

CIVIL AVIATION REGULATIONS, 2011

PART 127

COMMERCIAL HELICOPTER OPERATIONS: PASSENGERS CARGO AND MAIL

SUBPART 1: GENERAL

127.01.1 Applicability

(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 subregulations (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 subregulation 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.

127.01.2 Admission to flight deck

(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 subregulations (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 subregulations (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.

127.01.3 Passenger intoxication and unruly behaviour

(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 subregulation (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.

127.01.4 Compliance with foreign and domestic Regulations

(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 subregulation (2), each operator, including its employees or agents, shall comply with all applicable provisions of the South African Civil Aviation Regulations.

127.01.5 Regulatory infractions during emergency situations

(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.

127.01.6 Language proficiency

(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

127.02.1 Composition of flight crew

(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 subregulation (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 subregulations (1) and (2) are not assigned to flight duty.

127.02.2 Cabin crew member complement

- (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.

127.02.3 Senior cabin crew member

- (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.

127.02.4 Cabin crew emergency evacuation stations

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-.

127.02.5 Seating of cabin crew members during flight

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.

127.02.6 Flight and cabin crew member emergency duties

- (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 subregulation (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 subregulation (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 subregulation (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 subregulation (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

127.02.7 Flight crew member qualifications

- (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.

127.02.8 Cabin crew member qualifications

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.

127.02.9 Crew members, other than flight and cabin crew members

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.

127.02.10 Flight operations personnel officer or flight follower qualifications

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.

127.02.11 Ground personnel and service providers qualifications

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

127.02.12 Flight time and duty periods

(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 subregulation (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 subregulation (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 subregulation (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 subregulation (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 subregulation (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 subregulation (1) shall be as prescribed in Document SA-CATS 127.

SUBPART 3: TRAINING AND CHECKING

DIVISION ONE: GENERAL PROVISIONS

127.03.1 Air service operator approved training programme

(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 subregulation (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 subregulation (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 subregulation (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 subregulation (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 subregulation (1) shall meet the content prescribed in Document SA-CATS 127.
- (6) The training programme referred to in subregulation (1) shall include a system of record keeping as prescribed in Regulation 127.04.8.
- (7) The training records referred to in subregulation (5) shall be retained as provided in Regulation 127.04.7.

127.03.2 Publishing an approved training programme

- (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.

127.03.3 Approval of a training programme

- (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

- (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 subregulation (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

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.

127.03.6 Type and differences training

- (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.

127.03.7 Operator induction training

- (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 subregulation (1) shall consist of the subject matter as prescribed in Document SA-CATS 127.

127.03.8 Familiarisation flights

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.

127.03.9 Recurrent training

- (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.

127.03.10 Re-qualification training

- (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

127.03.11 Training of personnel other than flight and cabin crew training

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

127.03.12 Checking, certification, training and validity periods

- (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 90 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

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

- (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 subregulation (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 subregulation (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;.

127.04.2 Operations manual

- (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 subregulation (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 subregulation (1) shall be as prescribed in Document SA-CATS 127.

127.04.3 Aircraft operating manual

(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.

127.04.4 Operational flight plan

(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.

127.04.5 Flight time and duty period records

(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.

127.04.6 Records of emergency and survival equipment

(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.

127.04.7 Flight crew member training records

(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-CATS 127.

(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.

127.04.8 Mass and balance sheet

- (1) An air service operator shall not operate a helicopter with a maximum approved passenger seating configuration of more than nine seats to render an air service unless a person superintending the loading of such helicopter has completed and certified a mass and balance sheet.
- (2) A mass and balance sheet referred to in subregulation (1) shall be completed in duplicate and one copy shall be carried in a flight concerned and, one copy shall be retained in accordance with Regulation 127.04.1
- (3) A mass and balance sheet of a flight shall be retained by an air service operator for a period of at least 90 days calculated from the date on which such flight was completed.
- (4) The minimum contents of a mass and balance sheet shall be as prescribed in Document SA-CATS 127.

127.04.9 Fuel records

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.

127.04.10 Helicopter search procedure checklist

- (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 subregulation (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.

127.04.11 Preservation of documents

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

127.05.1 Approval and use of instruments and equipment

- (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 subregulation (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 subregulation (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 subregulation (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.

127.05.2 Flight, navigation and associated equipment for helicopters operated under VFR

(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.

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

(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;

(n) communication, navigation and surveillance equipment as prescribed in Regulations 91.05.1 and 91.05.2.

(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 subregulation, 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 subregulation (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.

127.05.4 Airborne weather radar equipment

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.

127.05.5 Flight crew interphone system

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 handheld type, for use by all flight crew members.

127.05.6 Crew interphone system

(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.

127.05.7 Public address system

(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.

127.05.8 Life jackets and other floating devices

- (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 a likelihood of a ditching, be equipped with a life jacket or equivalent flotation device, stowed in a position easily accessible from each seat or berth of a person for whose use it is provided.
- (3) Notwithstanding the provisions of Regulation 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 such helicopter is operated over water at such a distance that, in the event of a mishap there would be a 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.

127.05.10 Emergency locator transmitters

- (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.

127.05.11 Cabin attendant seats

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.

127.05.12 Microphones

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

127.05.13 Passenger cabin signs and placards

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.

127.05.14 Flight recorders

- (1) For the purposes of this Regulation, any reference to-

(a) a specified date upon which an application for the type certification is submitted to a Contracting State means the date an application is made for a new aircraft type, not the date of certification of particular aircraft variants or derivative models; and

(b) a specified date upon which an individual certificate of airworthiness is first issued means the first time a certificate of airworthiness is issued for a new individual aircraft serial number that has just come off the assembly line.

(2) No air service operator shall operate in a commercial operation-

(a) a helicopter of a MCTOW exceeding 3180 kg for which the individual certificate of airworthiness was first issued on or after 1 January 2016 unless such helicopter is equipped with a Type IVA FDR that complies with the requirements prescribed in Document SA-CATS 127;

(b) a helicopter of a MCTOW exceeding 7000 kg, or having a passenger seating configuration of more than 19, for which the individual certificate of airworthiness was first issued on or after 1 January 1989 unless such helicopter is equipped with a Type IV FDR that complies with the requirements prescribed in Document SA-CATS 127;

(c) a turbine-engine helicopter of a MCTOW of between 2251 kg and 3180 kg for which the application for type certification was submitted to a Contracting State on or after 1 January 2018 unless if such helicopter is 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; or

(iii) an ADRS capable of recording the essential parameters prescribed in Document SA-CATS 91 that complies with the requirements prescribed in Document SA-CATS 127.

(3) An air service operator shall ensure that the following FDRs are not installed in a helicopter referred to in subregulation (2):

(a) engraving metal foil FDR;

(b) photographic film FDR;

(c) analogue FDR using frequency modulation; and

(d) magnetic tape FDR.

(4) A Type IV, Type IVA and Type V FDR shall be capable of retaining the information recorded during at least the last ten hours of its operation.

(5)

(a) An air service operator shall not operate in a commercial operation a helicopter of a MCTOW exceeding 7000 kg unless such helicopter is equipped with a CVR.

(b) For a helicopter not equipped with an FDR, at least the main rotor speed shall be recorded on the CVR.

(6) An air service operator shall ensure that a CVR installed in accordance with this Regulation is not a magnetic tape and wire CVR.

(7) A helicopter required to be equipped with a CVR shall be equipped with a CVR capable of retaining the information recorded during the last two hours of its operation.

(8) A helicopter for which an individual certificate of airworthiness is first issued on or after 1 January 2016, which utilize any of the data link communications applications prescribed in Document SA-CATS 127 and is required to carry a CVR, shall be capable of recording on a flight recorder the data link communications messages.

(9) A helicopter which is modified on or after 1 January 2016 to install and utilize any of the data link communications applications prescribed in Document SA-CATS 127 and which is required to carry a CVR shall be capable of recording on a flight recorder the data link communications messages.

Note 1 - Data link communications are currently conducted by either ATN-based or FANS 1/A-equipped helicopter.

Note 2 - A Class B AIR could be a means for recording data link communications applications messages to and from the helicopters where it is not practical or is prohibitively expensive to record those data link communications applications messages on FDR or CVR.

(10) The minimum recording duration on the data link recorder shall be equal to the duration of the CVR.

(11) A data link recording on a data link recorder shall be able to be correlated to the recorded cockpit audio.

[Reg. 127.05.14 substituted by GN R432/2017 w.e.f. 18 June 2017]

127.05.15 First-aid and universal precaution kits

(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 subregulation (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 subregulation (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 subregulation (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

127.06.1 Requirement to hold an air operator certificate

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.

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

(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 subregulation (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.

(5) Appointed personnel, referred to in subregulation (2)(a), shall be approved by the Director and shall comprise of the following positions:

- (a) chief executive officer;
- (b) person responsible for flight operations;
- (c) person responsible for aircraft;
- (d) air safety officer;
- (e) 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 subregulation (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 subregulation (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 subregulations (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 subregulation (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 subregulation (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.

127.06.3 Adjudication of and issuance of an air operator certificate or operations specifications

(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-CATS 127.

127.06.4 Period of validity and status of an air operator certificate

(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 30 days prior to the anniversary date of initial issue, the appropriate application form and annual fee as prescribed in Part 187;

[Para. (b) substituted by GN R783/2015 w.e.f. 1 October 2015]

(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.

127.06.5 Safety and security inspections and audits

- (1) An applicant for the issuance of an AOC shall permit an authorised officer, inspector or authorised person to carry out such safety and security inspections and audits which may be necessary to verify the validity of information relating to an application.
- (2) A 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.
- (3) Non-compliance or findings determined by safety and security inspections or audits shall be categorised as prescribed in Document SA-CATS 127.

127.06.7 Register of air operating certificates

- (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 subregulation (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.

127.06.8 Demonstration flights

(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 subregulation (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

127.07.1 Routes and areas of operation and aerodrome facilities

(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 subregulation (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.

127.07.2 Establishment of procedures

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.

127.07.3 Hazardous flight conditions and unlawful interference

- (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.

127.07.4 Competence of operations personnel

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.

127.07.5 Use of air traffic services

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

127.07.6 Minimum flight altitudes

- (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).

127.07.7 Aerodrome operating minima

- (1) For operations under instrument meteorological conditions, the operator shall establish aerodrome operating minima in accordance with the provisions of subregulations (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).

127.07.8 Offshore operations

- (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 subregulation (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.

127.07.9 Refueling and defueling with passengers on board

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.

127.07.10 Fuel policy

(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.

127.07.11 IMC or night flight without a second-in-command

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.

127.07.12 Instrument approach and departure procedures

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.

127.07.13 Noise abatement procedures

- (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.

127.07.14 Operation of helicopter in icing conditions

- (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.

127.07.15 Surface contamination programme

- (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 subregulation (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 subregulation (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.

127.07.16 Mass and balance control

- (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.

127.07.17 Inertial navigation systems and inertial reference systems

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.

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

- (1) No air service operator shall, where helicopters are equipped, use automatic landing systems, HUD or equivalent displays, EVS, NVG, SVS or CVS or any combination of those systems into a hybrid system for the safe operation of a helicopter, unless-

- (a) an operator is authorised to do so in its operations specifications;
 - (b) an operator complies with the automatic landing systems, an HUD or equivalent displays, EVS, SVS or CVS as applicable and requirements prescribed in Document SA-CATS 127;
 - (c) the equipment meets the appropriate airworthiness certification requirements; and
 - (d) an operator has carried out a safety risk assessment of the operations supported by the automatic landing systems, an HUD or equivalent display, EVS, SVS or CVS.
- (2) An air service operator shall include suitable operational procedures for use of such equipment in the operations manual referred to in Regulation 127.04.2, which shall cover at least the following-
- (a) limitations;
 - (b) operational credits as specified in Document SA-CATS 127;
 - (c) flight planning;
 - (d) ground and airborne operations;
 - (e) crew resource management;
 - (f) standard operating procedures; and
 - (g) ATS flight plans and communication.

127.07.19 Operations with electronic flight bags

- (1) An air service operator or owner of an aircraft shall not use an EFB unless such operator or owner-
 - (a) is authorised to do so in its operations specifications; and
 - (b) complies with the EFB requirements prescribed in Document SA-CATS 127.
- (2) Where an EFB is used on board aircraft, an owner or operator of an aircraft shall-
 - (a) assess the safety risk associated with each EFB function;
 - (b) establish and document the procedures for the use of, and training requirements for the device and each EFB function in the operations manual referred to in Regulation 127.04.2:
 - (c) ensure that, in the event of an EFB failure, sufficient information is readily available to flight crew for a flight to be conducted safely;
 - (d) ensure requirements are established for redundancy of the information, if appropriate, contained and displayed by EFB functions;
 - (e) ensure that EFB equipment and installation hardware, including interaction with aircraft systems if applicable, meet the appropriate airworthiness certification requirements; and

(f) shall establish and document procedures for the management of EFB functions including any database it may use.

(3) Where a portable EFB is used on board aircraft, an operator or owner of such aircraft shall ensure that it does not affect the performance of an aircraft systems, equipment or the ability to operate an aircraft.

127.07.20 Single-engine helicopter IMC and night operations

(1) In the case of operations conducted in accordance with Regulation 127.01.1 and except as provided in subregulation (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

127.07.21 Operational control and supervision of flight operations

(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.

127.07.22 Contracted services for operational control system

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.

127.07.23 Operational flight plans

- (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.

127.07.24 Familiarity with weather conditions and technical data

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.

127.07.25 Retention of flight operations documents and reports

- (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.

127.07.26 Maintenance status

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.

127.07.27 Incidents and defects

- (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 subregulation (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 subregulation (2), the operator shall compile a report and submit such report on a monthly basis to the Director.

127.07.28 Minimum equipment list

(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

127.07.29 Seat, seat safety belt, harness and child restraint device and carriage of infant

(1) A person shall not operate an aircraft unless such aircraft is equipped, as applicable, with-

(a) a seat or berth for each person who is aged 2 years or more:

(b) a safety belt with or without a diagonal shoulder strap, or a safety harness, for use in each passenger seat for each passenger who is aged two or more;

(c) a safety belt for use in each passenger berth;

(d) a child restraint device for the carriage of each child and infant as prescribed in Document SA-CATS 127;

(e) a safety harness for each flight crew member seat, incorporating a device which shall automatically restrain an occupant's torso in the event of rapid deceleration; and

(f) a safety harness for each cabin crew member seat provided that a safety belt with one diagonal shoulder strap is permitted if fitting a safety harness is not practical.

(2) A seat for cabin crew member shall, where possible, be located near floor-level emergency exit and any additional cabin crew member seat required shall be located such that a cabin crew member may best be able to assist any passenger in the event of an emergency evacuation: Provided such a seat shall be forward or rearward facing within 15° of the longitudinal axis of an aircraft.

- (3) If a PIC cannot see all the passenger seats in an aircraft from his or her own seat, a means of indicating to all passengers and cabin crew members that seat belts shall be fastened, shall be installed.
- (4) A safety harness or safety belt fitted in an aircraft shall have a single point release.
- (5) A passenger shall not be responsible for the safety of more than one infant on board aircraft.

127.07.30 Carriage of persons with a disability

- (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 subregulation 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 subregulation (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.

127.07.31 Limitations on carriage of infants, children and passengers with disability

(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 subregulation (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 subregulations (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.

127.07.32 Carriage of inadmissible passengers, deportees or persons in custody

(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 subregulation (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.

127.07.33 Carry-on baggage

(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 subregulation (1) shall be as prescribed in Document SA-CATS 127.

127.07.34 Securing of passenger cabin and galley

(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 subregulation (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.

127.07.35 Passenger services

- (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 subregulation (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 subregulation (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.

127.07.36 Briefing of passengers

- (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 subregulation (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.

127.07.37 Safety features card

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

127.08.1 Classification

(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.

127.08.2 General provisions for all classes of helicopters

(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 subregulation (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

127.08.3 Take-off

(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 subregulation (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 subregulation (2)(a), "rejected take-off area" means an elevated aerodrome.

(4) When complying with the provisions of subregulation (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.

127.08.4 En route with one or more engines inoperative

- (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 subregulation (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 subregulations (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.

127.08.5 Approach and landing

(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 subregulation (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

127.08.6 General

(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.

127.08.7 Take-off

(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 subregulation (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 127.08.3 of Document SA-CATS 127.

127.08.8 En route with one or more engines inoperative

(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 subregulations (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.

127.08.9 Landing

(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 subregulation (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

127.08.10 General

(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.

127.08.11 Take-off

(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.

127.08.12 En route

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.

127.08.13 Landing

(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

127.09.1 General

An operator shall not operate the helicopter unless such helicopter is maintained in accordance with the Regulations in Part 43.

127.09.2 Helicopter maintenance programme

- (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 subregulation (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 subregulation (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.
- (4A) The maintenance programme shall be based on information made available by the State of Design or by the organisation responsible for the type design, and any applicable operational, maintenance and regulatory requirements issued by the Director.
- (4B) Any amendment to the approved programme shall be formulated by the air service operator, to reflect changes in the type certificate holder's recommendations, modifications, reliability programme, service experience, or as required by the Director.
- (5) The helicopter maintenance programme referred to in subregulation (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.

127.09.3 Maintenance contracted to approved aircraft maintenance organisation

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.

127.09.4 Operator's maintenance responsibilities

(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 127.09.5.
- (4) The operator shall ensure that the maintenance of its helicopters is performed in accordance with the maintenance programme referred to in Regulation 127.09.2.

127.09.5 Operator's maintenance control manual

- (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 subregulation (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.

127.09.6 Maintenance records

(1) An helicopter operator shall ensure that the following records are kept and maintained in a form and format that ensures readability, security and integrity of the records for the periods prescribed in subregulation (2) -

(a) the total time such as the hours, calendar time and cycles in service, of a helicopter and all life limited components;

(b) current status of compliance with all mandatory continuing airworthiness information;

(c) appropriate details of modifications and repairs;

(d) the time such as hours, calendar time and cycles, since the last overhaul of a concerned 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) detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records referred to:

(a) in subregulation (1)(a) to (e) shall be kept for a minimum period of 90 days after a unit to which they refer has been permanently withdrawn from service; and

(b) in subregulation (1)(f) shall be kept for a minimum period of 5 years after the signing of maintenance release.

(3) In the event of a temporary change of an operator of a helicopter, the records referred to in subregulation (1) shall be made available to a new operator.

(4) In the event of a permanent change of an operator of a helicopter, the records referred to in subregulation (1) shall be transferred to a new operator.

127.09.7 Continuing airworthiness information

(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 subregulation (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.

127.09.8 Modifications and repairs

- (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.

127.09.9 Maintenance release

- (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.

127.09.10 Records

- (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.