas in the helicopter at all times whenever the seat belt lights are illuminated or when so directed by the pilot-in-command of such helicopter.

- (3) For the purposes of sub-regulation (2), "approved stowage area" means –

- (a) the area under a passenger seat; or
- (b) a locker, overhead or other, in accordance with the placarded mass limitation of the locker.

(4) No take-off or landing shall be commenced by the pilot-in-command of the helicopter unless he or she has been informed of the safe condition of the cabin.

### **Passenger services**

**127.07.35** (1) Except when in use, all items provided for passenger services, including food containers, thermos flasks and servicing trays, shall be carried in their respective stowages and secured against movement likely to cause injury to persons or damage to the helicopter.

(2) All items referred to in sub-regulation (1) shall be stowed during take-off and landing or during emergency situations, as directed by the pilot-in-command of the helicopter.

(3) Any item which cannot be accommodated in the stowage referred to in sub-regulation (1) shall not be permitted in the cabin of the helicopter.

(4) The cabin crew members shall complete the securing of the cabin before the approach for landing of the helicopter is commenced, if cabin crew members are carried.

(5) If passenger services are provided while the helicopter is on the ground, no passenger service equipment shall obstruct the aisles or exits of the helicopter.

### **Briefing of passengers**

**127.07.36** (1) The pilot-in-command (PIC) shall ensure that passengers are given a safety briefing in accordance with Document SA-CATS 127.

(2) Where the safety briefing referred to in sub-regulation (1) is insufficient for a passenger because of that passenger's physical, sensory or comprehension limitations or because that passenger is responsible for another person on board the helicopter, the PIC shall ensure that the passenger is given an individual safety briefing that is appropriate to the passenger's needs.

(3) The PIC shall ensure that each passenger who is seated next to an emergency exit is made aware of how to operate that exit.

### **Safety features card**

**127.07.37** An operator shall ensure that passengers are aware of the safety features on board the helicopter, where possible in pictographic form. Any wording shall be in English or as required by the Director and shall contain such information as prescribed by Document SA-CATS 127.

## **SUBPART 8: HELICOPTER PERFORMANCE OPERATING LIMITATIONS**

### **DIVISION ONE: GENERAL**

#### **Classification**

**127.08.1** (1) The classification of helicopters for performance limitations purposes is prescribed in regulation 91.09.3.

(2) An air operator shall ensure that –

- (a) a Class 1 helicopter is operated in accordance with the performance operating limitations prescribed in Division One;
- (b) a Class 2 helicopter is operated in accordance with the performance operating limitations prescribed in Division Two; and
- (c) a Class 3 helicopter is operated in accordance with the performance operating limitations prescribed in Division Three.

(3) Where specific design characteristics of a helicopter prevent compliance with the regulations in Division Two, Three or Four of this Subpart, the operator shall, notwithstanding the provisions of sub-regulation (2), ensure that the helicopter is operated in accordance with such standard that a level of safety equivalent to the level of safety prescribed in the appropriate Division in this Subpart is maintained.

**General provisions for all classes of helicopters**

**127.08.2** (1) The operator shall ensure that –

- (a) the mass of the helicopter, at the start of the take-off, is not greater than the mass at which the requirements prescribed in the appropriate Division can be complied with for the flight to be undertaken, allowing for expected reductions in mass as the flight proceeds; and
- (b) the approved performance data contained in the aircraft flight manual referred to in regulation 91.03.2, is used to determine compliance in the appropriate Division.

(2) In complying with any of the provisions in this Subpart, all factors that significantly affect the performance of the helicopter, as applicable to the phase of flight, shall be taken into account and which shall include as a minimum –

- (a) the mass of the helicopter;
- (b) the operating procedures employed by the operator;
- (c) the pressure-altitude appropriate to the elevation of the aerodrome;
- (d) the ambient temperature;
- (e) the wind; and
- (f) the condition of the surface.

(3) The factors specified in sub-regulation (2) shall be taken into account either directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the helicopter is being operated.

(4) The operator shall ensure helicopter operations are conducted in a manner that gives appropriate consideration for achieving a safe forced landing in the event the safe continuation of flight is not assured following a critical power-unit failure.

(5) The operator of helicopters operating to or from aerodromes in a congested hostile environment shall be approved by the Director to do so and shall publish procedures in the operations manual referred to in regulation 127.04.2 that ensure, to the extent possible, the safety of the helicopter, its occupants and persons and property on the ground.

(6) A helicopter shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(7) A flight shall not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the Director, indicates that the standards prescribed in this Subpart can be complied with for the flight to be undertaken.

(8) An operator shall adopt obstacle data sufficient to make accurate and safe performance calculations.

## **DIVISION TWO: CLASS 1 HELICOPTER**

### **Take-off**

**127.08.3** (1) The operator of a Class 1 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass for the pressure altitude and the ambient temperature at the place of departure.

(2) The take-off mass referred to in sub-regulation (1) shall be such that in the event of the critical power-unit failing –

- (a) at or before the take-off decision point, the helicopter can discontinue the take-off and stop within the rejected take-off area available; or
- (b) at or past the take-off decision point, the helicopter can continue the take-off and the climb, clearing all obstacles along the flight path by a vertical margin of at least 35 feet until such helicopter can comply with the provisions of regulation 127.08.4.

(3) For the purposes of sub-regulation (2)(a), “rejected take-off area” means an elevated aerodrome.

(4) When complying with the provisions of sub-regulation (2), account shall be taken of –

- (a) the local pressure altitude;
- (b) the ambient temperature;
- (c) the take-off technique to be used; and
- (d) not more than 50 per cent of the reported head-wind component or, if such data is provided, not less than 150 per cent of the reported tail-wind component: Provided that if approved wind measuring equipment is used,

the head-wind component may be increased to 80 per cent of the headwind reported.

(5) The part of the take-off prior to the specified take-off decision point shall be so conducted in sight of the surface that a rejected take-off can be carried out.

(6) The operator shall ensure that the take-off flight path clears all obstacles as specified in Document SA-CATS 127.

#### **En route with one or more engines inoperative**

**127.08.4** (1) The operator of a Class 1 helicopter shall ensure that, in the event of the critical power unit becoming inoperative at any point in the *en route* flight path, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with the provisions of sub-regulation (2) or (3) at all points along the route.

(2) The operator shall ensure that, when it is intended that the flight will be conducted at any time out of sight of the surface, the mass of the helicopter permits a rate of climb of at least 50 feet per minute with one engine inoperative at any point along the route at the obstacle clearance altitude computed in accordance with technical standard 91.07.2 of Part 91:

(3) The operator shall ensure that –

- (a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 127.08.5;
- (b) the flight path clears all obstacles vertically by at the obstacle clearance margins specified in technical standard 91.07.2 of Part 91;
- (c) the engine is assumed to fail at the most critical point along the route:

Provided that when it is intended that the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 meters in either side of the route need to be considered.

(4) Account shall be taken of the effects of winds on the flight path.

(5) When complying with the provisions of this regulation, the width margins referred to in sub-regulations (2) and (3) may be reduced to 9.3 kilometers, if a navigation accuracy equivalent to that required for performance-based navigation can be achieved.

(6) In the event of any two power units becoming inoperative in the case of a helicopter having three or more power units, the helicopter shall be able to continue the flight to a suitable landing site and make a landing thereat.

### **Approach and landing**

**127.08.5** (1) The operator of a Class 1 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for the pressure altitude and the ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and, when required, at any alternate aerodrome.

(2) When determining the landing mass, in the event of the critical power-unit becoming inoperative at any point during the approach and landing phase –

- (a) before the landing decision point, the helicopter shall, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available or perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet until the helicopter has reached safe take-off speed with a positive rate of climb; or
- (b) at or after the landing decision point, the helicopter shall, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available;
- (3) For the purpose of sub-regulation (2)(b), “landing distance available”, if applicable, means an elevated aerodrome.

(4) When complying with the provisions of this regulation, account shall be taken of –

- (a) the pressure altitude at the destination;
- (b) the expected air temperature at the destination;
- (c) the landing technique to be used;
- (d) not more than 50 per cent of the forecast head-wind component unless otherwise approved; and
- (e) any expected variation in the mass of the helicopter during flight.

(5) The operator shall ensure that the part of the landing from the specified landing decision point to touchdown is conducted in sight of the surface.

**DIVISION THREE: CLASS 2 HELICOPTER****General**

**127.08.6** (1) The operator of a Class 2 helicopter shall ensure that the part of the take-off prior to the defined point after take-off and after the defined point before landing, is conducted only in conditions of weather and light and over such routes and diversions there from which permit a safe forced landing to be executed in the event of engine failure.

(2) A Class 2 helicopter shall not be permitted to operate from elevated structures in built-up areas.

**Take-off**

**127.08.7** (1) The operator of a Class 2 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a rate of climb for the pressure altitude and ambient temperature at the aerodrome of departure which allows the helicopter, in the event of the critical power unit becoming inoperative at any time after reaching the specified take-off decision point, to continue the take-off and initial climb and clear all obstacles along its flight path by a margin of 35 feet, until such helicopter can comply with the provisions of regulation 127.08.8.

(2) The operator shall ensure that for an elevated aerodrome, the take-off mass is such that the helicopter is capable of –

- (a) rejecting the take-off and landing on the elevated aerodrome; or
- (b) continuing the take-off and clearing the elevated aerodrome until such helicopter can comply with the provisions of regulation 127.08.8, or carry out a safe forced landing.

(3) In complying with the provisions of sub-regulation (2), account shall be taken of –

- (a) the pressure altitude at the elevated aerodrome;
- (b) the ambient temperature at the elevated aerodrome;
- (c) the take-off technique to be used; and
- (d) not more than 50 per cent of the reported head-wind component or, if such data is provided, not less than 150 per cent of the reported tail-wind component except that when approved wind measuring equipment is used, the headwind component may be increased to 80 per cent of the headwind reported.

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(4) The operator shall ensure that the part of the take-off up to the commencement of the take-off flight path is conducted in sight of the surface.

(5) The operator shall ensure that the take-off flight path clears all obstacles as specified in technical standard 127.08.3 of Document SA-CATS 127.

#### **En route with one or more engines inoperative**

**127.08.8** (1) The operator of a Class 2 helicopter shall ensure that, in the event of one engine becoming inoperative at any point in the *en route* flight path, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with the provisions of this regulation at all points along the route.

(2) When it is intended that the flight shall be conducted –

- (a) at any time out of sight of the surface, the mass of the helicopter shall permit a rate of climb of at least 50 feet per minute with one engine inoperative at any point along the route at the obstacle clearance altitude computed in accordance with technical standard 91.07.2 of Part 91;
- (b) when it is intended that the flight will be conducted by day, in visual meteorological conditions (VMC) and in sight of the surface, only obstacles within 900 meters on either side of the route need to be considered.

(3) The operator shall ensure that –

- (a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 127.10.12;
- (b) the flight path clears all obstacles vertically by at least the obstacle clearance margins specified in technical standard 91.07.2 of Part 91; and
- (c) the engine is assumed to fail at the most critical point along the route:

Provided that when it is intended that the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 meters on either side of the route need to be considered.

(4) Account shall be taken of the effects of winds on the flight path.

(5) When complying with the provisions of this regulation, the width margins referred to in sub-regulations (2) and (3) may be reduced to 9.3 kilometers, if a navigation accuracy equivalent to that required for performance-based navigation can be achieved.

## Landing

**127.08.9** (1) The operator of a Class 2 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum mass specified for the pressure altitude and ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and at any alternate aerodrome, which shall allow the helicopter, in the event of the critical power unit becoming inoperative before the specified landing decision point after clearing all obstacles by a safe margin, to either land and stop within the landing distance available or to perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet.

(2) If the becoming inoperative of the critical power unit after the specified landing decision point may cause the helicopter to force land, the helicopter shall only be operated in conditions of weather and light and over such routes and diversions there from, which permit a safe forced landing to be executed in the event of an engine failure.

(3) When determining the landing mass for elevated aerodromes, the landing mass shall be such that the helicopter is capable of –

- (a) landing on the elevated aerodrome; or
- (b) rejected the landing and clearing the elevated aerodrome, thereafter continuing the flight or carrying out a safe forced landing.

(4) In complying with the provisions of sub-regulation (3)(b), account shall be taken of –

- (a) the pressure altitude of the elevated aerodrome;
- (b) the expected air temperature at the elevated aerodrome;
- (c) the landing technique to be used;
- (d) not more than 50 per cent of the forecast headwind component unless otherwise approved; and
- (e) any expected variation in the mass of the helicopter expected during the flight.

## DIVISION FOUR: CLASS 3 HELICOPTER

### General

**127.08.10** (1) The operator of a Class 3 helicopter shall ensure that operations are only conducted in conditions of weather and light, and from those aerodromes and

over such routes and diversions therefrom, which will permit a safe forced landing to be executed in the event of a power unit failure.

(2) A Class 3 helicopter shall not be permitted to operate from elevated aerodromes in built-up urban areas.

(3) The operator of a Class 3 helicopter carrying passengers shall not operate such helicopter under IMC or above more than three eighths of clouds within a radius of five nautical miles of the helicopter, unless the latest weather reports or forecasts, or any combination of them, indicate that the weather along the planned route, including take-off and landing, with due regard for the provision of regulation 127.08.12, allows flight under VFR under an existing ceiling at prescribed minimum heights established in terms of regulation 127.07.6, and that the weather is forecast to remain so until at least one hour after the estimated time of arrival at the destination aerodrome or alternate aerodrome.

### **Take-off**

**127.08.11** (1) The operator of a Class 3 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a hover-inside-ground-effect with all power units operating at take-off power at the pressure altitude and ambient temperature at the take-off site.

(2) For the purposes of this regulation, hover-inside-ground-effect performance data shall include consideration of loss of ground cushion as a result of strong winds.

(3) The helicopter shall be able, with all engines operating, to clear all obstacles along its flight path by a margin of 35 feet until such helicopter can comply with the provisions of regulation 127.08.12.

### **En route**

**127.08.12** The operator of a Class 3 helicopter shall ensure that the helicopter is able, with all power-units operating, to continue along its intended route or to a planned diversion without flying at any point below the appropriate minimum flight altitude.

### **Landing**

**127.08.13** (1) The operator of a Class 3 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for a hover inside ground effect or hover outside ground effect, whichever is the greater, with all power units operating at take-off power at the pressure altitude and ambient temperature expected for the estimated time of landing at a destination aerodrome and at any alternate aerodrome, if required.

(2) For the purposes of this regulation, hover inside ground effect performance data shall include consideration of loss of ground cushion as a result of strong winds.

(3) With all engines operating, the helicopter shall, at the destination aerodrome and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land and stop within the landing distance available or to perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet.

## **SUBPART 9:**

### **MAINTENANCE**

#### **General**

**127.09.1** An operator shall not operate the helicopter unless such helicopter is maintained in accordance with the regulations in Part 43.

#### **Helicopter maintenance programme**

**127.09.2** (1) Each operator shall ensure that the helicopter is maintained in accordance with a helicopter maintenance programme established by the operator.

(2) The operator shall provide a maintenance programme, approved by the Director, containing the information required by sub-regulation (2) for the use and guidance of the maintenance and operational personnel concerned. The design and application of the operator's maintenance programme shall observe human factors principles.

(3) The maintenance programme referred to in sub-regulation (1) shall be developed for each helicopter type and shall contain the following information –

- (a) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the helicopter;
- (b) when applicable, a continuing structural integrity programme;
- (c) procedures for changing or deviating from paragraphs (a) and (b) above; and
- (d) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and power plants.

(4) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design shall be identified as such.

(5) The helicopter maintenance programme referred to in sub-regulation (1) and any subsequent amendment thereof shall be approved by the Director.

(6) Upon approval of the Director, copies of all amendments to the maintenance programme shall be furnished promptly to all organizations or persons to whom the maintenance programme has been issued.

#### **Maintenance contracted to approved aircraft maintenance organisation**

**127.09.3** If maintenance on any helicopter operated under this Part is carried out by the holder of an aircraft maintenance organisation approval with the appropriate rating issued in terms of Part 145, the operator of the helicopter shall ensure that all contracted maintenance is carried out in accordance with the regulations in Part 43.

#### **Operator's maintenance responsibilities**

**127.09.4** (1) An operator shall establish procedures acceptable to the Director that ensure –

- (a) each helicopter they operate is maintained in an airworthy condition;
- (b) the operational and emergency equipment necessary for an intended flight are serviceable; and
- (c) the Certificate of Airworthiness of each helicopter they operate, and any appropriate special conditions, remains valid.

(2) The operator shall not operate a helicopter unless it is maintained and released to service by an organization approved in accordance with Part 145 in the manner referred to in regulation 127.09.3.

(3) The operator shall be resourced sufficiently to ensure that all maintenance is carried out in accordance with the maintenance control manual referred to in regulation 127.095.

(4) The operator shall ensure that the maintenance of its helicopters is performed in accordance with the maintenance programme referred to in regulation 127.09.2.

#### **Operator's maintenance control manual**

**127.09.5** (1) An operator shall provide a maintenance control manual (MCM) that meets the requirements prescribed in technical standard 43.02.3 of Document SA-CATS 43 for the use and guidance of maintenance and operational personnel concerned.

(2) The MCM referred to in sub-regulation (1) shall incorporate relevant principles of human factors.

(3) The operator shall provide two copies of its proposed MCM to the Director and one copy of the approved MCM shall remain in the custody of the Director.

(4) The operator shall amend its MCM as necessary in accordance with the amendment procedures contained in the MCM, in order to keep the information contained therein up-to-date and accurately reflect company policy with respect to the maintenance of its helicopters. The operator shall forward two copies of all amendments to the MCM to the Director for approval.

(5) Upon receipt of any approved amendments, each holder of an MCM shall be furnished a copy of such amendment with clear instructions to insert the amended pages in a timely manner into the MCM.

(6) The Director may require an operator to produce an amendment where he or she is of the opinion that the MCM requires updating.

#### **Maintenance records**

**127.09.6** (1) An operator shall ensure that the following records are kept for the periods prescribed in sub-regulation (2) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the helicopter and all life limited components;
- (b) the current status of compliance with all mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the helicopter or its components subject to a mandatory overhaul life;
- (e) the current status of the helicopter's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records in sub-regulation (1)(a) to (e) shall be kept for a minimum period of 6 months after the unit to which they refer has been permanently withdrawn from service and the records in sub-regulation (1)(f) for a minimum period of 5 years after the signing of the maintenance release.

(3) In the event of a temporary change of operator, the records shall be made available to the new operator. In the event of any permanent change of operator, the records shall be transferred to the new operator.

### **Continuing airworthiness information**

**127.09.7**(1) The operator shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide such information as required by the Director and shall report said information to him or her using a reporting system the Director has developed for that purpose.

(2) The Director shall transmit all mandatory continuing airworthiness information reported to him or her in accordance with sub-regulation (1) to the State of Design of any helicopter that has been issued a South African Certificate of Airworthiness and operated in terms of this Part.

(3) The operator shall obtain and assess continuing airworthiness information and recommendations issued by a helicopter manufacturer, the organization responsible for the helicopter type design or by the State of Design, or any additional requirements issued by the Director for each type of helicopter operated under this Part and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Director.

### **Modifications and repairs**

**127.09.8**(1) All modifications and repairs shall comply with the provisions of Part 43.

(2) Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

### **Maintenance release**

**127.09.9** (1) A maintenance release shall be completed and signed to certify that the maintenance work has been completed satisfactorily and in accordance with approved data and the procedures described in the maintenance organization's procedures manual.

(2) A maintenance release shall contain a certification including –

- (a) basic details of the maintenance carried out including detailed reference of the approved data used;
- (b) date such maintenance was completed;

- (c) when applicable, the identity of the approved maintenance organization; and
- (d) the identity of the person or persons signing the release.

*Note: For more information on maintenance release matters, see Subpart 4 of Part 43 of these regulations.*

## **Records**

**127.09.10 (1)** An operator shall ensure that the following records are kept:

- (a) in respect of the entire helicopter: the total time in service;
  - (b) in respect of the major components of the helicopter:
    - (i) the total time in service;
    - (ii) the date of the last overhaul;
    - (iii) the date of the last inspection;
  - (c) in respect of those instruments and equipment, the serviceability and operating life of which are determined by their time in service:
    - (i) such records of the time in service as are necessary to determine their serviceability or to compute their operating life;
    - (ii) the date of the last inspection;
- (2) These records shall be kept for a period of 90 days after the end of the operating life of the unit to which they refer.

## **Insertion of Part 128 into the Regulations**

**22.** The following Part is herewith inserted after Part 127 into the Regulations

### **PART 128: HELICOPTER AERIAL WORK AND CERTAIN OTHER AIR SERVICE OPERATIONS.**

- 128.01.1 Applicability
- 128.01.2 Intoxication and unruly behaviour
- 128.01.3 Compliance with foreign and domestic regulations
- 128.01.4 Regulatory infractions during emergency situations

### **SUBPART 2: OPERATIONS PERSONNEL REQUIREMENTS**

#### **Division one; Minimum crew requirements**

- 128.02.1 Composition of crew



128.02.2 Crew member emergency duties

**Division Two: Crew member qualifications**

128.02.3 Flight crew member qualifications

128.02.4 Crew members, other than flight crew members

**Division Three: Flight time and duty limitations**

128.02.5 Flight time and duty periods

**SUBPART 3: TRAINING AND CHECKING**

**Division One: General provisions**

128.03.1 Operator approved training programme

128.03.2 Publishing an approved training programme

128.03.3 Approval of a training programme

**Division Two: Flight crew member training**

128.03.4 Flight crew member training

**Division Three: Training of other than flight crew members**

128.03.5 Personnel other than flight crew training

**Division Four: Checking, certification, training and validity**

128.03.6 Checking, certification, training and validity periods

**SUBPART 4: DOCUMENTATION AND RECORDS**

128.04.1 Documents to be carried on board a helicopter during flight

128.04.2 Operations manual

128.04.3 Aircraft operating manual

128.04.4 Flight time and duty period records

128.04.5 Records of emergency and survival equipment

128.04.6 Training records

128.04.7 Fuel records

128.04.8 Helicopter search procedure checklist

128.04.9 Preservation of documents

**SUBPART 5: HELICOPTER INSTRUMENTS AND EQUIPMENT**

128.05.01 Approval and use of instruments and equipment

128.05.2 Flight, navigation, and associated equipment for helicopters operated under VFR

- 128.05.3 Flight, navigation, and associated equipment for helicopters operated under IFR
- 128.05.4 Flight crew interphone system
- 128.05.5 Crew interphone system
- 128.05.6 Lifejackets, flotation gear and survival equipment
- 128.05.7 Survival suits
- 128.05.8 Emergency locator transmitters
- 128.05.9 Microphones
- 128.05.10 Passenger cabin signs and placards
- 128.05.11 Flight recorders
- 128.05.11 First-aid kits

#### **SUBPART 6: OPERATING CERTIFICATE**

- 128.06.1 Requirement to hold an air operator certificate
- 128.06.2 Application for the issuance or amendment of an air operator certificate and operations specifications
- 128.06.3 Adjudication of, and issuance of, an air operator certificate or operations specifications
- 128.06.3 Period of validity and status of an air operator certificate
- 128.06.4 Safety and security inspections and audits
- 128.06.5 Suspension and cancellation of an air operator certificate and appeal
- 128.06.6 Administrative duties of an air operator certificate holder
- 128.06.7 Register of air operating certificates

#### **SUBPART 7: FLIGHT OPERATIONS**

##### **Division One: General**

- 128.07.1 Areas of operation and aerodrome facilities
- 128.07.2 Establishment of procedures
- 128.07.3 Hazardous flight conditions and unlawful interference
- 128.07.4 Competence of operations personnel
- 128.07.5 Use of air traffic services
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128.07.18 Operational flight plans  
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**SUBPART 8: HELICOPTER PERFORMANCE OPERATING LIMITATIONS**

**Division One: General**

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**Division Three: Class 2 helicopter**

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128.08.7 Take-off  
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**Division Four: Class 3 helicopter**

128.08.11 General  
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128.09.1 General  
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- 128.09.3 Maintenance contracted to an approved aircraft maintenance organisation
- 128.09.4 Operator's maintenance responsibilities
- 128.09.5 Operator's maintenance control manual
- 128.09.6 Maintenance records
- 128.09.7 Continuing airworthiness information
- 128.09.10 Modifications and repairs
- 128.09.11 Maintenance release
- 128.09.12 Records

## SUBPART 1: GENERAL

### Applicability

**128.01.1** (1) This Part applies to

(a) operators of type-certificated helicopters, registered in the Republic and operated in terms of a Class III air service licence issued either in terms of the Air Services Licensing Act of 1990 or the International Air Services Act of 1993;

(b) any person on board a helicopter operated under this Part.

(2) Notwithstanding the provision of paragraph (1)(a) certain holders of a Class III air service licence are required to operate under Part 127 of these Regulations.

(3) For the purposes of this Part a type-certificated helicopter, registered in another State and operated by the holder of an operating certificate issued in the Republic, shall be deemed to be registered in the Republic.

(4) The provisions of Part 91 shall apply *mutatis mutandis* to any helicopter operated under this Part.

(5) Part 137 provides additional regulations in respect of certain aerial work operations.

(6) Unless the context suggests otherwise, throughout this Part the expression 'operator' shall mean an operator referred to in paragraph (1)(a),

(7) Throughout this Part the expression 'aerodrome' shall include any site used for the take-off or landing of a helicopter, whether licensed, approved or not.

### **Note:**

*This Part and its associated technical standards provide for the operation of Class III air services, other than G7 emergency medical services and G16 offshore operations; by a helicopter operator who does not also operate a Class I, Class II, or a herein listed Class III air service.*

*However, should an operator also operate one of these Class I, Class II, or Class III air services, he or she does not require to obtain a separate Part 128 approval but may have his or her aircraft operating certificate and operating specifications, as well as his various manuals issued or approved in terms of Part 127, endorsed for such operations.*

*Wherever applicable, these documents shall indicate which requirements of Part 127 and its associated technical standards are not applicable to the particular aerial work operation, and which specific requirements of Part 128 and its associated technical standards need to be adhered to.*

### **Intoxication and unruly behaviour**

**128.01.2** An operator shall not permit a person to enter, or be in, a helicopter while under the influence of alcohol or a drug having a narcotic effect, to the extent where the safety of such helicopter or its occupants is, or is likely to be, endangered.

### **Compliance with foreign and domestic regulations**

**128.01.3** An operator shall ensure that all crew members, while operating within foreign airspace, comply with all air traffic rules and regulations of the State concerned and with the local airport rules, except where any regulation of this Part is more restrictive and can be followed without violating the rules or regulations of that State.

### **Regulatory infractions during emergency situations**

**128.01.4** (1) Where the pilot-in-command of a helicopter takes action, deemed necessary to ensure the safety of the helicopter, which results in a violation of any regulation of the State in, or over which, the helicopter is being operated, he or she shall comply with the requirements of regulation 91.02.6 and, where possible, cause the event to be marked on the cockpit voice recorder, if fitted.

(2) Notwithstanding any requirement to file a report in terms of regulation 91.02.6, the pilot-in-command shall submit a full report of the event to the person responsible for operations within 48 hours after the conclusion of the flight in the manner specified in the operations manual referred to in regulation 128.04.2.

## **SUBPART 2: OPERATIONS PERSONNEL REQUIREMENTS**

### **DIVISION ONE: MINIMUM CREW REQUIREMENTS**

#### **Composition of crew**

**128.02.1** (1) The minimum number and composition of the flight crew of a helicopter operated under this Part shall not be less than the minimum number and composition specified in the aircraft flight manual referred to in regulation 128.04.3.

(2) An operator shall allocate additional crew members when this is required by the type of operation, and the number of such additional crew members shall not be less than the number specified in the operations manual referred to in regulation 128.04.2.

(3) The operator shall not assign and no person shall act as a flight crew member on a helicopter type or variant unless the flight crew member meets the qualification requirements specified in regulation 128.02.2.

(4) The crew shall include at least one member who holds a valid radiotelephony operator licence or equivalent document issued by an appropriate authority, authorising such member to operate the type of radio transmitting equipment to be used.

(5) A helicopter may be operated under this Part by a single pilot, provided that the requirements, referred to in Document SA-CATS 128, are complied with. Provided further that, if the requirements referred to in Document SA-CATS 128 are not complied with, the minimum flight crew shall be two pilots.

(6) The operator shall designate one pilot among the flight crew as pilot-in-command and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.

(7) The operator shall not assign a person, and no flight crew member may accept any assignment, to act as a flight crew member of any helicopter operated under this Part unless such person meets the requirements prescribed in document SA-CATS 128.

(8) The operator shall publish procedures in its operations manual to ensure flight crew members who do not meet the requirements specified in sub-regulation (7) are not assigned to flight duty.

#### **Crew member emergency duties**

**128.02.2** (1) The operator and, where appropriate: the pilot-in-command, shall assign to each crew member, as applicable, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation, and the operator shall establish emergency evacuation procedures based on such assignment.

(2) The functions, referred to in sub-regulation (1), shall be such as to ensure that any reasonably anticipated emergency can be adequately dealt with and shall take into consideration the possible incapacitation of individual crew members.

(3) A crew member shall not accept an assignment of emergency functions unless such crew member has been trained or briefed on how to perform emergency functions.

### **DIVISION TWO – FLIGHT CREW MEMBER QUALIFICATIONS**

#### **Flight crew member qualifications**

**128.02.3** (1) An operator shall not permit a person to act and no person shall act as a flight crew member of a helicopter operated under this Part unless, in addition to the recency requirements of regulation 91.02.4, the person –

(a) holds valid licences, certificates and ratings as required by Part 61 appropriate to the assignment;

(b) meets the type and variant training and checking requirements specified in TS 128.02.3 and has otherwise fulfilled all applicable training requirements specified in TS 128.03.4.

(2) A pilot who does not meet the recency requirements of regulation 91.02.4 or who's training and checking validity periods have lapsed shall regain qualification as prescribed in the regaining qualification requirements specified in Subpart 3.

(3) The operator shall ensure that a holder of a commercial pilot licence (helicopter) does not operate as a pilot-in-command of a helicopter certificated for single-pilot operations when operating under IFR unless the requirements prescribed in Document SA-CATS 128 are met.

#### **Crew members, other than flight crew members**

**128.02.4** An operator shall not assign a person to act, and no person shall act, as a specialist crew member, other than a flight crew member, on board a helicopter unless the person has successfully completed the operator's approved training programme for such specialists outlined in Subpart 3.

### **DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS**

#### **Flight time and duty periods**

**128.02.5** (1) An operator shall –

(a) establish a scheme for the regulation of flight time and duty periods, rest periods and days free of duty, as applicable, for each flight crew member that complies with –

(i) the flight time and duty period limitations, rest periods and days free of duty, prescribed in Document SA-CATS 128; or

(ii) a system of flight time and duty period limitations, rest periods and days free of duty, proposed by the operator, where the Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme and he or she has approved such scheme; and

(b) publish the scheme referred to in sub-regulation (1)(a) in the operations manual referred to in regulation 128.04.2.

(2) The operator shall not assign, and no crew member shall accept an assignment, if such assignment is not in compliance with the provisions of the scheme referred to in sub-regulation (1)(a) or if-

(a) the operator or crew member knows or has been made aware that such flight assignment will cause the crew member to exceed the flight time and duty periods referred to in sub-regulation (1)(a) while on flight duty; or

(b) the crew member is suffering, or having regard to the circumstances of the flight to be undertaken is likely to suffer, from fatigue, which may endanger the safety of the helicopter or persons on board.

(3) The operator shall not schedule a flight crew member for active flight duty for a period exceeding the maximum hours set out in table 1 in Document SA-CATS 128 during any given flight time and duty period unless authorised in the scheme referred to in sub-regulation (1)(a).

(4) Where any flight crew member is aware of any reason he or she would be in violation of the scheme referred to in sub-regulation (1)(a), that person shall, without delay, inform the person responsible for flight operations or his or her designated alternate.

(5) The provisions to be included in a flight time and duty scheme referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS 128.

### **SUBPART 3: TRAINING AND CHECKING**

#### **DIVISION ONE: GENERAL PROVISIONS**

##### **Operator approved training programme**

**128.03.1** (1) The operator shall establish and maintain a training and checking programme for all personnel, referenced in Divisions Two to Four of this Subpart, that will ensure such personnel is adequately trained and qualified to perform its assigned duties and such personnel shall undergo the training from that operator.

(2) The training programme referred to in sub-regulation (1) shall be conducted by an aviation training organisation approved in accordance with Part 141, or by the operator, if approved by the Director as provided for in regulation 128.03.3, provided that, in the latter case such programme is conducted for the operator's employees only

(3) The training programme referred to in sub-regulation (1) shall be approved by the Director as provided in regulation 128.03.3.

(4) The operator shall ensure that –

- (a) prior to assignment to duty, each person required to receive training in accordance with this Subpart, shall, whether employed on a full or part time basis, receive such training as appropriate to his or her duties;



- (b) each person, receiving training in terms of sub-regulation (4)(a), shall pass a written examination or other comprehension assessment acceptable to the Director and where applicable, complete a skills test in accordance with Division 4 of this Subpart; and
  - (c) if training is provided in terms of sub-regulation (4)(a), the training facilities, equipment and personnel shall be appropriate for the task to be performed and acceptable to the Director and, in the case of training and checking personnel, their qualifications shall meet the requirements prescribed in Document SA-CATS 128.
- (5) The training and checking programme referred to in sub-regulation (1) shall meet the content prescribed in Document SA-CATS 128.
- (6) The training programme referred to in sub-regulation (1) shall include a system of record keeping as prescribed in regulation 128.04.6.
- (7) The training records referred to in sub-regulation (6) shall be retained as provided in regulation 128.04.6.

#### **Publishing an approved training programme**

**128.03.2** The operator shall publish the training programme referred to in regulation 128.03.1(1) in the operations manual referred to in regulation 128.04.2.

#### **Approval of a training programme**

**128.03.3** (1) The operator shall submit to the Director for approval its flight and ground training programme and any amendments thereto.

(2) The interim and formal approval process shall be as prescribed in Document SA-CATS 128.

(3) The Director may approve an operator to have its training programme either in whole or in part contracted out to another organisation in accordance with the provisions specified in Document SA-CATS 128.

### **DIVISION TWO: FLIGHT CREW MEMBER TRAINING**

#### **Flight crew member training**

**128.03.4** (1) The operator shall provide ground and flight training to its flight crew personnel that includes at least the following training components –

- (a) company induction training on an initial basis;

- (b) crew resource management training for helicopters including human factors, risk analysis and error management training;
  - (c) emergency procedures training including –
    - (i) the location, inspection schedules, testing as applicable and use of all emergency equipment required to be carried, or otherwise carried on board the helicopter;
    - (ii) emergency evacuation, and where applicable ditching training; and
    - (iii) training in the functions for which each flight crew member is responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures.
  - (d) initial helicopter type training, if applicable, including visual, instrument and special flight procedures, crew coordination in all types of emergency situations, normal, abnormal, emergency and supplementary procedures for the type of helicopter assigned to;
  - (e) recurrent training;
  - (f) upgrade training;
  - (g) differences and familiarisation training where the operator intends to assign a flight crew member to variant types;
  - (h) pilot qualification to operate in either pilot seat;
  - (i) regaining recency and re-qualification training when required;
  - (j) area and aerodrome familiarization training,
  - (k) dangerous goods training if dangerous goods are authorised to be carried, or dangerous goods awareness training if they are not;
  - (l) any other course of studies, required by the Director as prescribed in Document SA-CATS 128 to ensure full competency of personnel on new or special equipment installed in the operator's helicopter, or for operations requiring specialised training.
- (2) Except where noted, all training components listed in sub-regulation (1), shall be provided on an initial and an annual recurrent basis and meet the requirements prescribed in Document SA-CATS 128.

### **DIVISION THREE: TRAINING OF OTHER THAN FLIGHT CREW MEMBERS**

#### **Personnel other than flight crew training**

**128.03.5** An operator shall provide initial, recurrent and re-qualification training and checking as prescribed in Document SA-CATS 128 for any person whose function is essential to safe operations under this Part.

### **DIVISION FOUR: CHECKING, CERTIFICATION, TRAINING AND VALIDITY**

#### **Checking, certification, training and validity periods**

**128.03.6** (1) The conduct of any check or demonstration of competency required in terms of this Subpart shall be as prescribed in Document SA-CATS 128.

(2) The issuance of any certificate or other means of certifying competency shall be as prescribed in Document SA-CATS 128.

(3) The following periods for training, checking or demonstration of competency validity are prescribed in technical standard 128.03.6(3).

(4) Where any required training, check or demonstration of competency is renewed within the last 60 days of its validity period, its validity period is extended by 6, 12 or 24 months, as applicable.

(5) The Director may extend the validity period of any required training, check or demonstration of competency by up to 30 days where the Director is satisfied that the application is justified and that aviation safety is not likely to be compromised: Provided the request for extension is submitted prior to the expiration of the training, check or demonstration of competency.

(6) Completion of any required training, check or demonstration of competency at any time during the periods specified in paragraphs (3) or (4) above shall be considered as completed in the month due for calculation of the next due date.

### **SUBPART 4:**

#### **DOCUMENTATION AND RECORDS**

##### **Documents to be carried on board a helicopter during flight**

**128.04.1** The operator shall ensure that, in addition to the requirements specified in regulation 91.03.1, the insurance certificate or proof of insurance is carried on board the helicopter during flight

##### **Operations manual**

**128.04.2** (1) An operator shall draw up an operations manual containing all information required under this Part and setting out the manner in which such

operator will operate the air service for which such operator is licensed in terms of the Civil Aviation Act, 2009, International Air Services Act, 1993 (Act No. 60 of 1993), or the Air Services Licensing Act, 1990 (Act No. 115 of 1990), as the case may be.

(2) The operator shall ensure that –

- (a) all parts of the manual are consistent and compatible in form and content and shall not contravene the conditions contained in the operating certificate or operations specifications issued to the operator in terms of regulation 128.06.3;
- (b) the manual can be readily amended;
- (c) the manual contains an amendment control page and a list of effective pages (LEP) showing the effective date for each page in the manual; and
- (d) the manual has the date of the last amendment to each page specified on that page that agrees with the LEP.

(3) The operator shall submit the operations manual in the English language in duplicate to the Director for approval.

(4) If the Director is satisfied that the operator –

- (a) will comply with the provisions of regulation 128.06.7; and
- (b) will not operate the air service concerned contrary to any provision of the Civil Aviation Act, 2009, the International Air Services Act, 1993, or the Air Services Licensing Act, 1990, the Director shall certify in writing on both copies of the operations manual that such manual has been approved, and shall return one copy of the approved operations manual to the operator.

(5) The operator shall amend its operations manual –

- (a) when there is a change in any aspect of an operator's operation;
- (b) when the operations manual no longer meets the requirements of these Regulations or associated technical standards; or
- (c) when so required by the Director.

(6) The operator shall submit an amendment to its operations manual in duplicate to the Director for approval and if the Director is satisfied that the operator will comply with the provisions of paragraphs (4)(a) and (b), the Director 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 operator.

(7) The operator shall at all times operate its helicopters in accordance with the approved operations manual or an approved amendment thereto.

(8) The operator shall –

- (a) ensure that all operations personnel are able to understand the technical language used and that the information provided will ensure that such personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole;
- (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 operated in terms of this Part, are easily accessible to the crew members on board during flight time.
- (c) make the operations manual available for the use and guidance of operations personnel;
- (d) provide the crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them and shall designate such crew members as manual holders;
- (e) provide each manual holder with copies of all amendments after approval by the Director and such manual holders shall insert amendments issued to them prior to their next flight assignment; and
- (f) keep the operations manual in a safe place.

(9) The structure and contents of the operations manual referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS 128.

#### **Aircraft operating manual**

**128.04.3** (1) The operator shall compile an aircraft operating manual for each helicopter type with a maximum certificated mass in excess of 5 700 kg being operated and make it available during flight time to all flight crew members assigned to the helicopter and each flight crew member shall operate the helicopter in accordance with such manual. The operator shall also provide such portions of the aircraft operating manual to other of the operator's employees or agents where their need to know can be established.

(2) The aircraft operating manual shall be approved by the Director and contain the information specified in Document SA-CATS 128.

(3) The operator shall provide each flight crew member with any amendments to the aircraft operating manual.

(4) The operator may provide the aircraft operating manual in an electronic format provided a means of accessing the information during flight time has also been made available to any crew member who may have need to access the information therein.

(5) The aircraft operating manual may be included in the operations manual referred to in regulation 128.04.2 or be published as a stand-alone document as part of the manual system.

#### **Flight time and duty period records**

**128.04.4** (1) The operator shall –

- (a) maintain current flight time and duty period records of all flight crew members engaged by such operator; and
- (b) retain the flight time and duty period records for a period of 15 calendar months calculated from the date of the last flight of each flight crew member.

(2) A flight crew member who is engaged by more than one operator or otherwise accumulates flight time outside of his or her employment, shall maintain an accurate record of his or her flight time and duty periods and shall provide copies thereof to all operators by whom such crew member is engaged. While the crew member is responsible to report all flight activity, each employer maintains responsibility to ensure the crew member concerned does not exceed the limits prescribed in the flight time and duty scheme of the operator referred to in regulation 128.02.5.

#### **Records of emergency and survival equipment**

**128.04.5** (1) The operator shall compile a list of all the survival and emergency equipment to be carried in a commercial air transport helicopter and shall have such list available at all times for immediate communication to rescue coordination centres.

(2) The survival and emergency equipment list shall be included in the operations manual referred to in regulation 128.04.2.

(3) The format and minimum information to be included in the survival and emergency equipment list shall be as prescribed in Document SA-CATS 128.

#### **Training records**

**128.04.6** (1) The operator shall establish a training file for each person required to receive training and retain on such file a record of all training and checking required in terms of Subpart 3. The records of training and checking shall contain at least the

information prescribed and be retained for the period of time specified in Document SA-CATS 128.

(2) The operator shall establish procedures to make a person's training file available for supervised review by such person, but all training files shall remain in the custody of the operator.

#### **Fuel records**

**128.04.7** The operator shall maintain records of the fuel taken on board for flight and used during flight time and shall keep such records for a period of at least 90 days following each flight or series of flights.

#### **Helicopter search procedure checklist**

**128.04.8** (1) The operator shall ensure that there is on board of its helicopters a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting helicopters for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the helicopter may be the object of an act of unlawful interference.

(2) The checklist referred to in sub-regulation (1) shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the helicopter where such information is available from the manufacturer.

#### **Preservation of documents**

**128.04.9** An operator shall retain any document required in terms of Subpart 4 for the period of time specified herein even where, prior to the expiry of such retention period, the operator ceases to maintain ownership or possession of the helicopter concerned.

### **SUBPART 5:**

## **HELICOPTER INSTRUMENTS AND EQUIPMENT**

### **Approval and use of instruments and equipment**

**128.05.1** (1) The operator shall ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed on the helicopter, are such that it will enable the flight crew to control the flight path of the helicopter, carry out any required procedural manoeuvres and observe the operating limitations of the helicopter in the expected operating conditions and are –

- (a) subject to the provisions of sub-regulation (2), approved and installed in accordance with the requirements, including operational and airworthiness requirements, applicable to such instruments and equipment; and
  - (b) in a condition for safe operation of the kind being conducted, except as provided for in the minimum equipment list (MEL).
- (2) Except as provided in paragraph (1)(b) and sub-regulation (4), no person shall conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed, where such instruments or equipment are required by –
- (a) the standards of airworthiness that apply to the type of flight being undertaken;
  - (b) any equipment list published by the helicopter manufacturer respecting helicopter equipment that is required for the intended flight;
  - (c) an air operator certificate;
  - (d) an airworthiness directive; or
  - (e) these Regulations.
- (3) The operator shall not be required to obtain approval for the –
- (a) fused referred to in regulation 91.04.2;
  - (b) intrinsically safe electric torches referred to in regulation 91.04.3(1)(d);
  - (c) accurate time piece referred to in regulations 91.04.4 and 91.04.5;
  - (d) first aid equipment referred to in regulation 91.04.16;
  - (e) megaphones referred to in regulation 91.04.24;
  - (f) survival equipment referred to in regulation 91.04.29; and
  - (g) sea anchors and equipment for the mooring, anchoring or manoeuvring of amphibious helicopters on water, referred to regulation 91.04.30.
- (4) A person may conduct a take-off in a helicopter that has instruments or equipment that are not serviceable or that have been removed where the helicopter is operated in accordance with the conditions of a flight permit that has been issued by the Director specifically for that purpose.



(5) No person shall conduct a take-off in a helicopter for which a minimum equipment list has not been approved and the helicopter has instruments and equipment, other than the instruments and equipment specified in sub-regulation (2), that are not serviceable or that have been removed unless –

- (a) where the unserviceable instrument or equipment is not removed from the helicopter, it is isolated or secured so as not to constitute a hazard to any other helicopter system or to any person on board the helicopter;
- (b) the appropriate placards are installed as required by the maintenance control manual; and
- (c) an entry recording the actions referred to in paragraphs (a) and (b) is made in the flight folio, as applicable.

**Flight, navigation and associated equipment for helicopters operated under VFR**

**128.05.2** (1) The operator shall not operate a helicopter in accordance with VFR, unless such helicopter is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece on board indicating the time in hours, minutes and seconds;
- (c) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator;
- (e) a vertical speed indicator and an attitude indicator if operated at night;
- (f) a stabilised direction indicator if operated at night; and
- (g) a means of indicating on the flight deck the outside air temperature in degrees Celsius:

Provided that a helicopter with a maximum certificated mass of 2 730 kilograms or less, does not have to comply with the provisions of paragraphs (e) and (f).

(2) If in terms of the Regulations, other than for training or testing, or the type certificate of the helicopter, two pilots are required to operate a helicopter, the second pilot's station shall be equipped with –

- (a) a sensitive pressure altimeter with a subscale setting calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (b) an airspeed indicator;
- (c) a vertical speed indicator;
- (d) a turn-and-slip indicator or a turn coordinator, incorporating a slip indicator;
- (e) an attitude indicator; and
- (f) a stabilised director indicator.

Provided that a helicopter with a maximum certificated mass of 2 730 kilograms or less, does not have to comply with the provisions of paragraph (e) and (f).

**Flight, navigation and associated equipment for helicopters operated under IFR**

**128.05.3** (1) The operator shall not operate a helicopter in accordance with IFR, unless such helicopter is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece on board indicating the time in hours, minutes and seconds;
- (c) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) in the case of a helicopter having a maximum certificated mass exceeding 3 180 kilograms, a radio altimeter with an audio warning operating below a pre-set height and a visual warning capable of operating at a height selectable by the pilot;
- (e) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing, including a warning indicator of pitot heater failure;
- (f) a vertical-speed indicator;
- (g) a turn-and-slip indicator or in lieu thereof, an additional attitude indicator powered by a power source separate from that of the main attitude indicator;
- (h) an attitude indicator;

- (i) a single standby attitude indicator, capable of being used from either pilot's station, which –
  - (i) is powered continuously during normal operation and, after a total failure of the normal electrical generating system, is powered from a source independent of the normal electrical generating system;
  - (ii) provides reliable operation for a minimum of 30 minutes after total failure of the normal electrical generating system, taking into account other loads on the emergency power supply and operational procedures;
  - (iii) operates independently of any other attitude indicating system;
  - (iv) is operative automatically after total failure of the normal electrical generating system; and
  - (v) is appropriately illuminated during all phases of operation:

Provided that if the standby attitude instrument system is capable of being used through flight attitudes of 360° of pitch and roll, the turn-and-slip indicators may be replaced by slip indicators;

- (j) a stabilised direction indicator;
  - (k) a means of indicating on the flight deck the outside air temperature in degrees Celsius;
  - (l) an alternate source of static pressure for the altimeter and the airspeed and vertical speed indicators; and
  - (m) a chart holder in an easily readable position which can be illuminated, if to be operated by night.
- (2) If two pilots are required to operate the helicopter, other than in training or testing, the second pilot's station shall be equipped with –
- (a) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight, which may be one of the two altimeters required under sub-regulation (1)(c);
  - (b) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunction due to either condensation or icing, including a warning indicator of pitot heater failure;
  - (c) a vertical-speed indicator;
  - (d) a turn-and-slip indicator, or in lieu thereof, an additional attitude indicator powered by a power source separate from that of the main attitude indicator;

- (e) an altitude indicator; and
- (f) a stabilised direction indicator.

(3) In complying with the provisions of paragraph (1)(i) it shall be clearly evident to the flight crew members when such standby altitude indicator is being operated by emergency power.

(4) Where the standby altitude indicator referred to in paragraph (1)(i) has its own dedicated power supply, there shall be an associated indicator, either on the instrument or the instrument panel, when such power supply is in use.

#### **Flight crew interphone system**

**128.05.4** The operator of a helicopter on which more than one flight crew member is required, shall not operate the helicopter unless such helicopter is equipped with a flight crew interphone system, including headsets and microphones, not of a hand-held type, for use by all flight crew members.

#### **Crew interphone system**

**128.05.5** (1) The operator of a helicopter on which other than flight crew are required for the intended operation shall not operate the helicopter unless such helicopter is equipped with a crew interphone system.

- (2) The crew interphone system shall –
  - (a) provide a means of two-way communication between the flight deck and the other crew members;
  - (b) be readily accessible for use from each of the required crew stations on the flight deck;
  - (c) be readily accessible for use at the other crew stations;
  - (d) have an alerting system incorporating aural or visual signals for use by flight crew members to alert the other crew and for use by the other crew to alert the flight crew;
  - (e) have a means of the recipient of a call to determine whether it is a normal call or an emergency call; and
  - (f) provide on the ground a means of two-way communication between ground personnel and at least one flight crew member, if the design of the helicopter requires such interphone system.

### **Life jackets, flotation gear and survival equipment**

**128.05.6** (1) The provisions of regulations 91.04.24 to 91.04.27, both inclusive, apply *mutatis mutandis* to helicopters operated under this Part.

(2) Notwithstanding the provisions of paragraph 91.04.24(1)(c), a Class 3 helicopter, operated under this Part, shall – where the take-off or approach path is so disposed over water that in the event of a mishap there would be the likelihood of a ditching – be equipped with one life jacket or equivalent flotation device, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(3) Whenever the helicopter is operated over water at such a distance – except if only for take-off or landing – that, in the event of a mishap there would be the likelihood of a ditching, life jackets shall be worn constantly during flight unless the occupant is wearing an integrated survival suit that includes the function of a life jacket.

(4) The contents of the life rafts are specified in Document SA-CATS-128

### **Survival suits**

**128.05.7** The operator shall not operate a helicopter beyond 10 minutes flying time at normal cruising speed from land when the weather report or forecasts available to the pilot-in-command indicate that –

- (a) the water temperature will be less than 10°C during the flight; or
- (b) the estimated rescue time exceeds the calculated survival time,

unless each person on board is wearing a survival suit: Provided that this provision shall not apply where an operator received the prior written approval of the Director to operate without such survival suits.

### **Emergency locator transmitters**

**128.05.8** (1) An operator shall not operate a helicopter, classified as a performance Class 1 or 2 helicopter, over water more than 30 minutes at normal cruising speed or 50 nautical miles, whichever is the lesser, away from land unless such helicopter is equipped with at least one automatic emergency locator transmitter (ELT) and one survival emergency locator transmitter (ELT(S)) in a raft or life jacket.

(2) An operator shall not operate a helicopter, classified as a performance Class 3 helicopter, beyond 10 minutes flying time at normal cruising speed from land unless such helicopter is equipped with at least one automatic ELT and one ELT(S) in a raft or life jacket.

(3) ELTs required by this regulation shall meet the requirements of sections 4 through 6 of technical standard 91.04.26 of Document SA-CATS 91.

### **Microphones**

**128.05.9** All flight crew members, required to be on flight deck duty, shall communicate through boom or throat microphones.

### **Cabin signs and placards**

**128.05.10** The operator shall ensure the following information is conveyed to crew, other than flight crew, by means of signs or placards suitably conspicuous that will ensure each person on board the helicopter is aware –

- (a) when and how seat belts must be fastened;
- (b) when and how oxygen equipment is to be used if the carriage of oxygen is required;
- (c) that smoking is not permitted;
- (d) of the location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
- (e) of the location and method of opening emergency exits.

### **Flight recorders**

**128.05.11** The provisions of regulation 91.04.10 apply *mutatis mutandis* to helicopters operated under this Part, provided that for purposes of this Part:

- (a) the prescribed minimum recording duration, referred to in sub-regulation 91.04.10(7), shall also apply to sub-regulation 91.04.10(8);
- (b) regulation 91.04.10(20)(b)(iv) should read 'such FDR is not a CVR combined with the FDR and the CVR is serviceable and functioning in accordance with the requirements of technical standard 128.05.11; and
- (c) the following expression is added to regulation 91.04.10(21)(a): '... and such MEL incorporates the provisions of paragraph (b) below'.

### **First-aid kits**

**128.05.12(1)** No operator shall operate a helicopter unless such helicopter is equipped with a first-aid kit consisting of the medical supplies as prescribed in Document SA-CATS-128.

(2) The operator shall carry out periodical inspections of the first-aid kit specified in sub-regulation (1) to ensure that, as far as practicable, the contents thereof are in a condition necessary for their intended use.

(3) The contents of the first-aid kit specified in sub-regulation (1) shall be replenished at regular intervals, in accordance with instructions contained on their labels, or as circumstances require.

(4) The first-aid kit specified in sub-regulation (1) shall be readily accessible to the crew or passengers.

## **SUBPART 6: OPERATING CERTIFICATE**

### **Requirement to hold an air operator certificate**

**128.06.1** No operator shall operate a helicopter under this Part unless the operator is the holder of, and complies with the conditions of, a valid air operator certificate including the operations specifications attached thereto, and the relevant air services licence issued in terms of the Air Services Licensing Act, No. 115 of 1990, or the International Air Services Act, No. 60 of 1993.

### **Application for the issuance or amendment of an air operator certificate or operations specifications**

**128.06.2** (1) An application for the issuance or amendment of an air operator certificate (AOC) or operations specifications shall be made to the Director in a the form and manner prescribed in Document SA-CATS-OPS-128 and shall be accompanied by the appropriate fee prescribed in Part 187.

(2) Each application made in terms of sub-regulation (1) shall demonstrate that the applicant –

- (a) has adequate equipment, facilities and personnel to operate the proposed commercial air transport or general aviation operation;
- (b) has an approved organizational management structure and an operational control system capable of providing supervision of its personnel and operations;
- (c) has published in its approved operations manual a system of policies and procedures governing all the activities being proposed;
- (d) has an approved safety management system appropriate to the operation in place;
- (e) complies with the maintenance requirements specified in this Part; and

- (f) is able to conduct the aerial work operation in a safe and proper manner and in full compliance with all applicable rules and regulations.
- (3) The holder of an AOC may add to its AOC a helicopter registered on another AOC: Provided –
- (a) the helicopter is not registered on more than three AOCs;
  - (b) the helicopter is maintained by only one aircraft maintenance organisation (AMO);
  - (c) the manual of procedures or maintenance control manual, as applicable, for all operators and the operations specifications for each operator, specify by helicopter registration number the AMO responsible for the maintenance of each shared helicopter,
  - (d) the helicopter flight folio used is the same for all operators, such that there is but one continuous record of the helicopter's activities, and the flight crew members are trained in the procedures for completion of the flight folio;
  - (e) there is only one method with respect to the entry, reporting and rectification of defect procedures and the flight crew members are trained in those procedures;
  - (f) the flight crew members use the minimum equipment list (MEL) approved for the helicopter and are trained in the MEL procedures for that particular helicopter, if applicable, and the operations manual specifies the procedures the flight crew are to follow in the event contact with maintenance personnel is needed; and
  - (g) the flight crew members receive ground and flight training covering any differences between the model(s) operated by the operator and that being added to the AOC, including at least –
    - (i) safety equipment contained on board;
    - (ii) ancillary equipment such as navigational aids, auto flight system, flight director /flight management system (FMS), airborne collision avoidance system (ACAS), terrain awareness and warning system (TAWS), weather radar, etc.; and
    - (iii) systems differences, engine/airframe limitations, performance considerations and operating characteristics,



***and the results of such training are recorded on the flight crew member's training file.***

(4) The submission of an application under this Subpart does not place any obligation upon the Director to issue an AOC or operations specifications until he or she has been given reasonable time to review the application and the application has been adjudicated in terms of regulation 128.06.3.

(5) As of the effective date of operation of this Part the management structure referred to in paragraph (2)(b) shall be comprised of the following positions, as applicable to the type of operation proposed, the incumbents of which shall require the approval of the Director –

- (a) chief executive officer;
- (b) person responsible for flight operations;
- (c) person responsible for aircraft;
- (d) air safety officer.

(6) The nominated post-holders required by sub-regulation (5) shall meet the qualifications, and be responsible for the functions, specified in Document SA-CATS 128 and shall be in his or her full-time employed. For the purposes of this sub-regulation “full time employed” shall mean having spent sufficient time in the workplace to accomplish all duties within his or her area of responsibility.

(7) As of the effective date of operation of this Part, all nominated or incumbent post-holders in the positions listed in sub-regulation (5) shall be deemed to meet the qualifications required by Document SA-CATS-128: Provided that –

- (a) for a nominated post-holder, such person is satisfactory to the Director;
- (b) for an incumbent, that incumbent has discharged his or her responsibilities to the satisfaction of the Director; and
- (c) for a nominated or incumbent post-holder, such person meets the qualifications specified in Document SA-CATS-128 by 1 July 2013.

(8) When, after consideration of the scope and size of an operator, the Director is of the opinion that it would be appropriate, he or she may approve the assignment of more than one position to one person or approve different positions.

(9) No person who has been approved for one or more management positions in terms of paragraphs (5)(a) to (d) will be considered for one of such management positions at another operator.

(10) Notwithstanding any management position approval issued by the Director, where any manager no longer meets the qualifications required for that position or fails to discharge the responsibilities of that position, the Director may withdraw such approval.

(11) The Director may amend any AOC if –

- (a) he or she determines that safety in aerial work operation and the public interest requires the amendment; or
- (b) the holder of the AOC applies for an amendment, and the Director determines that safety in aerial work operation and the public interest requires such amendment.

(12) If the Director stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in aerial work operation, such an amendment becomes effective on the date the holder of an AOC receives such notice.

(13) A holder of an AOC may make representations to the Director against the amendment contemplated in sub-regulations (11)(a) or (12), but shall continue to operate in accordance with such amendment, unless it is subsequently varied or withdrawn.

(14) Amendments approved by the Director, other than emergency amendments referred to in sub-regulation (12), become effective 30 days after notice to the holder of an AOC, unless the holder of the AOC makes representations against such proposal as contemplated in sub-regulation (13) prior to the effective date.

(15) Amendments proposed by the holder of an AOC shall be made at least 30 days prior to the intended date of any operation under the proposed amendment.

(16) No person may perform a commercial air transport or general aviation operation for which an AOC amendment is required, unless that person has received notice of the approval from the Director.

#### **Adjudication of, and issuance of, an air operator certificate or operations specifications**

**128.06.3** (1) In considering an application referred to in regulation 128.06.2 the Director may conduct the investigation he or she deems necessary to determine the applicant's ability to meet the requirements specified in this Part.

(2) An application shall be granted and the operating certificate issued, containing such conditions as the Director determines, if the Director is satisfied that –

- (a) the applicant will comply with the provisions of its air operator certificate and operations specifications and
  - (b) the applicant will not operate the air service concerned contrary to any provision of the Civil Aviation Act, No 13 of 2009, the International Air Services Act, No. 60 of 1993, or the Air Service Licensing Act, No. 115 of 1990.
- (3) Where in the opinion of the Director an applicant has failed to provide satisfactory evidence of qualification for the document being sought, the applicant will be informed by the Director as to the deficiencies and will be given a reasonable opportunity to rectify such deficiencies, after which time the Director shall grant or refuse the application concerned.
- (4) An air operator certificate and associated operations specifications shall be issued in a form as prescribed by the Director and contain at least the information prescribed in Document SA-CATS-128.

#### **Period of validity and status of an air operator operating certificate**

**128.06.4** (1) Unless otherwise specified by the Director, an air operator certificate (AOC) shall remain valid and in force as long as –

- (a) the operator meets the requirements for issue of an AOC;
  - (b) the operator submits on or before the anniversary date of initial issue, the appropriate annual fee as prescribed in Part 187;
  - (c) the operator successfully completes such audits and inspections as were carried out by the Director, including the satisfactory resolution of any findings reported to the operator by the Director; and
  - (d) the AOC is not suspended, cancelled or voluntarily returned to the Director.
- (2) An AOC is not transferable to any other entity.
- (3) Where an operator is notified by the Director that its AOC has been suspended or cancelled, the operator shall return the AOC to the Director within seven days of such notification.

#### **Safety and security inspections and audits**

**128.06.5** (1) An applicant for the issuance of an air operator certificate (AOC) shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to verify the validity of an application made in terms of regulation 128.06.2.

(2) The holder of an AOC shall permit an authorised officer, inspector or authorised person to carry out such safety and security inspections and audits as may be necessary to determine compliance with the appropriate requirements prescribed in this Part.

### **Suspension and cancellation of air operator certificate and appeal**

**128.06.6** (1) The Director may suspend either in whole or in part, for a period not exceeding 30 days, an air operator certificate (AOC) issued under this subpart, if –

- (a) after a safety and/or security inspection or audit carried out in terms of regulation 128.06.5, it is evident that the holder of the AOC does not comply with the requirements prescribed in this Part, and such holder fails to remedy such non-compliance within the period of time specified in the inspection or audit finding form after receiving notice in writing from the authorised officer, inspector or authorised person to do so; or
- (b) the authorised officer, inspector or authorised person is prevented by the holder of the air operator certificate to carry out a safety and/or security inspection and audit in terms of regulation 128.06.5; or
- (c) the suspension is necessary in the interests of aviation safety and/or security.

(2) Any person who, acting on behalf of the Director, has suspended an AOC or other document in terms of sub-regulation (1) shall deliver a report in writing to the Director, stating the reasons why, in his or her opinion, the suspended AOC should be cancelled.

(3) The representative of the Director concerned shall submit a copy of the report, referred to in sub-regulation (2), to the holder of the AOC which has been suspended, and shall furnish proof of such submission for the information of the Director.

(4) The holder of an AOC who feels aggrieved by the suspension of the AOC may appeal against such suspension to the Minister, within 30 days after such holder becomes aware of such suspension.

(5) An appellant shall deliver an appeal in writing, stating the reasons why, in his or her opinion, the suspension should be varied or set aside.

(6) The appellant shall submit a copy of the appeal and any documents or records supporting such appeal to the representative of the Director concerned and shall furnish proof of such submission for the information of the Minister.

(7) The representative of the Director concerned shall, within 30 days of receipt of the copy of the appeal referred to in sub-regulation (6), deliver to the Minister his or her written reply to such appeal together with all of the information submitted to the Director in terms of sub-regulations (2) and (3).

(8) The Minister may –

- (a) adjudicate the appeal on the basis of the documents submitted to him or her; or
- (b) order the appellant and the representative of the Director concerned to appear before him or her either in person or through a representative, at a time and place determined by him or her, to give evidence.

(9) The Minister may confirm, vary or set aside the suspension referred to in sub-regulation (1)

(10) The Minister must cancel the AOC concerned if –

- (a) he or she confirms the suspension in terms of sub-regulation (9); or
- (b) the AOC is suspended in terms of sub-regulation (1) and the holder thereof does not appeal against such suspension in terms of sub-regulation (4).

(11) Should the holder of the AOC not appeal against the suspension as provided for in sub-regulation (4), the Director shall cancel the AOC.

#### **Administrative duties of an air operator certificate holder**

**128.06.7** (1) The holder of an air operator certificate (AOC) shall keep the AOC in a safe place and produce such AOC to an authorised officer, inspector or authorised person for inspection if so requested by such officer, inspector or authorised person.

(2) An operator shall advise the Director of any changes in the personnel occupying the management positions specified in regulation 128.06.2(5) and shall submit the names and qualifications of the replacement person(s) for the Director's approval before effecting such changes: Provided that, in the case of the sudden departure of an incumbent, the operator shall notify the Director of the event and his or her intentions to ensure safety of operations while replacing such person.

(3) An operator shall notify the Director in the event the ownership of the operator changes such that a majority of the ownership is comprised of persons not involved in the ownership prior to the change, and shall provide the names and contact details of the new owners.

#### **Register of air operating certificates**

**128.06.8** (1) The Director shall maintain a register of all air operating certificates (AOCs) issued under this Part.

(2) The register shall contain the following particulars –

- (a) the full name and, if any, the business name of the holder of the AOC

- (b) the postal address of the holder of the AOC;
  - (c) the number of the AOC issued to the holder;
  - (d) particulars of the type of air service for which the AOC was issued, including a list of operations specifications issued;
  - (e) particulars of the category of helicopter for which the AOC was issued; and
  - (f) the date on which the AOC was issued.
- (3) The particulars, referred to in sub-regulation (2), shall be recorded in the register within 30 days from the date on which the AOC is issued by the Director.
- (4) The register shall be kept in a safe place at the office of the Director.
- (5) A copy of the register shall be furnished by the Director, on payment of the appropriate fee as prescribed in Part 187, to any person who requests the copy.

#### **SUBPART 7:**

### **FLIGHT OPERATIONS**

#### **DIVISION ONE GENERAL**

##### **Areas of operation and aerodrome facilities**

**128.07.1** (1) An operator operating under this Part, shall ensure that operations are only conducted in such areas for which –

- (a) it has been ascertained by every reasonable means available that the ground facilities and services, including meteorological services, are available as required for the safe operation of the helicopter and the protection of the persons on board, are adequate for the type of operation being conducted and are functioning normally for their intended purpose; and
  - (b) appropriate maps and charts are available.
- (2) The operator shall ensure that operations are only conducted within such areas for which approval or authorisation has been obtained, where required, from the appropriate authority concerned.
- (3) The operator shall ensure that –
- (a) the performance of the helicopter intended to be used, is adequate to comply with minimum flight altitude requirements; and

- (b) the equipment of the helicopter intended to be used, complies with the minimum requirements for the planned operation.
- (4) The operator shall operate all flights in accordance with such approvals and conditions pertaining to flight operations as are contained in the air operator certificate.
- (5) The operator shall report without delay to the responsible authority any observed operational inadequacy of facilities referred to in sub-regulation (7).
- (6) The operator shall select a take-off alternate aerodrome and specify it in the operational flight plan (OFP) if the weather conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima: Provided that for the take-off alternate, the available information shall indicate that, at the estimated time of use, the conditions will be at or above the aerodrome operating minima for that operation.
- (7) The operator shall select at least one destination alternate and specify it in the OFP for each IFR flight unless –
  - (a) the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the estimated time of arrival at the aerodrome of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions; or
  - (b) the aerodrome of intended landing is isolated and no suitable alternate is available, in which case a point of no return (PNR) shall be determined.
- (8) The operator shall select at least two destination alternate aerodromes for each IFR flight and specify them in the OFP when –
  - (a) the appropriate weather reports or forecasts for the destination aerodrome, or any combination thereof, indicate that during a period commencing one hour before and ending one hour after the estimated time of arrival, the weather conditions will be below the applicable planning minima; or
  - (b) meteorological information is not available at the destination aerodrome.
- (9) The operator shall not permit, nor may a pilot-in-command operate, a flight that is to be conducted in accordance with IFR for which one or more destination alternate aerodromes are required, to be commenced unless the aerodrome meteorological forecast indicates that conditions for a period of at least one hour before until one hour after the estimated time of arrival at the destination alternate aerodrome(s) will meet or exceed those specified in Document SA-CATS-128.

**Establishment of procedures**

**128.07.2** The operator shall –

- (a) establish procedures and instructions, for each helicopter type, containing ground personnel and flight crew members' duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by flight crew members for all phases of operation under normal, abnormal and emergency conditions, to ensure that the operating procedures in the operations manual referred to in regulation 128.04.1, are followed; and
- (c) ensure that flight crew members do not perform any activities during critical phases of the flight other than those required for the safe operation of the helicopter.

**Hazardous flight conditions and unlawful interference**

**128.07.3** (1) The pilot-in-command of any helicopter that encounters flight conditions considered to be hazardous to his or her, or another helicopter, shall report such conditions to any appropriate aeronautical station as soon as possible, giving such details as may be pertinent to the safety of other helicopters.

(2) Following an act of unlawful interference, the pilot-in-command shall –

- (a) where, in his or her opinion the safety of persons on board the helicopter would not be jeopardized, report the events to the nearest ATS authority by the most discrete method possible, by the means devised for such communications; and
- (b) submit, without delay, a report of such act to the Director in a form acceptable to the Director.

**Competence of operations personnel**

**128.07.4** The operator shall ensure that all personnel assigned to, or directly involved in, ground and flight operations are properly instructed, have demonstrated their abilities in their particular duties and are aware of their responsibilities and the relationship of such duties to the operation as a whole.

**Use of air traffic services**

**128.07.5** The operator shall ensure that air traffic services are used for all flights whenever available.



**Minimum flight altitudes**

**128.07.6** (1) The operator shall establish minimum flight altitudes for all operations carried out in accordance with IFR and the methods to determine such minimum flight altitudes for all segments to be flown which provide the required terrain clearance, taking into account the performance operating limitations referred to in Subpart 8 of this Part and the minimum altitudes prescribed in regulation 91.06.32.

(2) The operator shall take into account, when establishing minimum flight altitudes-

- (a) the accuracy with which the position of the helicopter can be determined;
- (b) the possible inaccuracies in the indications of the altimeters used;
- (c) the characteristics of the terrain in the areas where operations are to be conducted;
- (d) the probability of encountering unfavourable meteorological conditions; and
- (e) possible inaccuracies in aeronautical charts.

(3) The operator shall specify in its operations manual the procedures used to determine the minimum altitudes to be flown in order to meet the obstacle clearance requirements specified in regulation 91.06.32(2).

**Refuelling and defuelling with persons on board**

**128.07.7** No person shall refuel or defuel a helicopter when persons are embarking, disembarking or on board unless the fuelling is carried out in accordance with the procedures specified in Document SA-CATS-128 and such procedures are included in the operator's operations manual.

**Fuel policy**

**128.07.8** (1) The operator shall establish a fuel policy for the purpose of flight planning and in-flight replanning to ensure that every flight carries sufficient fuel for the planned operation and reserve fuel to cover deviations from the planned operation.

(2) The operator shall ensure that the planning of a flight is only based upon –

- (a) procedures, tables or graphs which are contained in or derived from the operations manual referred to in regulation 128.04.1, or current helicopter-specific data;
- (b) the operating conditions under which the flight is to be conducted including –
  - (i) realistic helicopter fuel consumption data;

- (ii) anticipated masses;
- (iii) expected meteorological conditions;
- (iv) air traffic service procedures and restrictions;
- (v) for IFR flight, one instrument approach at the destination aerodrome, including a missed approach;
- (vi) the procedures prescribed in the operations manual for failure of the critical power-unit while *en route*; and
- (vii) any other conditions that may delay the landing of the helicopter or increase fuel consumption.

(3) The operator shall ensure that the calculation of usable fuel required by such helicopter for a flight meets the requirements specified in Document SA-CATS-128 and includes –

- (a) taxi/hover fuel;
- (b) trip fuel;
- (c) reserve fuel consisting of –
  - (i) contingency fuel;
  - (ii) alternate fuel, if a destination alternate aerodrome is required;
  - (iii) final reserve fuel;
  - (iv) additional fuel, if required by the type of operation; and
- (d) extra fuel, if required by the pilot-in-command.

(4) The operator shall ensure that in-flight replanning procedures for calculating usable fuel required when a flight has to proceed other than originally planned includes –

- (a) trip fuel for the remainder of the flight;
- (b) reserve fuel consisting of –
  - (i) contingency fuel;
  - (ii) alternate fuel, if a destination alternate aerodrome is required, including selection of the departure aerodrome as the destination alternate aerodrome;
  - (iii) final reserve fuel; and
  - (iv) additional fuel, if required by the type of operation; and
- (c) extra fuel, if required by the pilot-in-command.

**Night flight without a second-in-command**

**128.07.9** No operator may operate a helicopter without a second-in-command during flight at night unless –

- (a) the helicopter is of a certificated maximum mass of less than or equal to 3 180 kg;
- (b) the operator is authorized to do so in his or her operations specifications; and
- (c) the operator meets the requirements specified in Document SA-CATS-128.

**Instrument approach and departure procedures**

**128.07.10** The operator may implement instrument approach and departure procedures other than instrument approach and departure procedures referred to in regulation 91.07.11, if required: Provided that such instrument approach and departure procedures have been approved by –

- (a) the appropriate authority of the State in which the aerodrome to be used, is located; and
- (b) the Director.

**Noise abatement procedures**

**128.07.11** (1) The operator shall establish operating procedures for noise abatement.

(2) Take-off and climb procedures for noise abatement specified by the operator for any one helicopter type shall be the same for all aerodromes.

**Operation of helicopter in icing conditions**

**128.07.12** (1) No person shall conduct a take-off or continue a flight in a helicopter when icing conditions are reported to exist or are forecast to be encountered along the route to be flown unless the helicopter is equipped to be operated in such conditions and the helicopter type certificate authorises flight in such conditions.

(2) In no case shall a flight be initiated or continued in icing conditions where in the opinion of the pilot-in-command, the conditions experienced may adversely affect the safety of the flight.

(3) No person shall operate a helicopter in icing conditions at night unless the helicopter is equipped with a means to illuminate a representative surface or otherwise detect the formation of ice.

#### **Surface contamination programme**

**128.07.13 (1)** No person shall conduct or attempt to conduct a take-off in a helicopter that has frost, ice or snow adhering to any of its critical surfaces.

(2) Where conditions are such that frost, ice or snow may reasonably be expected to adhere to the helicopter, no person shall conduct or attempt to conduct a take-off in a helicopter unless the operator has established a helicopter inspection programme in accordance with a surface contamination programme approved by the Director and the dispatch and take-off of the helicopter are in accordance with that programme.

(3) The inspection referred to in sub-regulation (2) shall be performed by –

(a) the pilot-in-command (PIC);

(b) a qualified flight crew member of the helicopter who is designated by the PIC; or

(c) a person, other than a person referred to in paragraph (a) or (b), who –

(i) is designated by the operator of the helicopter; and

(ii) has successfully completed a helicopter surface contamination training programme approved for such operator.

(4) Where, before commencing take-off, a crew member of a helicopter observes that there is frost, ice or snow adhering to any critical part of the helicopter, the crew member shall immediately report that observation to the PIC and the PIC, or a flight crew member designated by the PIC, shall inspect the affected part of the helicopter before take-off.

(5) Before a helicopter is de-iced or anti-iced, the PIC of the helicopter shall ensure that all persons on board are informed of the decision to do so.

(6) An operator is not required to have a programme as required by sub-regulation (2) if it includes a statement in its operations manual that the operator will

not dispatch its helicopters into any region or country where it could be reasonably expected that surface contamination could at anytime form on the helicopter, while parked or operating on the ground.

#### **Mass and balance control**

**128.07.14** (1) No person shall operate a helicopter unless, during every phase of the flight, the load restrictions, mass and centre of gravity of the helicopter conform to the limitations specified in the aircraft flight manual.

(2) An operator shall have a mass and balance programme that complies with regulation 91.07.11.

(3) The operator shall specify in its operations manual its mass and balance programme and instructions to employees regarding the preparation and accuracy of mass and balance forms

#### **Operations with head-up displays, enhanced vision systems or night vision goggles.**

**128.07.15** (1) No operator shall use a head-up display (HUD), enhanced vision system (EVS) or night vision goggles (NVGs) unless the operator –

(a) is authorised to do so in its operations specifications; and

(b) complies with the HUD, EVS or NVG requirements, as applicable, prescribed in Document SA-CAT-128.

(2) The operator shall include the procedures for use of such equipment in the operations manual referred to in regulation 128.04.2.

#### **Operations with electronic flight bags**

**128.07.16** (1) No operator shall use an electronic flight bag (EFB) unless the operator –

(a) is authorised to do so in its operations specifications; and

(b) complies with the EFB requirements prescribed in Document SA-CAT-128.

(2) The operator shall include the procedures for use of such equipment in the operations manual referred to in regulation 128.04.2.

**Flights under IMC prohibited**

**128.07.17** No helicopter operated in terms of this Part is allowed to be operated in instrument meteorological conditions (IMC)

**DIVISION TWO: OPERATIONAL CONTROL****Operational flight plans**

**128.07.18** (1) An operator shall prepare an operational flight plan (OFP) for its flights as provided in technical standard 128.04.4 of Document SA-CATS-128.

(2) The signatures or alternative means of signifying acceptance of the OFP by the pilot-in-command and flight operations officer, if applicable, as required by technical standard 128.04.4 of Document SA-CATS-128, shall constitute a flight release and certifies that –

- (a) the OFP has been prepared and accepted in accordance with the procedures specified in the operations manual; and
- (b) the flight is safe to proceed.

**Retention of flight operations documents and reports**

**128.07.19** Unless otherwise specified by the Director, every operator shall retain all flight documents made in terms of this Subpart, for a period of not less than 90 days.

**Maintenance status**

**128.07.20** No person may dispatch or release a helicopter unless it is airworthy and all known defects have been rectified and appropriately certified by a licensed aircraft maintenance engineer (AME) or an approved aviation maintenance organisation (AMO) except where the dispatch of the helicopter is in accordance with an approved minimum equipment list issued in terms of regulation 128.07.22, a configuration deviation list approved by the State of Manufacture or as otherwise permitted in the aircraft flight manual.

**Incidents and defects**

**128.07.21** (1) An operator shall establish adequate inspection and reporting procedures to ensure that defective equipment is reported to the pilot-in-command of the helicopter before take-off.

(2) The procedures referred to in sub-regulation (1) shall be extended to include the reporting to the operator of all incidents or the exceeding of limitations which may

occur while the flight crew is embarked on the helicopter and of defective equipment found on board.

(3) Upon receipt of the reports referred to in sub-regulation (2), the operator shall compile a report and submit such report on a monthly basis to the Director.

### **Minimum equipment list**

**128.07.22** (1) No person may conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed unless the helicopter is operated in accordance with a configuration deviation list (CDL), the provisions specified in the aircraft flight manual (AFM) or the conditions or limitations specified in a minimum equipment list (MEL), which has been approved by the Director and, if in the opinion of the pilot-in-command, aviation safety is not compromised.

(2) An operator shall establish an MEL for each type of helicopter for which a master minimum equipment list (MMEL) has been approved by the State of Manufacture of such helicopter, provided the State of Manufacture is a Contracting State.

(3) No operator may operate a helicopter in accordance with an MEL unless such MEL is carried on board the helicopter.

(4) Guidance on the establishment of an MEL is contained in Document SA-CATS-128.

### **Securing of cabin area**

**128.07.23** (1) Before take-off and landing and whenever deemed necessary in the interests of aviation safety, the pilot-in-command shall ensure that –

(a) all equipment, baggage and loose articles in the cabin of the helicopter, crew members' personal effects, are properly secured and stowed so as to avoid the possibility of injury to persons or damage to such helicopter through the movement of such articles caused by in-flight turbulence or by unusual accelerations or manoeuvres; and

(b) all aisles, passage ways, exits and escape paths are kept clear of obstructions.

(2) All solid articles shall be placed in approved stowage areas in the helicopter at all times whenever the seat belt lights are illuminated or when so directed by the pilot-in-command of such helicopter.

- (3) For the purposes of sub-regulation (2), “approved stowage area” means –
- (a) the area under a passenger seat; or
  - (b) a locker, overhead or other, in accordance with the placarded mass limitation of the locker.
- (4) No take-off or landing shall be commenced by the pilot-in-command of the helicopter unless he or she has been informed of the safe condition of the cabin.

#### **Briefing of persons on board**

**128.07.24** (1) The operator shall ensure that all persons on board, other than flight crew, are given a safety briefing in accordance with Document SA-CATS-128.

- (2) The pilot-in-command shall ensure that each person who is seated next to an emergency exit is made aware of how to operate that exit.

#### **Safety features card**

**128.07.25** An operator shall ensure that people on board of his or her helicopters are aware of the safety features on board the helicopter, where possible in pictographic form. Any wording shall be in English or as required by the Director and shall contain such information as prescribed by Document SA-CATS-128.

### **SUBPART 8:**

### **HELICOPTER PERFORMANCE OPERATING LIMITATIONS**

#### **DIVISION ONE: GENERAL**

#### **128.08.1 Classification**

**128.08.1** (1) The classification of helicopters for performance limitations purposes is prescribed in regulation 91.09.3.

- (2) The operator shall ensure that –
- (a) a Class 1 helicopter is operated in accordance with the performance operating limitations prescribed in Division Two;
  - (b) a Class 2 helicopter is operated in accordance with the performance operating limitations prescribed in Division Three; and
  - (c) a Class 3 helicopter is operated in accordance with the performance operating limitations prescribed in Division Four.



(3) Where specific design characteristics of a helicopter prevent compliance with the regulations in Division Two, Three or Four of this Subpart, the operator shall, notwithstanding the provisions of sub-regulation (2), ensure that the helicopter is operated in accordance with such standard that a level of safety equivalent to the level of safety prescribed in the appropriate Division in this Subpart is maintained.

**General provisions for all classes of helicopters**

**128.08.2** (1) The operator shall ensure that –

- (a) the mass of the helicopter, at the start of the take-off, is not greater than the mass at which the requirements prescribed in the appropriate Division can be complied with for the flight to be undertaken, allowing for expected reductions in mass as the flight proceeds; and
- (b) the approved performance data contained in the aircraft flight manual referred to in regulation 91.03.2, is used to determine compliance in the appropriate Division.

(2) In complying with any of the provisions in this Subpart, all factors that significantly affect the performance of the helicopter, as applicable to the phase of flight, shall be taken into account and which shall include as a minimum –

- (a) the mass of the helicopter;
- (b) the operating procedures employed by the operator;
- (c) the pressure-altitude appropriate to the elevation of the aerodrome;
- (d) the ambient temperature;
- (e) the wind; and
- (f) the condition of the surface.

(3) The factors specified in sub-regulation (2) shall be taken into account either directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the helicopter is being operated.

(4) The operator shall ensure helicopter operations are conducted in a manner that gives appropriate consideration for achieving a safe forced landing in the event the safe continuation of flight is not assured following a critical power-unit failure.

(5) The operator of helicopters operating to or from aerodromes in a congested hostile environment shall be approved by the Director to do so and shall publish procedures in the operations manual referred to in regulation 128.04.2 that ensure, to the extent possible, the safety of the helicopter, its occupants and persons and property on the ground.

(6) A helicopter shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(7) A flight shall not commence unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the Director, indicates that the standards prescribed in this Subpart can be complied with for the flight to be undertaken.

(8) An operator shall adopt obstacle data sufficient to make accurate and safe performance calculations.

## **DIVISION TWO: CLASS 1 HELICOPTER**

### **Take-off**

**128.08.3** (1) The operator of a Class 1 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass for the pressure altitude and the ambient temperature at the place of departure.

(2) The take-off mass referred to in sub-regulation (1) shall be such that in the event of the critical power-unit failing –

- (a) at or before the take-off decision point, the helicopter can discontinue the take-off and stop within the rejected take-off area available; or
- (b) at or past the take-off decision point, the helicopter can continue the take-off and the climb, clearing all obstacles along the flight path by a vertical margin of at least 35 feet until such helicopter can comply with the provisions of regulation 128.08.4.

(3) For the purposes of sub-regulation (2)(a), “rejected take-off area” means an elevated aerodrome.

(4) When complying with the provisions of sub-regulation (2), account shall be taken of –

- (a) the local pressure altitude;
- (b) the ambient temperature;

- (c) the take-off technique to be used; and
- (d) not more than 50 per cent of the reported head-wind component or, if such data is provided, not less than 150 per cent of the reported tail-wind component: Provided that if approved wind measuring equipment is used, the head-wind component may be increased to 80 per cent of the headwind reported.

(5) The part of the take-off prior to the specified take-off decision point shall be so conducted in sight of the surface that a rejected take-off can be carried out.

(6) The operator shall ensure that the take-off flight path clears all obstacles as specified in technical standard 128.08.3 of Document SA-CATS-128.

#### **En route with one or more engines inoperative**

**128.08.4** (1) The operator of a Class 1 helicopter shall ensure that, in the event of the critical power unit becoming inoperative at any point during flight, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with the provisions of sub-regulation (2) or (3) at all times.

(2) The operator shall ensure that, when it is intended that the flight will be conducted at any time out of sight of the surface, the mass of the helicopter permits at any time a rate of climb of at least 50 feet per minute with one engine inoperative at the obstacle clearance altitude computed in accordance with technical standard 91.07.2.

(3) The operator shall ensure that –

- (a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 128.08.5;
- (b) the flight path clears all obstacles vertically by at the obstacle clearance margins specified in technical standard 91.07.2;
- (c) the engine is assumed to fail at the most critical point during the flight:

Provided that when it is intended that the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 meters on either side of the helicopter flight path need to be considered.

(4) Account shall be taken of the effects of winds on the flight path.

(5) When complying with the provisions of this regulation, the width margins referred to in sub-regulations (2) and (3) may be reduced to 9.3 kilometres, if a

navigation accuracy equivalent to that required for performance-based navigation can be achieved.

(6) In the event of any two power units becoming inoperative in the case of a helicopter having three or more power units, the helicopter shall be able to continue the flight to a suitable landing site and make a landing thereat.

### **Approach and landing**

**128.08.5** (1) The operator of a Class 1 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for the pressure altitude and the ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and, when required, at any alternate aerodrome.

(2) When determining the landing mass, in the event of the critical power-unit becoming inoperative at any point during the approach and landing phase –

(a) before the landing decision point, the helicopter shall, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available or perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet until the helicopter has reached safe take-off speed with a positive rate of climb; or

(b) at or after the landing decision point, the helicopter shall, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available;

(3) For the purpose of sub-regulation (2)(b), “landing distance available”, if applicable, means an elevated aerodrome.

(4) When complying with the provisions of this regulation, account shall be taken of –

(a) the pressure altitude at the destination;

(b) the expected air temperature at the destination;

(c) the landing technique to be used;

(d) not more than 50 per cent of the forecast head-wind component unless otherwise approved; and

(e) any expected variation in the mass of the helicopter during flight.

(5) The operator shall ensure that the part of the landing from the specified landing decision point to touchdown, is conducted in sight of the surface.

### **DIVISION THREE: CLASS 2 HELICOPTER**

#### **General**

**128.08.6** (1) The operator of a Class 2 helicopter shall ensure that the part of the take-off prior to the defined point after take-off and after the defined point before landing, is conducted only in conditions of weather and light and over such routes and diversions there from which permit a safe forced landing to be executed in the event of engine failure.

(2) A Class 2 helicopter shall not be permitted to operate from elevated structures in built-up areas.

#### **Take-off**

**128.08.7** (1) The operator of a Class 2 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a rate of climb for the pressure altitude and ambient temperature at the aerodrome of departure which allows the helicopter, in the event of the critical power unit becoming inoperative at any time after reaching the specified take-off decision point, to continue the take-off and initial climb and clear all obstacles along its flight path by a margin of 35 feet, until such helicopter can comply with the provisions of regulation 128.08.8.

(2) The operator shall ensure that for an elevated aerodrome, the take-off mass is such that the helicopter is capable of –

- (a) rejecting the take-off and landing on the elevated aerodrome; or
- (b) continuing the take-off and clearing the elevated aerodrome until such helicopter can comply with the provisions of regulation 128.08.8, or carry out a safe forced landing.

(3) In complying with the provisions of sub-regulation (2), account shall be taken of –

- (a) the pressure altitude at the elevated aerodrome;
- (b) the ambient temperature at the elevated aerodrome;
- (c) the take-off technique to be used; and
- (d) not more than 50 per cent of the reported head-wind component or, if such data is provided, not less than 150 per cent of the reported tail-wind component except that when approved wind measuring equipment is used,

the headwind component may be increased to 80 per cent of the headwind reported.

(4) The operator shall ensure that the part of the take-off up to the commencement of the take-off flight path is conducted in sight of the surface.

(5) The operator shall ensure that the take-off flight path clears all obstacles as specified in technical standard 128.08.3 of Document SA-CATS-128.

#### **En route with one or more engines inoperative**

**128.08.8** (1) The operator of a Class 2 helicopter shall ensure that, in the event of one engine becoming inoperative at any time during flight, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with the provisions of this regulation at all times.

(2) When it is intended that the flight shall be conducted –

- (a) at any time out of sight of the surface, the mass of the helicopter shall permit a rate of climb of at least 50 feet per minute with one engine inoperative at any time during the flight at the obstacle clearance altitude computed in accordance with technical standard 91.07.2;
- (b) when it is intended that the flight will be conducted by day, in visual meteorological conditions (VMC) and in sight of the surface, only obstacles within 900 meters on either side of the helicopter flight path need to be considered.

(3) The operator shall ensure that –

- (a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 128.10.9;
- (b) the flight path clears all obstacles vertically by at least the obstacle clearance margins specified in technical standard 91.07.2; and
- (c) the engine is assumed to fail at the most critical point during flight:

Provided that when it is intended that the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 meters on either side of the flight path need to be considered.

(4) Account shall be taken of the effects of winds on the flight path.

(5) When complying with the provisions of this regulation, the width margins referred to in sub-regulations (2) and (3) may be reduced to 9.3 kilometres, if a navigation

accuracy equivalent to that required for performance-based navigation can be achieved.

### **Landing**

**128.08.9** (1) The operator of a Class 2 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum mass specified for the pressure altitude and ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and at any alternate aerodrome, which shall allow the helicopter, in the event of the critical power unit becoming inoperative before the specified landing decision point after clearing all obstacles by a safe margin, to either land and stop within the landing distance available or to perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet.

(2) If, should the critical power unit becoming inoperative after the specified landing decision point, the helicopter may be forced to land, the helicopter shall only be operated in conditions of weather and light, and over such routes and diversions there from, which permit a safe forced landing to be executed in the event of an engine failure.

(3) When determining the landing mass for elevated aerodromes, the landing mass shall be such that the helicopter is capable of –

- (a) landing on the elevated aerodrome; or
- (b) rejected the landing and clearing the elevated aerodrome, thereafter continuing the flight or carrying out a safe forced landing.

(4) In complying with the provisions of sub-regulation (3)(b), account shall be taken of –

- (a) the pressure altitude of the elevated aerodrome;
- (b) the expected air temperature at the elevated aerodrome;
- (c) the landing technique to be used;
- (d) not more than 50 per cent of the forecast headwind component unless otherwise approved; and
- (e) any expected variation in the mass of the helicopter expected during the flight.

**DIVISION FOUR: CLASS 3 HELICOPTER****General**

**128.08.10** (1) The operator of a Class 3 helicopter shall ensure that operations are only conducted in conditions of weather and light, and from those aerodromes and over such routes and diversions therefrom, which will permit a safe forced landing to be executed in the event of a power unit failure.

(2) A Class 3 helicopter shall not be permitted to operate from elevated aerodromes in built-up urban areas.

**Take-off**

**128.08.11** (1) The operator of a Class 3 helicopter shall ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a hover inside ground effect with all power units operating at take-off power at the pressure altitude and ambient temperature at the take-off site.

(2) For the purposes of this regulation, hover inside ground effect performance data shall include consideration of loss of ground cushion as a result of strong winds.

(3) The operator shall ensure that the take-off flight path clears all obstacles as specified in technical standard 128.08.3 of Document SA-CATS-128 until it can comply with the provisions of regulation 128.08.12.

**En route**

**128.08.12** The operator of a Class 3 helicopter shall ensure that the helicopter is able, with all power-units operating, to continue along its intended route or to a planned diversion without flying at any point below the appropriate minimum flight altitude.

**Landing**

**128.08.13** (1) The operator of a Class 3 helicopter shall ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for a hover inside ground effect or hover outside ground effect, whichever is the greater, with all power units operating at take-off power at the pressure altitude and ambient temperature expected for the estimated time of landing at a destination aerodrome and at any alternate aerodrome, if required.

(2) For the purposes of this regulation, hover inside ground effect performance data shall include consideration of loss of ground cushion as a result of strong winds.

(3) With all engines operating, the helicopter shall, at the destination aerodrome and at any alternate aerodrome, after clearing all obstacles in the approach path by a



safe margin, be able to land and stop within the landing distance available or to perform a baulked landing and clear all obstacles in the flight path by a margin of 35 feet.

## **SUBPART 9:**

### **MAINTENANCE**

#### **General**

**128.09.1** An operator shall not operate the helicopter unless such helicopter is maintained in accordance with the regulations in Part 43.

#### **Helicopter maintenance programme**

**128.09.2** (1) Each operator shall ensure that the helicopter is maintained in accordance with a helicopter maintenance programme established by the operator.

(2) The operator shall provide a maintenance programme, approved by the Director, containing the information required by sub-regulation (3) for the use and guidance of the maintenance and operational personnel concerned. The design and application of the operator's maintenance programme shall observe human factors principles.

(3) The maintenance programme referred to in sub-regulation (1) shall be developed for each helicopter type and shall contain the following information –

- (a) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the helicopter;
- (b) when applicable, a continuing structural integrity programme;
- (c) procedures for changing or deviating from paragraphs (a) and (b) above; and
- (d) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and power plants.

(4) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design shall be identified as such.

(5) The helicopter maintenance programme referred to in sub-regulation (1) and any subsequent amendment thereof shall be approved by the Director.

(6) Upon approval of the Director, copies of all amendments to the maintenance programme shall be furnished promptly to all organizations or persons to whom the maintenance programme has been issued.

#### **Maintenance contracted to approved aircraft maintenance organisation**

**128.09.3** If maintenance on any helicopter operated under this Part is carried out by the holder of an aircraft maintenance organisation approval with the appropriate rating issued in terms of Part 145, the operator of the helicopter shall ensure that all contracted maintenance is carried out in accordance with the regulations in Part 43.

#### **Operator's maintenance responsibilities**

**128.09.4** (1) An operator shall establish procedures acceptable to the Director to ensure that –

- (a) each helicopter he or she operates is maintained in an airworthy condition;
- (b) the operational and emergency equipment necessary for an intended flight are serviceable; and
- (c) the Certificate of Airworthiness of each helicopter operated, and any appropriate special conditions, remains valid.

(2) The operator shall not operate a helicopter unless it is maintained and released to service by an organization approved in accordance with Part 145 in the manner referred to in regulation 128.09.3.

(3) The operator shall be resourced sufficiently to ensure that all maintenance is carried out in accordance with the maintenance control manual referred to in regulation 128.09.5.

(4) The operator shall ensure that the maintenance of its helicopters is performed in accordance with the maintenance programme referred to in regulation 128.09.2.

#### **Operator's maintenance control manual**

**128.09.5** (1) An operator shall provide a maintenance control manual (MCM) that meets the requirements prescribed in technical standard 43.02.3 for the use and guidance of maintenance and operational personnel concerned.

(2) The MCM referred to in sub-regulation (1) shall incorporate relevant principles of human factors.

(3) The operator shall provide two copies of its proposed MCM to the Director and one copy of the approved MCM shall remain in the custody of the Director.

(4) The operator shall amend its MCM as necessary in accordance with the amendment procedures contained in the MCM, in order to keep the information contained therein up-to-date and accurately reflect company policy with respect to the maintenance of its helicopters. The operator shall forward two copies of all amendments to the MCM to the Director for approval.

(5) Upon receipt of any approved amendments, each holder of an MCM shall be furnished a copy of such amendment with clear instructions to insert the amended pages in a timely manner into the MCM.

(6) The Director may require an operator to produce an amendment where he or she is of the opinion that the MCM requires updating.

#### **Maintenance records**

**128.09.6** (1) An operator shall ensure that the following records are kept for the periods prescribed in sub-regulation (2) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the helicopter and all life limited components;
- (b) the current status of compliance with all mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the helicopter or its components subject to a mandatory overhaul life;
- (e) the current status of the helicopter's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records in sub-regulation (1)(a) to (e) shall be kept for a minimum period of 6 months after the unit to which they refer has been permanently withdrawn from service and the records in sub-regulation (1)(f) for a minimum period of 5 years after the signing of the maintenance release.

(3) In the event of a temporary change of operator, the records shall be made available to the new operator. In the event of any permanent change of operator, the records shall be transferred to the new operator.

#### **Continuing airworthiness information**

**128.09.7** (1) The operator shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide such information as required by the Director and shall report said information to him or her using a reporting system the Director has developed for that purpose.

(2) The Director shall transmit all mandatory continuing airworthiness information reported to him or her in accordance with sub-regulation (1) to the State of Design of any helicopter that has been issued a South African Certificate of Airworthiness and is operated under this Part.

(3) The operator shall obtain and assess continuing airworthiness information and recommendations issued by a helicopter manufacturer, the organization responsible for the helicopter type design or by the State of Design, or any additional requirements issued by the Director for each type of helicopter operated under this Part and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Director.

#### **Modifications and repairs**

**128.09.8** (1) All modifications and repairs shall comply with the provisions of Part 43.

(2) Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

#### **Maintenance release**

**128.09.9** (1) A maintenance release shall be completed and signed to certify that the maintenance work has been completed satisfactorily and in accordance with approved data and the procedures described in the maintenance organization's procedures manual.

(2) A maintenance release shall contain a certification including –

- (a) basic details of the maintenance carried out including detailed reference of the approved data used;
- (b) date such maintenance was completed;
- (c) when applicable, the identity of the approved maintenance organization; and

- (d) the identity of the person or persons signing the release.

*Note: For more information on maintenance release matters, see Subpart 4 of Part 43 of these regulations.*

## **Records**

**128.09.10** (1) An operator shall ensure that the following records are kept:

- (a) in respect of the entire helicopter: the total time in service;
  - (b) in respect of the major components of the helicopter:
    - (i) the total time in service;
    - (ii) the date of the last overhaul;
    - (iii) the date of the last inspection;
  - (c) in respect of those instruments and equipment, the serviceability and operating life of which are determined by their time in service:
    - (i) such records of the time in service as are necessary to determine their serviceability or to compute their operating life;
    - (ii) the date of the last inspection;
- (2) These records shall be kept for a period of 90 days after the end of the operating life of the unit to which they refer.

## **23. Insertion of Part 129 into the Regulations**

The following Part is herewith inserted after Part 128 into the Regulations;

### **“ PART 129:FOREIGN AIR OPERATIONS**

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129.03.6 Landing Minima

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## **SUBPART 1 – GENERAL**

### **Applicability**

**129.01.1** This Part applies to –

- (a) the operation into, out of, or over the Republic of South Africa of an aircraft operated by a foreign air service operator in a commercial air transport operation;
- (b) persons employed or otherwise engaged by the foreign air service operator referred to in sub-regulation (1)(a), who perform functions essential to the operation of aeroplanes operated under this Part, and
- (c) persons, mail or cargo on board an aeroplane operated under this part.

### **South African foreign air operator certificate required for scheduled air services**

**129.01.2** (1) Subject to sub-regulations (2) and (3), no foreign air service operator shall operate an aircraft in South Africa unless such operator is the holder of, and complies with, the conditions contained in a South African foreign air operator certificate (FAOC), and the operations specifications attached thereto issued to that operator by the Director and, such air services license or permit as may be required in terms of the International Air Services Act, No. 60 of 1993.

(2) Subject to regulation 129.01.3, a foreign air service operator is not required to hold a South African FAOC in order to conduct an over flight of South Africa, to perform a technical landing in South Africa for non-traffic purposes, or to operate a non-scheduled commercial air transport operation into and out of South Africa.

(3) A foreign operator who is the holder of an authority issued in terms of the International Air Services Act, No. 60 of 1993 on or before 1 October 2010, authorising such operator to operate into or out of South Africa shall be deemed to have met the requirements of sub-regulation (1) and shall be issued a FAOC.

- (4) The obtaining of a South African FAOC does not exempt an operator from complying with the requirements of the International Air Services Act, No. 60 of 1993.

#### **Flight authorisation required for non-scheduled air services**

**129.01.3** (1) No foreign air service operator, other than the holder of a South African foreign air operator certificate, shall operate a non-scheduled commercial air transport operation into and out of South Africa, unless such operator is authorised to do so in a flight authorisation issued by the Director.

(2) Except as authorised in a flight authorisation issued by the Director, no foreign air service operator shall operate an air transportation operation out of South Africa carrying passengers, other than those passengers transported into South Africa by that foreign air operator.

(3) No foreign air service operator shall operate an aircraft in South Africa in terms of a flight authorization unless the person is the holder of such air services license or permit as may be required in terms of the International Air Services Act, No. 60 of 1993.

### **DIVISION TWO – CERTIFICATION AND AUTHORISATION**

#### **Issuance or amendment of a South African foreign air operator certificate**

**129.01.4** (1) Subject to sub-regulation (2), the Director may, on receipt of an application made on the appropriate prescribed form, issue or amend a South African foreign air operator certificate (FAOC).

(2) Each applicant for a South African FAOC shall –

- (a) complete the application form prescribed in sub-regulation (1) and submit it to the Director with a payment of the appropriate application fee not less than 90 days before the date of intended operation, unless a shorter period is acceptable to the Director;
- (b) provide evidence of a valid air operator certificate or equivalent document issued by an ICAO Contracting State or a State or a territory that is acceptable to the Director, that authorises the holder to conduct the proposed operations;
- (c) provide the details prescribed in Document SA-CATS 129 for the issuance of the operations specifications associated with the FAOC; and
- (d) provide evidence acceptable to the Director that the operator's aircraft are being maintained under an adequate maintenance programme.



- (e) provide aircraft documentation as prescribed in SA CATS 129.
- (3) An application shall be granted and the FAOC issued if the Director is satisfied that –
- (a) the applicant will comply with the provisions of its FAOC and operations specifications; and
  - (b) the applicant will not operate the air service concerned contrary to any provision of the Civil Aviation Act, 2009 (Act No.13 of 2009), the International Air Services Act, No. 60 of 1993 and Regulations made in terms of such Acts.
- (4) An applicant for a FAOC shall, during the course of establishing that the applicant meets the requirements of this Part, submit to any inspection deemed necessary by the Director and, for the purpose of such inspection, provide uninterrupted access to any facility and furnish any documentation requested.

#### **Contents of a South African Foreign Air Operator Certificate**

**129.01.5** A South African foreign air operator certificate (FAOC) shall contain –

- (a) the name of the State of the Operator and the issuing authority;
- (b) the legal name, trade name, if applicable, and address of the principal place of business of the foreign operator including telephone, facsimile and e-mail addresses;
- (c) the FAOC number;
- (d) the date of issue;
- (e) the date of expiry;
- (f) the general conditions identified in regulation 129.01.6;
- (g) the operations specifications approved for that operator as specified in regulation 129.01.7; and
- (h) the name, title and signature of the issuing authority, or his or her designate.

**General conditions of a South African foreign air operator certificate****129.01.6** A foreign air service operator shall—

- (a) make no change in the operation of its air transport service in South Africa, except in the case of an emergency, without notifying the Director;
- (b) notify the Director within 10 working days after any change in its legal name or trade name;
- (c) conduct its flight operations in accordance with its operations manual or equivalent document approved or accepted by the State of the Operator;
- (d) maintain its aircraft in accordance with its maintenance control manual or equivalent document approved or accepted by the State of the Operator;
- (e) comply with the applicable provisions of this Part;
- (f) conduct its operation in accordance with the provisions of its South African foreign air operator certificate and operations specifications attached thereto; and
- (g) conduct a safe operation.

**Operations specifications****129.01.7 (1)** The Director shall issue operations specifications that contain at least —

- (a) the registered name and if different, the trading name of the foreign air service operator;
- (b) the number of the associated South African foreign air operator certificate;
- (c) the date the operations specifications were issued;

- (d) designation of each make, model and/or series of aircraft authorised to be operated into South Africa;
- (e) the types of authorised operations specified in terms of –
  - (i) passengers;
  - (ii) cargo; or
  - (iii) other;
- (f) the area of operation including specific routes, if applicable;
- (g) any special limitations imposed;
- (h) any special authorisations, including –
  - (i) dangerous goods;
  - (ii) aerodrome operating minima;
  - (iii) RVSM;
  - (iv) special aerodrome operations such as short take-off and landing operations or land operations;
  - (v) special approach procedures such as precision runway monitored approach, localizer-type directional aid, or RNAV (GNSS) approach;
  - (vi) single-engine passenger transport at night or in instrument meteorological conditions;
  - (vii) ETOPS, including maximum diversion times; and
  - (viii) navigation specifications for performance-based navigation, including limitations, or other navigation system authorisations;
  - (ix) RNP and MNPS
- (j) the name of the person, or organization, responsible for ensuring the continued airworthiness of the aircraft authorised; and
- (i) any other authorisation, exemption, or limitation deemed necessary for aviation safety by the Director.

**Issuance of a flight authorisation**

**129.01.8** The Director may, on receipt of f an application made on the appropriate prescribed form, issue a flight authorisation –

**Contents of a flight authorisation**

**129.01.9** A flight authorisation shall contain –

- (a) the name of the holder of the flight authorisation or of the person responsible for the flight;
- (b) the type, the registration and, if applicable, the serial number of aircraft;
- (c) the routing;
- (d) the date and time of arrival at, and departure from, each aerodrome concerned;
- (e) the places of embarkation or disembarkation of passengers or cargo;
- (f) an authorisation for the transportation of dangerous goods, agricultural products, medical supplies, if applicable;
- (g) where in the opinion of the Director, safety would not be compromised, an authorisation to conduct flight operations under special weather minimums in the case of foreign state aircraft, provisions for no alternate IFR;and
- (h) any condition pertaining to the operation that the Director deems necessary for aviation safety.

**Duration of a South African foreign air operator certificate**

**129.01.10** (1) Subject to regulation 129.01.11, a South African foreign air operator certificate and operations specifications attached thereto, shall remain valid and in force until the expiry date stated in the certificate.

(2) The Director may issue or renew a South African foreign air operator certificate for periods up to but not exceeding five years.

**Surrender of a South African foreign air operator certificate**

**129.01.11** The holder of a South African FAOC that expires, is suspended or is revoked in terms of sub-regulation (1), shall return the certificate to the Director within a period of 14 days.

**Renewal of certificate**

**129.01.12** An application for the renewal of a South African foreign air operator certificate shall be made by the holder not less than 60 days before the certificate expires accompanied by the appropriate renewal fee.

**Availability of foreign air operator certificate or flight authorisation**

**129.01.13** The holder of a South African foreign air operator certificate or flight authorisation shall-

- (a) keep a copy available for inspection on each aircraft flown to South Africa.

**SUBPART 2: FOREIGN AIR OPERATOR — CONTINUING CERTIFICATION REQUIREMENTS****Continued compliance and safety standards**

**129.02.1** (1) A holder of a South African foreign air operator certificate (FAOC) shall ensure its flight and ground operations are conducted in accordance with the applicable South African Civil Aviation Regulations, its FAOC and operations specifications attached thereto, and the relevant parts of its operations manual referred to in regulation 129.02.7.

(2) Where the Director has reason to believe the holder of a FAOC has, or may have, while operating within South African airspace, contravened any –

- (a) South African Civil Aviation Regulation;
- (b) condition of its operating certificate or operations specifications attached thereto; or
- (c) provision of its operations manual,

the Director shall –

- (i) inform the foreign air service operator of the alleged infraction and make such inquiry or investigation necessary to establish the facts of the case; and

- (ii) where he or she is of opinion that in the interest of safety or in consideration of the regulatory significance, the situation so warrants, notify and consult with the State of Registry of the foreign air service operator to determine if the foreign air operator -

**(aa) *is maintaining a satisfactory level of compliance and safety standards to maintain its FAOC; and***

- (bb) has developed a satisfactory corrective action plan to resolve all safety issues.

(3) Where the Director has reason to believe the holder of a FAOC has or may engage in any act or activity that represents or could represent a safety hazard, he or she shall immediately notify the foreign air service operator.

(4) The holder of a South African FAOC shall submit to any inquiry or investigation into alleged infractions or safety issues, as referred to in sub-regulations (2) and (3), the Director deems necessary.

#### **Continuing surveillance of a South African foreign air operator certificate holder**

**129.02.2** (1) The holder of a SA-FAOC shall permit an authorised officer, inspector, or authorised person to carry out safety inspections and audits of the certificate holder's South African based equipment, facilities and personnel, as considered necessary to determine the certificate holder's level of compliance with the requirements prescribed in this Part.

(2) A foreign air service operator shall surrender for inspection by an authorised officer, inspector or authorised person any documents, manuals and records required to be kept in terms of this Part, which are related to flight operations and maintenance; within the period of time specified by the Director.

(3) Upon request from an authorised person, the pilot in command shall, within a reasonable time, produce to that person the documentation, manuals and records required to be carried on board.

#### **Reporting of accidents and incidents**

**129.02.3** Each applicant for a South African foreign air operator certificate shall establish procedures for notifying any accident or incident involving its aircraft and

occurring within South Africa to the Director, in accordance with Part 12 of the South African Civil Aviation Regulations, 1997.

#### **Air operator security programme**

**129.02.5** Each applicant for a South African foreign air operator certificate shall ensure it has in place an air operator security programme that meets the requirements prescribed in Document SA-CATS-OPS 129.

#### **Foreign air operator operations manual**

**129.02.6** The holder of a foreign air operator certificate shall have an operations manual approved by the State of the Operator available for the use of all operations personnel and such manual, or those portions required to be used by crew members, shall be available on board the aircraft.

#### **Navigation equipment**

**129.02.7** No flight shall be operated into or out of South Africa in airspace or on routes where a required navigation performance-type navigation specification for performance-based navigation has been prescribed, unless the aircraft has sufficient navigation equipment to enable it to proceed –

- (a) in accordance with its operational flight plan; and
- (b) in accordance with the requirements of air traffic control, and

that aircraft has been authorised by the State of the Operator for such operations in such airspace.

#### **Changes to certificate holder's organisation**

**129.02.8 (1)** A holder of a South African foreign air operator certificate (FAOC) shall ensure that no changes to any of the following are made without the prior approval of the Director –

- (a) any base location in South Africa from which the certificate-holder performs commercial air transport operations;
- (b) the scope of operations under the certificate, relative to operations to or from South Africa; and
- (c) the security programme required by regulation 129.02.5.

- (2) An application to make any of the changes specified in sub-regulation (1) shall be made in writing to the Director.
- (3) The Director may establish conditions as a result of any of the changes specified in sub-regulation (1) and the holder of a FAOC shall comply with such conditions.
- (4) Should the holder of a FAOC propose to make a change to its operation or personnel where such change will necessitate an amendment to its FAOC, the certificate holder shall make application for an amendment in accordance with regulation 129.01.4

### **SUBPART 3: FOREIGN AIR TRANSPORT OPERATOR — OPERATING REQUIREMENTS**

#### **Admission to flight deck**

**129.03.1** No person shall be admitted to the flight deck of an aeroplane other than –

- (a) a flight crew member;
- (b) a crew member performing their duties;
- (c) an inspector of the civil aviation authority of the State where the aeroplane is registered; or an Inspector, Authorised Officer or Authorised Person when the aircraft is operating within South African airspace;
- (d) a person who has expertise related to the aeroplane, its equipment or its crew members and who is required to be in the flight deck to provide a service to the air operator; or
- (e) any other person authorised in the operator's operations manual.

#### **Closing and locking of flight deck door**

**129.03.2(1)** Subject to sub-regulation (2), the pilot-in-command of an aeroplane that is equipped with a lockable flight deck door and that is carrying passengers shall ensure that at all times from the moment the passenger entry doors are closed in preparation for departure until they are opened on arrival the flight deck door is closed and locked.



(2) Sub-regulation (1) does not apply when crew members or persons authorised in accordance with regulation 129.03.1 are required to enter or leave the flight deck –

- (a) for the performance of their duties;
- (b) for physiological needs; or
- (c) for an overriding concern related to the safety of the flight.

### **Airborne Collision Avoidance System**

**129.03.3** A holder of a South African foreign air operator certificate shall ensure that a turbine-powered aeroplane, with a maximum certificated mass exceeding 5700kg or a passenger seating configuration greater than 19 seats, operated to or from South Africa under such certificate is equipped with an airborne collision avoidance system that meets the requirements of Document SA-CATS 129.

### **Approach and landing conditions**

**129.03.4** Before initiating an approach to land, the pilot in command shall determine by the latest information available, that –

- (a) the weather at the aerodrome and the conditions of the runway are safe for the approach and landing; and
- (b) in the case of missed approach, the aircraft would be capable of meeting the performance requirements determined by the Aircraft Flight Manual and any relevant provisions laid down in the operations manual.

### **Take-off Minima**

**129.03.5** A person may conduct a take-off in an aircraft where weather conditions are below the take-off minima specified in the South African Integrated Aeronautical Information Publication or equivalent document if –

- (a) in the case of a foreign air service operator, the operator is authorised to do so in its South African foreign air operator certificate and complies with the take-off minima and operational provisions specified in its operations specifications; or
- (b) in the case of a person who operates a foreign state aircraft, the person is authorised to do so in a flight authorisation and complies with the weather minima specified in its flight authorisation.

## **Landing Minima**

**129.03.6** A person may conduct a CAT II or CAT III precision approach in an IFR aircraft if –

- (a) the case of a foreign air operator, the operator holds a valid authorisation or equivalent document issued by the State of the foreign air operator to conduct a CAT II or CAT III precision approach and is authorised to do so in its South African foreign air operator certificate; or
- (b) in the case of a person who operates a foreign state aircraft, the person is authorised to do so in a flight authorisation.

## **Performance**

**129.03.7** (1) A foreign air service operator shall compute the mass of passengers and checked baggage using –

- (a) the actual weighed mass of each person and the actual weighed mass of baggage; or
  - (b) the standard mass values specified by the State of the Operator, if acceptable to the Director.
- (2) The Director may require a foreign operator conducting operations in South Africa to produce evidence validating any standard mass values used.

## **24. Insertion of regulations 135.02.10, 135.02.11 and 121.02.12 Into the Regulations**

The following regulations are herewith added after regulation 135.02.9:

### **“Fatigue risk management system**

**135.02.10** (1) An air service operator that establishes a scheme for the regulation of flight time and duty periods in accordance with regulation 135.02.9(1) (a) (ii) shall establish a fatigue risk management system.

(2) An operator's fatigue risk management system shall contain, as a minimum:

- (a) fatigue risk management system policy;
- (b) a fatigue risk management processes;
- (c) a safety assurance processes; and
- (d) a fatigue risk management system promotion processes:  
each as prescribed in Document SA-CATS 135.

(3) The operator shall designate a person responsible for the fatigue risk management system who meets the qualifications and experience requirements and who will be responsible for the functions as prescribed in Document SA-CATS 135.

#### **Approval of a fatigue risk management system**

**135.02.11** (1) An operator shall submit to the Director their proposed fatigue risk management system which complies with the requirements of Regulation 135.02.10(2).

(2) The Director shall approve the commencement of a trial phase for implementation of the proposed fatigue risk management system for a trial period of up to 24 months if the Director is satisfied that the operator has complied with the provisions of Regulation 135.02.10 (2).

(3) At any time during the approved trial phase, the Director may withdraw the approval if it becomes evident that the operator does not comply with the provisions of the system or these Regulations.

(4) During the trial phase, the operator may implement the proposed maximum and minimum flight time and duty values, as determined by the operator and approved by the Director.

(5) After a 12 months period, an operator approved under regulation 135.02.11 (2) may apply to the Director for full approval by providing evidence that the fatigue risk management system is delivering the required safety outcomes.

(6) Where the Director is satisfied that the evidence provided under paragraph (5) is acceptable, the Director shall issue a full approval to implement the fatigue risk management system.

#### **Fatigue risk management system manual**

**135.02.12** (1) The operator shall draw up a fatigue risk management system containing all the information required under this Part and publish the content in their operations manual as prescribed in Document SA-CATS 135.

**25. Insertion of regulations 135.02.13 and 135.02.14 into the Regulations**

The following regulations are herewith inserted after regulation 135.02.12:

**“Cabin crew emergency evacuation stations**

**135.02.13** A cabin crew member assigned to perform evacuation duties shall occupy the seat provided for that purpose during take-off and landing or when so directed by the PIC for safety purposes.

**“Seating of cabin crew members during flight**

**135.02.14** During take-off and landing, and whenever deemed necessary by the PIC in the interests of aviation safety, cabin crew members shall be seated at their assigned stations or seats, on all decks which are occupied by passengers.” .

**26. Insertion of regulation 135.03.7 into the Regulations**

Regulation 135.03.7 is herewith inserted after regulation 135.03.6

**Six-monthly proficiency checks/ Initial type rating**

**135.03.7** (1) The six-monthly flight crew proficiency check referred to in 135.03.5 of sub regulation 135.03.6(3) of the CAR, in respect of aeroplanes with a turbo fan which includes all VLJ (very light jet) ,shall be carried out at least once every twelve months in a flight simulator, approved for the purpose. In addition if initial type rating on a turbo fan is done on the aircraft an approved simulator course must be completed within six months of the type rating.

(2) Where a flight simulator, as contemplated in paragraph (1) above, is not reasonably or timeously available, the Director may under exceptional circumstances exempt an operator from this particular requirement for a particular type of aeroplane for a period not exceeding twelve months: Provided the operator demonstrates a satisfactory equivalent level of proficiency by other means.

(3) Where it can be proven by the operator—

(a) that no flight simulator exists for the particular aeroplane in which the contemplated abnormal and emergency procedures can be simulated; or

(b) that relevant abnormal or emergency procedures can be safely carried

out in the aircraft or in a similar type of aircraft, the Director may, on application, by means of an amendment to the operator's operations manual, exempt the operator from the requirement prescribed in paragraph (1). Such

exemption shall be reviewed annually and will be withdrawn when a suitable device becomes available within the Republic. “.

#### **Amendment of regulation 135.05.3 of the Regulations**

**27.** Regulation 135.05.3 is herewith amended by the substitution for paragraph (c) of sub-regulation (1) of the following paragraph:

“**135.05.3** (1) An air service operator shall not operate the aeroplane in accordance with IFR or at night, unless such aeroplane is equipped with –

(c) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight. These altimeters must have counter drum-pointer or equivalent presentation.”.

#### **29. Renumbering of the existing regulation 135.06.8 and the insertion of a new regulation 135.06.8**

Regulation 135.06.8(Demonstration Flights) is herewith amended by-

- (a) the renumbering of it as regulation 135.06.9; and
- (b) (the insertion of the following regulation as regulation 135.06.8 after regulation 135.06.7:

#### **“Operator Notification”**

**135.06.8** If an operator has an operating base in a State other than the Republic of South Africa, the operator shall notify the Director as well as the State in which the operating base is located.”

#### **29. Insertion of regulation 135.07.12A into the Regulations**

The following regulation is herewith inserted after regulation 135.07.12

#### **“Security of the flight crew compartment**

**135.07.12A** (1) An air service operator shall ensure that all aeroplanes which are equipped with a flight crew compartment door, this door shall be capable of being locked.

(2) If cabin crew are required or carried, means or procedures shall be established by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(3) In all aeroplanes which are equipped with a flight crew compartment door in accordance with sub-regulation (1)-(b).

- (i) this door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorized persons; and
- (ii) means shall be provided for monitoring from the flight deck the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.”.

### **30. Substitution of regulation 135.07.23 of the Regulations**

Regulation 135.07.23 is herewith amended by the substitution for the said regulation of the following regulation:

“**135.07.23** An operator shall establish policies and procedures, approved by the Director, to ensure that in-flight fuel checks and fuel management are performed.”.

### **31. Amendment of regulation 145.02.4 of the Regulations**

Regulation 145.02.4 is herewith amended by the substitution for sub-regulation (5) of the following sub-regulation:

#### **Personnel requirements**

(5) The holder of an approval shall set out in its Manual of Procedures a list of its personnel who are responsible for certifying maintenance. The list shall contain, at least, the following information:

- (a) The full names of the certifying personnel;
- (b) The company authorisation number or identification stamp; and
- (c) The AME licence number issued by the Director.”.

### **32. Insertion of regulation 145.02.9A into the Regulations**

The following regulation is herewith inserted after regulation 145.02.9:

#### **“Extension of an Approval**

**145.02.9A** (1) The Director may in exceptional circumstances grant an AMO an extension approval for a period not exceeding 90 days.

(2) The terms of an extension approval are as follows:

(i) Application for renewal of an AMO has been submitted to the Director

(ii) An appropriate fee in Part 187 for renewal has been paid.

(iii) The Director has been furnished with a motivation substantiating the reason for this request.

(3) The Director will issue an approval provided:

- (i) the applicant continues to comply with the provisions of regulations 145.02.7; and
- (ii) the provisions of two (2) above are met.”.

### **33. Amendment of regulation 172.03.5 of the Regulations**

Regulation 172.03.5 is herewith amended by the insertion of the following sub-regulations after sub-regulation (1):

#### **“ Application for approval, ~~or~~ amendment, change or termination of service**

**172.03.5(2)** An approval holder/ aerodrome licence holder intending to change or make amendments to the approved air navigation service provider at an ATSU shall –

- a) apply to the Director on the appropriate prescribed form for approval for such change or amendment;
- b) indicate the anticipated date of change of or amendment to the service provider;
- c) indicate the type of change or amendment;
- d) in the event of change of air navigation service provider, provide details of the new service provider;
- e) ensure that the minimum notice required by aeronautical information regulation and control is published for the change or amendment of service as applicable; and
- f) ensure that all Letters of Procedure where applicable are concluded, revised or cancelled as applicable.
- g) ensure that any amendment to, or withdrawal of airspace is presented to the NASCOM for recommendation to the Director allowing sufficient time for publication by aeronautical information regulation and control.

(3) An approval holder/ aerodrome licence holder intending to terminate the approved air navigation service at an ATSU shall –

- a) notify the Director at least 90 days prior to such termination;
- b) ensure that the minimum notice required by aeronautical information regulation and control is published for the termination of service;
- c) ensure that all Letters of Procedure where applicable are cancelled; and

- a) ensure that any amendment to, or withdrawal of airspace is presented to the NASCOM for recommendation to the Director allowing sufficient time for publication by aeronautical information regulation and control.”.

**34. Amendment of regulation 175.01.1 of the Regulations**

Regulation 175.01.1 is herewith amended by the insertion of the following paragraph after paragraph (b):

**“Applicability**

**175.01.1** (c) data originators.”.

**35. Insertion of regulation 175.01.7 into the Regulations**

The following regulation is herewith inserted after regulation 175.01.6:

**“Data originator**

**175.01.7** Data Originators shall conform to minimum standards for data integrity and quality. The minimum standards are prescribed in SA-CATS 175.”.

**36. Amendment of regulation 175.021.2 of the Regulations**

The following sub-regulations are herewith inserted after regulation 175.02.2(3)

“(4) The holder of an AIS certificate shall conform to minimum standards for data integrity and quality. The minimum standards are prescribed in SA-CATS 175

(5) The holder of an AIS certificate shall establish Service Level Agreements with certified data and information originators, agreements shall define the minimum standards as prescribed in SA-CATS 175.”.



**37. Insertion of regulation 187.01.40 into the Regulations**

**The following regulation is herewith inserted after regulation 187.01.39:**

**“Fees relating to travel logistics**

**187.01.40** For services that are provided by the Authority in terms of the Regulations, outside South Africa. The applicant shall be liable for the costs relating to the travel, accommodation and subsistence for travel of the SACAA officials.”.

**Short title and commencement**

**38. (1)** These Regulations shall be called the Fourth Amendment of the Civil Aviation Regulations, and shall come into operation, except for regulations 4,19,22, and 23 on the date of publishing thereof.

**(2)** Regulations 4, 19, 22, and 23 shall come into operation on 1 November 2013.

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